DMS-100 Family

Office Parameters

Reference Manual, volume 1 of 2

Publication history

March 1994

BCS36 and up   Standard 22.02

This document has been reissued due to modifications in software.

December 1993

BCS36   Standard 22.01

For details on office parameters added or deleted in BCS36, see sections "BCS36 new office parameters" and "BCS36 deleted office parameters".

April 1993

BCS35   Standard 21.01

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OFCVAR parameters

<div style="text-align: right">**1**</div>

About this document

The *Office Parameters Reference Manual* describes office parameters that are used to set the software limits for a DMS switch. Operating company personnel and Northern Telecom system application engineers datafill these values to specify criteria such as memory requirements, telephony standards, and feature availability.

When to use this document

Northern Telecom (NT) software releases are referred to as batch change supplements (BCS) and are identified by a number, for example, BCS29. This document is written for DMS-100 Family offices that have BCS36 and up.

More than one version of this document may exist. The version and issue are indicated throughout the document, for example, 01.01. The first two digits increase by one each time the document content is changed to support new BCS-related developments. For example, the first release of a document is 01.01, and the next release of the document in a subsequent BCS is 02.01. The second two digits increase by one each time a document is revised and rereleased for the same BCS.

To determine which version of this document applies to the BCS in your office, check the release information in *DMS-100 Family Guide to Northern Telecom Publications*, 297-1001-001.

How to identify the software in your office

The *Office Feature Record (D190)* lists your current BCS and the NT feature packages in it. You can view similar information on a MAP (maintenance and administration position) terminal by typing

>PATCHER;INFORM LIST identifier

and pressing the Enter key.

where
identifier   is the number of the feature package or patch ID

You can identify your current BCS level and print a list of all the feature packages and patches in your switch by performing the following steps. First, direct the terminal response to the desired printer by typing

>SEND printer_id

and pressing the Enter key.

where
printer_id   is the number of the printer where you want to print the data

Then, print the desired information by typing

>PATCHER;INFORM LIST;LEAVE

and pressing the Enter key.

Finally, redirect the display back to the terminal by typing

>SEND PREVIOUS

and pressing the Enter key.

References in this document

The following documents are referred to in this document.

Number	Title
297-1001-451	*Common Customer Data Schema*
297-1001-814	*Operational Measurements Reference Manual*

How this document is organized

This manual is divided into the sections described below:

BCS36 new office parameters

Office parameters added in BCS36 are listed here.

BCS36 deleted office parameters

Office parameters deleted in BCS36 are listed here.

Cross-reference tables

This document also includes tables to assist you in cross-referencing individual parameters and the tables that contain them:

- Table to parameter cross-reference
- Parameter to table cross-reference

The NORESTARTSWACT utility

This procedure can be used to update the values of certain office parameters. The total system outage time for a NORESTARTSWACT is 30 seconds.

Office parameter administration guide

This guide explains how to determine the best long-term values for office parameters in table OFCENG.

Format of parameter descriptions

The office parameters described in this document are presented alphabetically by table (OFCENG, OFCOPT, OFCSTD, OFCVAR) and, then, alphabetically by parameter name within each table.

The individual office parameter descriptions in this document include the following information:

Functional description
- a brief description of the parameter

Provisioning rules
- the provisioning rules required to determine the value to which the parameter must be set

Range information
- the range of values (minimum, maximum, and default)

Activation
- the method required to activate a change to the value of a parameter

Dependencies
- any other parameters or data schema tables that are affected by the function of the described parameter

Consequences

* the consequences of incorrectly setting the value of the parameter

Verification

* the method of verifying that the parameter is properly provisioned and functioning

Memory requirements

* the amount of memory that is used by the parameter

Dump and restore rules

* the dump and restore rules required for retrofitting the software by BCS number

Parameter history

* the history of changes made to the parameter documentation (introduced in BCS36)

What precautionary messages mean

Danger, warning, and caution messages in this document indicate potential risks. These messages and their meanings are listed in the following chart.

Message	Significance
DANGER	Possibility of personal injury
WARNING	Possibility of equipment damage
CAUTION	Possibility of service interruption or degradation

Examples of the precautionary messages follow.

DANGER
Risk of electrocution
The inverter contains high voltage lines. Do not open the front panel of the inverter unless fuses F1, F2, and F3 have been removed first. Until these fuses are removed, the high voltage lines inside the inverter are active, and you risk being electrocuted.

WARNING
Damage to backplane connector pins
Use light thumb pressure to align the card with the connectors. Next, use the levers to seat the card into the connectors. Failure to align the card first may result in bending of the backplane connector pins.

CAUTION
Loss of service
Subscriber service will be lost if you accidentally remove a card from the active unit of the peripheral module (PM). Before continuing, confirm that you are removing the card from the inactive unit of the PM.

How commands, parameters, and responses are represented

Commands, parameters, and responses in this document conform to the following conventions.

Input prompt (>)

An input prompt (>) indicates that the information that follows it is a command:

>BSY

Commands and fixed parameters

Commands and fixed parameters that are entered at a MAP are shown in uppercase letters:

>BSY LINK

Variables

Variables are shown in lowercase letters:

>BSY LINK ps_link

The letters or numbers that the variable represents must be entered. Each variable is explained in a list that follows the command string.

Responses

Responses correspond to the MAP display and are shown in a different type:

```
Any active calls may be lost
Please confirm ("YES" or "NO"):
```

The following example illustrates the command syntax used in this document.

	Step	Action
Step number	1	Busy the P-side link of the SMU by typing
Instruction		**>BSY LINK ps_link**
Command input		and pressing the Enter key.
		where
Parameters list		ps_link is the number of the P-side link (0 through 19)
		Example input:
Example input		**>BSY LINK 7**
		Example of a MAP response:
Example output		```Any active calls may be lost Please confirm ("YES" or "NO"):```

BCS36 new office parameters

The following office parameters have been added in BCS36:

Table	Parameter Name
OFCENG	AIN_ACTIVE
OFCENG	AIN_MAX_SERIAL_TRIGGERS
OFCENG	AIN_NUM_EXT_BLKS
OFCENG	AIN_NUM_PROCESSING_EXT_BLKS
OFCENG	AIN_T1_TIMER
OFCENG	AR_BLOCK_PRIVATE_RES
OFCENG	AR_BLOCK_PRIVTAE_CTX
OFCENG	DCND_TIMERS
OFCENG	DCT_MEM_LIMIT
OFCENG	MAX_NO_OF_TRANS_ID
OFCENG	NETWORK_ELEMENT_ID
OFCENG	NFA_ANSWER_DETECT_TIME
OFCENG	NFA_INVERTED_WINK_DURATION
OFCENG	NFA_PRE_DIAL_DELAY_TIME
OFCENG	NOP_DNA_DEFAULT_ACCESS
OFCENG	NTC_RNGBACK_TIME
OFCENG	NUM_DCR_NP_ACCESS
OFCENG	RNG_TMEOUT_TKLN_SECS
OFCENG	TABLE_ADJNODE_INUSE
OFCENG	TRIGDIG_NUM_DGLTR_POOLS
OFCOPT	ENABLE_DT_IM_FOR_IBN
OFCOPT	MAX_NUM_ECM_TPAC
OFCVAR	AIN_OFFICE_TRIGGRP
OFCVAR	CDS_DN_CHECK
OFCVAR	CONTINUOUS_RETRY_TIMERS
OFCVAR	DCT_TEST_CALL_SPILL
OFCVAR	NTC_CALL_DURATION_ADJ
OFCVAR	NTC_CONN_REATEMPTS
OFCVAR	NTC_REATTEMPTS
OFCVAR	NTC_TIME_BTW_CONN_REATTEMPTS
OFCVAR	NTC_TIME_BTW_REATTEMPTS
OFCVAR	NTC_XLATIONS

OFCVAR   PER_OPC_LOGDEV_BUFFER_SIZE
OFCVAR   TCAPNM_BLK_QUERY_PRIV_DNS
OFCVAR   TCAPNM_INTERLATA_QUERY
OFCVAR   TSTLN_OP_DELAY
OFCVAR   VARIABLE_STUTTER_DIALTONE_TIMING
OFCVAR   WLC_OV_REPORTING

BCS36 deleted office parameters

The following office parameters have been deleted in BCS36:

Table	Parameter name
OFCENG	AOSS_CALL_WAITING_Q_SIZE
OFCENG	AOSS_MAX_OPERATOR_NUM
OFCENG	AOSS_MFADS_PERIOD
OFCENG	AOSS_NUM_RECORDING_UNITS
OFCENG	AOSS_NUM_STUDY_REG
OFCENG	AOSS_NUM_TRAFFIC_OFFICES
OFCENG	AOSS_NUM_TRANSFER_TYPES
OFCENG	AOSS_VR_SWITCH_ID
OFCENG	CSDDS_RINGING_TIMEOUT
OFCENG	ENHANCED_METERING_HARDWARE
OFCENG	NUMCPLETTERS
OFCENG	NUMCSDDSPERMEXT
OFCENG	NUM_CALL_REF_DATA_BLKS
OFCENG	OOC_ASST_POS
OFCENG	OOC_CALLS_WAITING_Q_SIZE
OFCENG	OOC_CALLS_WAITING_SEARCH_DEPTH
OFCENG	OOC_CROSS_TEAM_ROUTING
OFCENG	OOC_DISPLAY_AWT
OFCENG	OOC_DISPLAY_MON
OFCENG	OOC_DISPLAY_ST
OFCENG	OOC_DUMP_STUDY_REG
OFCENG	OOC_MAX_OPERATOR_NUM
OFCENG	OOC_MAX_ORIG_RATE_CENTER
OFCENG	OOC_MAX_TERM_RATE_CENTER
OFCENG	OOC_MCCS_BNS
OFCENG	OOC_MCCS_CCV
OFCENG	OOC_NUMBER_OF_MEMO_PADS
OFCENG	OOC_NUM_RU
OFCENG	OOC_NUM_STUDY_REG
OFCENG	OOC_NUM_TRAFFIC_OFFICES
OFCENG	OOC_PASSWORD_ENABLE
OFCENG	OOC_START_OF_DAY

OFCENG	OOC_TAC_RECALL
OFCENG	OOC_TRANSFER_TYPES
OFCENG	OOC_ZERO_FB_REG
OFCENG	SAY_IF_BTUP_OVERLAP_CALL
OFCENG	TOPS_LAB_ENVIRONMENT
OFCOPT	GATEWAY_CDR_PAD_OPTION
OFCOPT	MSB_EXCEPT_GIC_LOADED
OFCSTD	CCB_CPU_LIMIT_PERCENTAGE
OFCVAR	AOSS_CALL_WAITING_SEARCH_DEPTH
OFCVAR	AOSS_CROSS_TEAM_ROUTING
OFCVAR	AOSS_DISPLAY_MON
OFCVAR	AOSS_DISPLAY_SR
OFCVAR	AOSS_MFADS_POLLING_ID
OFCVAR	AOSS_START_OF_DAY
OFCVAR	AOSS_VOICE_RESPONSE
OFCVAR	AOSS_VR_MAXIMUM_DA_RECALLS
OFCVAR	AOSS_VR_MAXIMUM_INT_RECALLS
OFCVAR	AOSS_VR_POST_ANN_TIMEOUT
OFCVAR	AOSS_VR_PRIMARY_LANGUAGE
OFCVAR	AOSS_VR_SECONDARY_LANGUAGE
OFCVAR	MOBILE_POWER_CLASS1_ADJUST
OFCVAR	MOBILE_POWER_CLASS2_ADJUST
OFCVAR	MOBILE_POWER_CLASS3_ADJUST
OFCVAR	MOBILE_POWER_CLASS4_ADJUST
OFCVAR	OOC_AGS

Table to parameter cross-reference

Table	Parameter name
OFCENG	ACCSDB_RESPONSE_DELAY
OFCENG	ACCS_NUM_RU
OFCENG	ACD_MIS_OUT_EVENT_BUFFER_SIZE
OFCENG	ACD_OVERFLOW_BLOCKS
OFCENG	ACD_TOLL_DELAYED_BILLING
OFCENG	ACTIVE_DN_SYSTEM
OFCENG	ACT_MAX_DURATION
OFCENG	AIN_ACTIVE
OFCENG	AIN_MAX_SERIAL_TRIGGERS
OFCENG	AIN_NUM_EXT_BLKS
OFCENG	AIN_NUM_PROCESSING_EXT_BLKS
OFCENG	AIN_OFFICE_TRIGGRP
OFCENG	AIN_T1_TIMER
OFCENG	ALLOC_UNIV_EXT_BLK
OFCENG	ALLOW_RINGING_ON_TIP_SIDE
OFCENG	ALL_ACD_LOGIN_IDS_VALID
OFCENG	ALT_LIT_RES_NUM_FAILS_TO_SET
OFCENG	ALT_LIT_RES_NUM_PASSES_TO_CLR
OFCENG	ALT_TTT_USAGE_PERCENTAGE
OFCENG	ALT_TTU_USAGE_PERCENTAGE
OFCENG	AMA_EBCDIC_CONVERT
OFCENG	AMA_FAILURE_FREE_CALL
OFCENG	AMA_LONG_DUR_AUDIT_INTERVAL
OFCENG	APPLY_PATCHES_BY_SEQUENCE
OFCENG	AR_BLOCK_PRIVATE_RES
OFCENG	AR_BLOCK_PRIVATE_CTX
OFCENG	AR_DDN_LINE_OR_OFFICE
OFCENG	ATTLOG
OFCENG	AUXCP_CPU_SHARE
OFCENG	AVG_NUM_TGS_PER_OHCBQCALL
OFCENG	B911_3WC_ALLOWED
OFCENG	BACKUP_METER_FREQUENCY_LINES
OFCENG	BACKUP_METER_FREQUENCY_TRUNKS

OFCENG	BC_CHECKING_SCOPE
OFCENG	BELL_ANI_ALARM_ID
OFCENG	BELL_ANI_INTERCEPT_ID
OFCENG	BLOCK_555_DIGITS
OFCENG	BLOCK_D_E_DIGITS
OFCENG	BRI_CLIP_GENERALLY_AVAILABLE
OFCENG	BTUP_INTL_DGT_PREFIX
OFCENG	BTUP_NETWK_ID
OFCENG	BTUP_PARTIAL_CLI
OFCENG	BTUP_VER_IND
OFCENG	C11_EXPANSION
OFCENG	C11_OUTG_EXPANSION
OFCENG	C12_EXPANSION
OFCENG	C12_OUTG_EXPANSION
OFCENG	C12_PLUS_OUTG_EXPANSION
OFCENG	CABLE_LOCATE_TIMEOUT
OFCENG	CABLE_SHORT_TIMEOUT
OFCENG	CCMTR_FAILURE_FREE_CALL
OFCENG	CC_ENGLEVEL_WARNING_THRESHOLD
OFCENG	CC_REX_SCHEDULED_HR
OFCENG	CDC_RESTRICTION_ACTIVE
OFCENG	CDIV_EXT_BLOCKS
OFCENG	CDR_100_BYTE_FORMAT
OFCENG	CDR_FORMAT
OFCENG	CFD_EXT_BLOCKS
OFCENG	CFW_EXT_BLOCKS
OFCENG	CFX_SEPARATE_KEYLIST_FEATURE
OFCENG	CFZ_EXT_BLOCKS
OFCENG	CHARGE_UPDATE_FREQUENCY
OFCENG	CIRCUIT_QUERY_AUDIT_START_TIME
OFCENG	CLI_NATIONAL_PREFIX
OFCENG	CMC_REX_SCHEDULED_HR ·
OFCENG	COINDISPOSAL
OFCENG	COMMAND_SCREEN
OFCENG	COPP_RELAY_OPEN_TIME
OFCENG	COT_ANNOUNCEMENT_TYPE
OFCENG	CPERRORTHRESHOLD
OFCENG	CPM_EXTENDED
OFCENG	CRS_PRU_POOL1_SIZE
OFCENG	CRS_PRU_POOL2_SIZE
OFCENG	CRS_PRU_POOL3_SIZE
OFCENG	CRS_SUBRU_POOL1_SIZE
OFCENG	CRS_SUBRU_POOL2_SIZE
OFCENG	CRS_SUBRU_POOL3_SIZE
OFCENG	CRS_SUBRU_POOL4_SIZE

OFCENG	CSLINK_ALARM_THRESHOLDS
OFCENG	CUSTOMER_GROUP_IBNGRP_OM_COUNT
OFCENG	DATA_COS
OFCENG	DB_MAX_SIZE
OFCENG	DCH_BD_STATMUX_RATIO
OFCENG	DCND_TIMERS
OFCENG	DCT_MEM_LIMIT
OFCENG	DEBUG_HUNT_SWERRS
OFCENG	DEFAULTLANGUAGE
OFCENG	DEFAULT_BEARER_CAPABILITY
OFCENG	DEFAULT_CARRIER_OR_TREAT
OFCENG	DEFAULT_COMMANDCLASS
OFCENG	DEF_AMR5_CAT_CODE
OFCENG	DIRP_PFILE_AUDIT
OFCENG	DISCTO_TIMEOUT_VALUE
OFCENG	DISC_TIME_BILLED
OFCENG	DMSBUS_POLL_FREQUENCY
OFCENG	DM_HIT_TIME
OFCENG	DM_PCM_ENCODING
OFCENG	DNLPIC_MAX_NUM_DN_TUPLES
OFCENG	DNPIC_MAX_NUM_DN_TUPLES
OFCENG	DRAM_BARGE_IN
OFCENG	DTSR_AUTO_DEACTIVATION_ENABLE
OFCENG	E2ALINKEQP
OFCENG	E911_AUD_RING_FROM_PSAP
OFCENG	E911_LDT_PSAP_SW_STATUS
OFCENG	E911_LOCAL_ACCESS_ROH_TONE_TIME
OFCENG	E911_NUMBER_OF_FDBS
OFCENG	EADAS24H_BUFFER_SIZE
OFCENG	EADAS30M_BUFFER_SIZE
OFCENG	EADAS60M_BUFFER_SIZE
OFCENG	EAEO_FOUR_DIGIT_CIC_STATUS
OFCENG	EA_CCIS6_TANDEM_BILL
OFCENG	EA_OCS_AND_DP_OVLP_NEEDED
OFCENG	EA_OCS_DIGCOL_METHOD
OFCENG	EA_OSS_HOLD_TIMEOUT_MINS
OFCENG	EA_OVERLAP_CARRIER_SELECTION
OFCENG	EA_TAB_CICSIZE4_OBSOLETE
OFCENG	EA_WITH_CD
OFCENG	EBS_BUZZ_SPLASH_ON
OFCENG	EBS_TO_TRUNK_TRD_TIME
OFCENG	ENHANCED_DEAD_SYSTEM_ALARM
OFCENG	ESAENTRY
OFCENG	ESAEXIT
OFCENG	EXPIRED_PASSWORD_GRACE

OFCENG	FEATURE_ADMIN_CHARGE
OFCENG	FLOW_CONTROL_TIMEOUT
OFCENG	FRR_ROUTING_RULES_OVERRIDE
OFCENG	FTRQ0WAREAS
OFCENG	FTRQ0WPERMS
OFCENG	FTRQ16WAREAS
OFCENG	FTRQ16WPERMS
OFCENG	FTRQ2WAREAS
OFCENG	FTRQ2WPERMS
OFCENG	FTRQ32WAREAS
OFCENG	FTRQ32WPERMS
OFCENG	FTRQ4WAREAS
OFCENG	FTRQ4WPERMS
OFCENG	FTRQ8WAREAS
OFCENG	FTRQ8WPERMS
OFCENG	FTRQAGENTS
OFCENG	FTRQAUDIT
OFCENG	FXOGS_REMBSY_BITS
OFCENG	GLOBAL_CUTOFF_ON_DISCONNECT
OFCENG	GOS_NUM_RU
OFCENG	GROUND_START_DELAY
OFCENG	GUARANTEED_TERMINAL_CPU_SHARE
OFCENG	IMMEDIATE_RING_ENABLE
OFCENG	IMP_DELAY
OFCENG	INTL_GATEWAY_OFFICE
OFCENG	INTL_LOCAL_OFFICE
OFCENG	INTRALATA_DEFAULT_USE_TRKLATA
OFCENG	INWATS_CCIS_OSO_ENABLE
OFCENG	INWATS_LOCAL_TERMINATION
OFCENG	INWATS_ON_AMA
OFCENG	ISDN_DPN_PH_GENERIC
OFCENG	ISDN_NET_1A_INTERWORKING
OFCENG	ISGBDOM_BLKSIZE
OFCENG	ITOPS_ACCOUNT_CODES
OFCENG	ITOPS_ENHANCED_ACD
OFCENG	ITOPS_HIGH_TRAFFIC_START_TIME
OFCENG	ITOPS_LOW_TRAFFIC_START_TIME
OFCENG	ITS_NUM_CONCURRENT_SESSIONS
OFCENG	KSET_INTER_GRP_DISP
OFCENG	KSHUNT_EXT_BLOCKS
OFCENG	LCDI_SYNC_BURST
OFCENG	LCDI_SYNC_DELAY
OFCENG	LCDR_SEC_ANI_TEST
OFCENG	LCML_SYNC_BURST
OFCENG	LCML_SYNC_DELAY

OFCENG	LN_LONG_PARTIAL_DIAL_TIME
OFCENG	LN_PERM_SIG_TIME
OFCENG	LN_SHORT_PARTIAL_DIAL_TIME
OFCENG	LOG_PRIORITIZATION
OFCENG	LONG_CALL_CDR_START
OFCENG	LONG_TIMED_RELEASE_DISC_TIME
OFCENG	LOWSPR_ALARM_ON_CARD_SPR_BASIS
OFCENG	LSCM_SYNC_BURST
OFCENG	LSCM_SYNC_DELAY
OFCENG	MARKET_OF_OFFICE
OFCENG	MAXNUCS
OFCENG	MAXSTS
OFCENG	MAX_CMAP_SESSIONS
OFCENG	MAX_DTA_ON_SWITCH
OFCENG	MAX_LINES
OFCENG	MAX_MADN_MEMBERS_PER_LSG
OFCENG	MAX_NO_OF_3_PORTS_IN_CHAIN
OFCENG	MAX_NO_OF_ALT_TEST_PROCS
OFCENG	MAX_NO_OF_TRANS_ID
OFCENG	MAX_NUM_WIDEBAND_CALLS
OFCENG	MAX_PROGRAMMERS
OFCENG	MAX_ROUTE_QUEUED_PER_TRKGRP
OFCENG	MAX_SDPOOL_NO
OFCENG	MAX_SUBSCRIBERS_IN_VLR
OFCENG	MAX_TRUNKS_IN_ACB_SCAN
OFCENG	MAX_TRUNK_METER_BLOCKS
OFCENG	METER_AUDIT
OFCENG	MF_LAST_DIGIT_DELAY
OFCENG	MINIMUM_CHARGE_DURATION
OFCENG	MINIMUM_CLI_LENGTH
OFCENG	MIN_NUMBER_OF_DIGS_RPTD_ON_OVLP
OFCENG	MIN_PASSWORD_LENGTH
OFCENG	N5_CLB_TIMER
OFCENG	N5_USING_UTR
OFCENG	N6_CLB_TIMER
OFCENG	NACD_BRDCAST_INTERVAL
OFCENG	NACD_RI_DELTA_PARM
OFCENG	NATIONAL_COUNTRY_CODE
OFCENG	NCCBS
OFCENG	NETWORK_ELEMENT_ID
OFCENG	NFA_ANSWER_DETECT_TIME
OFCENG	NFA_INVERTED_WINK_DURATION
OFCENG	NFA_PRE_DIAL_DELAY_TIME
OFCENG	NMS_ACKNOWLEDGEMENT_TIMEOUT
OFCENG	NMULTIBLKS

OFCENG	NODE
OFCENG	NOP_DNA_DEFAULT_ACCESS
OFCENG	NOP_USERID_SECURITY_ACCESS
OFCENG	NOS_QUANTITY_OF_SVCS
OFCENG	NO_ANS_CALLS_ONTAPE
OFCENG	NO_LOCAL_COIN_EXT_BLKS
OFCENG	NO_OCCTS_OM_REGISTERS
OFCENG	NO_OF_CLONE_TIDS
OFCENG	NO_OF_CRITICAL_FTR_DATA_BLKS
OFCENG	NO_OF_FTR_CONTROL_BLKS
OFCENG	NO_OF_FTR_XLA_BLKS
OFCENG	NO_OF_HIS_CONTROL_BLKS
OFCENG	NO_OF_HIS_DATA_BLKS
OFCENG	NO_OF_LARGE_EXT_BLKS
OFCENG	NO_OF_LARGE_FTR_DATA_BLKS
OFCENG	NO_OF_MEDIUM_EXT_BLKS
OFCENG	NO_OF_MEDIUM_FTR_DATA_BLKS
OFCENG	NO_OF_PVN_EXTBLK
OFCENG	NO_OF_PVN_TERM_EXTBLK
OFCENG	NO_OF_SC_EXT_BLKS
OFCENG	NO_OF_SMALL_EXT_BLKS
OFCENG	NO_OF_SMALL_FTR_DATA_BLKS
OFCENG	NO_OF_VCDR_REC_UNITS
OFCENG	NO_OF_XLARGE_EXT_BLKS
OFCENG	NO_RING_ON_TIP_FOR_LM
OFCENG	NO_TFAN_OM_REGISTERS
OFCENG	NRS_AUD_DELAY
OFCENG	NSS_RDD_REPLDIGS_LENGTH_A
OFCENG	NSS_RDD_REPLDIGS_LENGTH_B
OFCENG	NTC_RNGBACK_TIME
OFCENG	NUMBER_OF_CDR_UNITS
OFCENG	NUMBER_OF_DIGITS_PER_DN
OFCENG	NUMCALLPROCESSES
OFCENG	NUMCPWAKE
OFCENG	NUMECCBS
OFCENG	NUMIBNCQEXTBLK
OFCENG	NUMLONGBUFFERS
OFCENG	NUMOHCBQTRANSBLKS
OFCENG	NUMPERMEXT
OFCENG	NUMTLBS
OFCENG	NUM_CALLREC_STREAMS
OFCENG	NUM_DCR_EXT_BLKS
OFCENG	NUM_DCR_NP_ACCESS
OFCENG	NUM_ENGR_NWM_TRKGRP_CTRLS
OFCENG	NUM_IBN_IXLA_EXT_BLOCKS

OFCENG	NUM_ICAMA_RECORDING_UNITS
OFCENG	NUM_ICT_EXT_BLKS
OFCENG	NUM_INTL_RECORDING_UNITS
OFCENG	NUM_ISUP_EXT_BLKS
OFCENG	NUM_MTR_EXT_BLOCKS
OFCENG	NUM_OF_CCIS_INWATS_BLOCKS
OFCENG	NUM_OF_INWATS_EXT_BLOCKS
OFCENG	NUM_OF_NSC_EXT_BLK
OFCENG	NUM_OF_NT_RECORDING_UNITS
OFCENG	NUM_OF_RTEB_EXTBLKS
OFCENG	NUM_RC_EXT_BLKS
OFCENG	NUM_SME_CONTROL_BLOCKS
OFCENG	NUM_SME_DATA_BLOCKS
OFCENG	NWMTGBLU
OFCENG	NX25_RR_EACH
OFCENG	OAM_HW_PRESENT
OFCENG	OCCTS_ENHANCED_FEATURE
OFCENG	OCCTS_IN_MAX_NUMBER
OFCENG	OCCTS_OUT_MAX_NUMBER
OFCENG	OFFICE_CLLI_NAME
OFCENG	OFFICE_DS_FUNCTION_NUMBER
OFCENG	OFFICE_DS_SQD_SAMPLING_RATE
OFCENG	OFFICE_ID_ON_AMA_TAPE
OFCENG	OFFICE_ID_ON_CDR_TAPE
OFCENG	OFFICE_LANGUAGE
OFCENG	OMPRTFORMAT
OFCENG	OMTAPESUPPRESSION
OFCENG	OMTELCOLABEL
OFCENG	OMXFR
OFCENG	ORIGS_TO_BLEED
OFCENG	ORIGTHRES
OFCENG	OS_CALLS_WAITING_Q_SIZE
OFCENG	OS_CT_SEARCH_DEPTH
OFCENG	OS_NUM_CALL_QUEUES
OFCENG	OS_NUM_POSITIONS
OFCENG	PASSWORD_LIFETIME
OFCENG	PATCH_BUNDLE
OFCENG	PHINFO_AUDIT_TIME
OFCENG	PLUS48V_OVERTIME_COIN_TEST
OFCENG	PM_PCM_PROTOCOL_SELECTION
OFCENG	PPMBUFFS
OFCENG	PREEMPTABLE_CONF6_THRESHOLD
OFCENG	PRINT_NET102_LOGS
OFCENG	PSTN_GT_SIZE
OFCENG	QMSFM_NUM_QUEUES

OFCENG	QMSFM_NUM_SERVICES
OFCENG	QMSFM_NUM_STUDY_REG
OFCENG	R2DIG_ABNRML_DURING_IDLE
OFCENG	R2DIG_ABNRML_DURING_OPLS
OFCENG	R2DIG_ANSWER_FLTR_TIME
OFCENG	R2DIG_BLK_FLTR_TIME
OFCENG	R2DIG_CD_BITS
OFCENG	R2DIG_CLR_BCK_FLTR_TIME
OFCENG	R2DIG_CLR_FWD_FLTR_TIME
OFCENG	R2DIG_HOLD_SZ_IN_GLARE
OFCENG	R2DIG_IDLE_AFTER_GLARE
OFCENG	R2DIG_IDLE_FLTR_TIME
OFCENG	R2DIG_OG_CSM_FLTR_TIME
OFCENG	R2DIG_RE_ANS_FLTR_TIME
OFCENG	R2DIG_SEIZE_ACK_FLTR_TIME
OFCENG	R2DIG_SEIZE_FAILURE_TIME
OFCENG	R2DIG_SEIZE_FLTR_TIME
OFCENG	R2DIG_WAIT_FOR_ANSWER
OFCENG	R2DIG_WAIT_FOR_SEIZE_ACK
OFCENG	R2SM_TIMEOUT
OFCENG	R2T3_WAIT_FOR_ANSWER_AUTO
OFCENG	R2T3_WAIT_FOR_ANSWER_SEMIAUTO
OFCENG	R2_AN_ANSWER_FLTR_TIME
OFCENG	R2_AN_BLK_FLTR_TIME
OFCENG	R2_AN_CLR_BCK_FLTR_TIME
OFCENG	R2_AN_CLR_FWD_FLTR_TIME
OFCENG	R2_AN_IDLE_FLTR_TIME
OFCENG	R2_AN_OG_CSM_FLTR_TIME
OFCENG	R2_AN_RE_ANS_FLTR_TIME
OFCENG	R2_AN_RLS_ACK_FLTR_TIME
OFCENG	R2_AN_RTS_GUARD_TIME
OFCENG	R2_AN_SEIZE_FLTR_TIME
OFCENG	R2_AN_WAIT_BEFORE_CF
OFCENG	R2_AN_WAIT_FOR_ANSWER
OFCENG	R2_AN_WAIT_FOR_IDLE
OFCENG	R2_AN_WAIT_FOR_RLS_ACK
OFCENG	RECOVERY_INTERVAL_AFTER_RELOAD
OFCENG	RECOVERY_INTERVAL_AFTER_WARMCOLD
OFCENG	REMTERMEQP
OFCENG	REVERSE_EC_EQUIP
OFCENG	REVRING
OFCENG	RING_NO_ANSWER_TMO
OFCENG	RLCM_ESAENTRY_BADCSIDE
OFCENG	RLCM_ESAENTRY_BADLINK
OFCENG	RLCM_ESASDUPD_BOOL

OFCENG	RLCM_ESASDUPD_HOUR
OFCENG	RLCM_ESA_NOTIFY_TONE
OFCENG	RLCM_XPMESAEXIT
OFCENG	RNG_TMEOUT_NO_OF_SECS
OFCENG	RNG_TMEOUT_TKLN_SECS
OFCENG	ROTL_OUT_OF_SERVICE_LEVEL
OFCENG	ROTL_TIME_IN_20MIN
OFCENG	ROUTE_ON_FOT
OFCENG	RSC_ESAENTRY_BADCSIDE
OFCENG	RSC_ESAENTRY_BADLINK
OFCENG	RSC_ESASDUPD_BOOL
OFCENG	RSC_ESASDUPD_HOUR
OFCENG	RSC_ESA_NOTIFY_TONE
OFCENG	RSC_XPMESAEXIT
OFCENG	SAPARMS
OFCENG	SCREEN_AC_LOGIDS
OFCENG	SC_OP_ANI_REQ_TIME
OFCENG	SDB_QUERY_TIMEOUT
OFCENG	SEAS_BUFFER_VOL
OFCENG	SEAS_MSG_BLK_NUM
OFCENG	SEAS_MSG_BLK_VOL
OFCENG	SEAS_SEG_SIZE
OFCENG	SEAS_TIME_ZONE
OFCENG	SEAS_UAL_RETRY_COUNT
OFCENG	SEAS_UAL_SEAC_NODE_NAME
OFCENG	SEAS_UAL_SITE_TO_SITE_TIMER
OFCENG	SEAS_UAL_STP_NODE_NAME
OFCENG	SEP_EQUIPPED
OFCENG	SET_TO_UNBALANCE
OFCENG	SILENT_SWITCHMAN_TIMEOUT
OFCENG	SLE_ITEMS_IN_SEGMENT
OFCENG	SLE_MAX_PROGRAMMERS
OFCENG	SLE_MAX_SEGMENT_COUNT
OFCENG	SLE_TCAP_RESPONSE_TIME
OFCENG	SLE_TRANSACTION_THRESHOLD
OFCENG	SLE_WAKEUP_TIME
OFCENG	SOUTHBOUND
OFCENG	SPANISH_OUTGOING_RINGING_TIMEOUT
OFCENG	SPCCLITIMEOUT
OFCENG	SPDD_DIGIT
OFCENG	SPILL_ANI_9
OFCENG	SPMS_START_OF_MONTH
OFCENG	SPP_MAX_PROGRAMMERS
OFCENG	SRDBUPD_SWITCH_ID
OFCENG	SS7_CONGESTION_CONTROL_TIME

OFCENG	SSP_EA_ACKWINK_DELAY_TIME
OFCENG	SSP_NSC_CARRIER_ID
OFCENG	STINV_BLOCK_SIZE
OFCENG	ST_AUDIT_START_TIME
OFCENG	SUPPRESS_ANI_TO_CLID_DISPLAY
OFCENG	SWCT_AMA_PREBILLING
OFCENG	T108ISDN_TIMEOUT_IN_MINUTES
OFCENG	TABLE_ADJNODE_INUSE
OFCENG	TAPEXLATE
OFCENG	TCM_SYNC_LINES
OFCENG	TCM_SYNC_MONITOR_PERIOD
OFCENG	TCM_SYNC_THRESHOLD
OFCENG	TFAN_DEFAULT_REG_LOG
OFCENG	TFAN_IN_MAX_NUMBER
OFCENG	TFAN_OUT_MAX_NUMBER
OFCENG	TLINK_DELAY
OFCENG	TLINK_DET_TIMEOUT
OFCENG	TLINK_EST_TIMEOUT
OFCENG	TOLL_OFFICE_DELAYED_BILLING
OFCENG	TOPS_0PLUS_LOCAL
OFCENG	TOPS_ACCS_ACG
OFCENG	TOPS_ACCS_ACG_SIZE
OFCENG	TOPS_ACCS_MANUAL_VALIDATION
OFCENG	TOPS_ACTS
OFCENG	TOPS_ASST_POS
OFCENG	TOPS_BRAND_DISPLAY
OFCENG	TOPS_BRAND_INWARDS
OFCENG	TOPS_BRAND_OFFICE
OFCENG	TOPS_CALLS_WAITING_Q_SIZE
OFCENG	TOPS_EA_INTERLATA_NONOPR_AMA
OFCENG	TOPS_EQUAL_ACCESS_OFFICE
OFCENG	TOPS_EXPANDED_OPRNUM •
OFCENG	TOPS_FIXED_DURATION
OFCENG	TOPS_GEN_AMA_SET
OFCENG	TOPS_MAX_OPERATOR_NUM
OFCENG	TOPS_MAX_ORIG_RATE_CENTER
OFCENG	TOPS_MAX_TERM_RATE_CENTER
OFCENG	TOPS_MFADS_PERIOD
OFCENG	TOPS_NIGHT_ALARM_ON_POS_BUSY
OFCENG	TOPS_NUMBER_OF_MEMO_PADS
OFCENG	TOPS_NUM_CAMA_RU
OFCENG	TOPS_NUM_OC_EXT
OFCENG	TOPS_NUM_RU
OFCENG	TOPS_NUM_STUDY_REG
OFCENG	TOPS_NUM_TRAFFIC_OFFICES

OFCENG	TOPS_OCCUPANCY_CALC_METHOD
OFCENG	TOPS_OC_ENVIRONMENT
OFCENG	TOPS_OC_REMOTE_BVC
OFCENG	TOPS_PASSWORD_ENABLE
OFCENG	TOPS_PEG_MODE
OFCENG	TOPS_QMS_MAX_ACTIVE_CALL_QUEUES
OFCENG	TOPS_SDB_CCV_QUERY_BLK
OFCENG	TOPS_STATSPAC_PERIOD
OFCENG	TOPS_THRESHOLD
OFCENG	TOPS_TRANSFER_TYPES
OFCENG	TOTAL_ROUTE_QUEUED_CALLS
OFCENG	TQMS_MIS_MPC_BUFFS
OFCENG	TRBQ_EBS_LINE_AFTER_MISDIALS
OFCENG	TRIGDIG_NUM_DGLTR_POOLS
OFCENG	TRK_MEMSEL_AUDIT_TIME
OFCENG	TYPE_OF_ACCS
OFCENG	TYPE_OF_NETWORK
OFCENG	UK_OP_DELAY
OFCENG	UNIQUE_BY_SITE_NUMBERING
OFCENG	UNIVERSAL_AMA_BILLING
OFCENG	USE_ZEROMPOS_FOR_CAMA
OFCENG	USP_ENABLED
OFCENG	VALIDATE_CCITT_LUHN_DIGIT
OFCENG	VAR_DN
OFCENG	VCDR_OFFICE_FORMAT
OFCENG	VPN_PREFIX_DIGS
OFCENG	VSN_SIMULATOR_ON
OFCENG	WAKEUP_REREQUEST_DELAY
OFCENG	WAKEUP_RINGING_TMO
OFCENG	WUCR_RINGING_TIMEOUT
OFCENG	ZERO_MINUS_TO_CARRIER
OFCENG	ZONE_OF_ORIGIN
OFCOPT	ACOU_DATAFILLED
OFCOPT	ADSI_RAM_BASED_TONE
OFCOPT	AMREP_ACTIVE
OFCOPT	AQ_CLD_NUM_ON_NC
OFCOPT	CALL_TRF
OFCOPT	CASUAL_FEATURES_OFF
OFCOPT	CCS7_H0H1_RCP
OFCOPT	CCTO_COMB_BILL
OFCOPT	CCW_ACTIVE
OFCOPT	CKT_LOC
OFCOPT	CND_ON_SMS_REQD
OFCOPT	DIS_LKD_CKT

OFCOPT	DSR_OFFICE
OFCOPT	EADAS_SHORT_XFER_ALLOWED
OFCOPT	EA_LATANAME_IN_SERVORD
OFCOPT	ENABLE_DT_IM_FOR_IBN
OFCOPT	ENET_AVAILABLE
OFCOPT	ENET_MAX_CHANNEL_GROUP
OFCOPT	ENHANCED_COMMAND_SCREENING
OFCOPT	ENHANCED_PASSWORD_CONTROL
OFCOPT	ERL_SPT
OFCOPT	EXPANDED_INBAND_PERMITTED
OFCOPT	FIVMIN_SNAPSHOT_ENABLED
OFCOPT	FLEXIBLE_DIGIT_ANALYSIS
OFCOPT	FRB_RINGING_TIME
OFCOPT	FREE_NUMBER_DENIAL
OFCOPT	FRIU_BILLING_COUNT_FORMAT
OFCOPT	GATEWAY_CDR_RECORD_ID
OFCOPT	GRP_NUM_FEAT_CTRL
OFCOPT	HNT_SO_SIMPLIFICATION
OFCOPT	IBN_CFW
OFCOPT	IBN_DATA_LINE_SPLIT
OFCOPT	ILR_OPTIONS
OFCOPT	INTERCOM
OFCOPT	INTL_INTRASWITCHING
OFCOPT	ISDN_INFO_EXT_REC
OFCOPT	ISUP_SUBGRP_GLARE_AVAILABLE
OFCOPT	KEYSET_SRT
OFCOPT	LAMA_OFFICE
OFCOPT	LCM_PM_MSG_CNT
OFCOPT	LOCAL_COIN_OVERTIME_FEATURE
OFCOPT	LOOP_BACK
OFCOPT	MAX_ACDMIS_SESSIONS
OFCOPT	MAX_BCLID_DATA_LINKS
OFCOPT	MAX_BRA_LINES
OFCOPT	MAX_CCS7_LINKS
OFCOPT	MAX_DATA_LINES
OFCOPT	MAX_IBN_LINES
OFCOPT	MAX_LAPB_TERMINALS
OFCOPT	MAX_LAPD_TERMINALS
OFCOPT	MAX_MBG_LINES
OFCOPT	MAX_NUM_ACD_AGENTS_PER_SWITCH
OFCOPT	MAX_NUM_ECM_ACDEVENT
OFCOPT	MAX_NUM_ECM_CTXEVENT
OFCOPT	MAX_NUM_ECM_RESOURCE
OFCOPT	MAX_NUM_ECM_ROUTING
OFCOPT	MAX_NUM_ECM_SVC

OFCOPT	MAX_NUM_ECM_TPAC
OFCOPT	MAX_NUM_ECM_TPCC
OFCOPT	MAX_PDATA_LINES
OFCOPT	MAX_PRI_LINKS
OFCOPT	MAX_RCUS_PER_SMU
OFCOPT	MAX_RES_LINES
OFCOPT	MAX_TRKMEM_PER_SWITCH
OFCOPT	MODEM_DIALBACK_CONTROL
OFCOPT	MONITOR_TABLE_ACCESS
OFCOPT	N5_ANSWER_PROP_DELAY
OFCOPT	NETWORK_ACTIVE
OFCOPT	NOISE_MEAS
OFCOPT	NRS_MP
OFCOPT	NRTEST
OFCOPT	NWM_STR_CTRL
OFCOPT	OMHISTORYON
OFCOPT	OMINERLANGS
OFCOPT	OPTIONAL_SLU_FEATURE
OFCOPT	PASSWORD_ENCRYPTED
OFCOPT	PI_CALL_TOPO
OFCOPT	POTS_CFW
OFCOPT	PRI_LINK_PRICING
OFCOPT	QCUST_CMD
OFCOPT	RASL_PROTOCOL
OFCOPT	RLM_INTRA_OPT
OFCOPT	SCC2_LOGS
OFCOPT	SDOC3_ENABLE
OFCOPT	SMDR_OFFICE
OFCOPT	SO_BULK_DMO
OFCOPT	SO_DID
OFCOPT	SO_ECHO
OFCOPT	SO_RCF
OFCOPT	SPEED_CALL_ACCESS_DIGITS
OFCOPT	SUPPRESS_USERNAME
OFCOPT	TFAN_ENHANCED_FEATURE
OFCOPT	TIE_ROUTE_INFO_EXT_REC
OFCOPT	TOPS_DA_PARS_ENABLE
OFCOPT	TOPS_INTRUSION_TONE
OFCOPT	TOPS_MCCS_BNS
OFCOPT	TOPS_MCCS_CCV
OFCOPT	TOPS_PO_PB_CHARS
OFCOPT	TOPS_SEL_XFR_OPR_TRK
OFCOPT	TOPS_SUPPRESS_CW
OFCOPT	TRAFFIC_INFO_EXT_REC
OFCOPT	TWO_WAY_FOR_AMR5

OFCOPT	TWO_WAY_FOR_OC
OFCOPT	TWO_WAY_FOR_OP
OFCOPT	USINGSITE
OFCOPT	US_CUG_ENABLED
OFCOPT	VCDR_OFFICE
OFCOPT	VSLE_PRESENT
OFCOPT	XPM_CSIDE_DMSX
OFCOPT	XPM_MATE_DIAGNOSTICS_AVAILABLE
OFCOPT	ZERO_PLUS_FEATURE
OFCSTD	ACD_AGENTQ_AUDIT_INTERVAL
OFCSTD	ACD_CALL_QUEUE_AUDIT_INTERVAL
OFCSTD	AC_AUDIT_INTERVAL
OFCSTD	AC_MAX_NUM_ERRORS
OFCSTD	AC_TPB_BSY_RCV
OFCSTD	AC_TPB_BSY_SND
OFCSTD	ATT_NOSTART_DIALS
OFCSTD	AUDHIGHFREQ
OFCSTD	AUDIT_INTERVAL
OFCSTD	AUDLOWFREQ
OFCSTD	AUDMEDFREQ
OFCSTD	BCS_NUMBER
OFCSTD	CARD_X53
OFCSTD	CHANNEL_UNIT_601_PRESENT
OFCSTD	CHECK_FIELD_NAME
OFCSTD	CONSOLE_SILO_CHARS
OFCSTD	CONSOLE_SILO_RECORDS
OFCSTD	CPSTACKSIZE
OFCSTD	CUG_REGION
OFCSTD	DCM_PARITY_FILTER
OFCSTD	DIGIT_COL_OFFICE_CODE
OFCSTD	DIRPKILL_IN_EFFECT
OFCSTD	DPREC_INTER_DIGIT_TIMING
OFCSTD	DUMP_RESTORE_IN_PROGRESS
OFCSTD	E911_PSAPS_USING_1_INFO_DIGIT
OFCSTD	E911_PSAP_REC_PRE_WK_TIME
OFCSTD	EAEO_REC_1ST_PRE_WK_TIME
OFCSTD	EAEO_REC_2ND_PRE_WK_TIME
OFCSTD	EA_REC_1ST_PRE_WK_TIME
OFCSTD	EA_REC_MAX_WK_TIME
OFCSTD	EA_REC_SUB_PRE_WK_TIME
OFCSTD	FREEZE_ON_REINIT
OFCSTD	HM_INTERPULSE_TIME
OFCSTD	HM_PULSE_TIME
OFCSTD	IMMED_PRE_DIAL_DELAY

OFCSTD	ISDD_OM_THRESHOLD
OFCSTD	MAXIMUM_ONHK_FLASH
OFCSTD	MAX_COLDS
OFCSTD	MAX_EMERG_ICI
OFCSTD	MAX_LOCKED_TRAPS
OFCSTD	MAX_NUM_ECM_TPAC
OFCSTD	MAX_SANITY_TIMEOUTS
OFCSTD	MAX_WARMS
OFCSTD	MINIMUM_ONHK_FLASH
OFCSTD	MIN_REC_DP_PULSE_WD
OFCSTD	MK_BRK_DP_OUTPULSING
OFCSTD	MTCBASE_EXTRAMSG
OFCSTD	MTCBASE_SCPD
OFCSTD	NEW_CF6P_CCT
OFCSTD	NEW_PS_PIPE
OFCSTD	NO_ESB_RINGBACK_CYCLES_IDENT
OFCSTD	NO_ESB_RINGBACK_CYCLES_NONIDENT
OFCSTD	NUMOUTBUFFS
OFCSTD	OFFICETYPE
OFCSTD	OPM_CHARGE_DURATION
OFCSTD	OPM_CHARGE_START_TIME
OFCSTD	OPM_DISCHARGE_TIME
OFCSTD	OPM_MIN_CHG_VOLT
OFCSTD	OPM_VOLT_TST_CHG
OFCSTD	OPM_VOLT_TST_DIS
OFCSTD	OPM_VOLT_TST_LTU_ADJUSTMENT
OFCSTD	OPM_VOLT_TST_OCC
OFCSTD	PM180
OFCSTD	PRE_ANI_SPILL_DELAY
OFCSTD	PRE_SND_WK_DD_TIME
OFCSTD	RATE_PERIOD_SPECIFIC_BILLING
OFCSTD	REC_MAX_DD_TIME
OFCSTD	REC_MAX_WK_TIME
OFCSTD	REC_MIN_DD_TIME
OFCSTD	REC_MIN_WK_TIME
OFCSTD	REC_PRE_DD_TIME
OFCSTD	REC_PRE_WK_TIME
OFCSTD	RONIXFR
OFCSTD	RP_INTER_SELECTION_TIMER
OFCSTD	RP_INTRA_SELECTION_TIMER
OFCSTD	RP_OVERALL_TIMER
OFCSTD	SHORT_TIMED_RELEASE_DISC_TIME
OFCSTD	SND_DD_TIME
OFCSTD	SND_DP_WK_TIME
OFCSTD	SND_MF_WK_TIME

OFCSTD	SWHK_FLTR_TIME_400MS_ENABLED
OFCSTD	SWHK_FLTR_TIME_640MS_ENABLED
OFCSTD	TERM_REV_FREQ_ANN_TIME
OFCSTD	TRAP_THRESHOLD
OFCSTD	UCD_QSL_AUDIT_INTERVAL
OFCSTD	WK_DD_PRE_DIAL_DELAY
OFCSTD	XPM_PARITY_THRESHOLD
OFCVAR	ACCS_CCV_QUERY_BLK
OFCVAR	ACCS_INTERDIGIT_TIMEOUT
OFCVAR	ACCS_MAX_REJECTS
OFCVAR	ACCS_OPER_SERV_ACCESS_CODE
OFCVAR	ACCS_SEQ_CALL_LIM
OFCVAR	ACCS_SEQ_QUERY
OFCVAR	ACMS_NOC_LOG_ON
OFCVAR	ACQS_AUDIT_ON
OFCVAR	AC_INTRUSION_2X59CA_DCD
OFCVAR	AC_MOREDIGIT_WAIT
OFCVAR	AIN_OFFICE_TRIGGRP
OFCVAR	AMA_FAILURE_ROUTE_POSITION
OFCVAR	ANI_IN_SMDR
OFCVAR	APS_REPORT_ALL_CALLS
OFCVAR	ARI_CDR_VALUE
OFCVAR	ASCS_DISABLE_LEVEL
OFCVAR	ASCS_MONITOR_DELAY
OFCVAR	ASCS_NOALARM_THRESHOLD
OFCVAR	ASCS_NOSEND_THRESHOLD
OFCVAR	ASCS_ROUTE_INDEX
OFCVAR	ASCS_TRUNK_TIMEOUT
OFCVAR	ASR_AUDIT_TIME
OFCVAR	ASR_CUSTGRP
OFCVAR	AUTO_ASSIGN_DNH_GRPNUM
OFCVAR	AUTO_ASSIGN_DNH_RANGE
OFCVAR	AUTO_SA_TIMEOUT
OFCVAR	BICRELAY_NUM_SIMUL_TESTS
OFCVAR	BICRELAY_XLCM_TEST_SCHEDULE
OFCVAR	BLOCK_0_INF_INW_CALLS
OFCVAR	BTUP_EMERG_ANNC
OFCVAR	BT_MCI_TIMER
OFCVAR	BUFFER_THRESHOLDED_REPORTS
OFCVAR	C7UP_RSC_LOG_THRESHOLD
OFCVAR	C7_CHGOVER_SLMPR_THRESHOLD
OFCVAR	C7_NACK_ERROR_SLMPR_THRESHOLD
OFCVAR	C7_SLMPR_ALARM_ON
OFCVAR	C7_SU_ERROR_SLMPR_THRESHOLD

OFCVAR	CALL_CONTROL_DEFAULTS
OFCVAR	CALL_REPORT_FORMAT
OFCVAR	CAMA_SUSP_CALL_ALLOWED
OFCVAR	CCW_AS_LINE_OPTION
OFCVAR	CDIV_SDN_XLA
OFCVAR	CDO_ROUTE
OFCVAR	CDS_DN_CHECK
OFCVAR	CHECK_FOR_TMEM
OFCVAR	CHIPS_RETRY
OFCVAR	CHIPS_TIMEOUT
OFCVAR	CIRCUIT_TEST_NUMBER_MESSAGES
OFCVAR	CLF_ACCESS_CODE
OFCVAR	CMAJALARM
OFCVAR	CMINALARM
OFCVAR	CNDB_ON_POTS
OFCVAR	COIN_DTF_TOTALIZER_RESET
OFCVAR	COIN_OPERATOR_RELEASED_ON_OA
OFCVAR	COIN_RETAIN_ON_OA
OFCVAR	CONTINUOUS_RETRY_TIMERS
OFCVAR	CREATE_PARTIAL_800_AMA
OFCVAR	CUSTOMER_DATA_CHANGE_LOGS
OFCVAR	CUTOFF_ON_DISC_TIME
OFCVAR	CWT_TIMEOUT
OFCVAR	CWT_TONE_LENGTH
OFCVAR	DAILY_ISDN_LAYER2_PEG_AUDIT_TIME
OFCVAR	DATA_CALL_SMDR
OFCVAR	DCT_TEST_CALL_SPILL
OFCVAR	DIAGALARM
OFCVAR	DISKLOGMEMORY
OFCVAR	DIST_CWT_TONE
OFCVAR	DND_ROUTE
OFCVAR	DTULDINFO
OFCVAR	E911_CHECK_DEFAULT_ESN
OFCVAR	E911_PSAP_DISCONNECT_TIME
OFCVAR	E911_PSAP_OFFHK_ALARM_TIME
OFCVAR	EADAS_ENABLED
OFCVAR	EADAS_GENERIC_ID
OFCVAR	EADAS_MPC_AND_LINK
OFCVAR	EA_TEST_CALL_SPILL
OFCVAR	ECORE_FORMAT
OFCVAR	ENG640M1_SCAN_RATE
OFCVAR	ENHANCED_TRUNK_PREROUTE_ABANDON
OFCVAR	ESG_ALARM
OFCVAR	ESG_RERING_TIME
OFCVAR	FACALARM

OFCVAR	FGD_ANI_SMDR_REQD
OFCVAR	FGD_TEST_CALL_ACK_OFFHOOK
OFCVAR	FOT_DIGITS
OFCVAR	GENERATE_CALL_RECORDING_LOGS
OFCVAR	GENERATE_ICAMA_LOG_ENTRY
OFCVAR	GENERATE_ITOPS_LOG_ENTRY
OFCVAR	GEN_CDR300_ISDN_LOGS
OFCVAR	GEN_CDR300_MIDNT_LOGS
OFCVAR	GEN_CDR300_SYNC_LOGS
OFCVAR	IAA_REQUESTED
OFCVAR	ICAMA_ANI_FAILURE_ACTION
OFCVAR	ICAMA_REQUESTED
OFCVAR	ICT_DN_CHECK
OFCVAR	IMAJALARM
OFCVAR	IMINALARM
OFCVAR	INTL_ICR_REQUESTED
OFCVAR	INTL_RU_OVFL_ACTION
OFCVAR	INTL_SILENT_SWITCHMAN_TMO
OFCVAR	ISDN_LOSS_OF_SIG_DGASP_ALARM
OFCVAR	ISDN_LOSS_OF_SIG_NO_DGASP_ALARM
OFCVAR	ISDN_LOSS_OF_SYNC_WORD_ALARM
OFCVAR	ISDN_NT1_TEST_MODE_ALARM
OFCVAR	ISDN_PERFORMANCE_MON_ALARM
OFCVAR	ISDN_T_SYNC_LOST_ALARM
OFCVAR	ITOPS_CHG_DISPLAY_DECIMAL
OFCVAR	ITS_TEST_SESSION_TIMEOUT
OFCVAR	JPNI_ACM_ALWAYS_EXPECTED
OFCVAR	KT_SELECTION_OPTION
OFCVAR	LAYER2_PEGS_THRESHOLD_LEVEL
OFCVAR	LAYER2_SAPI0_ABN_PEGS_THLD
OFCVAR	LAYER2_SAPI16_ABN_PEGS_THLD
OFCVAR	LAYER2_SERVICE_DSRPT_THLD
OFCVAR	LCARDALARM
OFCVAR	LCDREX_CONTROL
OFCVAR	LINE_CARD_MONITOR
OFCVAR	LINE_WITH_CWT_CAN_FLASH
OFCVAR	LOCAL_COIN_INIT_TIME
OFCVAR	LOCAL_COIN_OVER_TIME
OFCVAR	LOG_CENTRAL_BUFFER_SIZE
OFCVAR	LOG_DEVICE_BUFFER_SIZE
OFCVAR	LOG_OFFICE_ID
OFCVAR	LOOP_AROUND_TIMEOUT_IN_MIN
OFCVAR	LSETALARM
OFCVAR	MAX_RMAP_SESSIONS
OFCVAR	MCARDALARM

OFCVAR	MCCS_SEQ_CALL_LIM
OFCVAR	MCCS_SEQ_QUERY
OFCVAR	MCTIMER
OFCVAR	MCT_TONE
OFCVAR	METER_PULSE_MISMATCH_THRESHOLD
OFCVAR	METER_PULSE_MONETARY_RATE
OFCVAR	MSETALARM
OFCVAR	MTA_MB_COUNT
OFCVAR	MTA_RLM_TIME
OFCVAR	MTA_RMM_TIME
OFCVAR	MTULDINFO
OFCVAR	NDIAGALARM
OFCVAR	NETFAB_DAILY_DURATION
OFCVAR	NETFAB_SCHEDULE_ENABLED
OFCVAR	NETFAB_SCHEDULE_TIME
OFCVAR	NFA_IMPLCT_BYPASS_UTR
OFCVAR	NODEREXCONTROL
OFCVAR	NON_DMS_NAME_LOOKUP
OFCVAR	NSS_DBCP_TCN_BLOCK_CALL
OFCVAR	NSS_DBCP_TCN_RESP_TIMEOUT
OFCVAR	NTC_CALL_DURATION_ADJ
OFCVAR	NTC_CONN_REATEMPTS
OFCVAR	NTC_REATTEMPTS
OFCVAR	NTC_TIME_BTW_CONN_REATTEMPTS
OFCVAR	NTC_TIME_BTW_REATTEMPTS
OFCVAR	NTC_XLATIONS
OFCVAR	OCCTS_DEFAULT_REG_LOG
OFCVAR	ORIG_ARTER_FREQUENCY
OFCVAR	ORIG_ARTER_LEVEL
OFCVAR	ORIG_INCREASE_SPM
OFCVAR	PERFORMANCE
OFCVAR	PER_CALL_GND_LOOP_TEST
OFCVAR	PER_OPC_LOGDEV_BUFFER_SIZE
OFCVAR	PMSTAT_OM_CONTROL
OFCVAR	POTS_SIMULATE_1A
OFCVAR	PRE_ROUTE_ABANDON_TRK116_LOG
OFCVAR	PRINTOUT_OF_CALLS
OFCVAR	PROMPT_HUNT_MEM_LCC
OFCVAR	PSPDALARM
OFCVAR	QDIAGALARM
OFCVAR	R2_ANI_DENY
OFCVAR	RAG_QUE_LEN
OFCVAR	RAG_RECALL_TIMEOUT
OFCVAR	RATING_SMALLEST_COIN
OFCVAR	RECORD_CLG_NPA_NXX

OFCVAR	RECORD_UNANSWERED_CALLS
OFCVAR	RES_SO_SIMPLIFICATION
OFCVAR	SCAI_CONTINUITY_AUDIT_INTERVAL
OFCVAR	SDIAGALARM
OFCVAR	SEAS_LRF_GTT_OCC
OFCVAR	SEAS_LRF_GTT_PER
OFCVAR	SEAS_LRF_MTP_OCC
OFCVAR	SEAS_LRF_MTP_PER
OFCVAR	SIG_TST
OFCVAR	SLE_LANGUAGE
OFCVAR	SLE_VOICEBACK_PUBLIC_ICM
OFCVAR	SLNETWORK_NAME
OFCVAR	SLVP_RCHD_TIMER
OFCVAR	SMDR_LOG_RPT
OFCVAR	SO_PROMPT_FOR_CABLE_PAIR
OFCVAR	SO_PROMPT_FOR_LTG
OFCVAR	SPCL_SECURITY_A_DR
OFCVAR	SPECIAL_AMA_REPORT
OFCVAR	SPILL_SPB_ON_ES_TRKS
OFCVAR	SRCF_FILE_VOLNAME
OFCVAR	SYSLOG_ACCESS
OFCVAR	TABLE_ACCESS_CONTROL
OFCVAR	TASINTVL
OFCVAR	TBI_CONNECT_OPR_A
OFCVAR	TBI_FORCE_RELEASE
OFCVAR	TBI_OFFER
OFCVAR	TBI_OPR_TIMEOUT
OFCVAR	TCAPNM_BLK_QUERY_PRIV_DNS
OFCVAR	TCAPNM_INTERLATA_QUERY
OFCVAR	TCMALARM
OFCVAR	TERM_ARTER_FREQUENCY
OFCVAR	TERM_ARTER_LEVEL
OFCVAR	TEST_CALL_AMR_SPILL
OFCVAR	TEST_CALL_II_SPILL
OFCVAR	TEST_CALL_SPILL
OFCVAR	THRESHOLD_IS_SAMPLING
OFCVAR	TOLL_DIVERSION_SIGNAL
OFCVAR	TOPS_411_RECORD_NPA_IN_AMA
OFCVAR	TOPS_AGS
OFCVAR	TOPS_CALLS_WAITING_SEARCH_DEPTH
OFCVAR	TOPS_CLD_TIME_AND_CHG_NO_ACTS
OFCVAR	TOPS_CROSS_TEAM_ROUTING
OFCVAR	TOPS_DISPLAY_AWT
OFCVAR	TOPS_DISPLAY_MON
OFCVAR	TOPS_DISPLAY_ST

OFCVAR	TOPS_DUMP_STUDY_REG
OFCVAR	TOPS_EA_DNPC_LOG_GENERATION
OFCVAR	TOPS_EA_PROCESS_T_SEL
OFCVAR	TOPS_FGB_CC134
OFCVAR	TOPS_HOLD_LOCAL
OFCVAR	TOPS_MANUAL_DATABASE_ORIG
OFCVAR	TOPS_MAN_DATABASE_ORIG_DISPLAY
OFCVAR	TOPS_MFADS_OUTPUT_XFR_NUMBER
OFCVAR	TOPS_MFADS_POLLING_ID
OFCVAR	TOPS_OTC_CARRIER_NUMBER
OFCVAR	TOPS_PARS_TONE_LENGTH
OFCVAR	TOPS_START_OF_DAY
OFCVAR	TOPS_STATSPAC_POLLING_ID
OFCVAR	TOPS_TAC_RECALL
OFCVAR	TOPS_TANDEMED_411_CC009
OFCVAR	TOPS_THIRD_BILL_ACC_REQD_SET
OFCVAR	TOPS_VERIFICATION_BARGE_IN
OFCVAR	TOPS_ZERO_FB_REG
OFCVAR	TRA125M1_SCAN_RATE
OFCVAR	TRA125M2_SCAN_RATE
OFCVAR	TRA250M1_SCAN_RATE
OFCVAR	TRKLPBK_TIMEOUT_IN_MINUTES
OFCVAR	TRK_OOS_CHK_ON
OFCVAR	TRUNK_QUERY_AUDIT_START_TIME
OFCVAR	TSO_FIRST_STAGE_TIMEOUT
OFCVAR	TSTLN_OP_DELAY
OFCVAR	TTR_SELECTION_OPTION
OFCVAR	UDIAGALARM
OFCVAR	VARIABLE_STUTTER_DIALTONE_TIMING
OFCVAR	WLC_OV_REPORTING
OFCVAR	WLN_DEFAULT_TIMEOUT
OFCVAR	WML_ACCESS_CODE
OFCVAR	XBARCAB1
OFCVAR	XBARCAB2
OFCVAR	XBARSAT1
OFCVAR	XBARSAT2
OFCVAR	XBAR_OVERFLOW_ON
OFCVAR	XID_DESTINATION_ID

Parameter to table cross-reference

Parameter name	Table
ACCSDB_RESPONSE_DELAY	OFCENG
ACCS_CCV_QUERY_BLK	OFCVAR
ACCS_INTERDIGIT_TIMEOUT	OFCVAR
ACCS_MAX_REJECTS	OFCVAR
ACCS_NUM_RU	OFCENG
ACCS_OPER_SERV_ACCESS_CODE	OFCVAR
ACCS_SEQ_CALL_LIM	OFCVAR
ACCS_SEQ_QUERY	OFCVAR
ACD_AGENTQ_AUDIT_INTERVAL	OFCSTD
ACD_CALL_QUEUE_AUDIT_INTERVAL	OFCSTD
ACD_MIS_OUT_EVENT_BUFFER_SIZE	OFCENG
ACD_OVERFLOW_BLOCKS	OFCENG
ACD_TOLL_DELAYED_BILLING	OFCENG
ACMS_NOC_LOG_ON	OFCVAR
ACOU_DATAFILLED	OFCOPT
ACQS_AUDIT_ON	OFCVAR
ACTIVE_DN_SYSTEM	OFCENG
ACT_MAX_DURATION	OFCENG
AC_AUDIT_INTERVAL	OFCSTD
AC_INTRUSION_2X59CA_DCD	OFCVAR
AC_MAX_NUM_ERRORS	OFCSTD
AC_MOREDIGIT_WAIT	OFCVAR
AC_TPB_BSY_RCV	OFCSTD
AC_TPB_BSY_SND	OFCSTD
ADSI_RAM_BASED_TONE	OFCOPT
AIN_ACTIVE	OFCENG
AIN_MAX_SERIAL_TRIGGERS	OFCENG
AIN_NUM_EXT_BLKS	OFCENG
AIN_NUM_PROCESSING_EXT_BLKS	OFCENG
AIN_OFFICE_TRIGGRP	OFCENG
AIN_OFFICE_TRIGGRP	OFCVAR
AIN_T1_TIMER	OFCENG
ALLOC_UNIV_EXT_BLK	OFCENG

ALLOW_RINGING_ON_TIP_SIDE	OFCENG
ALL_ACD_LOGIN_IDS_VALID	OFCENG
ALT_LIT_RES_NUM_FAILS_TO_SET	OFCENG
ALT_LIT_RES_NUM_PASSES_TO_CLR	OFCENG
ALT_TTT_USAGE_PERCENTAGE	OFCENG
ALT_TTU_USAGE_PERCENTAGE	OFCENG
AMA_EBCDIC_CONVERT	OFCENG
AMA_FAILURE_FREE_CALL	OFCENG
AMA_FAILURE_ROUTE_POSITION	OFCVAR
AMA_LONG_DUR_AUDIT_INTERVAL	OFCENG
AMREP_ACTIVE	OFCOPT
ANI_IN_SMDR	OFCVAR
APPLY_PATCHES_BY_SEQUENCE	OFCENG
APS_REPORT_ALL_CALLS	OFCVAR
AQ_CLD_NUM_ON_NC	OFCOPT
ARI_CDR_VALUE	OFCVAR
AR_BLOCK_PRIVATE_RES	OFCENG
AR_BLOCK_PRIVATE_CTX	OFCENG
AR_DDN_LINE_OR_OFFICE	OFCENG
ASCS_DISABLE_LEVEL	OFCVAR
ASCS_MONITOR_DELAY	OFCVAR
ASCS_NOALARM_THRESHOLD	OFCVAR
ASCS_NOSEND_THRESHOLD	OFCVAR
ASCS_ROUTE_INDEX	OFCVAR
ASCS_TRUNK_TIMEOUT	OFCVAR
ASR_AUDIT_TIME	OFCVAR
ASR_CUSTGRP	OFCVAR
ATTLOG	OFCENG
ATT_NOSTART_DIALS	OFCSTD
AUDHIGHFREQ	OFCSTD
AUDIT_INTERVAL	OFCSTD
AUDLOWFREQ	OFCSTD
AUDMEDFREQ	OFCSTD
AUTO_ASSIGN_DNH_GRPNUM	OFCVAR
AUTO_ASSIGN_DNH_RANGE	OFCVAR
AUTO_SA_TIMEOUT	OFCVAR
AUXCP_CPU_SHARE	OFCENG
AVG_NUM_TGS_PER_OHCBQCALL	OFCENG
B911_3WC_ALLOWED	OFCENG
BACKUP_METER_FREQUENCY_LINES	OFCENG
BACKUP_METER_FREQUENCY_TRUNKS	OFCENG
BCS_NUMBER	OFCSTD
BC_CHECKING_SCOPE	OFCENG
BELL_ANI_ALARM_ID	OFCENG
BELL_ANI_INTERCEPT_ID	OFCENG

BICRELAY_NUM_SIMUL_TESTS	OFCVAR
BICRELAY_XLCM_TEST_SCHEDULE	OFCVAR
BLOCK_0_INF_INW_CALLS	OFCVAR
BLOCK_555_DIGITS	OFCENG
BLOCK_D_E_DIGITS	OFCENG
BRI_CLIP_GENERALLY_AVAILABLE	OFCENG
BTUP_EMERG_ANNC	OFCVAR
BTUP_INTL_DGT_PREFIX	OFCENG
BTUP_NETWK_ID	OFCENG
BTUP_PARTIAL_CLI	OFCENG
BTUP_VER_IND	OFCENG
BT_MCI_TIMER	OFCVAR
BUFFER_THRESHOLDED_REPORTS	OFCVAR
C11_EXPANSION	OFCENG
C11_OUTG_EXPANSION	OFCENG
C12_EXPANSION	OFCENG
C12_OUTG_EXPANSION	OFCENG
C12_PLUS_OUTG_EXPANSION	OFCENG
C7UP_RSC_LOG_THRESHOLD	OFCVAR
C7_CHGOVER_SLMPR_THRESHOLD	OFCVAR
C7_NACK_ERROR_SLMPR_THRESHOLD	OFCVAR
C7_SLMPR_ALARM_ON	OFCVAR
C7_SU_ERROR_SLMPR_THRESHOLD	OFCVAR
CABLE_LOCATE_TIMEOUT	OFCENG
CABLE_SHORT_TIMEOUT	OFCENG
CALL_CONTROL_DEFAULTS	OFCVAR
CALL_TRF	OFCOPT
CALL_REPORT_FORMAT	OFCVAR
CAMA_SUSP_CALL_ALLOWED	OFCVAR
CARD_X53	OFCSTD
CASUAL_FEATURES_OFF	OFCOPT
CCMTR_FAILURE_FREE_CALL	OFCENG
CCS7_H0H1_RCP	OFCOPT
CCTO_COMB_BILL	OFCOPT
CCW_ACTIVE	OFCOPT
CCW_AS_LINE_OPTION	OFCVAR
CC_ENGLEVEL_WARNING_THRESHOLD	OFCENG
CC_REX_SCHEDULED_HR	OFCENG
CDC_RESTRICTION_ACTIVE	OFCENG
CDIV_EXT_BLOCKS	OFCENG
CDIV_SDN_XLA	OFCVAR
CDO_ROUTE	OFCVAR
CDR_100_BYTE_FORMAT	OFCENG
CDR_FORMAT	OFCENG
CDS_DN_CHECK	OFCVAR

CFD_EXT_BLOCKS	OFCENG
CFW_EXT_BLOCKS	OFCENG
CFX_SEPARATE_KEYLIST_FEATURE	OFCENG
CFZ_EXT_BLOCKS	OFCENG
CHANNEL_UNIT_601_PRESENT	OFCSTD
CHARGE_UPDATE_FREQUENCY	OFCENG
CHECK_FIELD_NAME	OFCSTD
CHECK_FOR_TMEM	OFCVAR
CHIPS_RETRY	OFCVAR
CHIPS_TIMEOUT	OFCVAR
CIRCUIT_QUERY_AUDIT_START_TIME	OFCENG
CIRCUIT_TEST_NUMBER_MESSAGES	OFCVAR
CKT_LOC	OFCOPT
CLF_ACCESS_CODE	OFCVAR
CLI_NATIONAL_PREFIX	OFCENG
CMAJALARM	OFCVAR
CMC_REX_SCHEDULED_HR	OFCENG
CMINALARM	OFCVAR
CNDB_ON_POTS	OFCVAR
CND_ON_SMS_REQD	OFCOPT
COINDISPOSAL	OFCENG
COIN_DTF_TOTALIZER_RESET	OFCVAR
COIN_OPERATOR_RELEASED_ON_OA	OFCVAR
COIN_RETAIN_ON_OA	OFCVAR
COMMAND_SCREEN	OFCENG
CONSOLE_SILO_CHARS	OFCSTD
CONSOLE_SILO_RECORDS	OFCSTD
CONTINUOUS_RETRY_TIMERS	OFCVAR
COPP_RELAY_OPEN_TIME	OFCENG
COT_ANNOUNCEMENT_TYPE	OFCENG
CPERRORTHRESHOLD	OFCENG
CPM_EXTENDED	OFCENG
CPSTACKSIZE	OFCSTD
CREATE_PARTIAL_800_AMA	OFCVAR
CRS_PRU_POOL1_SIZE	OFCENG
CRS_PRU_POOL2_SIZE	OFCENG
CRS_PRU_POOL3_SIZE	OFCENG
CRS_SUBRU_POOL1_SIZE	OFCENG
CRS_SUBRU_POOL2_SIZE	OFCENG
CRS_SUBRU_POOL3_SIZE	OFCENG
CRS_SUBRU_POOL4_SIZE	OFCENG
CSLINK_ALARM_THRESHOLDS	OFCENG
CUG_REGION	OFCSTD
CUSTOMER_DATA_CHANGE_LOGS	OFCVAR
CUSTOMER_GROUP_IBNGRP_OM_COUNT	OFCENG

CUTOFF_ON_DISC_TIME	OFCVAR
CWT_TIMEOUT	OFCVAR
CWT_TONE_LENGTH	OFCVAR
DAILY_ISDN_LAYER2_PEG_AUDIT_TIME	OFCVAR
DATA_CALL_SMDR	OFCVAR
DATA_COS	OFCENG
DB_MAX_SIZE	OFCENG
DCH_BD_STATMUX_RATIO	OFCENG
DCM_PARITY_FILTER	OFCSTD
DCND_TIMERS	OFCENG
DCT_MEM_LIMIT	OFCENG
DCT_TEST_CALL_SPILL	OFCVAR
DEBUG_HUNT_SWERRS	OFCENG
DEFAULTLANGUAGE	OFCENG
DEFAULT_BEARER_CAPABILITY	OFCENG
DEFAULT_CARRIER_OR_TREAT	OFCENG
DEFAULT_COMMANDCLASS	OFCENG
DEF_AMR5_CAT_CODE	OFCENG
DEPREC_INTER_DIGIT_TIMING	OFCSTD
DIAGALARM	OFCVAR
DIGIT_COL_OFFICE_CODE	OFCSTD
DIRPKILL_IN_EFFECT	OFCSTD
DIRP_PFILE_AUDIT	OFCENG
DISCTO_TIMEOUT_VALUE	OFCENG
DISC_TIME_BILLED	OFCENG
DISKLOGMEMORY	OFCVAR
DIST_CWT_TONE	OFCVAR
DIS_LKD_CKT	OFCOPT
DMSBUS_POLL_FREQUENCY	OFCENG
DM_HIT_TIME	OFCENG
DM_PCM_ENCODING	OFCENG
DND_ROUTE	OFCVAR
DNLPIC_MAX_NUM_DN_TUPLES	OFCENG
DNPIC_MAX_NUM_DN_TUPLES	OFCENG
DRAM_BARGE_IN	OFCENG
DSR_OFFICE	OFCOPT
DTSR_AUTO_DEACTIVATION_ENABLE	OFCENG
DTULDINFO	OFCVAR
DUMP_RESTORE_IN_PROGRESS	OFCSTD
E2ALINKEQP	OFCENG
E911_AUD_RING_FROM_PSAP	OFCENG
E911_CHECK_DEFAULT_ESN	OFCVAR
E911_LDT_PSAP_SW_STATUS	OFCENG
E911_LOCAL_ACCESS_ROH_TONE_TIME	OFCENG
E911_NUMBER_OF_FDBS	OFCENG

E911_PSAPS_USING_1_INFO_DIGIT	OFCSTD
E911_PSAP_DISCONNECT_TIME	OFCVAR
E911_PSAP_OFFHK_ALARM_TIME	OFCVAR
E911_PSAP_REC_PRE_WK_TIME	OFCSTD
EADAS24H_BUFFER_SIZE	OFCENG
EADAS30M_BUFFER_SIZE	OFCENG
EADAS60M_BUFFER_SIZE	OFCENG
EADAS_ENABLED	OFCVAR
EADAS_GENERIC_ID	OFCVAR
EADAS_MPC_AND_LINK	OFCVAR
EADAS_SHORT_XFER_ALLOWED	OFCOPT
EAEO_FOUR_DIGIT_CIC_STATUS	OFCENG
EAEO_REC_1ST_PRE_WK_TIME	OFCSTD
EAEO_REC_2ND_PRE_WK_TIME	OFCSTD
EA_CCIS6_TANDEM_BILL	OFCENG
EA_LATANAME_IN_SERVORD	OFCOPT
EA_OCS_AND_DP_OVLP_NEEDED	OFCENG
EA_OCS_DIGCOL_METHOD	OFCENG
EA_OSS_HOLD_TIMEOUT_MINS	OFCENG
EA_OVERLAP_CARRIER_SELECTION	OFCENG
EA_REC_1ST_PRE_WK_TIME	OFCSTD
EA_REC_MAX_WK_TIME	OFCSTD
EA_REC_SUB_PRE_WK_TIME	OFCSTD
EA_TAB_CICSIZE4_OBSOLETE	OFCENG
EA_TEST_CALL_SPILL	OFCVAR
EA_WITH_CD	OFCENG
EBS_BUZZ_SPLASH_ON	OFCENG
EBS_TO_TRUNK_TRD_TIME	OFCENG
ECORE_FORMAT	OFCVAR
ENABLE_DT_IM_FOR_IBN	OFCOPT
ENET_AVAILABLE	OFCOPT
ENET_MAX_CHANNEL_GROUP	OFCOPT
ENG640M1_SCAN_RATE	OFCVAR
ENHANCED_COMMAND_SCREENING	OFCOPT
ENHANCED_DEAD_SYSTEM_ALARM	OFCENG
ENHANCED_PASSWORD_CONTROL	OFCOPT
ENHANCED_TRUNK_PREROUTE_ABANDON	OFCVAR
ERL_SPT	OFCOPT
ESAENTRY	OFCENG
ESAEXIT	OFCENG
ESG_ALARM	OFCVAR
ESG_RERING_TIME	OFCVAR
EXPANDED_INBAND_PERMITTED	OFCOPT
EXPIRED_PASSWORD_GRACE	OFCENG
FACALARM	OFCVAR

FEATURE_ADMIN_CHARGE	OFCENG
FGD_ANI_SMDR_REQD	OFCVAR
FGD_TEST_CALL_ACK_OFFHOOK	OFCVAR
FIVMIN_SNAPSHOT_ENABLED	OFCOPT
FLEXIBLE_DIGIT_ANALYSIS	OFCOPT
FLOW_CONTROL_TIMEOUT	OFCENG
FOT_DIGITS	OFCVAR
FRB_RINGING_TIME	OFCOPT
FREEZE_ON_REINIT	OFCSTD
FREE_NUMBER_DENIAL	OFCOPT
FRIU_BILLING_COUNT_FORMAT	OFCOPT
FRR_ROUTING_RULES_OVERRIDE	OFCENG
FTRQ0WAREAS	OFCENG
FTRQ0WPERMS	OFCENG
FTRQ16WAREAS	OFCENG
FTRQ16WPERMS	OFCENG
FTRQ2WAREAS	OFCENG
FTRQ2WPERMS	OFCENG
FTRQ32WAREAS	OFCENG
FTRQ32WPERMS	OFCENG
FTRQ4WAREAS	OFCENG
FTRQ4WPERMS	OFCENG
FTRQ8WAREAS	OFCENG
FTRQ8WPERMS	OFCENG
FTRQAGENTS	OFCENG
FTRQAUDIT	OFCENG
FXOGS_REMBSY_BITS	OFCENG
GATEWAY_CDR_RECORD_ID	OFCOPT
GENERATE_CALL_RECORDING_LOGS	OFCVAR
GENERATE_ICAMA_LOG_ENTRY	OFCVAR
GENERATE_ITOPS_LOG_ENTRY	OFCVAR
GEN_CDR300_ISDN_LOGS	OFCVAR
GEN_CDR300_MIDNT_LOGS	OFCVAR
GEN_CDR300_SYNC_LOGS	OFCVAR
GLOBAL_CUTOFF_ON_DISCONNECT	OFCENG
GOS_NUM_RU	OFCENG
GROUND_START_DELAY	OFCENG
GRP_NUM_FEAT_CTRL	OFCOPT
GUARANTEED_TERMINAL_CPU_SHARE	OFCENG
HM_INTERPULSE_TIME	OFCSTD
HM_PULSE_TIME	OFCSTD
HNT_SO_SIMPLIFICATION	OFCOPT
IAA_REQUESTED	OFCVAR
IBN_CFW	OFCOPT
IBN_DATA_LINE_SPLIT	OFCOPT

ICAMA_ANI_FAILURE_ACTION	OFCVAR
ICAMA_REQUESTED	OFCVAR
ICT_DN_CHECK	OFCVAR
ILR_OPTIONS	OFCOPT
IMAJALARM	OFCVAR
IMINALARM	OFCVAR
IMMEDIATE_RING_ENABLE	OFCENG
IMMED_PRE_DIAL_DELAY	OFCSTD
IMP_DELAY	OFCENG
INTERCOM	OFCOPT
INTL_GATEWAY_OFFICE	OFCENG
INTL_ICR_REQUESTED	OFCVAR
INTL_INTRASWITCHING	OFCOPT
INTL_LOCAL_OFFICE	OFCENG
INTL_RU_OVFL_ACTION	OFCVAR
INTL_SILENT_SWITCHMAN_TMO	OFCVAR
INTRALATA_DEFAULT_USE_TRKLATA	OFCENG
INWATS_CCIS_OSO_ENABLE	OFCENG
INWATS_LOCAL_TERMINATION	OFCENG
INWATS_ON_AMA	OFCENG
ISDD_OM_THRESHOLD	OFCSTD
ISDN_DPN_PH_GENERIC	OFCENG
ISDN_INFO_EXT_REC	OFCOPT
ISDN_LOSS_OF_SIG_DGASP_ALARM	OFCVAR
ISDN_LOSS_OF_SIG_NO_DGASP_ALARM	OFCVAR
ISDN_LOSS_OF_SYNC_WORD_ALARM	OFCVAR
ISDN_NET_1A_INTERWORKING	OFCENG
ISDN_NT1_TEST_MODE_ALARM	OFCVAR
ISDN_PERFORMANCE_MON_ALARM	OFCVAR
ISDN_T_SYNC_LOST_ALARM	OFCVAR
ISGBDOM_BLKSIZE	OFCENG
ISUP_SUBGRP_GLARE_AVAILABLE ·	OFCOPT
ITOPS_ACCOUNT_CODES	OFCENG
ITOPS_CHG_DISPLAY_DECIMAL	OFCVAR
ITOPS_ENHANCED_ACD	OFCENG
ITOPS_HIGH_TRAFFIC_START_TIME	OFCENG
ITOPS_LOW_TRAFFIC_START_TIME	OFCENG
ITS_NUM_CONCURRENT_SESSIONS	OFCENG
ITS_TEST_SESSION_TIMEOUT	OFCVAR
JPNI_ACM_ALWAYS_EXPECTED	OFCVAR
KEYSET_SRT	OFCOPT
KSET_INTER_GRP_DISP	OFCENG
KSHUNT_EXT_BLOCKS	OFCENG
KT_SELECTION_OPTION	OFCVAR
LAMA_OFFICE	OFCOPT

LAYER2_PEGS_THRESHOLD_LEVEL	OFCVAR
LAYER2_SAPI0_ABN_PEGS_THLD	OFCVAR
LAYER2_SAPI16_ABN_PEGS_THLD	OFCVAR
LAYER2_SERVICE_DSRPT_THLD	OFCVAR
LCARDALARM	OFCVAR
LCDI_SYNC_BURST	OFCENG
LCDI_SYNC_DELAY	OFCENG
LCDREX_CONTROL	OFCVAR
LCDR_SEC_ANI_TEST	OFCENG
LCML_SYNC_BURST	OFCENG
LCML_SYNC_DELAY	OFCENG
LCM_PM_MSG_CNT	OFCOPT
LINE_CARD_MONITOR	OFCVAR
LINE_WITH_CWT_CAN_FLASH	OFCVAR
LN_LONG_PARTIAL_DIAL_TIME	OFCENG
LN_PERM_SIG_TIME	OFCENG
LN_SHORT_PARTIAL_DIAL_TIME	OFCENG
LOCAL_COIN_INIT_TIME	OFCVAR
LOCAL_COIN_OVERTIME_FEATURE	OFCOPT
LOCAL_COIN_OVER_TIME	OFCVAR
LOG_CENTRAL_BUFFER_SIZE	OFCVAR
LOG_DEVICE_BUFFER_SIZE	OFCVAR
LOG_OFFICE_ID	OFCVAR
LOG_PRIORITIZATION	OFCENG
LONG_CALL_CDR_START	OFCENG
LONG_TIMED_RELEASE_DISC_TIME	OFCENG
LOOP_AROUND_TIMEOUT_IN_MIN	OFCVAR
LOOP_BACK	OFCOPT
LOWSPR_ALARM_ON_CARD_SPR_BASIS	OFCENG
LSCM_SYNC_BURST	OFCENG
LSCM_SYNC_DELAY	OFCENG
LSETALARM	OFCVAR
MARKET_OF_OFFICE	OFCENG
MAXIMUM_ONHK_FLASH	OFCSTD
MAXNUCS	OFCENG
MAXSTS	OFCENG
MAX_ACDMIS_SESSIONS	OFCOPT
MAX_BCLID_DATA_LINKS	OFCOPT
MAX_BRA_LINES	OFCOPT
MAX_CCS7_LINKS	OFCOPT
MAX_CMAP_SESSIONS	OFCENG
MAX_COLDS	OFCSTD
MAX_DATA_LINES	OFCOPT
MAX_DTA_ON_SWITCH	OFCENG
MAX_EMERG_ICI	OFCSTD

MAX_IBN_LINES	OFCOPT
MAX_LAPB_TERMINALS	OFCOPT
MAX_LAPD_TERMINALS	OFCOPT
MAX_LINES	OFCENG
MAX_LOCKED_TRAPS	OFCSTD
MAX_MADN_MEMBERS_PER_LSG	OFCENG
MAX_MBG_LINES	OFCOPT
MAX_NO_OF_3_PORTS_IN_CHAIN	OFCENG
MAX_NO_OF_ALT_TEST_PROCS	OFCENG
MAX_NO_OF_TRANS_ID	OFCENG
MAX_NUM_ACD_AGENTS_PER_SWITCH	OFCOPT
MAX_NUM_ECM_ACDEVENT	OFCOPT
MAX_NUM_ECM_CTXEVENT	OFCOPT
MAX_NUM_ECM_RESOURCE	OFCOPT
MAX_NUM_ECM_ROUTING	OFCOPT
MAX_NUM_ECM_SVC	OFCOPT
MAX_NUM_ECM_TPAC	OFCOPT
MAX_NUM_ECM_TPAC	OFCSTD
MAX_NUM_ECM_TPCC	OFCOPT
MAX_NUM_WIDEBAND_CALLS	OFCENG
MAX_PDATA_LINES	OFCOPT
MAX_PRI_LINKS	OFCOPT
MAX_PROGRAMMERS	OFCENG
MAX_RCUS_PER_SMU	OFCOPT
MAX_RES_LINES	OFCOPT
MAX_RMAP_SESSIONS	OFCVAR
MAX_ROUTE_QUEUED_PER_TRKGRP	OFCENG
MAX_SANITY_TIMEOUTS	OFCSTD
MAX_SDPOOL_NO	OFCENG
MAX_SUBSCRIBERS_IN_VLR	OFCENG
MAX_TRKMEM_PER_SWITCH	OFCOPT
MAX_TRUNKS_IN_ACB_SCAN	OFCENG
MAX_TRUNK_METER_BLOCKS	OFCENG
MAX_WARMS	OFCSTD
MCARDALARM	OFCVAR
MCCS_SEQ_CALL_LIM	OFCVAR
MCCS_SEQ_QUERY	OFCVAR
MCTIMER	OFCVAR
MCT_TONE	OFCVAR
METER_AUDIT	OFCENG
METER_PULSE_MISMATCH_THRESHOLD	OFCVAR
METER_PULSE_MONETARY_RATE	OFCVAR
MF_LAST_DIGIT_DELAY	OFCENG
MINIMUM_CHARGE_DURATION	OFCENG
MINIMUM_CLI_LENGTH	OFCENG

MINIMUM_ONHK_FLASH	OFCSTD
MIN_NUMBER_OF_DIGS_RPTD_ON_OVLP	OFCENG
MIN_PASSWORD_LENGTH	OFCENG
MIN_REC_DP_PULSE_WD	OFCSTD
MK_BRK_DP_OUTPULSING	OFCSTD
MODEM_DIALBACK_CONTROL	OFCOPT
MONITOR_TABLE_ACCESS	OFCOPT
MSETALARM	OFCVAR
MTA_MB_COUNT	OFCVAR
MTA_RLM_TIME	OFCVAR
MTA_RMM_TIME	OFCVAR
MTCBASE_EXTRAMSG	OFCSTD
MTCBASE_SCPD	OFCSTD
MTULDINFO	OFCVAR
N5_ANSWER_PROP_DELAY	OFCOPT
N5_CLB_TIMER	OFCENG
N5_USING_UTR	OFCENG
N6_CLB_TIMER	OFCENG
NACD_BRDCAST_INTERVAL	OFCENG
NACD_RI_DELTA_PARM	OFCENG
NATIONAL_COUNTRY_CODE	OFCENG
NCCBS	OFCENG
NDIAGALARM	OFCVAR
NETFAB_DAILY_DURATION	OFCVAR
NETFAB_SCHEDULE_ENABLED	OFCVAR
NETFAB_SCHEDULE_TIME	OFCVAR
NETWORK_ACTIVE	OFCOPT
NETWORK_ELEMENT_ID	OFCENG
NEW_CF6P_CCT	OFCSTD
NEW_PS_PIPE	OFCSTD
NFA_ANSWER_DETECT_TIME	OFCENG
NFA_IMPLCT_BYPASS_UTR	OFCVAR
NFA_INVERTED_WINK_DURATION	OFCENG
NFA_PRE_DIAL_DELAY_TIME	OFCENG
NMS_ACKNOWLEDGEMENT_TIMEOUT	OFCENG
NMULTIBLKS	OFCENG
NODE	OFCENG
NODEREXCONTROL	OFCVAR
NOISE_MEAS	OFCOPT
NON_DMS_NAME_LOOKUP	OFCVAR
NOP_DNA_DEFAULT_ACCESS	OFCENG
NOP_USERID_SECURITY_ACCESS	OFCENG
NOS_QUANTITY_OF_SVCS	OFCENG
NO_ANS_CALLS_ONTAPE	OFCENG
NO_ESB_RINGBACK_CYCLES_IDENT	OFCSTD

NO_ESB_RINGBACK_CYCLES_NONIDENT	OFCSTD
NO_LOCAL_COIN_EXT_BLKS	OFCENG
NO_OCCTS_OM_REGISTERS	OFCENG
NO_OF_CLONE_TIDS	OFCENG
NO_OF_CRITICAL_FTR_DATA_BLKS	OFCENG
NO_OF_FTR_CONTROL_BLKS	OFCENG
NO_OF_FTR_XLA_BLKS	OFCENG
NO_OF_HIS_CONTROL_BLKS	OFCENG
NO_OF_HIS_DATA_BLKS	OFCENG
NO_OF_LARGE_EXT_BLKS	OFCENG
NO_OF_LARGE_FTR_DATA_BLKS	OFCENG
NO_OF_MEDIUM_EXT_BLKS	OFCENG
NO_OF_MEDIUM_FTR_DATA_BLKS	OFCENG
NO_OF_PVN_EXTBLK	OFCENG
NO_OF_PVN_TERM_EXTBLK	OFCENG
NO_OF_SC_EXT_BLKS	OFCENG
NO_OF_SMALL_EXT_BLKS	OFCENG
NO_OF_SMALL_FTR_DATA_BLKS	OFCENG
NO_OF_VCDR_REC_UNITS	OFCENG
NO_OF_XLARGE_EXT_BLKS	OFCENG
NO_RING_ON_TIP_FOR_LM	OFCENG
NO_TFAN_OM_REGISTERS	OFCENG
NRS_AUD_DELAY	OFCENG
NRS_MP	OFCOPT
NRTEST	OFCOPT
NSS_DBCP_TCN_BLOCK_CALL	OFCVAR
NSS_DBCP_TCN_RESP_TIMEOUT	OFCVAR
NSS_RDD_REPLDIGS_LENGTH_A	OFCENG
NSS_RDD_REPLDIGS_LENGTH_B	OFCENG
NTC_CALL_DURATION_ADJ	OFCVAR
NTC_CONN_REATEMPTS	OFCVAR
NTC_REATTEMPTS	OFCVAR
NTC_RNGBACK_TIME	OFCENG
NTC_TIME_BTW_CONN_REATTEMPTS	OFCVAR
NTC_TIME_BTW_REATTEMPTS	OFCVAR
NTC_XLATIONS	OFCVAR
NUMBER_OF_CDR_UNITS	OFCENG
NUMBER_OF_DIGITS_PER_DN	OFCENG
NUMCALLPROCESSES	OFCENG
NUMCPWAKE	OFCENG
NUMECCBS	OFCENG
NUMIBNCQEXTBLK	OFCENG
NUMLONGBUFFERS	OFCENG
NUMOHCBQTRANSBLKS	OFCENG
NUMOUTBUFFS	OFCSTD

NUMPERMEXT	OFCENG
NUMTLBS	OFCENG
NUM_CALLREC_STREAMS	OFCENG
NUM_DCR_EXT_BLKS	OFCENG
NUM_DCR_NP_ACCESS	OFCENG
NUM_ENGR_NWM_TRKGRP_CTRLS	OFCENG
NUM_IBN_IXLA_EXT_BLOCKS	OFCENG
NUM_ICAMA_RECORDING_UNITS	OFCENG
NUM_ICT_EXT_BLKS	OFCENG
NUM_INTL_RECORDING_UNITS	OFCENG
NUM_ISUP_EXT_BLKS	OFCENG
NUM_MTR_EXT_BLOCKS	OFCENG
NUM_OF_CCIS_INWATS_BLOCKS	OFCENG
NUM_OF_INWATS_EXT_BLOCKS	OFCENG
NUM_OF_NSC_EXT_BLK	OFCENG
NUM_OF_NT_RECORDING_UNITS	OFCENG
NUM_OF_RTEB_EXTBLKS	OFCENG
NUM_RC_EXT_BLKS	OFCENG
NUM_SME_CONTROL_BLOCKS	OFCENG
NUM_SME_DATA_BLOCKS	OFCENG
NWMTGBLU	OFCENG
NWM_STR_CTRL	OFCOPT
NX25_RR_EACH	OFCENG
OAM_HW_PRESENT	OFCENG
OCCTS_DEFAULT_REG_LOG	OFCVAR
OCCTS_ENHANCED_FEATURE	OFCENG
OCCTS_IN_MAX_NUMBER	OFCENG
OCCTS_OUT_MAX_NUMBER	OFCENG
OFFICETYPE	OFCSTD
OFFICE_CLLI_NAME	OFCENG
OFFICE_DS_FUNCTION_NUMBER	OFCENG
OFFICE_DS_SQD_SAMPLING_RATE	OFCENG
OFFICE_ID_ON_AMA_TAPE	OFCENG
OFFICE_ID_ON_CDR_TAPE	OFCENG
OFFICE_LANGUAGE	OFCENG
OMHISTORYON	OFCOPT
OMINERLANGS	OFCOPT
OMPRTFORMAT	OFCENG
OMTAPESUPPRESSION	OFCENG
OMTELCOLABEL	OFCENG
OMXFR	OFCENG
OPM_CHARGE_DURATION	OFCSTD
OPM_CHARGE_START_TIME	OFCSTD
OPM_DISCHARGE_TIME	OFCSTD
OPM_MIN_CHG_VOLT	OFCSTD

OPM_VOLT_TST_CHG	OFCSTD
OPM_VOLT_TST_DIS	OFCSTD
OPM_VOLT_TST_LTU_ADJUSTMENT	OFCSTD
OPM_VOLT_TST_OCC	OFCSTD
OPTIONAL_SLU_FEATURE	OFCOPT
ORIGS_TO_BLEED	OFCENG
ORIGTHRES	OFCENG
ORIG_ARTER_FREQUENCY	OFCVAR
ORIG_ARTER_LEVEL	OFCVAR
ORIG_INCREASE_SPM	OFCVAR
OS_CALLS_WAITING_Q_SIZE	OFCENG
OS_CT_SEARCH_DEPTH	OFCENG
OS_NUM_CALL_QUEUES	OFCENG
OS_NUM_POSITIONS	OFCENG
PASSWORD_ENCRYPTED	OFCOPT
PASSWORD_LIFETIME	OFCENG
PATCH_BUNDLE	OFCENG
PERFORMANCE	OFCVAR
PER_CALL_GND_LOOP_TEST	OFCVAR
PER_OPC_LOGDEV_BUFFER_SIZE	OFCVAR
PHINFO_AUDIT_TIME	OFCENG
PI_CALL_TOPO	OFCOPT
PLUS48V_OVERTIME_COIN_TEST	OFCENG
PM180	OFCSTD
PMSTAT_OM_CONTROL	OFCVAR
PM_PCM_PROTOCOL_SELECTION	OFCENG
POTS_CFW	OFCOPT
POTS_SIMULATE_1A	OFCVAR
PPMBUFFS	OFCENG
PREEMPTABLE_CONF6_THRESHOLD	OFCENG
PRE_ANI_SPILL_DELAY	OFCSTD
PRE_ROUTE_ABANDON_TRK116_LOG	OFCVAR
PRE_SND_WK_DD_TIME	OFCSTD
PRINTOUT_OF_CALLS	OFCVAR
PRINT_NET102_LOGS	OFCENG
PRI_LINK_PRICING	OFCOPT
PROMPT_HUNT_MEM_LCC	OFCVAR
PSPDALARM	OFCVAR
PSTN_GT_SIZE	OFCENG
QCUST_CMD	OFCOPT
QDIAGALARM	OFCVAR
QMSFM_NUM_QUEUES	OFCENG
QMSFM_NUM_SERVICES	OFCENG
QMSFM_NUM_STUDY_REG	OFCENG
R2DIG_ABNRML_DURING_IDLE	OFCENG

R2DIG_ABNRML_DURING_OPLS	OFCENG
R2DIG_ANSWER_FLTR_TIME	OFCENG
R2DIG_BLK_FLTR_TIME	OFCENG
R2DIG_CD_BITS	OFCENG
R2DIG_CLR_BCK_FLTR_TIME	OFCENG
R2DIG_CLR_FWD_FLTR_TIME	OFCENG
R2DIG_HOLD_SZ_IN_GLARE	OFCENG
R2DIG_IDLE_AFTER_GLARE	OFCENG
R2DIG_IDLE_FLTR_TIME	OFCENG
R2DIG_OG_CSM_FLTR_TIME	OFCENG
R2DIG_RE_ANS_FLTR_TIME	OFCENG
R2DIG_SEIZE_ACK_FLTR_TIME	OFCENG
R2DIG_SEIZE_FAILURE_TIME	OFCENG
R2DIG_SEIZE_FLTR_TIME	OFCENG
R2DIG_WAIT_FOR_ANSWER	OFCENG
R2DIG_WAIT_FOR_SEIZE_ACK	OFCENG
R2SM_TIMEOUT	OFCENG
R2T3_WAIT_FOR_ANSWER_AUTO	OFCENG
R2T3_WAIT_FOR_ANSWER_SEMIAUTO	OFCENG
R2_ANI_DENY	OFCVAR
R2_AN_ANSWER_FLTR_TIME	OFCENG
R2_AN_BLK_FLTR_TIME	OFCENG
R2_AN_CLR_BCK_FLTR_TIME	OFCENG
R2_AN_CLR_FWD_FLTR_TIME	OFCENG
R2_AN_IDLE_FLTR_TIME	OFCENG
R2_AN_OG_CSM_FLTR_TIME	OFCENG
R2_AN_RE_ANS_FLTR_TIME	OFCENG
R2_AN_RLS_ACK_FLTR_TIME	OFCENG
R2_AN_RTS_GUARD_TIME	OFCENG
R2_AN_SEIZE_FLTR_TIME	OFCENG
R2_AN_WAIT_BEFORE_CF	OFCENG
R2_AN_WAIT_FOR_ANSWER	OFCENG
R2_AN_WAIT_FOR_IDLE	OFCENG
R2_AN_WAIT_FOR_RLS_ACK	OFCENG
RAG_QUE_LEN	OFCVAR
RAG_RECALL_TIMEOUT	OFCVAR
RASL_PROTOCOL	OFCOPT
RATE_PERIOD_SPECIFIC_BILLING	OFCSTD
RATING_SMALLEST_COIN	OFCVAR
RECORD_CLG_NPA_NXX	OFCVAR
RECORD_UNANSWERED_CALLS	OFCVAR
RECOVERY_INTERVAL_AFTER_RELOAD	OFCENG
RECOVERY_INTERVAL_AFTER_WARMCOLD	OFCENG
REC_MAX_DD_TIME	OFCSTD
REC_MAX_WK_TIME	OFCSTD

REC_MIN_DD_TIME	OFCSTD
REC_MIN_WK_TIME	OFCSTD
REC_PRE_DD_TIME	OFCSTD
REC_PRE_WK_TIME	OFCSTD
REMTERMEQP	OFCENG
RES_SO_SIMPLIFICATION	OFCVAR
REVERSE_EC_EQUIP	OFCENG
REVRING	OFCENG
RING_NO_ANSWER_TMO	OFCENG
RLCM_ESAENTRY_BADCSIDE	OFCENG
RLCM_ESAENTRY_BADLINK	OFCENG
RLCM_ESASDUPD_BOOL	OFCENG
RLCM_ESASDUPD_HOUR	OFCENG
RLCM_ESA_NOTIFY_TONE	OFCENG
RLCM_XPMESAEXIT	OFCENG
RLM_INTRA_OPT	OFCOPT
RNG_TMEOUT_NO_OF_SECS	OFCENG
RNG_TMEOUT_TKLN_SECS	OFCENG
RONIXFR	OFCSTD
ROTL_OUT_OF_SERVICE_LEVEL	OFCENG
ROTL_TIME_IN_20MIN	OFCENG
ROUTE_ON_FOT	OFCENG
RP_INTER_SELECTION_TIMER	OFCSTD
RP_INTRA_SELECTION_TIMER	OFCSTD
RP_OVERALL_TIMER	OFCSTD
RSC_ESAENTRY_BADCSIDE	OFCENG
RSC_ESAENTRY_BADLINK	OFCENG
RSC_ESASDUPD_BOOL	OFCENG
RSC_ESASDUPD_HOUR	OFCENG
RSC_ESA_NOTIFY_TONE	OFCENG
RSC_XPMESAEXIT	OFCENG
SAPARMS	OFCENG
SCAI_CONTINUITY_AUDIT_INTERVAL	OFCVAR
SCC2_LOGS	OFCOPT
SCREEN_AC_LOGIDS	OFCENG
SC_OP_ANI_REQ_TIME	OFCENG
SDB_QUERY_TIMEOUT	OFCENG
SDIAGALARM	OFCVAR
SDOC3_ENABLE	OFCOPT
SEAS_BUFFER_VOL	OFCENG
SEAS_LRF_GTT_OCC	OFCVAR
SEAS_LRF_GTT_PER	OFCVAR
SEAS_LRF_MTP_OCC	OFCVAR
SEAS_LRF_MTP_PER	OFCVAR
SEAS_MSG_BLK_NUM	OFCENG

SEAS_MSG_BLK_VOL	OFCENG
SEAS_SEG_SIZE	OFCENG
SEAS_TIME_ZONE	OFCENG
SEAS_UAL_RETRY_COUNT	OFCENG
SEAS_UAL_SEAC_NODE_NAME	OFCENG
SEAS_UAL_SITE_TO_SITE_TIMER	OFCENG
SEAS_UAL_STP_NODE_NAME	OFCENG
SEP_EQUIPPED	OFCENG
SET_TO_UNBALANCE	OFCENG
SHORT_TIMED_RELEASE_DISC_TIME	OFCSTD
SIG_TST	OFCVAR
SILENT_SWITCHMAN_TIMEOUT	OFCENG
SLE_ITEMS_IN_SEGMENT	OFCENG
SLE_LANGUAGE	OFCVAR
SLE_MAX_PROGRAMMERS	OFCENG
SLE_MAX_SEGMENT_COUNT	OFCENG
SLE_TCAP_RESPONSE_TIME	OFCENG
SLE_TRANSACTION_THRESHOLD	OFCENG
SLE_VOICEBACK_PUBLIC_ICM	OFCVAR
SLE_WAKEUP_TIME	OFCENG
SLNETWORK_NAME	OFCVAR
SLVP_RCHD_TIMER	OFCVAR
SMDR_LOG_RPT	OFCVAR
SMDR_OFFICE	OFCOPT
SND_DD_TIME	OFCSTD
SND_DP_WK_TIME	OFCSTD
SND_MF_WK_TIME	OFCSTD
SOUTHBOUND	OFCENG
SO_BULK_DMO	OFCOPT
SO_DID	OFCOPT
SO_ECHO	OFCOPT
SO_PROMPT_FOR_CABLE_PAIR	OFCVAR
SO_PROMPT_FOR_LTG	OFCVAR
SO_RCF	OFCOPT
SPANISH_OUTGOING_RINGING_TIMEOUT	OFCENG
SPCCLITIMEOUT	OFCENG
SPCL_SECURITY_A_DR	OFCVAR
SPDD_DIGIT	OFCENG
SPECIAL_AMA_REPORT	OFCVAR
SPEED_CALL_ACCESS_DIGITS	OFCOPT
SPILL_ANI_9	OFCENG
SPILL_SPB_ON_ES_TRKS	OFCVAR
SPMS_START_OF_MONTH	OFCENG
SPP_MAX_PROGRAMMERS	OFCENG
SRCF_FILE_VOLNAME	OFCVAR

SRDBUPD_SWITCH_ID	OFCENG
SS7_CONGESTION_CONTROL_TIME	OFCENG
SSP_EA_ACKWINK_DELAY_TIME	OFCENG
SSP_NSC_CARRIER_ID	OFCENG
STINV_BLOCK_SIZE	OFCENG
ST_AUDIT_START_TIME	OFCENG
SUPPRESS_ANI_TO_CLID_DISPLAY	OFCENG
SUPPRESS_USERNAME	OFCOPT
SWCT_AMA_PREBILLING	OFCENG
SWHK_FLTR_TIME_400MS_ENABLED	OFCSTD
SWHK_FLTR_TIME_640MS_ENABLED	OFCSTD
SYSLOG_ACCESS	OFCVAR
T108ISDN_TIMEOUT_IN_MINUTES	OFCENG
TABLE_ACCESS_CONTROL	OFCVAR
TABLE_ADJNODE_INUSE	OFCENG
TAPEXLATE	OFCENG
TASINTVL	OFCVAR
TBI_CONNECT_OPR_A	OFCVAR
TBI_FORCE_RELEASE	OFCVAR
TBI_OFFER	OFCVAR
TBI_OPR_TIMEOUT	OFCVAR
TCAPNM_BLK_QUERY_PRIV_DNS	OFCVAR
TCAPNM_INTERLATA_QUERY	OFCVAR
TCMALARM	OFCVAR
TCM_SYNC_LINES	OFCENG
TCM_SYNC_MONITOR_PERIOD	OFCENG
TCM_SYNC_THRESHOLD	OFCENG
TERM_ARTER_FREQUENCY	OFCVAR
TERM_ARTER_LEVEL	OFCVAR
TERM_REV_FREQ_ANN_TIME	OFCSTD
TEST_CALL_AMR_SPILL	OFCVAR
TEST_CALL_II_SPILL	OFCVAR
TEST_CALL_SPILL	OFCVAR
TFAN_DEFAULT_REG_LOG	OFCENG
TFAN_ENHANCED_FEATURE	OFCOPT
TFAN_IN_MAX_NUMBER	OFCENG
TFAN_OUT_MAX_NUMBER	OFCENG
THRESHOLD_IS_SAMPLING	OFCVAR
TIE_ROUTE_INFO_EXT_REC	OFCOPT
TLINK_DELAY	OFCENG
TLINK_DET_TIMEOUT	OFCENG
TLINK_EST_TIMEOUT	OFCENG
TOLL_DIVERSION_SIGNAL	OFCVAR
TOLL_OFFICE_DELAYED_BILLING	OFCENG
TOPS_0PLUS_LOCAL	OFCENG

TOPS_411_RECORD_NPA_IN_AMA	OFCVAR
TOPS_ACCS_ACG	OFCENG
TOPS_ACCS_ACG_SIZE	OFCENG
TOPS_ACCS_MANUAL_VALIDATION	OFCENG
TOPS_ACTS	OFCENG
TOPS_AGS	OFCVAR
TOPS_ASST_POS	OFCENG
TOPS_BRAND_DISPLAY	OFCENG
TOPS_BRAND_INWARDS	OFCENG
TOPS_BRAND_OFFICE	OFCENG
TOPS_CALLS_WAITING_Q_SIZE	OFCENG
TOPS_CALLS_WAITING_SEARCH_DEPTH	OFCVAR
TOPS_CLD_TIME_AND_CHG_NO_ACTS	OFCVAR
TOPS_CROSS_TEAM_ROUTING	OFCVAR
TOPS_DA_PARS_ENABLE	OFCOPT
TOPS_DISPLAY_AWT	OFCVAR
TOPS_DISPLAY_MON	OFCVAR
TOPS_DISPLAY_ST	OFCVAR
TOPS_DUMP_STUDY_REG	OFCVAR
TOPS_EA_DNPC_LOG_GENERATION	OFCVAR
TOPS_EA_INTERLATA_NONOPR_AMA	OFCENG
TOPS_EA_PROCESS_T_SEL	OFCVAR
TOPS_EQUAL_ACCESS_OFFICE	OFCENG
TOPS_EXPANDED_OPRNUM	OFCENG
TOPS_FGB_CC134	OFCVAR
TOPS_FIXED_DURATION	OFCENG
TOPS_GEN_AMA_SET	OFCENG
TOPS_HOLD_LOCAL	OFCVAR
TOPS_INTRUSION_TONE	OFCOPT
TOPS_MANUAL_DATABASE_ORIG	OFCVAR
TOPS_MAN_DATABASE_ORIG_DISPLAY	OFCVAR
TOPS_MAX_OPERATOR_NUM	OFCENG
TOPS_MAX_ORIG_RATE_CENTER	OFCENG
TOPS_MAX_TERM_RATE_CENTER	OFCENG
TOPS_MCCS_BNS	OFCOPT
TOPS_MCCS_CCV	OFCOPT
TOPS_MFADS_OUTPUT_XFR_NUMBER	OFCVAR
TOPS_MFADS_PERIOD	OFCENG
TOPS_MFADS_POLLING_ID	OFCVAR
TOPS_NIGHT_ALARM_ON_POS_BUSY	OFCENG
TOPS_NUMBER_OF_MEMO_PADS	OFCENG
TOPS_NUM_CAMA_RU	OFCENG
TOPS_NUM_OC_EXT	OFCENG
TOPS_NUM_RU	OFCENG
TOPS_NUM_STUDY_REG	OFCENG

TOPS_NUM_TRAFFIC_OFFICES		OFCENG
TOPS_OCCUPANCY_CALC_METHOD		OFCENG
TOPS_OC_ENVIRONMENT		OFCENG
TOPS_OC_REMOTE_BVC		OFCENG
TOPS_OTC_CARRIER_NUMBER		OFCVAR
TOPS_PARS_TONE_LENGTH		OFCVAR
TOPS_PASSWORD_ENABLE		OFCENG
TOPS_PEG_MODE		OFCENG
TOPS_PO_PB_CHARS		OFCOPT
TOPS_QMS_MAX_ACTIVE_CALL_QUEUES		OFCENG
TOPS_SDB_CCV_QUERY_BLK		OFCENG
TOPS_SEL_XFR_OPR_TRK		OFCOPT
TOPS_START_OF_DAY		OFCVAR
TOPS_STATSPAC_PERIOD		OFCENG
TOPS_STATSPAC_POLLING_ID		OFCVAR
TOPS_SUPPRESS_CW		OFCOPT
TOPS_TAC_RECALL		OFCVAR
TOPS_TANDEMED_411_CC009		OFCVAR
TOPS_THIRD_BILL_ACC_REQD_SET		OFCVAR
TOPS_THRESHOLD		OFCENG
TOPS_TRANSFER_TYPES		OFCENG
TOPS_VERIFICATION_BARGE_IN		OFCVAR
TOPS_ZERO_FB_REG		OFCVAR
TOTAL_ROUTE_QUEUED_CALLS		OFCENG
TQMS_MIS_MPC_BUFFS		OFCENG
TRA125M1_SCAN_RATE		OFCVAR
TRA125M2_SCAN_RATE		OFCVAR
TRA250M1_SCAN_RATE		OFCVAR
TRAFFIC_INFO_EXT_REC		OFCOPT
TRAP_THRESHOLD		OFCSTD
TRBQ_EBS_LINE_AFTER_MISDIALS		OFCENG
TRIGDIG_NUM_DGLTR_POOLS	•	OFCENG
TRKLPBK_TIMEOUT_IN_MINUTES		OFCVAR
TRK_MEMSEL_AUDIT_TIME		OFCENG
TRK_OOS_CHK_ON		OFCVAR
TRUNK_QUERY_AUDIT_START_TIME		OFCVAR
TSO_FIRST_STAGE_TIMEOUT		OFCVAR
TSTLN_OP_DELAY		OFCVAR
TTR_SELECTION_OPTION		OFCVAR
TWO_WAY_FOR_AMR5		OFCOPT
TWO_WAY_FOR_OC		OFCOPT
TWO_WAY_FOR_OP		OFCOPT
TYPE_OF_ACCS		OFCENG
TYPE_OF_NETWORK		OFCENG
UCD_QSL_AUDIT_INTERVAL		OFCSTD

UDIAGALARM	OFCVAR
UK_OP_DELAY	OFCENG
UNIQUE_BY_SITE_NUMBERING	OFCENG
UNIVERSAL_AMA_BILLING	OFCENG
USE_ZEROMPOS_FOR_CAMA	OFCENG
USINGSITE	OFCOPT
USP_ENABLED	OFCENG
US_CUG_ENABLED	OFCOPT
VALIDATE_CCITT_LUHN_DIGIT	OFCENG
VARIABLE_STUTTER_DIALTONE_TIMING	OFCVAR
VAR_DN	OFCENG
VCDR_OFFICE	OFCOPT
VCDR_OFFICE_FORMAT	OFCENG
VPN_PREFIX_DIGS	OFCENG
VSLE_PRESENT	OFCOPT
VSN_SIMULATOR_ON	OFCENG
WAKEUP_REREQUEST_DELAY	OFCENG
WAKEUP_RINGING_TMO	OFCENG
WK_DD_PRE_DIAL_DELAY	OFCSTD
WLC_OV_REPORTING	OFCVAR
WLN_DEFAULT_TIMEOUT	OFCVAR
WML_ACCESS_CODE	OFCVAR
WUCR_RINGING_TIMEOUT	OFCENG
XBARCAB1	OFCVAR
XBARCAB2	OFCVAR
XBARSAT1	OFCVAR
XBARSAT2	OFCVAR
XBAR_OVERFLOW_ON	OFCVAR
XID_DESTINATION_ID	OFCVAR
XPM_CSIDE_DMSX	OFCOPT
XPM_MATE_DIAGNOSTICS_AVAILABLE	OFCOPT
XPM_PARITY_THRESHOLD	OFCSTD
ZERO_MINUS_TO_CARRIER	OFCENG
ZERO_PLUS_FEATURE	OFCOPT
ZONE_OF_ORIGIN	OFCENG
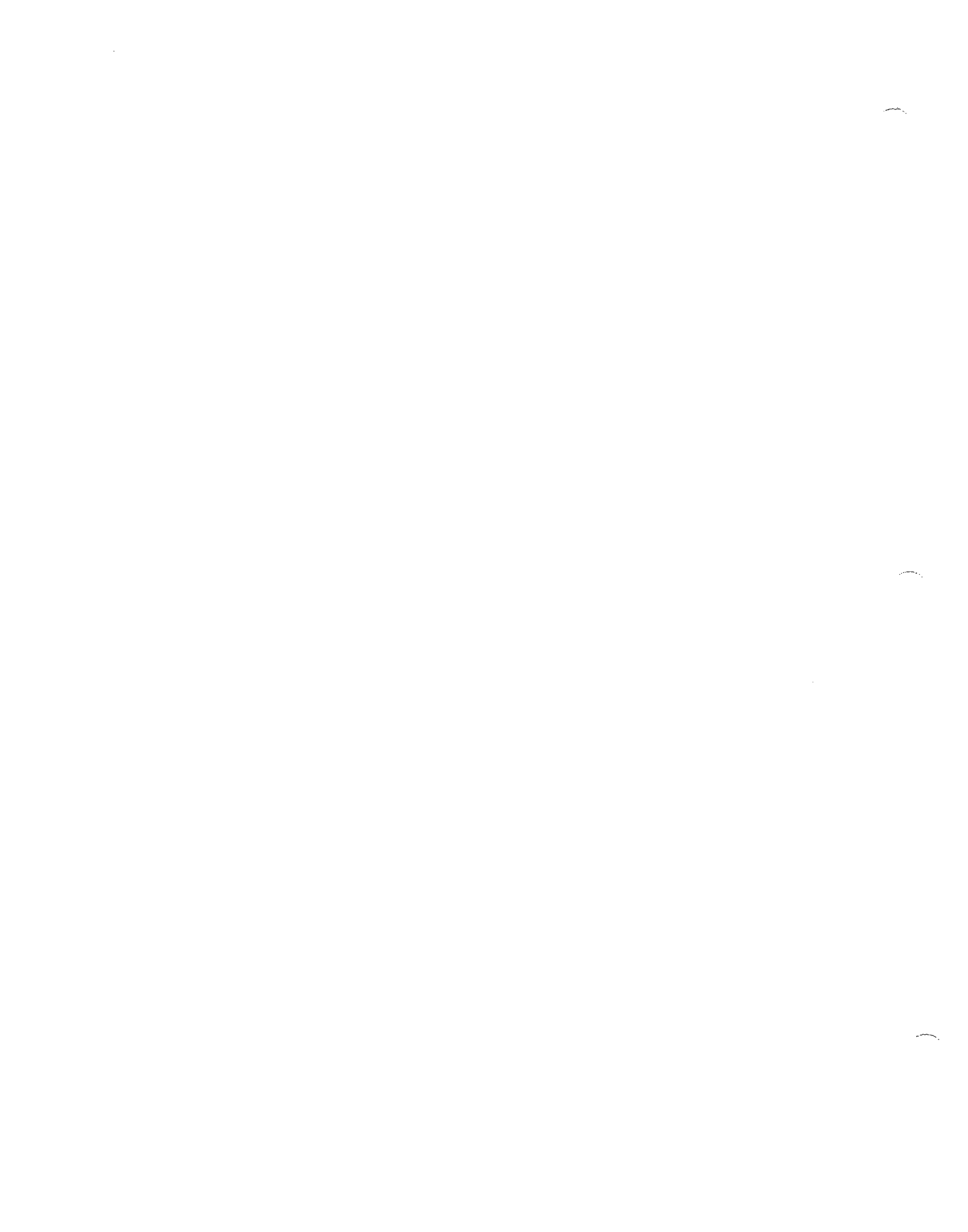
The **NORESTARTSWACT** utility

Description

The no-restart-switch-of-activity (NORESTARTSWACT) utility enables you to activate changes to the values of certain office parameters or to data in certain tables. The total system outage during a NORESTARTSWACT is less than 30 seconds.

The NORESTARTSWACT utility is available only in offices with BCS36 or higher software. It is not available for NT40 offices.

While using this utility, if an error occurs that cannot be corrected by local maintenance personnel, contact the next level of support.

Following a change to the value of an office parameter or to the modification of data in certain tables, one of the following messages may appear:

```
WARNING:     A WARM RESTART MUST BE PERFORMED TO ACTIVATE
             CHANGES TO THE VALUE OF THIS PARAMETER.

WARNING:     A COLD RESTART MUST BE PERFORMED TO ACTIVATE
             CHANGES TO THE VALUE OF THIS PARAMETER.

WARNING:     A RELOAD RESTART MUST BE PERFORMED TO ACTIVATE
             CHANGES TO THE VALUE OF THIS PARAMETER.

WARNING:     ANY TYPE OF RESTART MUST BE PERFORMED TO ACTIVATE
             CHANGES TO THE VALUE OF THIS PARAMETER.

NOTE:        A RELOAD RESTART IS NECESSARY TO ACTIVATE
             A CHANGE OF FORMAT FOR THE AMA STREAM.
```

If one of these messages or a similar message appears, and you want to activate changes to office parameters or tables in the following three lists, the NORESTARTSWACT utility can be used instead of the restart specified in the message.

The NORESTARTSWACT utility can be used with the following office parameters that require a restart to increase or decrease their values:

- CCW_ACTIVE
- CONSOLE_SILO_CHARS
- CONSOLE_SILO_RECORDS
- CPSTACKSIZE
- CUSTOMER_GROUP_IBNGRP_OM_COUNT
- EADAS_24H_BUFFER_SIZE
- EADAS_30M_BUFFER_SIZE
- EADAS_60M_BUFFER_SIZE
- EADAS_SHORT_XFER_ALLOWED
- IBN_CFW
- MAX_ACDMIS_SESSIONS
- MAXNUCS
- MAXSTS
- OFFICETYPE
- OMHISTORYON
- PPMBUFFS

The NORESTARTSWACT utility can be used with the following office parameters that require a restart to decrease their values:

- FTRQAGENTS
- FTRQ0WAREAS
- FTRQ2WAREAS
- FTRQ4WAREAS
- FTRQ8WAREAS
- FTRQ16WAREAS
- FTRQ32WAREAS
- FTRQ0WPERMS
- FTRQ2WPERMS
- FTRQ4WPERMS
- FTRQ8WPERMS
- FTRQ16WPERMS
- FTRQ32WPERMS

The NORESTARTSWACT utility can be used with the following tables:

- CLLI
- CONF3PR
- CRSFMT
- CRSMAP
- DIRPSSYS
- NWMSC
- SCGRP
- SDGRP
- TCAPTRID
- TRKGRP
- TFANIT

Summary of the procedure

The following table summarizes the procedure to modify a parameter or table data using NORESTARTSWACT and the approximate time, in minutes, needed to do each step. The times given for specific steps are elapsed times and not actual run times. Ranges are listed to accommodate different switch configurations, sizes, and problems that may be encountered during the execution of the step.

Step	Description	Approximate time in minutes
1	Verify availability of the NORESTARTSWACT utility on the switch	(unspecified)
2	Make changes to parameter values or table data	(unspecified)
3	Drop sync on the computing module (CM)	2 to 3
4	Restart on the mate of the active switch to activate changes	3 to 5
5	Perform the LIMITED_PRESWACT procedure	15 to 60
6	Perform the NORESTARTSWACT procedure	(unspecified)
7	Perform the POSTSWACT procedure	15 to 60
8	Sync the CM	3 to 5
	Total time range in minutes	38 to 133

Procedure

Use this procedure to perform a NORESTARTSWACT.

Using the NORESTARTSWACT utility	
Step	**Action**
At the MAP	
1	Ensure that you are at the CI level of the MAP display by pressing the return key two times. *Example of a MAP response:* `CI:`

2	Verify the NORESTARTSWACT availability by typing
	
	>BCSUPDATE;SWACTCI;QUERYSWACT
	and pressing the Enter key.
	
	Example of a MAP response:
	`NORESTARTSWACT is recommended for initiating a CC`
	`Warm SWACT. Further checking will be done when SWACT`
	`is invoked.`

If the NORESTARTSWACT is	Do
supported	step 3
not supported	step 31

3	Make a parameter value change or table change.
	
	Example of a MAP response:
	`WARNING: A RESTART MUST BE PERFORMED TO ACTIVATE THE`
	`CHANGE MADE TO THIS PARAMETER.`
	
	Note: Any change that is made while the switch is INSYNC remains in effect on the inactive side even after the drop sync and restart are complete. It is not necessary to log in to the mate central processing unit (CPU) to verify the change.

4	Access the CM level of the MAP display by typing **>MAPCI;MTC;CM** and pressing the Enter key.
	—continued—

Using the NORESTARTSWACT utility (continued)

Step	Action

5   Determine if the inactive CPU is jammed.

Note: The word yes under the Jam header indicates that the CPU is jammed. The area appears blank if the CPU is not jammed.

If the inactive CPU is	Do
jammed	step 8
not jammed	step 6

At the CM reset terminal for the inactive CPU

6   Jam the inactive CPU by typing

>\JAM
and pressing the Enter key.

RTIF response:
Please confirm (YES/NO)

7   Confirm the command by typing

>YES
and pressing the Enter key.

RTIF response:
JAM DONE

At the MAP

8   Determine if the CM is in sync.

Note: A dot or EccOn displayed under the Sync header indicates that the CM is in sync. The word no indicates that the CM is not in sync.

If the CM is	Do
in sync	step 9
not in sync	step 14

—continued—

Using the NORESTARTSWACT utility (continued)

Step	Action
9	Drop synchronization by typing **>DPSYNC** and pressing the Enter key.

If the response is	Do
About to drop sync with CPUn active the inactive CPU is jammed. Do you want to continue? Please confirm ("YES", "Y", "NO", "N"):	step 12
Drop synchronization failed	step 33
Aborted. Active CPUn has a faulty processor clock.	step 10

Step	Action
10	The DPSYNC command is disallowed because the active clock on the CPU is faulty. Refer to the procedure *Clearing a CM CLK major alarm* in *DMS SuperNode Alarm and Performance Monitoring Procedures*, 297-5001-543. When you have completed the procedure, return to this point.
11	Go to step 6.
12	Confirm the DPSYNC command by typing **>YES** and pressing the Enter key.

At the CM reset terminal for the inactive CPU

Step	Action
13	Wait until A1 flashes on the reset terminal for the inactive CPU.

If A1	Do
flashes	step 14
does not flash after approximately 5 min	step 33

—continued—

Using the NORESTARTSWACT utility (continued)

Step	Action

At the CM reset terminal for the inactive CPU

14	Perform the required restart procedure by typing **>\RESTART** <WARM/COLD/RELOAD> and pressing the Enter key. *RTIF response:* `Please confirm: (YES/NO)`
	⚠ CAUTION **Loss of service** Ensure that you perform the restart on the inactive CPU. The reset terminal for the inactive CPU is identified by the word Inactive on the top banner of its display.
15	Confirm the restart command by typing **>YES** and pressing the Enter key.

At the MAP

16	Perform the LIMITED_PRESWACT procedure by typing
	
	>BCSUPDATE;LIMITED_PRESWACT
	and pressing the Enter key.
	
	Example of a MAP response:
	`LIMITED_PRESWACT should not be used for BCSUPGRADE`
	`SWACTs. Do you wish to confirm? ("YES","Y","NO","N")`
	
	The LIMITED_PRESWACT command runs a series of steps that are required to prepare the switch for the NORESTARTSWACT. All of these steps must complete successfully before the NORESTARTSWACT can be performed. If the LIMITED_PRESWACT command stops with an error message, the error must be corrected and the LIMITED_PRESWACT command must be entered again to complete the remaining steps. If necessary, the next level of support should be contacted to complete this procedure.

17	Confirm the LIMITED_PRESWACT command by typing **>YES** and pressing the Enter key.

—continued—

Using the NORESTARTSWACT utility (continued)

Step	Action

18

If the LIMITED_PRESWACT	Do
was successful	step 19
failed	step 33

19	Refer to the *DMS-100 Family Software Operations One Night Process and Hybrid Software Delivery Procedures*, 297-1001-303, section "PreSWACT DIRP and Billing" for the procedures to handle secondary billing devices over the NORESTARTSWACT. When you have completed this procedure, return to this point.
20	Verify that all essential services or high profile customers (police, hospital, emergency bureaus, radio stations) are not in emergency call processing mode by contacting the appropriate customer.
21	Disable any periodic testing.
22	Ensure no further activity is performed on the Distributed Processing Peripheral (DPP), including DPP polling or disk backup. Inform the downstream processing center.
23	Dump the Switch Performance Monitoring System (SPMS) register to a printer or other device according to operating company standards.
24	Disconnect any ISDN DTA monitor prior to the SWACT.

At the CM reset terminal for the inactive CPU

25	Release the jam on the inactive CPU by typing **>\RELEASE JAM** and pressing the Enter key. *RTIF response:* `JAM RELEASE DONE`

—continued—

Using the NORESTARTSWACT utility (continued)

Step	Action

At the MAP

Step	Action
26	Perform the SWACT by typing **>BCSUPDATE;SWACTCI;NORESTARTSWACT** and pressing the Enter key. ***Note:*** After the CPUs switch activity, you are logged off of the MAP terminal. A dollar sign ($) appears and the cursor moves one space to the right. Go to step 27.

27	Login to the MAP terminal by typing
	`><break>`**LOGIN**
	`<username>`
	`<password>`

28	Perform the POSTSWACT procedure by typing **>BCSUPDATE;POSTSWACT**
29	Refer to the *DMS-100 Family Software Operations One Night Process and Hybrid Software Delivery Procedures*, 297-1001-303, section "Recover Billing" for the procedures to recover the secondary billing devices after the NORESTARTSWACT. When you have completed this procedure, return to this point.

30	Synchronize the CM by typing
	
	>MAPCI;MTC;CM;SYNC
	and pressing the Enter key.
	
	Example of a MAP response:
	`Maintenance action submitted.`
	`Synchronization successful.`

If the SYNC command	Do
was successful	step 34
failed	step 33

—continued—

Using the **NORESTARTSWACT utility** (continued)	
Step	**Action**
31	Perform the necessary restart (cold, warm, or reload) to activate the table or parameter change. When you have completed the procedure, return to this point.
32	Go to step 34.
33	For further assistance, contact the personnel responsible for the next level of support.
34	You have completed this procedure.
End	

Office parameter administration guide

Office parameters are initially set by Northern Telecom to meet end of design criteria and switch configuration. This guide is intended to assist operating company personnel responsible for administering office parameters by providing guidelines to using the available tools.

Introduction

Office parameters examined in this document are located in table OFCENG (office engineering). These parameters allocate resources (memory) for switch activities such as call throughput and custom calling usage. These parameters are initially calculated using telephone company input, high day/end of design criteria and standard engineering formulas. The formulas are designed for standardization and simplified operating company and Northern Telecom use. The formulas are constructed to cover a wide variety of applications and are considered set up for end of design for most applications.

An ongoing process should take place to determine if parameter settings are appropriate for each office's requirements. This process should include the monitoring of actual parameter usage compared to the parameter setting in the switch. It is conceivable that offices may have to adjust individual parameter settings to match the changing office requirements.

It is also possible that offices not at the end of design could reclaim memory for a period of time by reducing office parameter settings. Caution should be used in lowering office parameters to prevent impact to switch operation during high day operation. Some parameters are not recommended for value reduction. See section "Office parameters that are no recommended to be modified".

Memory allocated for office parameters can be reclaimed during the BCS delivery by way of dump and restore if the decision is made to lower office parameters. However, office parameter changes should be safely and systematically implemented before a dump and restore.

What to collect

The following data should be collected to determine the usage of many of the office parameters in table OFCENG:

- operational measurement groups CP2, EXT, and FTRQ
- BCSMON report
- listing of table OFCENG

Operational measurements

The OMs and especially the high water OMs can be used as a bench mark of the levels of traffic-dependent activity in the switch during the current interval. The high water mark OMs display the highest level of simultaneous usage reached in critical office parameters for the collection period. Overflow OMs display the number of times that the parameter was required but no resources were available.

The following OM groups should be monitored:

- CP2
- EXT
- FTRQ

CP2 measures call processing software resources such as call processing letters, call condense blocks, and wakeup blocks. EXT measures extension block usage such as special billing records, data extensions for operator services, and custom calling features. FTRQ measures feature queueing resources for MDC features such as call hold, last number redial, and call waiting. Refer to the *Operational Measurements Reference Manual*, 297-1001-814 for information on the registers and corresponding office parameters measured.

An OM accumulating class made up of CP2, EXT, and FTRQ should be defined with the same collection period as office parameter OMXFR in table OFCENG. When datafilling tables OMACC and OMPRT, field WHEN set to AUTO guarantees this. It is important that the collection period and transfer period are the same to ensure that the high water mark registers present a valid picture of peak activities. With a one hour collection period and a 30 minute transfer period, the peak levels are summed.

The following is an example of setting up an OM class that contains OM groups EXT, CP2, and FTRQ. The symbol (>) represents commands to be entered.

The OM class to be defined is called REALTIM3. Double precision is used.

>OMCLASS REALTIM3 DOUBLE

List the table OMACC to see the tuple added.

>LIS ALL

The table is listed. Position on the newly added tuple.

>POS REALTIM3

CLASS	ENABLED	WHEN
REALTIM3	N	AUTO

(Now the tuple is changed.)

```
>CHA
ENTER Y TO CONTINUE PROCESSING OR N TO QUIT.
  >Y
ENABLED: N
  >Y
REP: AUTO
```

TUPLE TO BE CHANGED:

```
REALTIM3   Y              AUTO
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.

  >Y
```

TUPLE CHANGED. WRITTEN TO JOURNAL FILE AS JF NUMBER 544

```
  >QUIT
```

CI:

(Now add OM groups to the OM class)

```
    >OMACCGRP REALTIM3 ADD GROUP CP2
OK
    >OMACCGRP REALTIM3 ADD GROUP FTRQ
OK
    >OMDUMP CLASS REALTIM3 COMMANDS
```

```
OMCLASS REALTIM3 DOUBLE
OMACCGRP REALTIM3 ADD GROUP CP2
OMACCGRP REALTIM3 ADD GROUP EXT
OMACCGRP REALTIM3 ADD GROUP FTRQ

    >TABLE OMPRT
    TABLE: OMPRT
    >LIS ALL
```

(Table OMPRT is listed here. Position on an unused position. Position 228 is chosen in this example.)

```
    >POS 228
```

(Now the tuple is changed.)

```
    >CHA
    ENTER Y TO CONTINUE PROCESSING OR N TO QUIT
    >Y
    ACTIVE: N
    >Y
    SUPZERO: N
    >
    ID: ALL
    >ALLCLASS
    CLASS:
    >REALTIM3
    REP: MONTHLY
    >AUTO
    BUFFOUT: N
    >
    OUTDEV: SINK
    >

    TUPLE TO BE CHANGED:
    228 Y N    ALLCLASS REALTIM3
             AUTO    N   SINK
```

ENTER Y TO CONFIRM. N TO REJECT OR E TO EDIT.
```
    >Y
    TUPLE CHANGED
    WRITTEN TO JOURNAL FILE AS JF NUMBER 547

    >QUIT
    CI:
    >LOGUTIL
    LOGUTIL:
```

(The name TATSPRT is a local printer defined for this example.)

>ADDREP TATSPRT OMPR 228
1 report(s) Added
>LISTROUTE DEVICE TATSPR
Device TATSPRT   print classes:

ADD   REPORTS:
                OMPR 228 (OM REPORT)

DELETE REPORTS:

>STARTDEV TATSPRT
Log device TATSPRT has been started.
Number of devices started : 1

>STOPDEV TATSPRT
Log device TATSPRT has been stopped.
Number of devices stopped : 1

BCSMON

BCSMON is used to gather switch data as well as high water OMs. The switch data can be used in calculating office parameters in place of the engineering estimates used at initial load time.

BCSMON uses OM results as inputs for the BCSMON high water report. BCSMON itself keeps a running tab of a subset of parameter high water marks over a 30 day period. For the parameters that are currently reported by BCSMON, this report is the easiest for the administrator to use. However, since all the high water OMs are not included in BCSMON, the OM groups mentioned previously should be collected. Also, parameter overflows are not reported in BCSMON output, only in the OM groups.

The following is required to produce the needed BCSMON information from the CI level of the MAP:

>BCSMON
>HIGHPARMS

The following BCSMON example shows a subset of actual counts of switch data and high water marks for office parameters:

Number of nodes: 379
Number of Networks: 0

Number of TM8 PMs:	Insv: 3	Comm: 0
Number of MTM PMs:	Insv: 53	Comm: 0
Number of LGC PMs:	Insv: 12	Comm: 0
Number of LCM PMs:	Insv: 48	Comm: 0
Number of DTC PMs:	Insv: 13	Comm: 0

Number of DP_POTS lines: 3
Number of DGT_POTS lines: 15
Number of DP_IBN lines: 185
Number of DGT_IBN lines: 2835
Number of TOTAL_UNEQ lines: 15962
Number of TOTAL_OFFL lines: 5373

Number of PPHONE_STATION lines: 152
Number of DISPLAY_PPHONE_STATION lines: 35
Number of M3009_STATION lines: 6705
Number of M5112_STATION lines: 618
Number of M5209_STATION lines: 144
Number of M5312_STATION lines: 37

Number of DNs on keysets: 35403

Number of IBN lines with CALL WAITING FEATURE: 8
Number of IBN lines with CALL FORWARDING FEATURES: 508
Number of IBN lines with SPEED CALL FEATURE: 225
Number of KSET lines with CALL WAITING FEATURE: 4
Number of KSET lines with CALL FORWARDING FEATURE: 6613
Number of KSET lines with SPEED CALL FEATURE: 6327

Number of trunks: 4704
Number of unequipped trunks: 10655
Number of offline trunks: 554
Number of trunk groups: 715
Number of IBNTI trunks: 893
Number of IBNTO trunks: 334
Number of IBNT2 trunks: 49
Number of OP trunks: 52

Number of RCVRMF receivers: 8
Number of RCVRDGT receivers: 4 (expected:8) *****
Number of RCVRATD receivers: 32

Number of CF3 ports: 70
Number of CF6 ports: 83

Number of LTUs: 6
Number of TTUs: 5

Number of VDUs: 39

Number of customer groups: 253
Number of consoleless customer groups: 250
Number of customer subgroups: 2
Number of attendant consoles: 30

Tables of daily usage for critical office parameters

This is a partial report showing 20 days of high water mark values with the most current one (yesterday) being printed first. A–1 means that no data is collected yet for that day.

NUMPCLETTERS MCPWAKE	NCCBS	NUMCALLPROCES	NUMOUTBUF	NMUTLTIBLKS NU
13	97	4	51	2
6				
12	105	4	51	3
3				
17	914	4	51	13
28				
18	908	4	51	16
32				
16	893	5	51	14
29				
14	761	5	51	11
27				
13	63	4	51	2
4				
12	70	4	51	3
7				
12	85	4	51	3
8				
12	457	4	51	7
19				
18	504	4	51	9
18				
11	435	4	51	8
19				
12	273	4	51	5
13				
12	63	4	51	3
4				
12	66	3	51	2
4				
12	80	4	51	3
8				
12	512	4	51	9
21				
14	796	5	51	12
31				
23	941	5	51	15
50				
16	874	5	51	13
31				

FTRQAGENTS	FTRQ0WAREAS	FTRQ2WAREAS	FTRQ4WAREAS	FTRQ8WAREAS	FTRQ16WAREAS
9435	0	3437	6230	0	0
9437	0	3511	6179	2	1
9451	0	3862	6120	12	3
9445	0	3865	6185	11	3
9459	0	3784	6330	14	2
9451	0	3587	6360	10	2
9435	0	3334	6361	0	0
9436	0	3345	6342	0	0
9435	0	3377	6337	0	0
9443	0	3469	6359	7	2
9441	0	3458	6390	7	2
9440	0	3456	6396	6	3
9437	0	3458	6327	8	3
9430	0	3451	6283	0	0
9430	0	3454	6271	0	0
9429	0	3450	6265	0	0
9439	0	3582	6261	4	2
9435	0	3796	6174	10	6
9438	0	3935	6090	14	3
9433	0	3923	6090	16	2

Table OFCENG

Table OFCENG lists the setting of parameter values. This table should be listed to provide the parameters to be considered and their current settings. The table can be listed with the following CI commands:

>TABLE OFCENG;LIST ALL;QUIT

The following example shows a subset of table OFCENG:

PARMNAME	PARMVAL
ACD_MIB_OUT_EVENT_BUFFER_SIZE	110
ACD_TOLL_DELAYED_BILLING	N
ACT_MAX_DURATION	255
ALL_ACD_LOGIN_IDS_VALID	Y
ALT_TTT_USAGE_PERCENTAGE	50
ALT_TTT_USAGE_PERCENTAGE	50
AMA_FAILURE_FREE_CALL	Y
AMA_LONG_DUR_AUDIT_INTERVAL	24
ATTLOG	1000
AVG_NUM_TGS_PER_OHCBQCALL	4
BELL_ANI_ALARM_ID	9
BELL_ANI_INTERCEPT_ID	9
CABLE_LOCATE_TIMEOUT	180
CABLE_SHORT_TIMEOUT	180
CC_ENGLEVEL_WARNING_THRESHOLD	77
CFD_EXT_BLOCKS	3500
CFW_EXT_BLOCKS	350
COINDISPOSAL	IGNORE_COIN
COMMAND_SCREEN	Y
COPP_RELAY_OPEN_TIME	80
CPSTATUS_SWITCHABLE	Y
CBLINK_ALARM_THRESHOLDS	30 60
CUSTOMER_GROUP_IBNGRP_OM_COUNT	512
DATA_COS	0
DEBUG_HUNT_SWERRS	N
DEFAULT_CARRIER_OR_TREAT	C 288
DEFAULT_COMMANDCLASS	0
DEFAULTLANGUAGE	ENGLISH
DISC_TIME_BILLED	Y
DISCTO_TIMEOUT_VALUE	13
DM_PCM_ENCODING	DM_MU_LAW
DTER_AUTO_DEACTIVATION_ENABLE	Y
EA_CCIS6_TANDEM_BILL	N
EA_OCS_AND_DP_OVLP_NEEDED	N
EA_OCS_DIGCOL_METHOD	PXFALL
EA_OVERLAP_CARRIER_SELECTION	Y

EA_WITH_CD	N
EADAS24H_BUFFER_SIZE	7100
EADAS30M_BUFFER_SIZE	32000
EADAS60M_BUFFER_SIZE	7100
EBS_BUZZ_SPLASH_ON	Y
EBS_TO_TRUNK_TRD_TIME	50
ENHANCED_DEAD_SYSTEM_ALARM	Y
EXPIRED_PASSWORD_GRACE	3
FLOW_CONTROL_TIMEOUT	6
FTRQAGENTS	1500
FTRQAUDIT	10
FTRQ0WAREAS	1
FTRQ2WAREAS	1500
FTRQ4WAREAS	693
FTRQ8WAREAS	704
FTRQ16WAREAS	20

How to interpret what is collected

The OMs provide an indication of overflows. If there are insufficient resources for a given office parameter, the OMs indicate this with an overflow peg. It is important to note that parameter usage should be monitored in all offices, not only those interested in reducing office parameters for the purpose of memory reclamation.

When examining registers FTRQHI and FTRQSEIZ of OM group FTRQ and the FTRQ entities in BCSMON HIGHWATER, it should be noted that these reflect the number of blocks simultaneously in use. The corresponding FTRQ office parameters reflect the number of blocks allocated in multiples of 10. For example, a setting of 300 for office parameter FTRQAGENTS allows for a FTRQAGENTS high water mark of 3000. Note that this multiple of 10 factor applies only to FTRQ parameters (that is, FTRQAGENTS, FTRQAUDIT, FTRQ0WAREAS, FTRQ2WAREAS, FTRQ4WAREAS, FTRQ8WAREAS, FTRQ16AREAS, FTRQ32WAREAS, FTRQ0WPERMS, FTRQ2WPERMS, FTRQ4WPERMS, FTRQ8WPERMS, FTRQ16PERMS, and FTRQ32PERMS).

The following example shows that FTRQAGENTS is set to 1261 in table OFCENG. This allocates 12610 FTRQAGENT blocks as indicated in field FTRQOM_INFO in the OM group FTRQ. For the sample period, the high water mark, field FTRQHI, indicates a maximum of 6137 feature queue blocks in simultaneous use.

```
     CI:
     >TABLE OFCENG : POS FTRQAGENTS
      TABLE: OFCENG
              FTRQAGENTS          1261
     >LIS 10
     PARMNAME                     PARMVAL
     FTRQAGENTS                   1261
     FTRQAUDIT                    10
     FTRQ0WAREAS          •       1
     FTRQ2WAREAS                  1575
     FTRQ4WAREAS                  799
     FTRQ8WAREAS                  800
     FTRQ16WAREAS                 1
     FXOGS_REMBSY_BITS            A_OFF_B_OFF_HK
     GLOBAL_CUTOFF_ON_DISCONNECT  Y  80 N
     GROUND_START_DELAY           Y

       >QUI
       CI:
       >OMSHOW FTRQ HOLDING
```

FTRQ

CLASS: HOLDING
START:1990/01/12 14:00:00 FRI: STOP : 1990/01/12 14:15:00
SLOWSAMPLES: 9 : FASTSAMPLES: 90 :

        KEY (FTRQOM_TUPLE_KEY)
        INFO (FTRQOM_INFO)
         FTRQSEIZ   FTRQOVFI   FTRQHI

0 FTRQAGENTS
            12610
            369   0   6137
1 FTRQOWAREAS
            10
            0   0   0
2 FTRQ3WAREAS
            15750
            509   0   3394
3 FTRQ4WAREAS
            7880
            238   0   2828
4 FTRQ8WAREAS
            8000
            72   0   30
5 FTRQ16WAREAS
            10
            0   0   0

Referring to example 2, the high water marks can be interpreted.   The last
30 days of high water marks are displayed. For FTRQ4WAREAS 6396 is
the highest value displayed. For this office the office parameter
FTRQ4WAREAS in table OFCENG is set to 693. Accounting for the factor
of 10, this allows for 6930 blocks. Operating company personnel may
decide to raise this parameter since the high water value is so close to the
parameter setting.

For parameter NUMCPWAKE, 50 is the highest 30 day value. For this
office, the office parameter NUMCPWAKE in table OFCENG is set to 425.
Assuming high day for this event is during the sample period, the telephone
company may decide to lower the parameter slightly to recover memory, or
leave the parameter set as is.

As can be seen in the above two cases, if the value is increased or decreased
office memory is impacted. If a parameter value is increased and made
active, more memory is allocated for that resource from spare or not in use
pool of office memory. On the other hand, if a parameter value is reduced,
made active, and taken through the dump and restore process, office memory

is returned to the spare pool of memory. It is important to note that complete memory reclamation cannot take place without a dump and restore.

How often to collect

It is imperative that the telephone company monitor the actual usage regularly in order to account for high day busy hour for each of the critical office parameters and changing calling traffic patterns. Each of these factors should be taken into account in order to establish the time interval for examining OMs and are analyzed in more detail below.

High day busy hour for each event must be considered. The high day busy hour for POTS features may be very different than that of Meridian Digital Centrex (MDC) features. Based on this criterion, usage must be monitored based on the office parameters being analyzed. For example, CFW_EXT_BLOCKS allocate the number of simultaneous active call forwarded calls.

Traffic patterns can change dramatically over time and, therefore, the actual usage could fluctuate dramatically. Actual usage must be monitored on a regular basis to determine if trends are evolving. The decision to collect daily, weekly, or biweekly is the decision of the individual operating company.

How to make a decision

Criteria must be chosen to decide whether to lower or raise parameter values. An operating company engineer can choose criteria such as never reducing a given office parameter at all or never reducing an office parameter below three times (or more) the highest ever high water mark.

Lowering office parameters values should be carefully considered. In general, Nothern Telecom does not recommend lowering office parameter values unless office memory is in jeopardy.

Factors such as planned large office additions and office history play an important role in deciding how large a buffer to add to the office data. The operating company is responsible for determining how large to make the buffer above the high water OMs. It is strongly recommended that the office be monitored for many months before making a decision.

Most telephone companies will probably decide never to reduce office parameter values, unless office memory is exhausted.

Office parameters that are not recommended to be modified

In general, the memory allocating office parameter values in table OFCENG can be considered for lowering. However, Northern Telecom does not recommend changes to the parameters detailed below. Any changes are at telephone company discretion.

NCCBS defines the number of call condense blocks (CCB) required that are held up through the life of a call. NCCBS is provisioned to provide for 100% use of network facilities. No change is recommended.

NUMCALLPROCESSES defines the number of call processes (CP) required that are associated with a call during set up, take down and feature processing. The current formula is sufficient to provide for high calling volumes. No change is recommended.

NUMCPLETTERS defines the number of call processing letters required that are used to pass messages between call processes and the rest of the DMS. NUMCPLETTERS is set at 2000 to provide for overload protection during peak traffic periods. No change is recommended.

NUMTLBS defines the number of terminal linkage blocks used in the input/output system. NUMTLBS is provisioned based on the number of hardware nodes present in the office. No change is recommended.

PPMBUFFS defines the number of peripheral process message buffers used for sending messages to the peripheral modules. If PPMBUFFS is underprovisioned, switch degradations can occur. A margin of safety is built in to prevent degradation during high traffic periods and unexpected high maintenance situations. No change is recommended.

Reducing office parameter values

The preferred method of implementing office parameter reductions is to gradually make changes in the existing office parameter tables, performing the necessary restarts as required during very low traffic times. Changing two or so parameter values downward at a time, then verifying that the changes had no adverse effect is the safest way to implement reductions. Possible problem variables are kept to a minimum and a known safe fall-back is available. If troubles do arise, reverting back to the old values can be done quickly. The OMs should be monitored closely to ensure proper engineering. All changes should be made at least 3 weeks prior to the dump and restore or One Night Process (ONP). At least 3 weeks is required to allow the BCS delivery process to capture the new values.

Memory is not reclaimed until the dump and restore is performed. At that time, the reduced values are copied from the existing load into the new office load.

If parameter reductions are required, the telephone company should communicate their intentions and work with the Northern Telecom regional software systems engineering manager.

Increasing office parameter values

In general, increasing parameter values is a safer process than reducing them. The major issue with increasing parameter values (other than timing related parameters) is the increased memory requirements. Unlike reducing parameter values, memory is utilized immediately upon activation (usually a cold restart). Often, parameters in table OFCENG require more memory when increased. The memory requirements for parameters are in the data store area for NT-40 loads, but in total office memory for SuperNode loads, where there is no distinction between data and program store.

A basic outline of when values should be increased is as follows:

Determine actual spare memory available in the switch.

Determine the established memory requirements indicated by the required parameter value increases.

Analyze and determine if the amount of increased memory does not exceed the amount of memory spare and available for use. Keep in mind the Northern Telecom and individual telephone company requirements for spare memory overheads. Reference SEB 88–01–002 or contact a Northern Telecom regional software systems engineering manager to aid in this task. After a determination has been made that the increased values will not exceed memory limitations including spare or overhead requirements, a safe implementation process can begin.

If only 2 or 3 parameter values are to be increased , all could be done at the same time, with the monitoring of parameters and memory after the change. If larger numbers of parameters values need to be increased, a staged increase should be implemented. Monitor two or three parameter changes and if all is well and memory usage is safe, move forward with others.

Notifying Northern Telecom

In order to ensure propagation to future BCSs of decreases made to office parameters, the operating company must contact their regional software systems engineering manager with a single point of contact at the operating company. The contact should be able to approve of any changes to the office parameters for a given office.

Conclusion

Northern Telecom engineers office parameters based on telephone company input and standard formulas. A wide variety of applications are covered by the standard formulas. These formulas yield a safe value in nearly every office. Operating company monitoring of the office parameter usage on an ongoing basis to determine if the parameter settings are appropriate for the office application is required.

Any changes made to the office parameters discussed in this document result in a change in the memory allocated in the switch. An increase in a setting requires more memory. A decrease in value decreases memory requirements. Note, a decrease in a parameter value only yields an actual memory decrease if a rebuild (that is, a dump and restore) occurs.
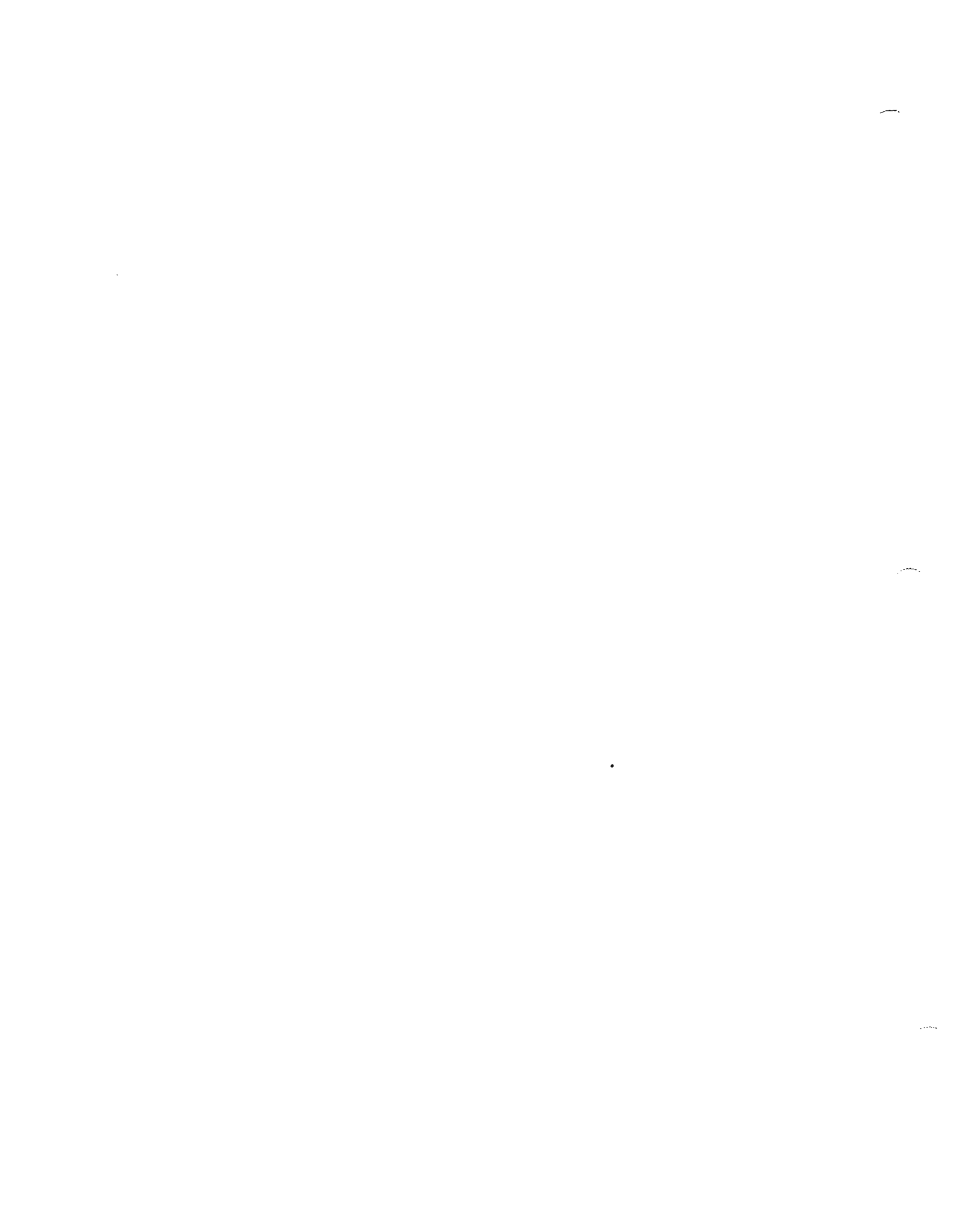
OFCENG parameters

ACCS_NUM_RU

Parameter name

Automated Calling Card Service Number of Recording Units

Functional description of parameter ACCS_NUM_RU

This parameter specifies the number of Automated Calling Card Service (ACCS) recording units (RU) that are allocated for ACCS call processing.

Provisioning rules

Set the value of this parameter equal to the maximum number of simultaneous ACCS calls that can be in progress.

Range information

Minimum	Maximum	Default
0	32767	100

Activation

Increase – immediate

Decrease – cold restart

Dependencies

Not applicable

Consequences

Underprovisioning of this parameter results in insufficient recording units being allocated for ACCS call processing.

Overprovisioning of this parameter results in wasted memory.

Verification

Not applicable.

Memory requirements

Each recording unit requires 91 words of memory.

Dump and restore rules

This parameter was introduced in BCS31.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Automated Calling Card Service Database Response Delay

Functional description of parameter ACCSDB_RESPONSE_DELAY

This parameter is required for a Traffic Operator Position System (TOPS) switching unit with Automated Calling Card Service (ACCS) that has the Exchange Alternate Billing Services feature.

This feature is applicable to intra-LATA calls only and provides the software capability to query a line information database (LIDB) through the Signaling System 7 (SS7) network using transaction capability application part (TCAP). ACCS provides capabilities similar to mechanized calling card service (MCCS), (calling card validation (CCV) queries and billed number screening (BNS) queries), but provides additional line information as well.

Whenever the personal identification number (PIN) is included in the query, a CCV query is sent. If the PIN is not included in the query, a BNS query is sent.

A database simulator is also provided through a local application.

Table ACCSDB is the database for the local application and contains simulated database responses from the LIDB.

Table QUERYTYP contains the databases for the billed digits.

This parameter specifies the delay, in 1 second intervals, for the simulation of access delay from the LIDB (actually table ACCSDB for the local application).

Provisioning rules

Specifies the delay, in 1 second intervals, for the simulation of access delay from the LIDB.

Range information

Minimum	Maximum	Default
0	255	1

Activation

Immediate

Dependencies

The following parameters are also associated with this feature:

- TOPS_MCCS_CCV in table OFCOPT
- TOPS_MCCS_BNS in table OFCOPT

ACCSDB_RESPONSE_DELAY

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS24.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Automatic Call Distribution Management Information System Outgoing
Event Buffer Size

Functional description of parameter ACD_MIS_OUT_EVENT_BUFFER_SIZE

This parameter is required to determine the actual outgoing event buffer size
allocated for Automatic Call Distribution Management Information System
(ACD MIS) sessions.

The ACD MIS Application provides protocols to enable a Down Stream
Processor (DSP) to request and collect ACD information from the switch.
This information provides real time statistics and historical reports.

The outgoing buffer stores DSP replies (such as return error, return result)
and ACD MIS invocations (such as SWITCHENDSUBPOOLDATA and
SWITCHENDOFINIT).

If this parameter is set to the maximum value of 200, the buffer can contain
up to 150 outstanding replies and invocations.

Field OUTEVENT in table ACDMISPL can be used to engineer the size of
the ACD MIS outqueue on a per session basis.

This parameter provides the default value for field OUTEVENT in table
ACDMISPL when the field is new. If a value is not entered in field
OUTEVENT, the value specified by this parameter is used. By using the
value of this parameter, all of the ACD MIS pool values can be set to the
value of ACD_MIS_OUT_EVENT_BUFFER_SIZE.

Memory is allocated on a per pool basis as defined in field OUTEVENT in
table ACDMISPL and not on the value of this parameter.

Provisioning rules

If the buffer size required is not 110 (default), specify the size of the buffer.

Range information

Minimum	Maximum	Default
100	200	110

Activation

Do not change this parameter while there is an active session. The new size
for the buffer is allocated as soon as a session is logged in.

Dependencies

Field OUTEVENT in table ACDMISPL can be used to engineer the size of
the ACD MIS outqueue on a per session basis.

ACD_MIS_OUT_EVENT_BUFFER_SIZE

Consequences

If this parameter is underprovisioned, event messages are discarded if an attempt is made to enqueue them in a full queue.

If this parameter is overprovisioned additional data store is allocated.

Verification

Any nonzero value in field MISLOST of operational measurement (OM) group ACDMISPL indicates underprovisioning.

See the *Operational Measurement Reference Manual* 297-1001-814 for a description of OM GROUP ACDMISPL.

Memory requirements

Data store is allocated on a per pool basis as defined in field OUTEVENT in Table ACDMISPL.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing dump and restore.

Parameter name

Automatic Call Distribution Overflow Blocks

Functional description of parameter ACD_OVERFLOW_BLOCKS

This parameter is required for a switching unit with the Automatic Call Distribution (ACD) feature. It determines the number of ACD extension blocks.

These extension blocks are required for all queued and ringing ACD calls. Additional data for base ACD is stored in these blocks. The value for this parameter determines the maximum number of simultaneous queued or ringing calls.

Provisioning rules

Set the value of this parameter to the maximum number of simultaneous queued or ringing calls.

In the worst case, assuming calls are ringing at all agent positions and that all queues are full, the number of ACD_OVERFLOW_BLOCKS required is the number of agent positions added to the sum of the MAXCQSIZ fields of the ACD groups datafilled in table ACDGRP.

If the maximum number of simultaneous ringing and/or queued calls for a switch is known (determined by the engineering group), and is smaller than the maximum number for the worst case, then these values can be used to determine the value of this parameter.

Range information

Minimum	Maximum	Default
0	4094	30

Activation

Increase – immediate
Decrease – cold restart

Dependencies

Not applicable

Consequences

If this parameter is underprovisioned, any incoming ACD calls exceeding the value determined by this parameter are routed to treatment.

If the value is overprovisioned, data store is wasted.

ACD_OVERFLOW_BLOCKS

Verification

To verify that sufficient recording units have been allocated, use CI command OMSHOW EXT ACTIVE and read the following entry:

```
     EXTSEIZ          EXTOVFL          EXTHI          EXTSEIZ2
     EXTHI2
77 ACD_OVFLINQ_EXTENSION
30
          0                0                0                0
          0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Measurement EXTHI records the maximum number of extension blocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual* 297–1001–814 for a description of OM group EXT.

Memory requirements

Each unit requires 17 words of memory.

Dump and restore rules

This parameter was introduced in BCS27.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Automatic Call Distribution Toll Delayed Billing

Functional description of parameter ACD_TOLL_DELAYED_BILLING

This parameter is required in a switching unit with the Automatic Call Distribution (ACD) feature. It is provided to satisfy operating company tariffs (Automatic Message Accounting records).

The value of this parameter specifies when billing is to commence and causes an offhook condition that notifies the switching unit where billing takes place to start billing.

The functionality of this parameter applies to interoffice calls only. For intraoffice calls, see the description of table ACDGRP in the *Meridian Digital Centrex (MDC) Customer Data Schema* 297-2001-451.

Provisioning rules

When the value of this parameter is set to N (no), billing starts at the time the caller enters the queue.

When the value of this parameter is set to Y (yes), billing does not start until the caller is answered by an idle agent.

If a call is answered by an Attendant Console before being extended to the ACD position, an offhook condition is reported back to the switching unit where billing takes place and billing commences, regardless of the value of this parameter.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

ACD_TOLL_DELAYED_BILLING

Dump and restore rules

This parameter was introduced in BCS19.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Activity MAP Level Maximum Duration

Functional description of parameter ACT_MAX_DURATION

This parameter specifies the maximum value that can be passed to the commands START or STRTLOG in the ACTIVITY MAP level. Entering a duration value greater than the value of this parameter results in an error message.

The command STRTLOG has an optional parameter of time duration in minutes. If no value is entered, the duration defaults to the value of this parameter. A STRTLOG FOREVER overrides the setting of this parameter.

The tool ACTIVITY, a MAP level, is used to confirm that a switch is operating and handling calls properly. It also allows the operating company to monitor rates of traffic, occupancy, and grade of service that their subscribers are receiving. The use of the tool reduces the efficiency of the call processing activity on the switch. Therefore, the tool automatically turns itself off when the value specified by this parameter is reached.

Provisioning rules

When ACTIVITY is entered, the counter/timer displayed in the top right corner of the MAP is set to the value of this parameter in hours and minutes. If the value of the parameter is 255, the timer is set to 4 hours 15 minutes. This is a count-down timer, that is updated every five s. When the counter reaches 0, ACTIVITY is turned off.

If this value is to be changed, and the logs for ACTIVITY are running, keep in mind that unfinished log reports, that are normally output every 15 to 17 minutes, are lost when the time limit expires.

If a 3 h limit is desired, 195 min may be preferred over 180 min. This allows the last log report to complete and be output.

Range information

Minimum	Maximum	Default
0	510	255

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter requires 1 word of memory

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Active Directory Number System

Functional description of parameter ACTIVE_DN_SYSTEM

This parameter specifies the type of directory numbers (DN) that can be used in an office. The two values are NORTH_AMERICAN and UNIVERSAL.

Provisioning rules

For BCS33 only, this parameter should be set to UNIVERSAL for any office that has datafill in tables DNHEAD, DNCODE, or DNRTE.

The value UNIVERSAL is only applicable if the necessary software to support universal DNs is available in the load. The value UNIVERSAL allows directory numbers of varying length to be used. They continue to take the form of AREA-OFC-STN, but the elements can vary in length.

When the value is set to NORTH_AMERICAN, only directory numbers that use the form NPA-NXX-DEFG may be used.

Range information

Minimum	Maximum	Default
		NORTH_AMERICAN
		UNIVERSAL (Universal DN software offices)

Activation

Immediate

Dependencies

This parameter cannot be changed once data has been added to any DN table (TOFCNAME, DNINV, DNROUTE).

Consequences

Setting this parameter to NORTH_AMERICAN restricts the DNs in an office to a fixed length.

In offices that use the standard North American dialing plan, setting the value to UNIVERSAL results in unnecessary store consumption.

Verification

Not applicable

Memory requirements

The value of this parameter directly affects the amount of store used by table DNINV. Refer to the data store requirements for table DNINV for a description of store consumption calculation.

ACTIVE_DN_SYSTEM

Dump and restore rules

This parameter was introduced in BCS33.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name
Advanced Intelligent Network Active

Functional description of parameter AIN_ACTIVE
This parameter controls the activation of the Advanced Intelligent Network (AIN) software. During the switch provisioning process it may be desirable to deactivate AIN until all datafill is stable.

Provisioning rules
Set the value of this parameter to Y (yes) to activate AIN software.

Set the value of this parameter to N (no) to deactivate AIN software.

Range information

Minimum	Maximum	Default
		N

Activation
Immediate

Dependencies
If the value of this parameter is set to N, datafill in table TRIGGRP is not utilized by the switch.

Consequences
Not applicable

Verification
If a call is originated from an AIN agent and all criteria in table TRIGGRP have been satisfied, a corresponding action defined in table TRIGGRP takes place. For example, this may involve launching a query to a service control point (SCP). If this parameter is set to N, the AIN subscription is disregarded and the call is processed within the SSP.

Memory requirements
This parameter requires 1 word of memory.

Dump and restore rules
This parameter was introduced in BCS35

Copy the existing value of this parameter when doing a dump and restore.

Parameter history
BCS36 parameter description added to NTP

AIN_MAX_SERIAL_TRIGGER

Parameter name

Advanced Intelligent Network Maximum Number of Serial Triggers

Functional description of parameter AIN_MAX_SERIAL_TRIGGER

This parameter determines the number of times that a call is allowed to trigger without being routed out of a service switching point (SSP).

A trigger occurs when the SSP determines that it must query the service control point (SCP) or adjunct to continue processing a call.

Provisioning rules

The value for this parameter should be based on the number of trigger detection points (TDP) and triggers that one agent could encounter. If it is conceivable that one agent could encounter more than six triggers in one call, the value of this parameter should be increased accordingly.

The Bellcore recommended value is the default of 6.

Range information

Minimum	Maximum	Default
1	25	6

Activation

Immediate

Dependencies

Not applicable

Consequences

If the value of this parameter is underprovisioned some calls are routed to treatment.

If the value of this parameter is overprovisioned switch resources are consumed unnecessarily if the SCP instructs the SSP to continue processing the call too often after acting on triggers. This parameter provides a limit to avoid overload conditions.

Verification

Verify that an AIN call is routed to treatment after the number of triggers specified by this parameter is exceeded.

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS35

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36   parameter description added to the NTP

AIN_NUM_EXT_BLKS

Parameter name

Advanced Intelligent Network Number of Extension Blocks

Functional description of parameter AIN_NUM_EXT_BLKS

This parameter specifies the number of extension blocks that are available for use by the Advanced Intelligent Network (AIN) feature.

Provisioning rules

If office parameter AIN_ACTIVE in table OFCENG is set to Y (yes), this parameter must be provisioned using the following formula:

$$X = (ccb \times ain)$$

where

X	is the number of AIN extension blocks
ccb	is the number of call condense blocks
ain	is the percentage of traffic that is AIN calls (that is, calls requiring communication with an SCP or adjunct)

An extension block is held by an AIN call while waiting for a response from the SCP or adjunct processor. The block is held from the time that an AIN trigger criteria is successfully met until either the call is connected or the call is taken down, whichever comes first.

Range information

Minimum	Maximum	Default
0	32767	0

Activation

Increase - immediate
Decrease - cold restart

Dependencies

Office parameter AIN_ACTIVE in table OFCENG must be set to Y before the blocks provisioned by this parameter will be used.

Consequences

Underprovisioning of this parameter value results in some calls that would have normally sent a query to an SCP being rerouted to No Software Resources (NOSR) treatment.

Verification

Use the command interpreter (CI) command OMSHOW EXT ACTIVE 118 and verify that sufficent extension blocks have been allocated. The external name of the extension block is AIN_EXT_BLK.

Memory requirements

Each unit requires 253 words of memory. For example, a value of 100 requires 25600 words of memory.

Dump and restore rules

This parameter was introduced in BCS35.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36   parameter description added to NTP

AIN_NUM_PROCESSING_BLKS

Parameter name

Advanced Intelligent Network Number of Processing Units

Functional description of parameter AIN_NUM_PROCESSING_BLKS

This parameter is required in a switching unit with the Advanced Intelligent Network (AIN). It specifies the number of AIN processing extension blocks that are available for use during the processing of a response, following a service control point (SCP) query.

Provisioning rules

Specify the number of AIN processing extension blocks by using the following calculation:

$$ain = (sub \times traf)$$

where

ain	is the number of AIN processing extension blocks
sub	is the total number of AIN subscribers (either on an individual, group, or office basis)
traf	is the percentage of anticipated AIN traffic for those subscribers

Range information

Minimum	Maximum	Default
0	32767	0

Activation

Immediate

Dependencies

Not applicable

Consequences

If the value of this parameter is underprovisioned, some AIN calls are routed to no software resource (NOSR) treatment.

If the value of this parameter is overprovisioned, memory is wasted.

Verification

Verify that the extension blocks have been allocated by using the command OMSHOW EXT ACTIVE 125.

Memory requirements

Each extension block requires 253 words of memory.

Dump and restore rules

This parameter was introduced in BCS36.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 parameter introduced

AIN_T1_TIMER

Parameter name

Advanced Intelligent Network T1 Timer

Functional description of parameter AIN_T1_TIMER

This parameter specifies the length of time, in seconds, that a service switching point (SSP) waits for a response from the service control point (SCP) or adjunct following the launching of a query. If no response is received by the time this timer expires, the call is routed to treatment.

Provisioning rules

The value for this parameter must be determined based on the following:

- response time from the SCP or adjunct
- the congestion of the network sending messages to and from the SCP or adjunct

It should be set to a value greater than the expected response time from the SCP or adjunct.

Range information

Minimum	Maximum	Default
1	99	3

Activation

Immediate

Dependencies

Not applicable

Consequences

If the value of this parameter is underprovisioned, some calls are routed to treatment if the SCP or adjunct is slow to respond.

If the value of this parameter is overprovisioned, switch sources such as extension blocks may be tied up unnecessarily if the SCP fails to respond.

Verification

If a response to a query takes longer than the amount of time specified by this parameter, verify that the call is sent to treatment.

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS35.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history
> **BCS36** parameter description added to NTP

ALL_ACD_LOGIN_IDS_VALID

Parameter name

All Automatic Call Distribution Login Identifications Valid

Functional description of parameter ALL_ACD_LOGIN_IDS_VALID

This parameter is required for a switching unit with the Automatic Call Distribution (ACD) Agent Login Enhancement feature.

This parameter is required to determine whether an ACD login ID is valid if it is not datafilled in table ACDLOGIN.

Provisioning rules

If this parameter is left at the default value of Y (yes), and an agent enters a login ID that is not datafilled in table ACDLOGIN, the agent is still able to login.

If the parameter is set to N (no) and an ACD agent attempts to login with a login ID datafilled in table ACDLOGIN, the parameter check will be ignored and the agent permitted to login if all other checks are met.

If the parameter is set to N, and an agent enters a login ID not datafilled in table ACDLOGIN, the agent is not allowed to login and receives reorder tone.

Range information

Minimum	Maximum	Default
		Y

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory Requirements

This parameter has no memory impact.

Dump and restore rules

This parameter is new in BCS24.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Allocate Universal Extension Blocks

Functional description of parameter ALLOC_UNIV_EXT_BLK

This parameter is used to allocate universal extension blocks allocated for Call Screening Applications for Australian ISUP User Part (AISUP) and R2 applications.

When a universal extension block is active on a call, it is held for the duration of the call. The memory allocated for the extension blocks is permanently allocated unless ALLOC_UNIV_EXT_BLK or NCCBS parameter values are altered.

Provisioning rules

If this office parameter is set to a value of Y (yes), one universal extension block is allocated for each Call Condense Block (CCB) based on the value of NCCBS in table OFCENG.

If this parameter is set to a value of N (no), all store previously allocated for the universal extension block is deallocated.

Range information

Minimum	Maximum	Default
		N

Activation

The activation is immediate if the parameter value is changed from N to Y or if the value is set to Y and the value of NCCBS increases.

A cold restart is required if the parameter value is changed from Y to N, or if the value is set to Y and the value of NCCBS decreases.

Dependencies

The value of office parameter NCCBS has a direct impact on this parameter.

Consequences

If this parameter is set to N when it should be set to Y, error logs may be generated and call types requiring universal extension blocks fail.

Verification

To verify that space has been allocated for universal extension blocks, use the CI command "cpalloci 85".

Memory requirements

If this parameter is set to a value of Y, 47 bytes of memory are required by each block allocated by office parameter NCCBS in table OFCENG.

ALLOC_UNIV_EXT_BLK

Dump and restore rules

This parameter was introduced in BCS35.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Allow Ringing On Tip Side

Functional description of parameter ALLOW_RINGING_ON_TIP_SIDE

This parameter allows the customer to choose to force distinctive ringing to the RING side of Line Concentrating Modules (LCM) lines. This parameter is used to end the propagation of patch TLA67.

Provisioning rules

A value of N (no) causes ringing on type A and message waiting line cards to be held to the RING side of the line only. A value of Y (yes) allows ringing on both the TIP and RING sides of the line.

This parameter must only have a value of N for offices with single party lines. It must have a value of Y if the office is equipped with LCMs with type A line cards supporting two-party lines.

Support of two-party lines in conjunction with this parameter must be provided by use of the type B line card that supports multi-party (including 2FR) lines.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

The feature is active by default. It is necessary to BUSY and RTS each unit of the LCM in order to activate a change to this parameter.

Dependencies

Not applicable

Consequences

The Ring Mux Reversal Relay, located in the bus interface card (BIC) has a static RMUX pattern table that is altered when this parameter is set to N.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS30.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Automatic Line Testing Loop Insulation Test Resistance Number of Failures To Set

Functional description of parameter ALT_LIT_RES_NUM_FAILS_TO_SET

This parameter specifies the threshold that determines when an automatic line test (ALT) facility reports a failure during a loop insulation test (LIT).

LIT resistance exceeding either a least critical (LCT) or most critical (MCT) resistance threshold, pegs the line as having a LIT resistance problem (not a failure). These problems are considered band 1 failed.

A failure is reported if the number of consecutive resistance problems (as defined by this parameter) exceeds or has reached the threshold and the most critical resistance threshold is exceeded. These problems are considered band 0 failed.

If the threshold set by this parameter is reached or exceeded and the least critical resistance is also exceeded, but the most critical resistance is not exceeded, the line is considered band 1 failed.

Band 0 and band 1 failures can be posted in the LTP level of the MAP. Band 0 failures are reported by ALT and require operating company maintenance to improve the service. Band 1 failures are identified as possible problem lines and can require maintenance action.

For more information on ALT, refer to *Automatic Line Testing Procedures* 297-2101-517.

Provisioning rules

This office parameter must be set by the operating company, based on the following information and the frequency at which lines are LIT tested in the office:

If the office is provisioned, as recommended in the *Automatic Line Testing Procedures* 297-2101-517, with one LTE (line test equipment) for each 5120 lines and based on an average time of 15 seconds per LIT test, the following formula applies:

5120 lines X 15 seconds = 76800 s = 21.33 h

Assume LIT is allowed to run 6 h per night.

It takes approximately 3.5 days of testing to perform another LIT test on the same line. Based on the above, the default setting of 4 for this parameter would take:

3.5 days X 4 = 14 days elapsed time to report a problem

Note: This example assumes that all line drawers are fully equipped and datafilled. All lines are tested and none are considered not applicable or skipped.

By lowering this office parameter value, the elapsed time for problem recognition is shortened. However, more transient problem lines can be reported, as ALT LIT conducts fewer resistance tests.

If more ALT LIT resistance tests are performed, better filtering of transient problems is performed by ALT.

Range information

Minimum	Maximum	Default
1	4	4

Activation

Immediate

Any existing LIT resistance values are not changed and cannot be posted at the MAP until a LIT run is done.

Dependencies

Not applicable

Consequences

For large offices the elapsed time between tests can be too long if this parameter is set to the default value. As a result, subscribers may report problems before ALT identifies them.

Verification

Not applicable

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS28.

Copy the existing value of this parameter when doing a dump and restore..

Parameter name

Automatic Line Testing Loop Insulation Test Resistance Number of Passes to Clear

Functional description of parameter ALT_LIT_RES_NUM_PASSES_TO_CLR

This parameter specifies the number of consecutive resistance test passes required by an automatic line test (ALT) facility during a loop insulation test (LIT) before a previous fail condition is cleared.

ALT removes the band 0 or band 1 fail condition from the line if it has passed, consecutively, the number of times specified by this parameter and neither the least critical (LCT) or most critical (MCT) resistance threshold has been exceeded.

Band 0 and band 1 failures can be posted in the LTP level of the MAP. Band 0 failures are reported by ALT and require operating company maintenance to improve the service. Band 1 failures are identified as possible problem lines and may require maintenance action.

The accumulated passes are cleared to zero if a further band 0 or band 1 fail is measured before the value of this parameter is reduced.

For more information on ALT, refer to *Automatic Line Testing Procedures* 297-2101-517.

Provisioning rules

It is recommended that this office parameter be set to:

the value of ALT_LIT_RES_NUM_FAILS_TO_SET + 2

Range information

Minimum	Maximum	Default
1	6	6

Activation

Immediate

Dependencies

For further information see parameter
ALT_LIT_RES_NUM_FAILS_TO_SET in table OFCENG.

Consequences

Not applicable

Verification

Not applicable

ALT_LIT_RES_NUM_PASSES_TO_CLR

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS28.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Automatic Line Test Transmission Trunk Test Usage Percentage

Functional description of parameter ALT_TTT_USAGE_PERCENTAGE

This parameter is required for a local or SL100 switching unit. It specifies the percentage of transmission trunk tests (TTT) that are available for automatic line test (ALT).

This percentage depends on the number of trunks installed in the system, since these trunks also require the use of the TTT equipment. A value must be calculated so that ALT and TTP can function together.

When ALTSCHED calculates the number of TTTs for ALT, the number of TTTs is rounded down. For example, if a switching unit has 3 TTTs and 50% of these TTTs can be used by ALT, ALT is permitted only on 1 TTT.

Provisioning rules

If other than 50%, specify the percentage of TTTs that are available for ALT.

Range information

Minimum	Maximum	Default
0	100	50

Activation

Immediate

All test streams already defined in table ALTSCHED must be recalculated in order to take advantage of the new value of this parameter. This is done by entering the ALT level of the MAP and stopping and submitting each defined ALTTSTID stored in the ALTSCHED table.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter requires 1 word of memory.

ALT_TTT_USAGE_PERCENTAGE

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Automatic Line Test Transmission Test Unit Usage Percentage

Functional description of parameter ALT_TTU_USAGE_PERCENTAGE

This parameter is required for a Local or SL–100 switching unit. It specifies the percentage of transmission test units (TTU) that are available for automatic line test (ALT).

The percentage depends on the number of trunks installed in the system, since these trunks also require the use of the TTU equipment. A value must be calculated so that ALT and TTP can function together efficiently.

When ALTSCHED calculates the number of TTU for ALT, the number of TTUs is rounded down. For example, if a switching unit has three TTUs and 50% of these TTUs can be used by ALT, then ALT is permitted only on 1 TTU.

Provisioning rules

If other than 50%, specify the percentage of TTUs that are available for ALT.

Range information

Minimum	Maximum	Default
0	100	50

Activation

Immediate

All test streams already defined in table ALTSCHED should be recalculated in order to take advantage of the new value of this parameter. This is done by entering the ALT level of the MAP and stopping and submitting each defined ALTTSTID stored in the ALTSCHED table.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter requires 1 word of memory.

ALT_TTU_USAGE_PERCENTAGE

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Automatic Message Accounting Extended Binary Decimal Interchange Code Convert

Functional description of parameter AMA_EBCDIC_CONVERT

This parameter specifies whether to convert Northern Telecom (NT) format Automatic Message Accounting (AMA) messages to Extended Binary Decimal Interchange Code (EBCDIC).

This parameter applies only to offices using NT format AMA. It does not affect the BellCore format AMA stream.

NT format AMA includes Station Message Detail Recording (SMDR).

Provisioning rules

Set the value of this parameter to Y (yes) to convert NT format Automatic Message Accounting (AMA) messages to Extended Binary Decimal Interchange Code (EBCDIC).

If this parameter is set to a value of N (no), Binary Coded Decimal (BCD) is used for NT format AMA messages.

Range information

Minimum	Maximum	Default
		N

Activation

In order to activate/deactivate this parameter, verify that office parameter AMA_EBCDIC_CONVERT_ENABLE is set to Y in Table OFCOPT. Also, demount all volumes in Device Independent Recording Package (DIRP) that are recording Station Message Detail Recording (SMDR) data. Set the parameter to Y or N and perform a warm restart.

Dependencies

This parameter is only listed in this table if office parameter AMA_EBCDIC_CONVERT_ENABLE in table OFCOPT is set to Y (yes).

Consequences

Not applicable

Verification

Not applicable

Memory requirements

Each unit requires 1 word of memory.

Dump and restore rules

Copy the existing value of this parameter when performing dump and restore procedures.

Parameter history

BCS36 specified that this parameter is for use only with NT AMA

Parameter name

Automatic Message Accounting Failure Free Call

Functional description of parameter AMA_FAILURE_FREE_CALL

This parameter is required in a switching unit with the Local (LAMA) or Centralized (CAMA) Automatic Message Accounting feature.

This parameter provides routing options that can be used to charge toll calls during AMA problems or failures.

AMA failures occur when one of the following conditions exists:
- lack of sufficient recording units
- no files mounted aginst the AMA stream (device failure)
- AMAPROC recording process is dead

If the above routing option is not desired, calls can be allowed to complete without billing.

Provisioning rules

If the value of this parameter is set to Y (yes), all toll calls (CAMA and LAMA) are routed free of charge when AMA problems or failures exist.

If this parameter is set to N (no), all toll calls, excluding CAMA calls on CAMA or SuperCAMA trunks, are routed to the position in table POSITION that is specified in parameter AMA_FAILURE_ROUTE_POSITION in table OFCVAR, when AMA problems or failures exist.

CAMA calls in CAMA or SUPERCAMA trunk groups will complete.

Range information

Minimum	Maximum	Default
		Y

Activation

Immediate

Dependencies

Field ALARMS in table CRSFMT must be set to a value of Y for this parameter to be functional.

Consequences

Not applicable

AMA_FAILURE_FREE_CALL

Verification

See OM group AMA for the operational measurements associated with this parameter.

Memory requirements

Not applicable

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Automatic Message Accounting Long Duration Audit Interval

Functional description of parameter AMA_LONG_DUR_AUDIT_INTERVAL

This parameter provides the capability for switching units with NT Centralized Automatic Message Accounting (CAMA) or Local Automatic Message Accounting (LAMA) to check for long duration calls (calls of more than 24-h duration). This parameter specifies the time between audits in 1-h intervals, as selected by the operating company.

The NT AMA Format long duration logs (AMA112) are only produced for AMA calls on CAMA trunks (Trunk Group Type SC) and LAMA calls from lines. LCDR, SMDR and AMA calls on TOPS trunks are not included in the long duration call audit.

Provisioning rules

Specify the time long duration audit interval in units of 1-h.

Range information

Minimum	Maximum	Default
1	24	24

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS15.

Copy the existing value of this parameter when doing a dump and restore.

APPLY_PATCHES_BY_SEQUENCE

Parameter name

Apply Patches By Sequence

Functional description of parameter APPLY_PATCHES_BY_SEQUENCE

This parameter is used to enable the Forced Sequence Application feature.
It forces patches to be applied in sequence number order. This sequence
number is assigned by Northern Telecom as patches are released for general
distribution.

Provisioning rules

Operating companies that use the CI command DLCHECK on all NTI
patches should set this parameter to Y (yes). All others should set this
parameter to N (no).

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable.

Consequences

If this parameter is set to Y and all patches (including those that are not
required) are not checked by the CI patch command DLCHECK, the
FORCE option must be used with command APPLY to apply patches that
are not in sequence. For more information on command DLCHECK, refer
to the *Nonmenu Commands Reference Manual*, 297-1001-820.

If this parameter is set to N, the system still keeps track of the sequence
numbers of patches that are applied and checked by DLCHECK. The results
can be viewed with the command INFORM MISSING.

Verification

Not applicable.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS32.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Automatic Recall Block For Private Centrex Lines

Functional description of parameter AR_BLOCK_PRIVATE_CTX

This parameter appears only in offices with the CMS Auto Recall Blocking of Private Calls (CABOP) feature. It controls the blocking of automatic recall (AR) activation attempts to a private directory number for an Integrated Business Network (IBN) line or a centrex Meridian business set (MBS) line within an end office.

The CABOP functionality allows an operating company to satisfy the regulatory ruling that disallows the disclosure of private directory numbers.

Provisioning rules

The value of this parameter can be set to ALL or NOBLK.

If the value of this parameter is set to ALL, all AR activated calls to private numbers are blocked.

If the value of this parameter is set to NOBLK, no AR activated calls to private number are blocked.

The default value for this parameter is NOBLK. However, during a software upgrade to a software load that contains the CABOP feature, the value of this parameter is set as follows:

- If patch FPA32 (Blocking Automatic Recall to long distance private calls) was active in the previous load, then the value of this parameter is automatically set to ALL.
- If patch RPG89 (Blocking Automatic Recall activation on all private calls) was active in the previous load, then the value of this parameter is automatically set to ALL.
- If neither patch was active in the previous load, then the value of this parameter must be set by the operating company in accordance with the regulatory regulations.

Range information

Minimum	Maximum	Default
		NOBLK

Activation

Immediate

Dependencies

Not applicable

AR_BLOCK_PRIVATE_CTX

Consequences

> Not applicable

Verification

> Verify that register ARPVTBLK in the AR operational measurement (OM) group is pegged each time that an AR activation attempt is blocked when the value of this parameter is set to ALL.

Memory requirements

> This parameter has no memory impact.

Dump and restore rules

> This parameter was introduced in CSP02.
>
> Copy the existing value of this parameter when doing a dump and restore. See the provisioning rules in this section for dump and restore rules when upgrading from a software load without the CABOP feature to a software load with the CABOP feature.

Parameter history

> **BCS36** parameter introduced

Parameter name

Automatic Recall Block For Private Residential Lines

Functional description of parameter AR_BLOCK_PRIVATE_RES

This parameter appears only in offices with the CMS Auto Recall Blocking of Private Calls (CABOP) feature. It controls the blocking of automatic recall (AR) activation attempts to a private directory number for residential (RES) lines within an end office.

RES lines are residential and business lines with the 1FR and 1MR line class codes (datafilled as RES in table LINEATTR when the office parameter RES_AS_POTS is set to Y) and those with the RES line class code.

The CABOP functionality allows an operating company to satisfy the regulatory ruling that disallows the disclosure of private directory numbers.

Provisioning rules

This parameter can be set to a value of ALL, TOLL, or NOBLK.

When the value of this parameter is set to ALL, all AR calls to private numbers are blocked.

When the value of this parameter is set to TOLL, only long distance AR calls to private numbers are blocked.

When the value of this parameter is set to NOBLK, no AR activated calls to private numbers are blocked.

The default value for this parameter is NOBLK. However, during a software upgrade to a software load that contains the CABOP feature, the value of this parameter is set as follows:

- If patch FPA32 (Blocking Automatic Recall to long distance private calls) was active in the previous load, then the value of this parameter is automatically set to TOLL.

- If patch RPG89 (Blocking Automatic Recall activation on all private calls) was active in the previous load, then the value of this parameter is automatically set to ALL.

- If neither patch was active in the previous load, then the value of this parameter must be set by the operating company in accordance with the regulatory regulations.

Range information

Minimum	Maximum	Default
		NOBLK

AR_BLOCK_PRIVATE_RES

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Verify that register ARPVTBLK in the AR operational measurement (OM) group is pegged each time that an AR activation attempt is blocked because of the value of this parameter.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in CSP02.

Copy the existing value of this parameter when doing a dump and restore. See the provisioning rules in this section for dump and restore rules when upgrading from a software load without the CABOP feature to a software load with the CABOP feature.

Parameter history

BCS36   parameter introduced

Parameter name

Automatic Recall Dialable Directory Number Line Or Office

Functional description of parameter AR_DDN_LINE_OR_OFFICE

This parameter specifies when the Dialable Directory Number (DDN) is voiced back for Automatic Recall (AR) two level activation. This feature allows the subscriber to dial an AR activation code and receive an announcement of the directory number of the last station that called the subscriber's station, followed by instructions to complete the AR request (Dialing the number 1). See feature AG1228 for more details of two level activation.

Provisioning rules

Set this parameter to the value LINE so that the ARDDN line option must be assigned to each line before that line receives DDN voiceback (as opposed to the 10-digit Directory Number).

Set this parameter to the value OFFICE to enable any line in the office, equipped with the AR option, to receive DDN voiceback on two level activation.

Range information

Minimum	Maximum	Default
		LINE

Activation

Immediate

Dependencies

Not applicable.

Consequences

Not applicable.

Verification

To verify that this parameter is working, make test calls on AR lines. If the parameter is set to LINE and the activation level in Table RESOFC is set to TWOLEVEL, only lines that have the ARDDN line option assigned should receive DDN voiceback on AR activation. If the parameter is set to OFFICE and the office is set up to do two level activation, any line in the office that has the AR option should receive DDN voiceback upon AR activation.

Memory requirements

Each unit requires 1 word of memory.

AR_DDN_LINE_OR_OFFICE

Dump and restore rules

This parameter was introduced with software release BCS33.

Copy the existing value of this parameter when doing a dump and restore.

.

Parameter name

Automatic Trunk Testing Log

Functional description of parameter ATTLOG

This parameter specifies the number of words of memory required for the automatic trunk test log (feature package NTX051AA – Automatic Trunk Testing).

Provisioning rules

Specify the number of words of memory required for the automatic trunk test log.

Range information

Minimum	Maximum	Default
0	32767	1000

Activation

Warm Restart

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

The number of words required by this parameter is equal to the value of this parameter.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

AUXCP_CPU_SHARE

Parameter name

AUXCP Central Processing Unit Share

Functional description of parameter AUXCP_CPU_SHARE

This parameter is required for a switching unit that has any of the following feature packages:

- Basic Simplified Message Desk Interface (SMDI) (NTX732)
- High-speed SMDI package (NTXN10AA)
- SCAI usage available through CompuCALL (NTXJ59 or NTXJ65)

This parameter is used to indicate what percentage of the CPU realtime is allocated to the AUXCP class. For example, if this parameter is set to 1, the AUXCP receives 1 percent of the CPU realtime.

AUXCP class is a scheduler class that is used for SMDI and SCAI.

Provisioning rules

This parameter is engineered in percentages of CPU occupancy. The value is the guaranteed percentage of the CPU for AUXCP class when the switch is under load. This value is determined by the amount of CPU that the operating company is willing to dedicate to SMDI and Switch Computer Applications Interface (SCAI) usage. The amount of SMDI traffic, the type of SCAI usage and the amount of CP traffic must be examined.

Contact Northern Telecom for assistance in engineering this parameter.

Range information

Minimum	Maximum	Default	
1	25	6	(if high-speed SMDI software is present)
		1	(if high-speed SMDI software is not present)

Activation

Immediate

Dependencies

Not applicable

Consequences

This office parameter affects the amount of time awarded to the class in which the incoming SMDI process runs. If underprovisioned, and there are bursts of incoming SMDI traffic or increased SCAI usage, there can be some delay in applying the appropriate messages to the terminals. This may occur when the switch is heavily loaded, since the AUXCP will not be able to get unused time from other classes to make up for the underprovisioning.

If the amount of time given to the AUXCP is more than that required by SMDI traffic and SCAI usage, the unused time is given to the CP if more time is required. If the CP traffic level normally uses a certain amount of the CPU, and the AUXCP is allocated some of this time through overprovisioning, delays on the CP origination queue could increase.

Verification

This parameter can be verified by entering table control and positioning on AUXCP_CPU_SHARE. The user can verify that the parameter is set at the intended value.

Memory requirements

This parameter requires one word of data store. 300 words of store are temporarily required while the value of this parameter is changed.

Dump and restore rules

This parameter was introduced in BCS30.

Copy the existing value of this parameter when doing a dump and restore.

AVG_NUM_TGS_PER_OHCBQCALL

Parameter name

Average Number of Trunk Groups Per Off-hook/Call Back Queuing Call

Functional description of parameter AVG_NUM_TGS_PER_OHCBQCALL

This parameter is only required in an Integrated Business Network (IBN) switching unit that has one or more customer groups with the Call Back Queue (CBQ) or Off–Hook Queuing (OHQ) feature.

This parameter specifies the average number of trunk groups that are involved in CBQ or OHQ.

Provisioning rules

The recommended value is 4.

If this feature is not provided leave the value of this parameter at the default value of 0 (zero).

Range information

Minimum	Maximum	Default
0	32767 (reserved) 32 (programmed)	0

Activation

Cold restart

Dependencies

Not applicable

Consequences

See operational measurement (OM) groups OHQCBQCG and OHQCBQRT in the *Operational Measurements Reference Manual* 297-1001-814 for the OMs that are affected by this parameter when it is underprovisioned.

The user is given No Software Resource (NOSR) treatment when either CBQ or OHQ is attempted and there are no queuing resources available.

Verification

Not applicable

Memory requirements

The number of words of memory required is determined by the following formula:

Number of words =   parameter NUMOHCBQTRANSBLKS
X   parameter AVG_NUM_TGS_PER_OHCBQCALL
X   15 words

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

B911_3WC_ALLOWED

Parameter name

B911 Three-way Calling Allowed

Functional description of parameter B911_3WC_ALLOWED

This parameter appears only in switching units with both the Emergency Service Bureau (ESB) and Three-way Calling (3WC) features.

This parameter specifies whether a three-way call involving a public safety answering point (PSAP) operator can be established. Certain business customers provide a hot-line service. In an emergency, the hot-line attendant dials 911. This feature allows the originator and the hot-line attendant to be conferenced in with the PSAP operator. Without the feature, a three-way call involving a PSAP can not be made.

Regardless of the value of this parameter a line with the 3WC feature is not allowed to dial a third party once a call with a PSAP operator is established. All flashes from the line are ignored in a simple line to PSAP call.

Provisioning rules

If this parameter is left at the default value of N (no), only the 3WC line and the PSAP operator can talk.

If this parameter is set to the value Y (yes), the 3WC line is allowed to flash again and bring in all three parties.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS28.

Copy existing value of parameter when doing dump and restore.

BACKUP_METER_FREQUENCY_LINES

Parameter name

Backup Meter Frequency Lines

Functional description of parameter BACKUP_METER_FREQUENCY_LINES

This parameter is required for a switching unit with the world systems and the DMS-100 Metering System. It specifies the starting time and the interval at which the line meter blocks are backed up.

The start time is used as the first time that the backup is done.

The value of this parameter is equal to the starting time (0 to 23 hours and 0 to 59 minutes) and the frequency (1 to 24 hours) at which the meter counts are to be saved.

A reasonable time interval is once every two hours.

The default value is a starting time of midnight (0 0) and a frequency of once every 2 hours.

Provisioning rules

If a starting time other than midnight and a frequency of other than 2 hours is required for the saving of line meter counts, specify the time and frequency required.

Range information

Minimum	Maximum	Default
		0 0 2 HRS

Activation

The value of the parameter is checked at midnight. If the value has changed in the last 24 hours the next backup of line meter blocks will be at the indicated start time and the frequency of subsequent backups will be at the indicated frequency.

Dependencies

Not applicable

Consequences

If the frequency is too high, the previous backup is not completed.

A check in the system prints a log if the backup has not completed before another one is requested.

Another consequence of a excessively high frequency is that the device holding the backups is filled too quickly, and requires attention more often.

If the frequency is too low the backup line meter blocks. A much lower meter count value than desired is available.

Verification

Not applicable

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS18.

Copy the existing value of this parameter when doing a dump and restore.

BACKUP_METER_FREQUENCY_TRUNKS

Parameter name

Backup Meter Frequency Trunks

Functional description of parameter BACKUP_METER_FREQUENCY_TRUNKS

This parameter is required for a switching unit with the world systems and the DMS–100 metering system. It specifies the starting time and the interval at which the trunk meter blocks are backed up.

The start time is used as the first time that the backup is done.

This value of this parameter is equal to the starting time (0 to 23 hours and 0 to 59 minutes) and the frequency (1 to 24 hours) at which the meter counts are to be saved.

A reasonable time interval to use is once every two hours.

The default value is a starting time of midnight (0 0) and a frequency of once every 2 h.

Provisioning rules

If a starting time other than midnight or a frequency of 2 hours is required for the saving of trunk meter counts, specify the time and frequency required.

Range information

Minimum	Maximum	Default
		0 0 2 HRS

Activation

The value of the parameter is checked at midnight. If the value has changed in the last 24 hours the next backup of trunk meter blocks will be at the indicated start time and the frequency of subsequent backups will be at the indicated frequency.

Dependencies

Not applicable

Consequences

If the frequency is too high, the previous backup can not complete.

There is a check in the system that prints a log if the backup has not been completed before another one is requested.

Another consequence of an excessively frequency, is that the device holding the backups is filled too quickly, and requires attention more often.

If the frequency is too low, the backup trunk meter blocks. There is a much lower meter count value than desired.

Verification

Not applicable

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS28.

Copy the existing value of this parameter when doing a dump and restore.

BC_CHECKING_SCOPE

Parameter name
Bearer Capability Checking Scope

Functional description of parameter BC_CHECKING_SCOPE

This parameter is required in a switching unit with the Integrated Services Digital Network (ISDN) feature. It specifies if call screening between stations based on bearer capability (BC) and low layer compatibility (LLC) is allowed in both the Integrated Business Network (IBN) and ISDN environments. This includes members of multiple appearance directory number (MADN) groups, ISDN stimulus terminal short hunt groups and huntgroups.

This parameter does not provide for the assignment of BCs to anything other than IBN electronic business sets (EBS), data units (DU) or ISDN stimulus terminals (this does not apply to 500/2500 sets, attendant consoles or trunks).

Provisioning rules

If BC checking is not applicable, leave the value of this parameter at the default of NONE.

If all calls terminating on IBN and ISDN agents with bearer capabilities are to have BC compatibility screening applied to them, set the value of this parameter to IBN.

If only calls terminating on ISDN terminals are to have BC compatability screening applied to them, set the value of this parameter to ISDN.

Range information

Minimum	Maximum	Default
		NONE

Activation
Immediate

Dependencies
Not applicable

Consequences
Not applicable

Verification
Not applicable

Memory requirements
This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

BELL_ANI_ALARM_ID

Parameter name

Bell Automatic Number Identification Alarm Identification

Functional description of parameter BELL_ANI_ALARM_ID

This parameter specifies the automatic number identification (ANI) information digit (ID) assigned by the operating company to indicate an alarm condition.

Provisioning rules

Any digit from 0 to 9 can be assigned. The recommended digit is 8.

This parameter only exists if the switching unit supports the ANI request.

Range information

Minimum	Maximum	Default
0	9	8

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS15.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Bell Automatic Number Identification Intercept Identification

Functional description of parameter BELL_ANI_INTERCEPT_ID

This parameter specifies the automatic number identification (ANI) information digit (ID) assigned by the operating company to indicate an intercept type of call.

Provisioning rules

Any digit from 0 to 9 can be assigned. The recommended digit is 9.

This parameter only exists if the switching unit supports the ANI request.

Range information

Minimum	Maximum	Default
0	9	9

Activation

Immediate

Dependencies

To bind in this parameter the parameter SPILL_ANI_9 in table OFCENG must be set to Y (yes) and a restart is required.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS15.

Copy the existing value of this parameter when doing a dump and restore.

BLOCK_555_DIGITS

Parameter name

Block 555 Digits

Functional description of parameter BLOCK_555_DIGITS

This parameter is required in a DMS-300 switching unit and will be used to enable or disable the blocking of calls to NNX code 555.

In North America, the convention for long distance directory assistance is an NNX of 555. Customer dialed calls terminating in the host country are blocked at present if the 4th, 5th and 6th digits are 555, unless explicitly allowed in table OVNTRNSL. This blocking is invalid for other countries that do not have the same structure in their numbering plans as North America.

This parameter indicates if subscriber dialed calls terminating in the country of the switch are to be blocked if the DEF digits are 555.

Provisioning Rules

If this parameter is left at the default value of Y (yes), subscriber dialed calls terminating in the country of the DMS–300 are blocked if the DEF digit are 555, unless there is specific datafill in table OVNTRNSL allowing the code.

If this parameter is set to the value of N (no), no checks will be made for NNX code 555 blocking.

Range information

Minimum	Maximum	Default
		Y

Activation

Immediate

Dependencies

If this parameter is left at the default value of Y (yes), subscriber dialed calls terminating in the country of the DMS–300 are blocked if the DEF digit are 555, unless there is specific datafill in table OVNTRNSL allowing the code.

Consequences

Not applicable

Verification

Not applicable

Dump and restore rules

This parameter is new in BCS21.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

D and E Digit Blocking

Functional description of parameter BLOCK_D_E_DIGITS

This parameter is required in a DMS-300 switching unit and is used to enable or disable the D and E digit blocking feature.

In North America, there is a three digit numbering plan area (NPA) followed by a three digit NNX office code. A digit represented by 'N' is a digit in the range 2 to 9, an 'X' is a digit 0 to 9. The position of the digit is designated by letters ABCDEF... In the digit string 613–726–2000 the D (4th) digit is '7' and the E digit is '2'.

The NPA always has the structure N0/1N (for example, 613, 212). In a very few numbering plan areas, local office codes with a 0/1 as the second digit are allowed. These are ambiguous and translations are determined by the number length.

A 'D' digit of 0 or 1 indicates an operator or test call which cannot be acccessed by normal subscribers. 'D' digit blocking is used to prevent subscriber access to these codes.

'E' digit blocking is used to prevent fraud by having an NPA followed by another valid NPA and possibly an operator code. This could allow invalid access to an code that is not allowed.

Current translations prevent customer dialed calls from having a 0/1 as the 4th or 5th digits for calls terminating in the country unless the combination is explicitly allowed in table OVNTRNSL, for ambiguous codes. This blocking is invalid for other countries which do not have the same structure in their numbering plans as North America.

Provisioning Rules

If this parameter is left at the default value of Y (yes), subscriber dialed calls terminating in the country of the DMS-300 are blocked if the D or E digit is a 0 or 1, unless there is specific datafill in table OVNTRNSL allowing the code.

If parameter is set to the value of N (no), no checks will be made for D or E digit blocking.

Range information

Minimum	Maximum	Default
		Y

Activation

Immediate

BLOCK_D_E_DIGITS

Dependencies

If this parameter is left at the default value of Y (yes), subscriber dialed calls terminating in the country of the DMS-300 are blocked if the D or E digit is a 0 or 1, unless there is specific datafill in table OVNTRNSL allowing the code.

Consequences

Not applicable

Verification

Not applicable

Dump and restore rules

This parameter was introduced in BCS21.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Basic Rate Interface Calling Line Identification Presentation Generally Available

Functional description of parameter BRI_CLIP_GENERALLY_AVAILABLE

This parameter specifies whether calling line identity information is available for all Basic Rate Access Functional Sets (BRAFS) or only for subscribers with lines that have the Calling Line Identification Presentation (CLIP) option in table KSETLINE assigned.

Provisioning rules

Set the value of this parameter to Y (yes) to permit the calling line identity to be presented to all BRAFS. When this parameter is set to Y, it overrides the line data. The CLIP option in table KSETLINE does not need to be specified for each line.

Set the value of this parameter to N (no) so that the called user must subscribe to to the CLIP supplementary service on an individual basis in order to be presented with the calling line identity.

Range information

Minimum	Maximum	Default
		Y

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS35.

Copy the existing value of this parameter when doing a dump and restore.

BTUP_INTL_DGT_PREFIX

Parameter name

British Telephone User Part International Digit Prefix

Functional description of parameter BTUP_INTL_DGT_PREFIX

This parameter is used to signify international numbers over British Telephone User Part (BTUP). The specified value is added to outgoing BTUP Calling Line Identity (CLI) digits to indicate international calls. It is removed from incoming (received) BTUP CLI digits before they are passed to another signaling system.

This parameter is used in the interworkings between Integrated Services Digital Network User Part (ISUP) to BTUP and Primary Rate Interface (PRI) to BTUP. When an international call has been signified by field NADDR of the ISUP CLID HDB, the value of this parameter is added to the start of the CLI digit string after any Hex "B" characters.

In any interworkings where BTUP is the originator, the received CLI is examined. If the International Digit Prefix is present, it is removed and a representation of the prefix is stored in the CLID HDB for use by the terminating agent.

The ranges of values for this parameter are 00 to 99 and 0 to 18.

Provisioning rules

Specify the value to be added to outgoing BTUP CLI digits to indicate international calls.

Range information

Minimum	Maximum	Default
00 0	99 18	10 2

Activation

Immediate

Dependencies

Not applicable

Consequences

An error message is generated if this parameter is set to a value outside of the valid range.

Verification

Not applicable

Memory requirements

Each unit requires 3 words of memory.

Dump and restore rules

This parameter was introduced in BCS34.

Copy the existing value of this parameter when doing a dump and restore.

BTUP_NETWK_ID

Parameter name

British Telephone User Part Network Identifier

Functional description of parameter BTUP_NETWK_ID

This parameter is required in a DMS-300 switch. It specifies the value of the Network Identifier that is included in British Telephone User Part (BTUP) Initial and Final Address Messages (IFAM) generated by the DMS.

Provisioning rules

Set the value of this parameter according to the network identifier required as outlined in table 1.

Table 1 Network Identifier Values by User	
Value	**User**
NI_NO_INFORMATION	no information on originating/preceding network
NI_BRITISH_TELECOM	U.K. customer specific
NI_TEL_SECUR_CELLULAR_RAD	Telecom Securicor Cellular Radio
NI_MERCURY	U.K. customer specific
NI_RACAL_VODAPHONE	Racal/Vodaphone
NI_HULL	Hull
NI_ISLE_OF_MAN	Isle of Man
NI_JERSEY	Jersey
NI_GUERNSEY	Guernsey
NI_EIRE	Eire
NI_VPN	VPN
NI_BES	BES
NI_VPN_AND_BES	VPN and BES
NI_PAN_EUROPE_RACAL_VOD	Pan European (GSM) Racal/Vodaphone
NI_PAN_EUROPE_TEL_SEC_CELL_RAD	Pan European (GSM) Telecom Securicor Cellular Radio (TCSR)
NI_EXTENSION_IDENTIFIER	reserved for extension identifier (treat as 0)

Range information

Minimum	Maximum	Default
		NI_NO_INFORMATION

Activation

Immediate

Dependencies

Not applicable.

Consequences

Not applicable.

Verification

To verify that this parameter is operational, generate an enhanced BTUP IFAM and verify that the network indicator value is equal to the value of the office parameter.

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced with software release BCS34.

Copy the existing value of the parameter when doing a dump and restore.

BTUP_PARTIAL_CLI

Parameter name

British Telephone User Part Partial Calling Line Identity

Functional description of parameter BTUP_PARTIAL_CLI

This parameter is required for switching units with the British Telephone User Part (BTUP) call processing feature.

This parameter contains partial calling line identity (PCLI) data and consists of three fields. It is used to indicate a particular node within a given network (that is, used when a BTUP signaling call encounters another signaling system that cannot interwork a Full Calling Line Identity).

Provisioning rules

If other than 0 0 0, specify the PCLI required.

The fields for PCLI are defined in table 1 for a particular design of exchange.

Table 1
PCLI data fields

Field	Name	Value
1	TYPE OF UNIT	00 - 99
2	REGION and AREA	00 - 99
3	UNIT IDENTITY	0000 - 9999

Range information

Minimum	Maximum	Default
		0 0 0

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory Requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in software release BCS28.

Copy the existing value of this parameter when doing a dump and restore.

BTUP_VER_IND

Parameter name
British Telephone User Part Version Indicator

Functional description of parameter BTUP_VER_IND
This parameter is used for identifying the UK national telephone user part (BTUP) version (V2 or V2+) required on a nodal basis. It determines the CCITT No.7 BTUP version indicator on the Initial Address Message/Initial and Final Address Message (IAM/IFAM) when generated at originating, transit and interworking nodes.

This parameter is read-only to the operating company and can be changed only by Northern Telecom.

Provisioning rules
This office parameter can be set to a value of BTV2SNDE or BTV2PNDE.

The value BTV2SNDE indicates that the node is version 2.

The value BTV2PNDE indicates that the node is version 2+.

Range information

Minimum	Maximum	Default
		BTV2SNDE

Activation
Immediate

Dependencies
Not applicable

Consequences
Not applicable

Verification
This parameter is read-only to the operating company. The parameter value can be verified by listing the parameter at the MAP level.

Memory requirements
Each unit requires 3 words of memory.

Dump and restore rules
This parameter was introduced in BCS35.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

C11_EXPANSION

Functional description of parameter C11_EXPANSION

This parameter is required for an International Switching Centre (ISC). It defines the 1 to 12 digit code (digits 0 to 9) that operator codes of type C11, are be converted to so that they are accepted nationally when received from overseas.

Provisioning Rules

Specify the 1 to 12 digit code (digits 0 to 9) that operator codes of type C11, are be converted to so that they are accepted nationally when received from overseas.

Range information

Minimum	Maximum	Default
0	999999999999	121

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump a restore.

C11_OUTG_EXPANSION

Parameter name

C11 Outgoing Expansion

Functional description of parameter C11_OUTG_EXPANSION

This parameter is required in a DMS-300 switching unit and specifies an operator code (field DIGITS) and the single digit (field C11C12) with which it is to be replaced on outgoing calls. The incoming trunk class (field INTRKCLS) of the trunk group (trunk group type GW) in table TRKGRP must be a 1 for the conversion to be done.

If only these 1 to 12 digits follow any initial country code, discrimination digit, or (optionally) city code digits, on outgoing calls, they are replaced by the single digit in the C11C12 field.

The range of the DIGIT field is 1 to 12 digits (digits 0 to 9).

The range of the C11C12 field is 1 digit in the range 0 to 9,B,C,D,E,F.

Provisioning rules

Specify an operator code (field DIGITS) and the single digit (field C11C12) with which it is to be replaced on outgoing calls.

Range information

Minimum	Maximum	Default
		121 B

Activation

Immediate

Dependencies

The incoming trunk class (field INTRKCLS) of the trunk group (trunk group type GW) in table TRKGRP must be a 1 for the conversion to be done.

Consequences

Not applicable

Verification

Not applicable

Dump and restore rules

This parameter was introduced in BCS21.

Copy the existing value of this parameter when doing dump and restore.

Parameter name

C12 Expansion

Functional description of parameter C12_EXPANSION

This parameter is required for an International Switching Centre (ISC) and defines the 1-to-12 digits (digits 0 to 9) that operator codes of type C12 are converted to so that they are accepted nationally when received from overseas.

Provisioning rules

Specify 1-to-12 digits (digits 0 to 9) that operator codes of type C12 are converted to so that they are accepted nationally when received from overseas.

Range information

Minimum	Maximum	Default
		131

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

C12_OUTG_EXPANSION

Parameter name

C12 Outgoing Expansion

Functional description of parameter C12_OUTG_EXPANSION

This parameter is required in a DMS-300 switching unit. It specifies an
operator code (field DIGITS) and the single digit (field C11C12) with which
it is to be replaced on outgoing operator calls. If only these 1-to-12 digits
follow any initial country code, discrimination digit or (optionally) city code
digits on outgoing calls, they are replaced by the single digit in field
C11C12.

If only this 1-to-18 digits follows any initial country code and discrimintion
digits on outgoing calls, they are replaced with the single digit C.

The range of the DIGIT field is 1 to 12 digits in the range 0 to9.

The range of the C11C12 field is 1 digit in the range 0 to 9A,B,C,D,E,F.

Provisioning rules

Specify an operator code (field DIGITS) and the single digit (field C11C12)
with which it is to be replaced on outgoing operator calls.

Range information

Minimum	Maximum	Default
		131 B

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS21.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

C12 Plus Outgoing Expansion

Functional description of parameter C12_PLUS_OUTG_EXPANSION

This parameter is required in a DMS-300 switching unit. It specifies the operator code that is to be converted to a C digit on outgoing international trunks (trunk group type GW in table TRKGRP), that must be followed by one to four digits.

Provisioning rules

This parameter can have a numeric value from 1 to 12 digits (digits 0 to 9). Typically the value is a 2-digit number.

If the switching unit is in North America, leave this parameter value at the default of 11.

Range information

Minimum	Maximum	Default
		11

Activation

Immediate

Dependencies

See the *Common Customer Data Schema*, 297-1001-451 for a description of table TRKGRP.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter requires 4 words of memory

Dump and restore rules

This parameter was introduced in BCS21.

Copy the existing value of this parameter when doing a dump and restore.

CABLE_LOCATE_TIMEOUT

Parameter name

Cable Locate Timeout

Functional description of parameter CABLE_LOCATE_TIMEOUT

This parameter is required for the Dialable Line Circuit Identification feature.

Upon dialing an access code followed by a seven–digit directory number (DN) from any line circuit, the DMS-100 connects the desired tone on the tip and ring of the dialed DN. The cable locator tone remains on the line for the predetermined period of time specified by this office parameter.

Provisioning rules

Specify the length of time, in seconds, that the cable locator tone remains on the line.

Range information

Minimum	Maximum	Default
0	600 (10 min)	180 (3 min)

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS18.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Cable Short Timeout

Functional description of parameter CABLE_SHORT_TIMEOUT

In the process of diagnosing a fault on a line, it is sometimes necessary to place a short across the tip and ring leads of the line. The Dialable Short Circuit feature eliminates the need for manual intervention by providing this capability through an access code dialed by a craftsperson from either the faulty line or any other DMS-100 line.

This parameter defines the length of time, in 1-s intervals, that the short circuit is applied across the tip and ring of a selected line for the above feature.

Provisioning rules

The value of this parameter should be set at the discretion of the operating company based on the required time to locate line faults.

The default value is set at 180 seconds (3 mins).

Range information

Minimum	Maximum	Default
0	600	180

Activation

Immediate

Dependencies

This feature requires the pseudo common language location identifier (CLLI) DSCKT to be assigned in table CLLI.

For plain ordinary telephone service (POTS) lines and integrated business network (IBN) lines with the Direct Outward Dial (DOD) feature, the access code for this feature to be assigned in subtable STDPRT.

For IBN lines without the DOD feature, the access code for this feature is assigned in table IBNXLA.

This parameter requires at least one horizontal agent to be assigned with selector S in table MTAHORIZ.

Consequences

Not applicable

Verification

Not applicable

CABLE_SHORT_TIMEOUT

Memory requirements

>This parameter requires 1 word of memory.

Dump and restore rules

>This parameter was introduced in BCS20.

>Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Call Processing Engineered Level Warning Threshold

Functional description of parameter CC_ENGLEVEL_WARNING_THRESHOLD

This parameter is associated with the CPSTATUS (call processing status) tool. It specifies the level at which the switch is engineered to run. The value is used by CPSTATUS to determine if the switching unit is running above or below its engineered level. This is also displayed, as additional information, by the CI command CPSTAT.

The CPSTATUS tool provides a measure of all central processing unit (CPU) occupancies including call processing occupancy, a measure of additional CPU time available for call processing work, an indication of overload and an indication of switch performance with respect to the switch engineering.

In BCS34, this parameter is modified for Series 50 SuperNode applications by creating a linear representation of call processing capacity. The call processing occupancy (CPOCC) used in other DMS cores is replaced by a call capacity percentage (CAPACITY) that represents the current call processing throughput relative to a projected safe maximum. The default value for this application has been changed to 100. This value has been chosen because 100% CAPACITY represents the safe engineering level for all markets.

Provisioning rules

The value of this parameter must be the percentage of CPOCC for which the switching unit is engineered.

The default value is 77 (77%). Plain old telephone service (POTS) switching units are engineered at this value.

Set the value of this parameter to a value of 100 for a Series 50 SuperNode switch.

Range information

Minimum	Maximum	Default
0	100 (Series 50 SuperNode)	100 (Series 50 SuperNode)
	83 (all other cores)	77 (all other cores)

Activation

Immediate

CC_ENGLEVEL_WARNING_THRESHOLD

Dependencies

The parameters CPSTATUS_ON in table OFCVAR and CPSTATUS_SWITCHABLE in table OFCENG are also associated with this feature.

Consequences

Overprovisioning or underprovisioning this value is not performance affecting. The CPSTAT and CPSTATUS displays will read ABOVE or BELOW depending on the value of this parameter and the CPOCC for the last minute.

The following message appears if an attempt is made to change the value of the parameter outside its range of 0 to 83 in a switch other than a Series 50 SuperNode switch:

```
*ERROR* : VALUE OUTSIDE VALID RANGE (0 TO 83%)
```

Verification

The value of this parameter can be verified using the CPSTAT command.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

Offices that upgrade to BRISC CPU must change the value of the parameter CC_ENGLEVEL_WARNING_THRESHOLD in table OFCENG to 100.

Parameter history

BCS36 added dump and restore information for upgrades to BRISC CPU

.

Parameter name

Central Control Routine Excercise Scheduled Hour

Functional description of parameter CC_REX_SCHEDULED_HR

This parameter specifies the hour during which the Central Control (CC) REXTEST is started.

The actual time within the hour that the test starts is independently determined by the software.

The CC REXTEST drops sync and executes diagnostics on the inactive side. An image test is also performed on the inactive side.

Note that this test can take up to an hour on average. It can take up to 5 hours to complete if there are multiple store card faults. This time is for the software to fix the problems and finish the test. The test should be run during the five lowest traffic hours on the switch. In most cases this period starts at midnight.

Provisioning rules

The recommended value for this parameter is 0.

Range information

Minimum	Maximum	Default
0	23	0

Activation

Immediate

Dependencies

It is recommended that the scheduling for office parameters CC_REX_SCHEDULED_HR and CMC_REX_SCHEDULED_HR be staggered. The recommended value for CC_REX_SCHEDULED_HR is 0 and the recommended value for CMC_REX_SCHEDULED_HR is 1.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

Each unit requires 1 word of memory.

CC_REX_SCHEDULED_HR

Dump and restore rules

This parameter was introduced in BCS17.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Central Control Metering Failure Free Call

Functional description of parameter CCMTR_FAILURE_FREE_CALL

This parameter is required in a local switching unit with universal translations. It specifies whether new calls are allowed to go through free of charge or route to treatment when no Central Control (CC) metering resources are available.

Provisioning rules

If the value of this parameter is left an the default value of N (no), new calls will be routed to treatment if there are no CC metering resources.

If the value of this parameter is set to Y (yes), new calls will be allowed to go through free of charge. Note that calls already up will be unaffected. They will not be taken down.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

See parameter NUM_CCMTR_EXT_BLKS in table OFCENG for the assignment of CC metering extension blocks.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS22.

Copy the existing value of this parameter when doing a dump and restore.

CDC_RESTRICTION_ACTIVE

Parameter name

Customer Data Change Restriction Active

Functional description of parameter CDC_RESTRICTION_ACTIVE

This parameter is associated with the Customer Data Change (CDC) Service Order (SERVORD) enhancements feature.

It controls a CDC user's ability to do the following:

- use the NEW and OUT command for Primary Directory Numbers (PDNs);
- add or delete the MDN feature to PDNs
- add, delete, or establish MLH, DLH, DNH, or MPH hunt groups on PDNs
- to use the SWAP with intercept option.

Provisioning rules

Set the value of this parameter to Y (yes) to restrict access to SERVORD commands for PDNs for CDC users.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Table CDCLOGON indicates which parameters of these commands are CDC user changeable.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS30.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Call Diversion Extension Blocks

Functional description of parameter CDIV_EXT_BLOCKS

This parameter is required in a local switching unit (international) with universal translations and the international Call Diversion Operator (CDO) feature. It specifies the number of call diversion extension blocks required.

This parameter is a part of the Absent Subscriber Intercept (ASI) feature that allows for call diversion to an ASI operator while the subscriber is away.

Provisioning rules

One call diversion block is required for each active call diversion in the switching unit.

The parameter should be equal to the maximum number of active call diversions at any one point in time.

If this feature is not required, set the value to 0 (zero).

Range information

Minimum	Maximum	Default
0	32767	2

Activation

Increase – immediate

Decrease – cold restart

Dependencies

Each subscriber with the CDO feature must be assigned the option CDO in table LENFEAT.

Consequences

If no extension blocks are available, a call diversion fails.

Verification

To verify that sufficient recording units have been allocated, use CI command OMSHOW EXT ACTIVE 37 and read the following entry:

	EXTSEIZ	EXTOVFL	EXTHI	EXTSEIZ2
	EXTHI2			
37 DIV_EXTENSION				
	2			
	0	0	0	0
	0			

Any nonzero value in EXTOVFL indicates underprovisioning.

Measurement EXTHI AND EXTHI2 records the maximum number of extension blocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual* 297-1001-814 for a description of OM group EXT.

Memory requirements

Each unit requires 14 of words of memory.

Dump and restore rules

This parameter was introduced in BCS20.

Copy the existing value of this parameter when doing a dump and restore.

.

Parameter name

Call Detail Recording 100 Byte Format

Functional description of parameter CDR_100_BYTE_FORMAT

This parameter allows the reduction of the UK standard Call Detail Record (CDR) from a size of 180 bytes to 100 bytes in a DMS-100 or DMS-250 switch.

Provisioning rules

Set the value of this parameter to Y (yes) to produce the new 100-byte CDR.

Leave the value of this parameter at the default of N (no) to produce the existing 180-byte CDR.

Range information

Minimum	Maximum	Default
		N

Activation

Warm restart

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter is new with software release BCS31.

Copy the existing value of this parameter when doing a dump and restore..

CDR_FORMAT

Parameter name

Call Deatail Recording Format

Functional description of parameter CDR_FORMAT

This parameter specifies the Call Detail Recording (CDR) format for DMS-100 as either CDR_180_FORMAT (180 bytes), CDR_100_FORMAT (100 bytes) or CDR_46_FORMAT (46 bytes).

Provisioning rules

When an office installs a BCS34 (or later) load from a BCS33 (or earlier) load, this parameter is initialized based on the value of office parameter CDR_100_BYTE_FORMAT in table OFCENG. If CDR_100_BYTE_FORMAT is set to a value of Y (yes), CDR_FORMAT remains set to CDR_100_FORMAT. Otherwise, it is set to CDR_180_FORMAT.

Range information

Minimum	Maximum	Default
		CDR_100_FORMAT

Activation

Activation occurs on a Billing file rotate for CDRs (dirp Subsystem OCC) or on a warm restart.

Dependencies

Field DATADUMP in table CRSFMT must be set to a value of Y (yes) prior to setting this parameter to a value of CDR_46_FORMAT.

Consequences

Not applicable.

Verification

To verify that this parameter is functioning, perform the following procedure:

1 Set this parameter to a value of CDR_180_FORMAT.

2 Perform a billing file rotate.

3 Check to see that the CDRs are in 180 byte format.

4 Change the office parameter value to CDR_100_FORMAT.

5 Perform a billing file rotate.

6 Check to see that the CDRs are in 100 byte format.

7 Set this parameter to a value of CDR_46_FORMAT.

8 Perform a billing file rotate.

9 Check to see that the CDRs are in 46 byte format.

Memory requirements

Each unit requires one word of memory.

Dump and restore rules

Check the value of CDR_100_BYTE_FORMAT on the BCSN side. If the value is Y, CDR_FORMAT is set to CDR_100_FORMAT. Otherwise, the current CDR format was the 180 byte CDR. Set CDR_FORMAT to CDR_180_FORMAT.

This parameter was introduced with software release BCS34.

Copy the existing value of this parameter when doing a dump and restore.

CFD_EXT_BLOCKS

Parameter name

Call Forward Extension Blocks

Functional description of parameter CFD_EXT_BLOCKS

This parameter specifies the number of Call Forwarding Busy and Don't Answer extension blocks required for Meridian Digital Centrex (MDC) and Residential Enhanced Services (RES) stations.

These are in addition to the extension blocks specified under parameter CFW_EXT_BLOCKS in table OFCENG.

Provisioning rules

The value of this parameter is determined by the following formula:

Value = NS X 0.7

where: NS = total number of stations with one or more types of MDC or RES Call Forwarding

Include all types of MDC and RES Call Forwarding, not just stations with Call Forwarding Busy and Don't Answer.

If this feature is not required, leave the value at the default of 1000.

Range information

Minimum	Maximum	Default
0	32767	1000

Activation

Increase – immediate
Decrease – cold restart

Dependencies

Not applicable

Consequences

If an insufficient quantity of blocks is specified, MDC and RES Call Forwarding may cease to function.

Verification

To verify that sufficient recording units have been allocated, use CI command OMSHOW EXT ACTIVE and read the following entry

	EXTSEIZ	EXTOVFL	EXTHI	EXTSEIZ2
	EXTHI2			
19 CFD_EXTENSION				
1000				
	0	0	0	0
	0			

Any nonzero value in EXTOVFL indicates underprovisioning.

Measurement EXTHI records the maximum number of extension blocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual* 297-1001-814 for a description of OM group EXT.

Memory requirements

Each unit requires 22 words of memory.

Dump and restore rules

This parameter was introduced in BCS20.

Copy the existing value of this parameter when doing a dump and restore.

CFW_EXT_BLOCKS

Parameter name

Call Forwarding Extension Blocks

Functional description of parameter CFW_EXT_BLOCKS

This parameter is required for all switching units that have the Call Forwarding (CFW) feature.

A call forwarding extension block is required on an active call when any variation of call forwarding (POTS, Meridian Digital Centrex (MDC) or Residential Enhanced Services (RES)) is involved in the call.

Provisioning rules

For switching units without software package NTX806, use the following formula to calculate the value of this parameter:

Value = 0.05 x (# of POTS lines with CFW excluding Remote Call
                    Forwarding (RCF) lines)
        + 0.01 x ((# of IBN lines with CFW excluding RCF)
        +   (# of RES lines with CFW excluding RCF))
        +   (# of lines equipped with RCF)

If the switching unit has software package NTX806 use the following formula to calculate the value of this parameter:

Value = 0.05 x ((# of POTS lines with CFW excluding RCF)
        +   (# of POTS lines with Call Forward Busy) +
                   (# of POTS lines with Call Forward Don't Answer)
        +   (# of hunt groups with CFGDA))
        + 0.1   x ((# of IBN lines with CFW excluding RCF)
        +   (# of RES lines with CFW excluding RCF)
        +   (the maximum # of simultaneous calls that can be forwarded
                   from all lines with the Multiple Simultaneous Call
                   Forwarding Feature))
        +   (# of lines equipped with RCF)

The maximum number of simultaneous calls term must reflect the maximum expected usage of Multiple Simultaneous Call Forwarding required for the engineering interval on lines with that feature. This is determined by the operating company.

The number of MDC + RES CFW, RCF, POTS CFW, CFBL and CFDA must be the maximum quantity required for the engineering interval.

The number of simultaneous calls that can be forwarded is defined in field NUMCALLS of table CFW, but the quantity in the formula should be the maximum required for the engineering interval.

Range information

Minimum	Maximum	Default
0	32767	10

Activation

Increase – immediate
Decrease – cold restart

Dependencies

The value of this parameter must increase if the number of MDC, RES, RCF or POTS lines with any variation of call forwarding is to be increased for the engineering period, or for the addition of software package NTX806.

Consequences

Insufficient blocks will cause a line with the CFW feature to be routed to No Software Resource treatment (NOSR) in the Line Treatment table when attempting to activate CFW and no extension blocks are available.

Verification

To verify that sufficient recording units have been allocated, use CI command OMSHOW EXT ACTIVE and read the following entry:

```
              EXTSEIZ         EXTOVFL         EXTHI         EXTSEIZ2
              EXTHI2
9 CFW_EXTENSION
15
                 0              0              0              0
                 0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Measurement EXTHI records the maximum number of extension blocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual* 297-1001-814 for a description of OM group EXT.

In a switching unit with the Integrated Business Network (IBN) feature the operational measurement group GROUP CALLFWD is provided for this feature.

In a switching unit with the POTS feature the OM group GROUP CFWPOTS is provided for this feature.

Memory requirements

14 words of memory are required for each call forwarding extension block.

CFW_EXT_BLOCKS

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Call Forwarding Separate Keylist Feature

Functional description of parameter CFX_SEPARATE_KEYLIST_FEATURE

This parameter is required for a Meridian Digital Centrex (MDC) switching unit and specifies whether the Call Forwarding Separate Keylist feature is active.

The Call Forwarding Separate Keylist feature allow separate keylists in table KSETFEAT for Call Forwarding Universal (CFU), Call Forwarding Intragroup (CFI), Call Forwarding Fixed (CFF), Call Forwarding Busy (CFB), and Call Forwarding Don't Answer (CFD).

For example, if the Electronic Business Set (EBS) has four directory number (DN) keys the following assignments are possible:

- CFB DEFAULT could be assigned to DN keys 1, 2 and 4.
- CFD FIXED could be assigned to DN keys 1 and 4.
- CFU could be assigned to DN key 2.

In the above example

- DN 1 has CFB DEFAULT and CFD FIXED.
- DN 2 has CFB DEFAULT and CFU.
- DN 3 has no call forwarding.
- DN 4 has CFB DEFAULT and CFD FIXED.

Provisioning rules

Set the value of this parameter to Y (yes) to activate the Call Forwarding Separate Keylist feature.

Leave the value of this parameter at the default of N (no) if the Call Forwarding Separate Keylist feature is not required.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

It is strongly recommended that this parameter not be changed to N once it has been set to Y. This could result in some false representation of CFX tuples in table KSETFEAT.

CFX_SEPARATE_KEYLIST_FEATURE

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS27.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Call Forwarding Extension Blocks

Functional description of parameter CFZ_EXT_BLOCKS

This parameter is required for a switching unit that has the plain ordinary telephone service (POTS) Call Forwarding feature package NTX806. It specifies the maximum number of call forwarding extension (CFZ) blocks required for the engineering period.

One extension block (CFZ) is used to extend the call condense block (CCB) of every call that terminates on a station with any form of POTS Call Forwarding active such as Call Forward (CFW), Call Forwarding Busy (CFBL) or Call Forwarding Don't Answer (CFDA), and then attempts to forward. If the forward is unsuccessful the block is released. Calls successfully forwarded release the block upon exit.

Provisioning rules

If the switching unit has software package NTX806 use the following formula to calculate the value of this parameter:

Value =	(12% of the number of POTS CFW lines X the simultaneous calls that can be forwarded)
+	(number of POTS CFBL lines X the simultaneous calls that can be forwarded)
+	(number of POTS CFDA lines X the simultaneous calls that can be forwarded)

The number of POTS CFW, CFBL and CFDA lines must be the maximum quantity required for the engineering interval.

The number of simultaneous calls that can be forwarded is defined in field NUMCALLS of table CFW, but the quantity in the formula should be the maximum required for the engineering interval.

CFDA calls do not receive any treatment, the ringing station continues to ring.

For a switch without software package NTX806, set the value of this parameter to 0 (zero).

Range information

Minimum	Maximum	Default
0	32767	15

Activation

Increase – immediate
Decrease – cold restart

CFZ_EXT_BLOCKS

Dependencies

The value of this parameter must increase if the number of POTS lines with any variation of call forwarding is to be increased for the engineering period.

Changing the value of this parameter affects the value of the following parameters:

- CFW_EXT_BLKS in table OFCENG
- NUMCPWAKES in table OFCENG

Consequences

Insufficient blocks cause calls terminating on POTS lines with feature CFW, CFBL or CFDA not to be forwarded.

For an overflow on CFW or CFBL calls No Software Resource (NOSR) treatment is given to the originator. If the call originates from a line, a LINE138 log is generated. A TRK138 log is generated if the originator is a trunk.

Verification

To verify that sufficient extension blocks have been allocated, use CI command OMSHOW EXT ACTIVE 49 and read the following entry:

```
                  EXTSEIZ        EXTOVFL        EXTHI          EXTSEIZ2
                  EXTHI2
49 CFZ_EXTENSION
                  15
                  0              0              0              0
                  0
```

Any nonzero value in EXTOVFL indicates underprovisioning

Measurement EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual* 297-1001-814 for a description of operational measurements (OM) group EXT.

See OM group CFWPOTS for the OMs associated with this feature.

Memory requirements

Each call forwarding extension (CFZ) block requires 18 words of memory.

Dump and restore rules

This parameter was introduced in BCS23.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Charge Update Frequency

Functional description of parameter CHARGE_UPDATE_FREQUENCY

This parameter makes the timing of the Charge Update Process (CUP) and the Table History Queue Clean–up datafillable.

The Charge Update Process looks at all the active calls, and updates the meter charges for every active metered call that has been active for more than two hours. These calls are said to be CUPped, and become CC metered calls. These calls are also called long duration calls. The CUP also does the appropriate calculations to determine the time of its next execution.

Table History Queues contain the history of each tariff change for each metering network. An entry is added to these queues whenever a change of tariffs occurs. (that is, a metering changeover, change of datafill in the metering table, a SETTIME). These queues must been cleaned regularly to ensure that they not not overflow.

The parameter contains the frequency for which the CUP and THQ clean up are to be executed. The start time is used as a base time to calculate the running times.

Prior to BCS30, the CUP and the THQ Cleanup were always executed at 0315 every day. This parameter allows some flexibility, to allow the time and frequency of execution to be datafillable. This office parameter is also used to determine if the MTR143 log is generated when the CUP encounters a long duration call.

Provisioning rules

Specify the parameter values as outlined in table 1:

Table 1
Datafill for CHARGE_UPDATE_FREQUENCY

Field	Datafill
Start time (HH MM)	HH is from 0 to 23 MM is from 0 to 59
Frequency	value is from 2 HRS to 24 HRS
Generate_log	Y or N

Examples:

If this parameter is set to a value of 2 00 12 HRS Y, the start time is 02:00, the frequency is 12 HRS and the execution times are 02:00 and 14:00. MTR143 logs are generated.

If this parameter is set to a value of 3 30 7 HRS N, the start time is 03:30, the frequency is 7 HRS, and the execution times are 03:30, 10:30, 17:30, and 00:30. MTR143 logs are not generated.

Note: The pattern wraps to the next day, and is restarted at the start time. This means that for the above values, the CUP executes at 00:30, 03:30, 10:30 and 17:30 every day.

Range information

Minimum	Maximum	Default
0 0 2 HRS	23 59 24 HRS	03 15 24 HRS N

Activation

Changing this office parameter does not change the timing of the CUP immediately. It takes effect on either of the following actions:

- the next restart
- the next execution of the CUP

When the CUP runs, the time of the next execution is calculated using the current values of this parameter.

The log is generated immediately on the next execution of the CUP.

Dependencies

Not applicable

Consequences

The frequency should be low enough to ensure that the THQs do not overflow. 24, the maximum allowed frequency, has proven to be a value that does not make the THQs overflow.

Care must be taken in choosing the execution times of the CUP and THQ cleanup. It is preferred to not execute these two at a busy switch time. The CUP process searches through every active call for those which have been active longer than two hours. At busy times, there are more active calls, which means that the CUP would take longer to run.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS30.

Copy the existing value of this parameter when doing a dump and restore.

CIRCUIT_QUERY_AUDIT_START_TIME

Parameter name

Circuit Query Audit Start Time

Functional description of parameter CIRCUIT_QUERY_AUDIT_START_TIME

This parameter is required in a switching unit with the Common Channel Signaling 7 (CCS7) and the Trunk Test Position (TTP) enhancements for trunks that use CCS7 signaling (ISUP).

As part of this feature, an audit is included to be performed once daily. It will run the trunk query procedure on all ISUP trunks to correct any state mismatches if the far end office can accept it. See Table ADJNODE.

This parameter specifies the time when the circuit query audit runs. The time specified should be during off–peak hours because it can generate many CCS7 messages.

Provisioning rules

Specify the time for the circuit query audit runs. It can have a value of hours (0 to 23) and minutes (00 to 59). The default value is 2 00 (2 a.m)

Range information

Minimum	Maximum	Default
		2 00

Activation

The value changes once the audit has run once using the old value.

Dependencies

See Field REMCQSUP in table ADJNODE for additional information about Circuit Query Messages. If the value of REMCQSUP is set to Y, circuit query messages can be sent to the far end office.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS22.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Calling Line Identification National Prefix

Functional description of parameter CLI_NATIONAL_PREFIX

This parameter allows the insertion of a variable number, preceding the calling line identification (CLI) received from the international network which has to be presented to the national network. The variable number represents those digits normally dialed by the receiver of this CLI, in order to gain access to the international gateway (excluding the trunk access digit/s), when making an international call.

Provisioning rules

This parameter has two fields. The first field has a value of Y (Yes) or a N (No). The second field is a number that can carry a maximum of four digits. The valid range for a digit is a number from 0 to 15 to allow the use of hexadecimal numbers. This field carries the actual prefix digits that will be prefixed to the CLI that is received from the international network for presentation to the national network.

If this parameter's first field is set to N, the only value that can be datafilled for the second field is $ (dollar sign) to mean that the second field is null. If the parameter is activated then it is necessary to datafill the second field with a valid value other than $ (dollar sign).

Range information

Minimum	Maximum	Default
N $	Y FFFF	N $

Note: This default is chosen to insure that no digits are appended to the CLI unless the parameter has been specifically datafilled at the MAP to indicate its use. This avoids picking up unintended prefix digits in the parameter.

Activation

Immediate

Dependencies

Not applicbale

CLI_NATIONAL_PREFIX

Consequences

The following error or warning messages is indicated in the event of an incorrect setting of this parameter:

`CLI_NATIONAL_PREFIX NOT ACTIVATED :`

This message indicates that the value of prefix digits cannot be datafilled to a value other than $ (dollar sign – meaning no digits present) if the parameter is to be deactivated (First field of parameter set to N).

`CLI_NATIONAL_PREFIX VALUE ILLEGAL – 0 LENGTH :`

This message indicates that the parameter must be supplied with prefix digits if it is activated (First field set to Y). In other words the value Y $ (dollar sign) is illegal.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS31.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Central Message Controller Routine Excercise Scheduled Hour

Functional description of parameter CMC_REX_SCHEDULED_HR

This parameter specifies the hour during which the Central Message Controller (CMC) PERIODIC tests are started.

The actual time within the hour that the test is started is independently determined by the software.

Provisioning rules

The recommended value for this parameter is 1.

This parameter runs the CMC periodic tests that check the two CMCs by busying one and testing it and then doing the same to the other.

Do not schedule this test during a high traffic period.

Range information

Minimum	Maximum	Default
0	23	0

Activation

Immediate

Dependencies

It is recommended that the office parameters CMC_REX_SCHEDULED_HR and CC_REX_SCHEDULED_HR be staggered. Therefore, the recommended value for CMC_REX_SCHEDULED_HR is 1 and the recommended value for CC_REX_SCHEDULED_HR is 0.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

Each unit requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS17.

Copy the existing value of this parameter when doing a dump and restore.

COINDISPOSAL

Parameter name
Coin Disposal

Functional description of parameter COINDISPOSAL
This parameter is required for local and combined local/toll switching units.

The value of this parameter determines what should be done with any coins that are left in the coin chute at the termination of a line to operator call.

Provisioning rules
The value of this parameter can be set to one of the following values as outlined in table 1.

Table 1 Provisioning parameter COINDISPOSAL	
Value	**Action**
BLIND_COLLECT	always collect coins
BLIND_RETURN	always return coins
IGNORE_COIN	take no special action

Range information

Minimum	Maximum	Default
		IGNORE_COIN

Activation
Immediate

Dependencies
Not applicable

Consequences
Not applicable

Verification
Not applicable

Dump and restore rules
Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Command Screening

Functional description of parameter COMMAND_SCREEN

This option specifies whether the command screening feature can be used at the Line Test Position (LTP).

With the introduction of data lines, a method of screening operators from performing operations on certain types of terminals is required.

This means that a person only authorized to perform tests on data lines is not able to perform tests on voice lines (POTS and IBN Business Sets).

Command screening is accomplished through the use of two special commands; VOICE_SCREEN and DATA_SCREEN. The operating company sets the PRIVCLAS of these commands as desired and permits users to have the command class of the type of lines for which they are authorized.

For example, if the operating company sets the PRIVCLAS of DATA_SCREEN to be 7, and the PRIVCLAS of VOICE_SCREEN to be 8, a user who has the command class of 7, but not 8 is allowed access only to data lines. If the user tried to busy, diagnose, or LCO a voice line, it would not be permitted.

Users are only screened from commands that affect the state of the line (for example, BUSY, LCO, and so on). They are still able to POST, CKTLOC, ALMSTAT, and so on.

Provisioning rules

Set the value of this parameter to Y (yes) if command screening is required.

Leave the value of this parameter at the default value of N (no) if command screening is not required,

Range information

Minimum	Maximum	Default
		N

Activation

Cold restart

Dependencies

Not applicable

Consequences

Not applicable

COMMAND_SCREEN

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Cutoff on Permanent Signal and Partial Time Relay Open Time

Functional description of parameter COPP_RELAY_OPEN_TIME

This parameter is required to specify the time required before Cutoff on Permanent Signal and Partial Time (COPP).

Provisioning rules

Specify the time, in 10-ms intervals, required before Cutoff on Permanent Signal and Partial Time (COPP).

Range information

Minimum	Maximum	Default
50 (500 ms)	1000 (10 s)	80

Activation

Immediate

Dependencies

This parameter is associated with the routing list element, COPP, which governs the duration of the open battery signal that will be applied to subscriber line equipment that enters permanent signal or partial dial conditions, given that the PDIL and PSIG treatments have been datafilled accordingly.

The open battery signal is intended to inform subscriber line equipment suitably equipped that the line has entered a permanent signal or partial dial state.

A new routing list element, COPP, which the operating company can introduce into the routing list associated with the line treatments PSIG and PDIL provide the operating company with the ability to supply, on every standard line in a DMS-100F office, an open battery signal as the first operation in processing permanent signal and partial dial subscriber line conditions.

This routing list element has no impact on IBN Business Sets, Data Units or display phones.

Tables 1 and 2 illustrate one possible datafill for the PSIG and PDIL treatments. If the datafill corresponds to this example an open battery signal would be applied as the first operation in processing permanent signal and partial dial subscriber line conditions.

Table 1 Table TMTCNTL		
Treatment	**Log**	**FSRTE**
PSIG	N	T OFRT 51
PDIL	N	T OFRT 51

Table 2 TABLE OFRT		
Route	**RTELIST**	**Contmark**
51	S D COPP	+
	S D PSPD	+
	S D ROH	+
	S D OFLO	+
	S D LKOUT	$

It is important to note that the routing element COPP must not be used in any other line treatments and when used for the PSIG and PDIL line treatments must only appear as the first element in the routing list corresponding to those treatments. Also, when COPP is used in the routing list corresponding to the PSIG and PDIL line treatments it must be followed by the LKOUT routing list element somewhere in the routing list.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS18.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Customer Originated Trace Announcement Type

Functional description of parameter COT_ANNOUNCEMENT_TYPE

This parameter specifies the type of Customer Originated Trace (COT) announcements that are utilized in an operating office. The possible values are CUSTOM and STANDARD.

Provisioning rules

The value chosen will depend on whether the office is equipped with the appropriate cards for standard and custom announcements. The customized announcements require a Digital Recorded Announcement Machine (DRAM) with a 1X75BA controller card and a 1X76AJ programmable read only memory (PROM) card (for English). If French announcements are required, a 1X76BJ card is needed.

Set the value of this parameter to CUSTOM to allow access to existing PROM recordings through datafill in table DRMUSERS.

Set the value of this parameter to STANDARD to allow the random access memory (RAM) recordings and separate announcements in table DRAMTRK to be used.

Range information

Minimum	Maximum	Default
		STANDARD

Activation

Immediate

Dependencies

This parameter must be set before datafilling table RESOFC. In order to datafill the standard COT announcements, the following tables must be datafilled in order:

- CLLI
- ANNS
- ANNHEMS
- DRAMS
- DRAMTRK
- RESOFC

In order to datafill the custom COT announcements, the following tables must be datafilled in order.

- CLLI
- ANNS

COT_ANNOUNCEMENT_TYPE

- ANNMEMS
- DRMUSERS
- RESOFC

Consequences

Not applicable.

Verification

Not applicable

Memory requirements

This parameter value requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS33.

Copy the existing value of the parameter when doing a dump and restore.

Parameter name

Call Processing Error Threshold

Functional description of parameter CPERRORTHRESHOLD

This parameter specifies the maximum number of call processing errors (specifically call suicides and traps) allowed in a one minute period for a call processing terminal (for example lines and trunks) before system action is initiated.

Once a terminal exceeds this maximum, it is removed from service to be diagnosed by system maintenance. If the diagnostic does not identify a problem, the terminal is returned to service.

If the terminal continues to cause call processing errors, it is removed from service again and manual action is required to recover.

A terminal is removed from service if any of the error frequency conditions outlined in table 1 are met, where X is the value of this parameter:

Table 1 Name of table	
Error count	Time (consecutive minutes)
X	1
1.5X	2
2.0X	3
Note: When calculating a value for error count, all results are rounded down to the next integer.	

Provisioning rules

Specify the number of call processing errors per terminal that can occur in a 1 minute period.

Range information

Minimum	Maximum	Default
5	10	5

Activation

Immediate

Dependencies

Not applicable

Consequences

The effect of call processing errors on system real time performance is more significant before action is initiated, the higher the value of this parameter is set.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Central Processor and Memory Extended

Functional description of parameter CPM_EXTENDED

This parameter is used to indicate that the memory capacity of a CPM shelf (peripheral equipment code (PEC) NT3X41DA) with an NT3X94 controller has been extended with NT4X80AA or NT3X93zz memory cards.

The value of this parameter can be NOT_EXTENDED, EXTENDED_4X80AA, or EXTENDED_3X93zz.

Provisioning Rules

Set the value of this parameter to EXTENDED_4X80AA if the memory capacity of the CPM shelf with PEC NT3X41DA and the NT3X94 controller has been extended with NT4X80AA memory cards.

Set the value of this parameter to EXTENDED_3X93zz if the memory capacity of the CPM shelf with PEC NT3X41DA and NT3X94 controller has been extended with NT3X93zz memory cards.

Set the value of this parameter to NOT_EXTENDED if the switching unit does not have the CPM shelf extension feature.

Range information

Minimum	Maximum	Default
		NOT_EXTENDED

Activation

The value of this parameter can only be changed by Northern Telecom.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

CPM_EXTENDED

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore .

At extension time, change the value of this parameter to EXTENDED_4X80AA or EXTENDED_3X99ZZ, if modifying the switching unit with the CPM shelf extension feature.

.

Parameter name

Call Recording Stream Primary Recording Unit Pool 1 Size

Functional description of parameter CRS_PRU_POOL1_SIZE

This parameter controls the provisioning for the CRS_PRU_POOL1 extension block pool in OM group EXT.

This parameter is currently defined only for offices that contain an actual user for the Call Recording Stream Platform. If this parameter appears in the software load, it must be provisioned.

The default value for this parameter is 1. This value is too small for larger offices.

Provisioning rules

Each application that requires an extension block from the pool controlled by this parameter is described on the following pages as well as the conditions that determine the application's usage in a particular office. In most cases, each application includes a recommended provisioning calculation along with a worst-case maximum value. The "engineered percentages" that are required for most of the recommended calculations should aid in determining a reasonable number for a particular application. If an operating company does not know the value of certain percentages, it is recommended that a value of 100% be used. It is better to use the recommended calculation than the maximum calculation even if certain percentages are not exactly known. The maximum value is provided for those operating companies that are unable to provide the information required for the recommended calculation. If the maximum value is used, overprovisioning of the parameter can occur. In some cases, the maximum value is not appropriate and is not provided.

In some cases, a value of 5% is multiplied into the provisioning formulas. This takes into account the fact that the extension block is only held for a short time. For some applications the extension block is allocated just before the Automatic Message Accounting (AMA) record is released for formatting.

If the conditions for a particular application are met, the application's usage must be determined based on the formula. The sum of these formulas determine the value of this parameter. If the default value for this parameter is greater than the value determined by the sum of the formulas, use the default value. Never provision this parameter at a value less than the default of 1.

ISDN Service Order AMA

The Austrian ISDN base package utilizes this recording unit pool to provide billing data for administrative actions on ISDN lines. An AMA record is generated to hold ISDN-specific data that is entered by the operating company personnel by means of Service Order transactions. A unit from this pool is required for the D4 record with the heading ISDN Service Order AMA Record. If no AMA record can be generated due to a lack of recording units, the operator is warned and prompted whether to stop or continue the transaction.

Conditions:

If the Austrian ISDN base package is present, then

Recommended:

    (number of MAP interfaces)
X (percentage of SO transactions that are ISDN)
X (percentage of ISDN SO transactions that require a record)

Maximum:

    (number of MAP interfaces)

DataSPAN Frame Relay Service (FRS)

DataSPAN FRS applies only to DMS-250 switches that are InterExchange Carriers. It is a connection-oriented "packet" data service in which an FRS subscriber is connected to a frame relay switch through an access channel on which multiple logical link connections to other subscribers may exist. FRS permits subscribers to communicate on one or more logical links simultaneously. FRS subscribers are billed on a usage basis. Counts of the actual data going through the Frame Relay Interface Unit (FRIU) are tabulated. The counts are then collected by the FRS Billing Controller and stored in FRS billing internal storage. During the aggregation phase, the counts are retrieved and table lookups are performed to obtain billing information required for the billing record. The billing record is separated into two parts: a base recording unit and a customer-specific subrecording unit. Both of these make up the frame relay Call Detail Record (CDR).

An extension block is required from this pool for the base recording unit and is claimed during the aggregation phase described above. One recording unit is required from this pool for each Permanent Logical Link Connection (PLLC). The number of PLLCs is equal to the number of tuples datafilled in subfield CONNECT of table PVDNCUST plus the number of trunk-to-trunk connections datafilled in table FRSTRKCN.

Conditions:

If package NTXQ34AA (Frame Relay Billing Base Package) is present, then

Recommended:

(number of PLLCs)

Maximum:

A maximum calculation is not applicable in this case.

Range information

Minimum	Maximum	Default
0	4294967295	1

Activation

Increase - immediate
Decrease - cold restart

Dependencies

The CRS_PRU_POOL1 extension block is controlled by this parameter.

Consequences

Since this parameter controls a PRU pool, failure to claim a block in this pool results in the inability to do any call recording for the active call.

Verification

This parameter controls the extension block with an external identifier name of CRS_PRU_POOL1, and an index of 100 for Operational Measurement (OM) group EXT. See the *Operational Measurements Reference Manual* 297-1001-814 for a description of OM group EXT.

Memory requirements

Each extension block requires 35 words of memory.

Dump and restore rules

This parameter was introduced in BCS32.

Copy the existing value of this parameter when doing a dump and restore.

CRS_PRU_POOL2_SIZE

Parameter name

Call Recording Stream Primary Recording Unit Pool2 Size

Functional description of parameter CRS_PRU_POOL2_SIZE

This parameter controls the provisioning for the CRS_PRU_POOL2 extension block pool.

This parameter is currently defined only for offices that contain a recording subsystem that uses the call recording stream platform. If this parameter appears in the software load, it must be provisioned.

The default value for this parameter is 100. This value is too small for larger offices.

Provisioning rules

This office parameter currently applies only to Bellcore Automatic Message Accounting (AMA) offices. In table CRSFMT, the tuple with key field AMA must be datafilled with a FORMAT of BCFMT.

The base AMA packages are NTX098AA (Bellcore CAMA Format) and NTX159AA (Bellcore LAMA Format). Package NTX098 provides centralized AMA recording in a DMS switch and supports BellCore CAMA format. Package NTX159 provides AMA recording in a local DMS switch and supports the Bellcore LAMA format. For both the CAMA and LAMA billing, a list of call agents that are classified as such are provided below.

CAMA office

Calls with the following characteristics are classified as CAMA calls:

- CAMA or SuperCAMA (SC) trunks
- incoming access tandem trunks
- TOPS/CAMATOPS trunks
- cellular mobile carrier
- Enhanced 800 Service (E800)
- 800 Plus Service (800+)
- E008
- Private Virtual Network (PVN) (trunk originated)
- Advanced Intelligent network (AIN) (trunk originated)
- Trunk Group Member Usage (TGMU) trunks

LAMA office

Calls with the following characteristics are classified as LAMA calls:

- incoming access tandem trunks
- PX/P2 trunks
- Meridian Digital Centrex (MDC) trunk originations

- MDC trunk terminations
- POTS line originations
- MDC line originations
- Residential Enhanced Services (RES) line originations
- Direct Inward System Access (DISA) organizations
- attendant console originations
- Virtual Facility Group (VFG) originations
- PVN line originations
- AIN line originations
- POTS line terminations
- MDC line terminations
- RES line terminations
- VFG terminations
- generic call codes 800 through 999
- operating company selected service-feature-codes (table AMAPRT)
- MDRRAO
- ONA/ESP
- Wide Area Telephone Service (WATS)
- Screening List Editing (SLE) feature screening list access
- custom local area signaling service (CLASS) subscriber usage-sensitive pricing (SUSP)

BellCore billing methods

The number and variety of Bellcore format billing methods are too numerous to list. Most of the billing methods can be classified into one of the following categories:

- translations indicators
- line and trunk options
- database query determinations
- inherent billing applications (for example, TOPS)

Reference the following NTP documents for details of all possible billing methods:

- 297-1001-012 - *Bellcore Format AMA Product Guide*
- 297-1001-182 - *Bellcore Format AMA Planning and Engineering Guide*
- 297-1001-341 - *Bellcore Format AMA Administration Guide*
- 297-1001-365 - *Bellcore Format AMA Translations Guide*
- 297-1001-830 - *Bellcore Format AMA Reference Guide*
- 297-1001-830B - *Bellcore Format AMA Bulletin*

Accurate provisioning of this pool requires a knowledge of all billing opportunities that a switch is using and the expected frequency of billing usage.

Recording unit usage

Bellcore format AMA uses an instance of a primary recording unit (PRU) in three manners: long term, short term, and fast-write. One of these manners of usage is required for each Bellcore AMA record that is produced.

A long-term PRU is taken from this pool and attached to a call for the entire call duration to hold the billing information. With respect to provisioning, this is the most costly usage because a PRU from this pool is only able to serve one call for a relatively long period of time.

For CAMA, the following list contains the applications that require long-term PRU usage:

- Cellular Mobile Carrier (CMC) calls
- Number Services Code (NSC) calls requiring a database query
- calls using a generic call code from AMA pretranslations
- calls using a generic service feature from AMA pretranslations
- calls requiring ISDN Circuit-mode billing
- TGMU billing

For LAMA, the following list contains the applications that force long-term PRU usage:

- billable MDC originating calls utilizing a NET selector
- billable MDC calls using the AMACUST option in table CUSTSMDR
- MDC calls using a WATS route selector that were routed through a VFG
- CDAR calls
- calls assigned a generic call code from AMA pretranslations
- calls assigned a generic service feature from AMA pretranslations
- calls routed through a VFG with special billing assigned through option VFGAMA
- AMA test calls when the AMATEST option is involved
- terminating and originating FGA calls (FGA line option)
- calls terminating on an MDC trunk with FACTYPE assigned
- all terminating billing records
- billable originating trunk calls with TRKINFO option assigned
- equal access calls to an operator (OP) trunk
- terminating access records involving local termination
- billing records generated as the result of the first leg of a multi-leg call

- most calls involving an attendant console
- NSC calls requiring database query
- calls originating from a RES line
- calls terminating to a hunt group
- calls involving call waiting
- all conference calls
- all universal AMA billing records
- all calls requiring ISDN Circuit-mode billing
- calls involving MBG
- calls involving NFA
- all calls involving Class of Service recording
- all calls requiring MDR recording (MDRRAO)

A short-term PRU is used when the call billing data is held in the call condense block (CCB) associated with the call while in progress. At the end of the call or billing period, a short-term PRU is retrieved from this pool and filled with the call's billing data from the CCB. After the billing data is copied and any necessary manipulations are completed, the PRU is queued against the AMA process, formatted into a record, and then placed back in the pool of available PRUs.

With respect to provisioning, this is normally an efficient usage because a PRU from this pool is only associated with a call for a short period of time allowing the possibility of one block to service many calls.

For CAMA, the following list contains the situations that force short-term PRU usage:

- TOPS/Overseas Operating Center (OOC) calls
- all CAMA calls that normally use the fast-write mechanism, but are unable to do so

For LAMA, the following list contains the situations that force short-term PRU usage:

- SUSP aggregate billing records produced from audits
- all LAMA calls that normally use the fast-write mechanism, but are unable to do so

In the calculation discussion to follow, a recommended 5% multiplier is included against application's billing capacity that use short-term PRUs (that is, TOPS).

The fast-write PRU is a single PRU that is not part of this pool. The CCB holds the call billing data during the call. At the end of the call, the billing information is copied from the CCB into the fast-write PRU. Instead of

being queued against the AMA process, the call process formats the fast-write PRU directly. Because call processes cannot be preempted, this single PRU can service all the call processes attempting to use the fast-write mechanism.

With respect to provisioning, applications that consistently use the fast-write mechanism do not effect the provisioning of this pool because a PRU from this pool is not used. However, as stated below, many factors affect whether or not a call can use the fast-write mechanism.

In the calculation statements to follow, a "percentage of calls unable to use fast-write" factor is included against the values that have the potential to use fast-write. This factor must be estimated based on the percentage of a category of calls that do not fall into the list of applications given under long-term PRU usage and short-term PRU usage. A value of no less than 1% should be used.

Controls for Bellcore billing

In addition, several AMA recording options are datafilled in table AMAOPTS. These options allow operating companies to control the recording of call data for certain types of calls.

Provisioning rules

At the beginning of the formula for the provisioning of this parameter, the initial conditions for the formula are provided. In some cases, additional conditions for specific applications are indicated. For example, an office that has the CAMA package NTX098 or the LAMA package NTX159 may or may not have a package that involves a specific application. If required, the conditions for specific applications are included. The use of this pool for each application must be determined and the sum of these will determine the value of CRS_PRU_POOL2_SIZE. If the default value for this parameter is greater than the value determined by the sum of the formulas, the default value should be used. This parameter should never be provisioned at a value less than that of the default.

If package NTX098AA or NTX159AA is present, add the values derived from the following application formulas to obtain the value for CRS_PRU_POOL2_POOL.

CAMA or SuperCAMA trunks

(number of SC trkgrp members)

X (engineered percentage of simultaneous trunk offhks)

X (percentage of calls originating from SuperCAMA trunks that are billable)

X (percentage of billable calls originating from SuperCAMA trunks unable to use fast-write)

Equal Access (% including CMC)
FGA

(number of FGA lines)
X (engineered percentage of simultaneous FGA line offhks)

FGB

(number of FGB trunks)
X (engineered percentage of simultaneous FGB trunk offhks)
X (percentage of FGB calls that are billable due to controls in table
    AMAOPTS)
X (percentage of FGB billable calls unable to use fast-write)

FGC, FGD

(number of FGC and FGD trunks)
X (engineered percentage of simultaneous FGC and FGD trunk offhks)
X (percentage of FGC and FGD calls that are billable due to controls in
    table AMAOPTS)
X (percentage of FGC and FGD billable calls unable to use fast-write)

TOPS and CAMA/TOPS trunks

10% X ((TOPS_NUM_RU in table OFCENG)
   + (OOC_NUM_RU in table OFCENG)
   + (GOS_NUM_RU in table OFCENG)
   + (OOC_NUM_RU in table OFCENG))

CMC
Conditions

Package NTXE23AA (Cellular Interconnect-End Office) is present.

Formula

(number of PX trunk group members with LOCALCMC set to Y in table
 TRKGRP)
X (engineered percentage of simultaneous trunk offhks)
X (percentage billable due to controls in table AMAOPTS)

Conditions

Package NTX843AA or NTX843AB (Cellular Interconnect) is present.

Formula

(number of CELL trkgrp members)
X (engineered percentage of simultaneous trunk offhks)
X (percentage billable due to controls in table AMAOPTS)

E800

Conditions

Package NTX554AA CCS7-E800/SSP) is present.

Formula

(estimate of the number of simultaneous 800 calls that the office is engineered to handle)

OR

((number of TOPS trunks) X (percentage of trunks used for E800 traffic))
+ ((number of IT trunks) X (percentage of trunks used for E800 traffic))
+ ((number of SC trunks) X (percentage of trunks used for E800 traffic)
+ ((number of lines) X (estimate of E800 usage))

E800+

Conditions

Package NTX555AB (800 Plus) is present.

Formula

(estimate of the number of simultaneous 800 PLUS calls that the office is engineered to handle)

OR

((number of TOPS trunks) X (percentage of trunks used for 800+ traffic))
+ ((number of IT trunks) X (percentage of trunks used for 800+ traffic))
+ ((number of SC trunks) X (percentage of trunks used for 800+ traffic))
+ ((number of lines) X (estimate of 800+ usage))

E008

Conditions

Package NTXH84AA (Enhanced 008 for Australia) is present.

Formula

(estimate of the number of simultaneous E008 calls that the office is engineered to handle)

$$***OR***$$

((number of ATUP trunks) X (percentage of trunks used for E008 traffic))
+ ((number of AISUP trunks) X (percentage of trunks used for E008 traffic))
+ ((number of MDC lines) X (estimate of E008 usage))

PVN

Conditions

Package NTX983AB (Intelligent Network Billing Attributes) is present.

Formula

((estimate of the number of simultaneous PVN calls that the office is engineered to handle) X (percentage of PVN calls that are billable))
+ (percentage of nonbillable PVN calls that provide termination notification to the SCP)

$$***OR***$$

(number of SC trkgrp members signaling FGD)
+ (number of IT trkgrp members signaling FGD)
+ (number of MDC trkgrp members)
+ (number of MDC business group stations)
+ (number of MDC attendant consoles)
+ (number of MDC Stations)
+ (number of remote access lines or trunks)

Advanced intelligent network (AIN)

As of BCS36, blocks from this pool are used to record calls that are billable only because they are AIN calls. For example, a POTS line to POTS line call does not produce a an AMA record. However, if the same call becomes an AIN call, it produces an AMA record.

Conditions

Software packages NTX983 and NTXN28 are present.

Formula

((estimate of the number of simultaneous AIN calls that the office is engineered to handle) X (percentage of AIN calls that are billable))
+ (number of non-billable AIN calls that provide termination notification to the SCP)
+ (number of previously non-billable calls that became billable if they are AIN calls)

Note: The number of AIN calls includes billable AIN calls as well as any unanswered AIN calls that are recorded due to datafill in tables AMAOPTS and BCCODES.

OR

(number of POTS and RES lines)
+ (number of SC trkgrp members signaling FGD)
+ (number of IT trkgrp members signaling FGD)
+ (number of MDC trkgrp members)
+ (number of MDC Business Group Stations)
+ (number of MDC Attendant Consoles)
+ (number of MDC stations)
+ (number of Remote Access lines or trunks)

Lines: For each of the line classes (POTS, MDC, RES, ISDN, WATS, Coin, Hunt groups), perform the addition:

(number of <insert line class> lines)
X (engineered percentage of simultaneous <insert line class> offhks)
X (percentage of <insert line class> calls that are billable)
X (percentage of <insert line class> billable calls unable to use fast-write)

Multi-leg calls: For each of the multicall types (active call forwarding options, attendant consoles, DISA numbers), perform the addition:
(number of <insert multileg call type>)
X (average number of simultaneous calls established through <insert multileg call type>)
X (percentage of calls established through <insert multi-leg call type>

that are billable)

X (percentage of billable calls established through <insert multileg call type> unable to use fast-write)

Permanent logical link connections
Conditions

If package NTXQ35AA (Permanent Relay LEC Billing) is present

Formula

(number of PLLCs)

Trunks: For each of the trunk types (MDC, PRI, PX/P2) perform the addition:

(number of <insert trunk type> trunks)

X (engineered percentage of simultaneous <insert trunk type> offhks)

X (percentage of <insert trunk type> calls that are billable)

X (percentage of <insert trunk type> billable calls unable to use fast-write)

TGMU trunks

(number of TGMU trkgrp members)

X (engineered percentage of simultaneous trunk offhks)

VFGs: For each VFG defined, perform the following addition:

(size of VFG)

X (percentage of VFGs simultaneously in use)

X (percentage of VFG calls that are billable)

X (percentage of VFG billable calls unable to use fast-write)

SUSP audit options
Conditions

Packages NTXE56AA (CLASS Screening List Editing) or NTXE82AA (DMS-300 International 800) service are present.

Formula

(number of lines with BCLID option or CLASS display features)

DMS packet handler
Conditions

If package NTXP47AA (DMS Packet Handler) is present

Formula

1000 X (number of XLIUs)

Call forwarding conditional (CFC)

The CFC feature gives subscribers to the German Intelligent Network (GIN) services the ability to forward incoming calls at the trunk level. A recording unit from this pool is required to record call data for the duration of a CFC call. If a call is forwarded as the result of a called number is busy (CFC-BY) or called number does not answer (CFC-DA) condition, a forwarding record is generated.

Conditions

The CFC feature is present.

Formula

(estimated maximum number of simultaneous CFC forwards)

Maximum

(estimated maximum number of simultaneous E008 calls)

Range information

Minimum	Maximum	Default
0	4294967295	100

Activation

Increase - immediate
Decrease - cold restart

Dependencies

The CRS_PRU_POOL2 extension block is controlled by this parameter.

Consequences

This parameter provisions a recording unit pool. Failure to obtain enough of these units results in the loss of call recording data. Because this controls a PRU pool, failure to claim a block in this pool (which is controlled by this office parameter) will result in the inability to do any call recording for the active call.

Verification

This parameter controls the extension block with an external identifier name of CRS_PRU_POOL2 and an index of 101 for operational measurement (OM) group EXT.

Memory requirements

Each unit requires 55 words of memory.

Dump and restore rules

Parameter CRS_PRU_POOL2_SIZE replaces NUM_OF_BC_LAMA_UNITS and NUM_OF_BC_AMA_UNITS, which were deleted in BCS32.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36   The following changes were made to this parameter:

- provisioning rules for CMC and AIN added
- provisioning rules for SUSP audit modified
- provisioning rules for TOPS offices modified

CRS_PRU_POOL3_SIZE

Parameter name

Call Recording Stream Primary Recording Unit Pool3 Size

Functional description of parameter CRS_PRU_POOL3_SIZE

This parameter specifies the number of extension blocks available for use by the Station Message Detail Recording (SMDR) system.

This parameter replaces office parameter NO_OF_SMDR_REC_UNITS in table OFCENG.

Provisioning rules

For a switch in the United States market, other than a Meridian Digital Centrex (MDC) stand-alone, leave the value of this parameter at the default of 100.

For an MDC stand-alone set the value of this parameter to 600. An MDC stand-alone office consists of 90% MDC or KSET lines.

In either case, the value must not be lower than the previous value of NO_OF_SMDR_REC_UNITS.

For offices in non-US markets, provision the parameter as follows.

If the switch has North American translations with the SMDR feature and each Integrated Business network (IBN) line is assigned the SMDR option, the recommended value is determined by the following formula:

0.8 X (value of OFCENG parameter NCCBS)

If the switch has North American translations with the SMDR feature and the SMDR line option is not assigned to all or any of the IBN lines, the recommended value is determined by the following formula:

0.3 X (number of IBN lines in customer groups without the MDRRAO feature)

+   (number of simultaneous calls for all customer groups with the MDRRAO feature that involve a direct inward system access (DISA) number or the account code feature)

Range information

Minimum	Maximum	Default
0	4294967295	100

Activation

Increase - immediate
Decrease - cold restart

Dependencies

This parameter controls the provisioning of the CRS_PRU_POOL3 extension block.

Consequences

If this parameter is underprovisioned, the collection of data for call recording will be incomplete.

If this parameter is overprovisioned, data store is wasted.

Verification

This parameter controls the extension block with an external identifier name of CRS_PRU_POOL3 and an EXT OM index of 115.

Memory requirements

Each unit requires 45 words of memory.

Dump and restore rules

This parameter was introduced in BCS35.

Copy the existing value of this parameter when doing a dump and restore.

CRS_SUBRU_POOL1_SIZE

Parameter name

Call Recording Stream Sub-Recording Unit Pool1 Size

Functional description of parameter CRS_SUBRU_POOL1_SIZE

This parameter controls the provisioning for the CRS_SUBRU_POOL1 extension block pool.

This parameter is currently defined only for offices that contain an actual user for the Call Recording Stream Platform. If this parameter appears in the software load, it must be provisioned.

The default value for this parameter is 100. This value is too small for larger offices.

Provisioning rules

A description of each application that requires an extension block from the pool controlled by this parameter is provided in the following pages as well as the conditions that determine the application's usage in a particular office. In most cases, each application includes a recommended provisioning calculation along with a worst-case maximum value. The "engineered percentages" that are required for most of the recommended calculations are meant to aid in determining a reasonable number for a particular application. If an operating company does not know the value of certain percentages, it is recommended that a value of 100% be used. It is better to use the recommended calculation than the maximum calculation even if certain percentages are not exactly known. The maximum value is provided for those operating companies that are unable to provide the information required for the recommended calculation. If the maximum value is used, overprovisioning of the parameter may occur. In some cases, the maximum value is not appropriate and is not provided.

Some of these formulas include an estimated percentage of the billable activities involving the respective application. Note that the term "billable" includes all activities that generate a record. .

In some cases, a value of 5% is multiplied into the provisioning formulas. This takes into account the fact that the extension block is only held for a short time. For some applications the extension block is allocated just before the Automatic Message Accounting (AMA) record is released for formatting.

If the conditions for a particular application are met, the application's usage must be determined based on the formula. The sum of these formulas is then used to determine the value of this parameter. If the default value for this parameter is greater than the value determined by the sum of the formulas, use the default value. Never provision this parameter at a value less than that of the default.

MDRRAO AMA

Message Detail Recording Revenue Accounting Office (MDRRAO) features are included in package NTXA88AA (MDR via AMA Stream). MDRRAO is a Meridian Digital Centrex (MDC) line option datafilled in table CUSTSMDR along with a business group identifier (ID). These are datafilled against customer group IDs. Module code 100 is used to capture the business group ID for customer groups for which MDRRAO is an option. Module code 100 requires a block from this pool. This block is held for the length of the call.

Conditions

If software package NTXA88AA is present, then

Recommended

(number of MDC lines with custgrp that has MDRRAO option)
X (percentage of MDC offhks that the office is engineered to handle)
X (percentage of MDC offhks that are billable)

Maximum

(number of MDC lines with custgrp that have the MDRRAO option)

Centrex group ID

If a call originates on an MDC line with a customer group that has the AMACUST option datafilled in table CUSTSMDR, module code 120 is appended to the AMA record and is used to record the customer group id. Module code 120 requires a block from this pool. The block is held for the length of the call. The AMACUST option is included in package NTX851AA (SMDR Derived from BCR AMA).

Conditions

If software package NTX851AA is present, then

Recommended

(number of MDC lines with custgrp that has AMACUST option)
X (percentage MDC offhks that the office is engineered to handle)
X (percentage MDC offhks that are billable)

Maximum

(number of MDC lines with custgrp that has the AMACUST option)

Trunk information (TRKINFO) in table AMAKOPT

The TRKINFO option in table AMATKOPT is included in the base AMA packages NTX098AA (Bellcore CAMA format) and NTX159AA (Bellcore

LAMA Format). Each origination from or termination to a member of a trunk group that is assigned TRKINFO results in the generation of module code 104. Module code 104 requires a block from this pool. This block is held for a short time because it is allocated just before the AMA record is released for formatting.

Conditions

If software package NTX098AA or NTX159AA is present, then

Recommended

5% X (number of trkgrp members with the TRKINFO option)

Maximum

A maximum calculation is not applicable in this case. The above formula does not require any kind of estimate.

Custom Local Area Signaling Service (CLASS) display AMA

The CLASS display features are included in software package NTXA82 Class Line Office Data). Module code 111 is attached to the AMA record for calls originating from lines datafilled with two or more CLASS display features. Module code 111 requires a block from this pool. This block is held for a short time because it is allocated just before the AMA record is sent to the formatter.

Conditions

If package NTXA82AA is present, then

Recommended

5% X (number of lines with two or more CLASS features)

Maximum

A maximum calculation is not applicable in this case. The above formula does not require any kind of estimate.

TOPS Equal Access (EA) service time

For TOPS EA Service time, a block is required from this pool if parameter EA_SERV_PROCESSING_TIME in table TOPAMAOP is enabled, the office is using TOPS Enhanced BellCore AMA Format (EBAF) Phase 1 or 2, and operator services are rendered by an operating company for a carrier. Module code 059 is appended to the AMA record in this case. The extension block from this pool is held for a short time because it is allocated just prior to releasing the AMA for formatting. This capability is provided

by packages NTXE20AA (TOPS Extended Bellcore AMA Format) and
NTX714AA (TOPS InterLATA Carrier Service).

Conditions

If packages NTXE20AA and NTX714AA are present and (TOPS EBAF
Phase 1 or 2 is being used) and (EA_SERV_PROCESSING_TIME = Y),
then

Recommended

5% X (estimate of the maximum number of simultaneous TOPS calls
that the operating company handles for all carriers)

Maximum

5% X (TOPS_NUM_RU in table OFCENG)

TOPS Guest Name and Room Number

For TOPS Guest Name and Room Number, a block is required from this
pool if parameter RECORD_GUEST_NAME_AND_ROOM_NUM in table
TOPAMAOP is enabled, the office is using TOPS EBAF Phase 2, and the
guest name or room number is received. Module code 312 is appended to
the AMA record in this case. The extension block from this pool is held for
a short time because it is allocated just prior to releasing the AMA record for
formatting. Package NTXE18AA (TOPS AMA Enhancements) provides
this capability.

Conditions:

If package NTXE18AA is present and TOPS EBAF Phase 2 is being used
and (RECORD_GUEST_NAME_AND_ROOM_NUM = Y) then

Recommended

5% X (estimate of the maximum number of simultaneous TOPS calls in
which the guest name or room number is received)

Maximum

5% X ((TOPS_NUM_RU in table OFCENG)
+ (OOC_NUM_RU in table OFCENG))

TOPS listing services

For TOPS Listing Services, a block is required from this pool if the office is
using TOPS EBAF Phase 1 and is recording directory assistance (DA)
service or intercept (INT) service. In addition, a block is required from this
pool in a TOPS EBAF Phase 2 office if it is recording DA service for a
non-intercept call. Module code 055 is appended to the AMA record in both

cases. The extension block from this pool is held for a short time because it is allocated just prior to releasing the AMA record for formatting. Package NTXA62AA (TOPS MP -- DA Audio Response Call Handling) provides this capability.

Conditions

If package NTXA62AA is present and TOPS EBAF Phase 1 is being used and the office is recording DA/INT service, then

Recommended

5% X (estimate of the maximum number of simultaneous TOPS calls in which DA or INT service is involved)

Maximum

5% X (TOPS_NUM_RU in table OFCENG)

OR

Conditions

If package NTXA62AA is present and TOPS EBAF Phase 2 is used and the office is recording DA service for non-INT calls, then

Recommended

5% X (estimate of the maximum number of simultaneous TOPS calls in which DA service is involved)

Maximum

5% X (TOPS_NUM_RU in table OFCENG)

SSP 800 billing requirements

Package NTXQ39AA (SSP 800 Billing Enhancements) appends module code 031 to all AMA records for 800 PLUS calls. For each 800 PLUS call, a block is needed from this pool. The block is held for the duration of the call.

Conditions

If package NTXQ39AA is present, then

Recommended

(estimate of the maximum number of simultaneous 800 PLUS calls)

Maximum

A maximum calculation is not logical in this case. Each office with package NTXQ39AA is engineered to handle a certain number of 800 PLUS calls. Because each office is engineered differently, it is not logical to impose a formula that must apply to all offices.

TOPS account code billing

When an account code is entered in a TOPS EBAF Phase 2 environment where parameter ACCOUNT_CODE_BILLING_ENABLE in table TOPSPARM is enabled, module code 301 is appended to the AMA record. Upon receiving an account code, a block from this pool is allocated and held until formatting of the AMA record is complete. This functionality is provided by package NTXJ73AA (TOPS Account Code Billing).

Conditions

If package NTXJ73AA is present and TOPS EBAF Phase 2 is being used and (ACCOUNT_CODE_BILLING_ENABLE = Y), then

Recommended

(estimate of the maximum number of active calls involving the Account Code feature)

Maximum

A maximum calculation specific to the TOPS Account Code billing is not possible because any TOPS facility has the potential to use this feature. If the recommended calculation cannot be determined, the value of TOPS_NUM_RU in table OFCENG can be used. This will likely lead to vast overprovisioning.

Wideband circuit usage

If package NTXR49AA (Dialable Wideband Service PRI) is present in the office, Module Code 913 is appended to the Trunk Group Member Usage (TGMU) AMA record for all wideband calls. Wideband trunks are datafilled in table TRKGRP with selection order (SELSEQ) field set to WIDEBAND. The TGMU option is datafilled for the trunks in table AMATKOPT. For this application, a block is held for the length of the call.

Conditions

If package NTXR49AA is present, then

Recommended

(engineering percentage of simultaneous trunk offhks)

X (number of TGMU trkgrp members with field SELSEQ set to WIDEBAND in table TRKGRP)

Maximum

(number of TGMU trkgrp members with field SELSEQ set to WIDEBAND in table TRKGRP)

Multilocation Business Group (MBG) - business group information

Package NTXN01AB (Multilocation Business Groups) enhances basic MBG to support networked customer groups using a private numbering plan. Module Code 911 is appended to the AMA record for MBG billable calls if the originator's customer group is datafilled in table BGDATA against a Business Group Identifier (BGID) with the BGMDR option. Module code 911 records the Business Group Information based on the business group parameter in the integrated services digital network (ISDN) user part (ISUP) signaling protocol.

Conditions

If package NTXN01AB is present and (there are tuples in table BGDATA with the CUSTGRP and BGMDR option), then

Recommended

Use the lesser value derived from either formula 1 or 2:

1. (number of MDC lines in customer groups that are associated with the BGMDR option in table BGDATA)
X (percentage of simultaneous MDC line offhooks that an office is engineered to handle)
X (percentage of MBG subscriber offhooks that are actually MBG calls)
X (percentage of MBG calls that are billable)

2. (Number of POTS ISUP trunks that are potentially involved in MBG calls)
X (percentage of expected trunk utilization in the office)
X (percentage of MBG calls of these POTS ISUP trunks)
X (percentage of MBG involved calls that are billable)

Note: The possible number of simultaneous MBG calls in an office for any one particular customer group may be dependent on the total number of customer group members in the other offices. If the office with the highest concentration of subscribers for a particular MBG is being provisioned, the total number of subscribers for this MBG that is to be added to the first term in formula 1 above

> (Number of MDC lines in customer groups that are associated with the BGMDR option in Table BGDATA)

is the lesser of the total number of subscribers in this MBG outside of this office and the number in this office.

Maximum

Use the lesser value derived from either formula A or B:

A. (number of MDC lines in custgrps that are associated with the BGMDR option in Table BGDATA)

B. (number of POTS ISUP trunks: trunkgroup types IT, TO, TI and T2)

Number Service Code (NSC) carrier code

Package NTXQ39AA (SSP 800 Billing Enhancements) appends Module Code 044 to all AMA records for 800 PLUS Southbound calls. For each successful 800 PLUS Southbound call, a block is required from this pool. This block is held for the length of the call.

Conditions

If package NTXQ39AA is present, then

Recommended

> (number of simultaneous 800 PLUS calls that the office is engineered to handle)

X (percentage of 800 PLUS calls that are Southbound)

> *Note:* 800 PLUS calls that are TOPS assisted are also included in the general description above. However, module code 044 is only appended to TOPS call code 192 in a TOPS EBAF Phase 2 office.

Maximum

A maximum calculation is not logical in this case.

ISDN Service Order AMA

The Austrian ISDN base package utilizes this pool to provide billing data for administrative actions on ISDN lines. An AMA record is generated to hold ISDN-specific data that is entered by the operating company personnel through Service Orders (SO). The following AMA structures use this pool and follow the AMA header record, D4:

- D2 - Double Establish AMA Record for ISDN SO
- D9 - Single Establish AMA Record for ISDN SO
- D3 - Permission AMA Record for ISDN SO
- D5 - Activation AMA Record for ISDN SO

Up to 20 features can be assigned to a subscriber through the SO command Add Option (ADO). A block from this pool can be allocated for each feature assigned to the subscriber. If there is a lack of subrecording units and no AMA record can be generated, the operator is warned and prompted whether to stop the transaction.

Conditions

If the Austrian ISDN base package is included, then

Recommended

(number of MAP interfaces)
X (percentage of SO transactions that are ISDN)
X (maximum number of billable features manipulated for each ISDN SO command)

Maximum

20 X (number of MAP interfaces)

Metering for the Spanish market (MTR)

The MTR feature is included in package NTX102AA (IBN -- Station Message Detail Recording). It allows the recording of metered pulse counts in the Spanish market on IBNTO trunk types. These trunks are datafilled in table TRKGRP with the MTR field set to a value of Y (yes). Office parameter MARKET_OF_OFFICE in table OFCENG must be datafilled with a value of SPAIN. The D7 record captures the required information.

Conditions

If package NTX102AA is included and office parameter MARKET_OF_OFFICE is set to SPAIN, then

Recommended

(engineered percentage of simultaneous trunk offhks)
X (number of IBNTO trunks with the MTR field set to Y)

Maximum

(number of IBNTO trunks with the MTR field set to Y)

Personal Identification Number / Travel Card Number

The PIN/TCN feature is included in package NTX102AA. PIN/TCN is a feature that allows the recording of a PIN and/or TCN on an incoming IBNTI or IBNT2 trunk. Table CUSTSMDR must be datafilled with the business group ID and the PIN option. When an incoming call dials a PIN/TCN the DC extension record is used to capture this information.

Conditions

If package NTX102AA is present, then

Recommended

(number IBNTI and IBNT2 trunks where the custgrp has the PIN option)
X (engineered percentage of simultaneous trunk offhks)

Maximum

(number IBNTI and IBNT2 trunks where the custgrp has the PIN option)

Network Services Software (NSS) bearer capability

The NSS feature is included in package NTXE75AB (Offnet Access Services). NSS is a feature that allows the recording of bearer capability information on wideband calls. Table CUSTSMDR must be datafilled with the business group ID and the BC option. The DD extension record is used to capture this information.

Conditions

If package NTXE75AB is present, then

Recommended

    (number of MDC lines where the custgrp has the BC option)
X (percentage of MDC offhks that the office is engineered to handle)

Maximum

    (number of MDC lines where the custgrp has the BC option)

Inbound Toll Call (ITC)

The ITC feature is included in package NTX103AA (IBN -- SMDR Enhanced). This feature produces an SMDR record for each party involved in a call on an incoming IBNTI or IBNT2 trunk type. These trunks are datafilled in table TRKGRP with the SMDRITC option set to Y. The DF extension record with format code 1 is used to capture this information.

Conditions

If package NTX103 is present, then

Recommended

    (engineered percentage of simultaneous trunk offhks)
X (number of IBNTI and IBNT2 trunks with the SMDRITC field set to Y)

Maximum

    (number of IBNTI and IBNT2 trunks with the SMDRITC field set to Y)

Call forwarding conditional (CFC)

The CFC feature gives subscribers to the German Intelligent Network (GIN) services the ability to forward incoming calls at the trunk level. A recording unit from this pool is required to store the feature type indication (FTI) flags in module 031 when the CFC feature is present. This block is required for the duration of the call. A forwarding record is generated when a call is forwarded as a result of called number is busy (CFC-BY) or called number does not answer (CFC-DA) conditions.

Conditions

If the CFC feature is present, then

Recommended

    (estimated maximum number of simultaneous CFC calls)
+ (estimated maximum number of simultaneous CFC forwards)

Maximum

(estimated maximum number of simultaneous E008 calls)

Advance intelligent network (AIN)

The blocks provisioned by this pool are used to store data returned from the Service Control Point (SCP) during call processing. The following list illustrates the optional parameters that require an extension block when included in a response message. The number in parentheses indicates the maximum number of extension blocks that can be recorded for a single call.

- Billing indicator parameters (2) - There are four billing indicator parameters. Only one of the four parameters is used depending upon the route taken by the call. The parameter used contains information requiring two extension blocks.

- AMA service logic program identification module 039 (AMAslpID) (5) The first AMAslpID parameter is recorded in another extension block pool. The remaining five parameters use this extension block pool.

Conditions

If the switching unit has the AIN feature, then

Recommended

    2 X (number of AIN calls with a billing indicator parameter used)
+ 1 X (number of AIN calls with 2 AMAslpID parameters)
+ 2 X (number of AIN calls with 3 AMAslpID parameters)
+ 3 X (number of AIN calls with 4 AMAslpID parameters)
+ 4 X (number of AIN calls with 5 AMAslpID parameters)
+ 5 X (number of AIN calls with 6 AMAslpID parameters)
+   (number of calls using MBI)

Note: The number of AIN calls includes billable AIN calls as well as any unanswered AIN calls that are recorded due to datafill in tables AMAOPTS and BCCODES.

Maximum

A maximum value is not applicable in this case.

Range information

Minimum	Maximum	Default
	4294967295	100

Activation

Increase - immediate
Decrease - cold restart

CRS_SUBRU_POOL1_SIZE

Dependencies

The CRS_SUBRU_POOL1 extension block is controlled by this parameter.

Consequences

This parameter provisions a sub-recording unit pool. Failure to obtain a sufficient number of these units results in the loss of call recording data. This pool is critical in generating the AMA data outlined in the description of this parameter.

Verification

This parameter controls the extension block with an external identifier name of CRS_SUBRU_POOL1 and an index of 96 for operational measurement (OM) group EXT.

Memory requirements

Each unit requires 8 words of memory.

Dump and restore rules

This parameter was introduced in BCS32.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 provisioning rules for CFC and AIN added

Parameter name

Call Recording Stream Sub-recording Unit Pool2 Size

Functional description of parameter CRS_SUBRU_POOL2_SIZE

This parameter controls the provisioning for the CRS_SUBRU_POOL2 extension block pool.

This parameter is currently defined only for offices that contain an actual user for the Call Recording Stream Platform created by the Increased Flexibility of AMA Software Platform feature. If this parameter appears in the software load, it must be provisioned.

The default value for this parameter is 100. This value is too small for larger offices.

Provisioning rules

This parameter applies only to Bellcore Automatic Message Accounting (AMA) offices.

A description of each application that requires an extension block from the pool controlled by this parameter is provided in the following pages as well as the conditions that determine the application's usage in a particular office. In most cases, each application includes a recommended provisioning calculation along with a worst case maximum value. The "engineered percentages" that are required for most of the recommended calculations are meant to aid in determining a reasonable number for a particular application. If an operating company does not know the value of certain percentages, it is recommended that a value of 100% be used. It is better to use the recommended calculation than the maximum calculation even if certain percentages are not exactly known. The maximum value is provided for those operating companies that are unable to provide the information required for the recommended calculation. If the maximum value is used, overprovisioning of the parameter can occur. In some cases, the maximum value is not appropriate and not provided.

Some of these formulas include an estimated percentage of the billable calls involving the respective application. Note that the term "billable" includes all calls that generate a record such as the following types:

- AMA
- Station Message Detail Recording (SMDR) when Message Detail Recording Revenue Accounting Office (MDRRAO) is a customer group option in table CUSTSMDR and SMDR is turned on for the office.

In some cases, a value of 5% is multiplied into the provisioning formulas. This accounts for the fact that the extension block is only held for a short time. For some applications the extension block is allocated just before the AMA record is released for formatting.

If the conditions for a particular application are met, the application's usage must be determined based on the formula. The sum of these formulas is then used to determine the value of this parameter. If the default value for this parameter is greater than the value determined by the sum of the formulas, the default value should always be used. Never provision this parameter at a value less than that of the default.

Revenue Allocation (REVALL)

An AMA record with call code 136 is generated for calls that are originated by operator (OP) or AMR5 (A5) trunks that are datafilled in table AMATKOPT with the REVALL option. An extension block is required from this pool for this application. This extension block is held for the length of the call. Feature package NTX089 (Enhanced Coin Services) provides this capability.

Conditions

If package NTX089AA is present, then

Recommended

      (engineered percentage of simultaneous trunk offhooks)
X (number of OP and AMR5 trunkgroup members with the REVALL option)

Maximum

      (number of OP and AMR5 trunkgroup members with the REVALL option)

Account and Authorization Code

When a Meridian Digital Centrex (MDC) line, with a customer group that is authorized to use the Account Code feature in table IBNXLA, keys in an account code during a call, field CDAR (Customer Dialed Account Recording) is appended to the AMA record if package NTX165AA (Bellcore IBN/ESN Detail Recording) is present in the office. When an MDC line, with a customer group that is able to use the Authorization Code feature according to table IBNXLA, keys in an Authorization Code during a call, module code 102 is appended to the AMA record if the customer group has the MDRRAO option datafilled in table CUSTSMDR. If the account code, authorization code, or both are used during a call, an extension block is required from this pool.

Conditions

If package NTXP09 or NTX103 are present and package NTX165 is also present, then

Recommended

      (engineered percentage of simultaneous MDC offhks)
X (((number of MDC lines with a custgrp that has access to the Account Code feature)
X (percentage of MDC offhks that are billable))
+ (number of MDC lines with a custgrp that has the MDRRAO option and access to the Authorization Code feature))

Maximum

      (number of MDC lines with a custgrp that has access to the Account Code feature)
+ (number of MDC lines with a custgrp that has the MDRRAO option and access to the Authorization Code feature)

OR

Conditions

If package NTXP09 or NTX103 is present, then

Recommended

      (engineered percentage of simultaneous MDC offhks)
X (number of MDC lines with a custgrp with the MDRRAO option and access to the Authorization Code feature)

Maximum

(number of MDC lines with a custgrp with MDRRAO option and access to the Authorization Code feature)

TOPS E800 Service

If an office has TOPS Extended Bellcore AMA Format (EBAF) Phase 2 with parameter RECORD_800_SERVICE_INFORMATION in table TOPAMAOP enabled, and the call is an 800 PLUS call, module code 309 is appended to the AMA record. The extension block is held for a short time because it is allocated just before the AMA record is released for formatting. This feature is provided by package NTXE18AA (TOPS AMA Enhancements).

Conditions

If package NTXE18AA is present and TOPS EBAF Phase 2 is being used, with parameter RECORD_800_SERVICE_INFORMATION set to Y, then

Recommended

5% X   (estimate of the maximum number of simultaneous 800 PLUS calls)

Maximum

5% X   (TOPS_NUM_RU in table OFCENG)

TOPS overwritten number data

If an office has TOPS EBAF Phase 2 with parameter RECORD_OVERWRITTEN_NUM in table TOPAMAOP enabled, and an operator overwrites the billing number or the forward number, module code 314 or module code 315 is appended to the record. The TOPS operator is allowed to overwrite the billing number or the forward number up to nine times. Up to nine of these module codes can be appended to the record. The extension block for this application is held from the point of encountering an overwritten number until the end of the call. This functionality is provided by package NTXE18AA.

Conditions

If package NTXE18AA is present and TOPS EBAF Phase 2 is being used, with parameter RECORD_OVERWRITTEN_NUM set to Y, then

Recommended

(estimate of the maximum number of simultaneous TOPS/OOC calls where the operator overwrites the billing number or the forward number)

X   (average number of overwrites per call)

Maximum

9 X   (TOPS_NUM_RU in table OFCENG + OOC_NUM_RU in table OFCENG)

Note: This maximum formula results in overprovisioning. The multiplier of 9 implies that every TOPS call overwrites the billing or forward number nine times.

Blue box fraud

Package NTXP82AA (AMA MOD (CAMA) Modules)) provides an operating company with the ability to detect blue box fraud. If this package is present, the BLUEBOX Command Interface (CI) indicates that blue box supervision is active, and a short supervisory transition (SST) is detected, module code 065 is appended to the AMA record. Note that, because more than one SST may be detected during a call, module code 065 can be appended to the AMA record up to 16 times. Note that operating companies should normally expect a low occurence of blue box fraud.

Conditions

If packages NTXP82AA is present and BLUEBOX is active, then

Recommended

16 X   (estimate of the number of simultaneous fraudulent calls)

Maximum

16 X 1% X (number of SuperCAMA trunks)

Note: 1% indicates a low expectancy of blue box fraud.

Calling line identification

Base AMA packages NTX098AA (Bellcore CAMA Format) and NTX159AA (Bellcore LAMA Format) support the AMA Calling Line Identification (CLI) feature that provides the capability to append the CLI in AMA records that are produced from a call with a physical originating port that is an ISUP trunk with the AMACLID option. In table AMATKOPT, the option AMACLID can be datafilled against an incoming or two-way ISUP trunk with a BILLDN. The CLI is appended to the AMA record in a module with module code 046.

Conditions

If package NTX098AA or NTX159AA is present, then

Recommended

(engineered percentage of simultaneous trunk offhks)
X (number of incoming or two-way ISUP trunks with the AMACLID option and BILLDN)

Maximum

(number of incoming or two-way ISUP trunks with AMACLID option and BILLDN)

Point-of-entry identification

Package NTXK40 supports AMA point-of-entry identification, which provides the ability to append the actual network entry point for billable calls originating from within a network. The option ENTRYID is provided in tables VIRTGRPS and DNROUTE to define both virtual facility groups (VFG) and direct inward system access (DISA) as points of transit. DISA and VFG request the point-of-entry identification for appending to the AMA record. The point-of-entry identification is appended in a module with module code 046.

Conditions

If package NTXK40 is present, then

Recommended

(size of VFGs with ENTRYID option)
+ ((engineered percentage of simultaneous DISA terminations)
X (number of DISA numbers with the ENTRYID option))

Maximum

(size of VFGs with ENTRYID option)
+ (number of DISA numbers with ENTRYID option)

Long duration calls

If the office parameter UNIVERSAL_AMA_BILLING is enabled in table OFCENG and a call is recognized as a long duration call, a subrecording unit is required from this pool. It is held for the rest of the call. A long duration call is one that has been connected for the interval that is datafilled in table AMAOPTS for tuple BCLONGCALL. In the case of a long duration call, the subrecording unit and primary recording unit are copied for a short period to generate a long duration AMA record. This occurs during a BCLONGCALL audit. This feature is found in base AMA packages NTX098 and NTX159.

Conditions

If package NTX098 or NTX159 is present and office parameter UNIVERSAL_AMA_BILLING in table OFCENG is set to Y (yes), then

Recommended

(estimate of the maximum number of simultaneous billable long duration calls)

Maximum

A maximum calculation specific to long duration calls is not provided because all facilities in the office have the potential to use this application. When provisioning the recommended value, note that the number of long duration calls are few and the subrecording unit that is used during the BCLONGCALL audit is normally required only during low traffic periods when the audit runs.

Multi-Switch Business Group - Private Called Number Information

Package NTXR43AA (MBG Generic Address Parameter) enhances basic MBG to support networked customer groups using a private numbering plan. Module code 912 is appended to the AMA record for MBG billable calls where the originator's customer group is datafilled in table BGDATA against a business group identifier (BGID) with the BGMDR option. Module code 912 records the private called number information based on the contents of the generic address parameter (GAP) in the initial address message (IAM) that is used to transport the private number.

Conditions

If package NTXR43AA is present and tuples in table BGDATA are datafilled with CUSTGRP and BGMDR options, then

CRS_SUBRU_POOL2_SIZE

Recommended

Use the smaller value derived from either formula 1 or 2.

1.　　(number of MDC lines in customer groups that are associated with
　　　the BGMDR option in table BGDATA)
　　X　(percentage of simultaneous MDC line offhooks that the office is
　　　engineered to handle)
　　X　(percentage of MBG subscriber offhooks that are MBG calls)
　　X　(percentage of MBG calls that are billable)

2.　　(number of POTS ISUP trunks that are potentially involved in MBG
　　　calls)
　　X　(percentage of expected trunk utilization in the office)
　　X　(percentage of MBG calls on the above POTS ISUP trunks)
　　X　(percentage of MBG involved calls that are billable)

Note: The possible number of simultaneous MBG calls in an office for
any one particular customer group may be dependent on the total number
of customer group members in the other offices. If the office with the
highest concentration of subscribers for a particular MBG is provisioned,
the total number of subscribers for this MBG that is added to the first
term of formula 1
　　　　(Number of MDC lines in customer groups that are associated
　　　　with the BGMDR option in Table BGDATA)
is the lesser of the total number of subscribers in this MBG outside of
this office and the number in this office.

Maximum

Use the smaller value derived from either formula a or b.

a.　　(number of MDC lines in custgrps that are associated with the
　　　BGMDR option in table BGDATA)

b.　　(number of POTS ISUP trunks: trkgrp types IT, TO, TI and T2)

Network Facility Access (NFA)

Package NTXR25AA (Network Facility Access) provides MDC and Residential Enhanced Services (RES) subscribers with a direct connection to an intelligent processor (IP) and the services that the IP supports. The subscribers can gain access to the IP either implicitly or explicitly. With implicit access, a subscriber is directly connected to the IP by going off hook. With explicit access, a subscriber must dial an NFA access code to be connected to the IP. After a completed explicit connection between an NFA subscriber and the IP occurs, a record with call code 174 is generated. Module code 047 is attached to the AMA record and requires an extension block from this pool. After a call that is dialed by the IP is answered, module code 047 is appended to the AMA record. If no AMA record is generated at this time, a record with call code 175 is generated and module code 047 is attached.

Translations have an effect on whether these AMA records are generated. In table IBNFEAT, the NFA feature must be added to a line. The booleans IMPLCT_ACC and EXPLCT_ACC indicate what type of access to the IP is available to the subscriber. If AMA_EXPLCT is set to N (no), no AMA record with call code 174 is generated after an explicit connection to the IP. If AMA_IPDIAL is set to N, no AMA record with call code 175 is generated. However, in the case where another AMA record is generated anyway, module code 047 is attached to the record as noted in the paragraph above. In the case where the IP dials itself explicitly, two extension blocks from this pool are required. Trunk groups can also be datafilled with the NFA option to allow subscriber access to the IP.

Conditions

If package NTXR25 is present, then

Recommended

(engineered percentage of simultaneous MDC and RES offhooks)
X ((number of NFA lines with AMA_EXPLCT = N)
+ {Use the lesser of either formula a or b}

a. 2 X (number of NFA lines with AMA_EXPLCT = Y)
b. 2 X (number of NFA trkgrp members))

Maximum

(number of NFA lines with AMA_EXPLCT = N)
+ {use the lesser of either formula a or b}

a. 2 X (number of NFA lines with AMA_EXPLCT = Y)
b. 2 X (number of NFA trkgrp members)

Bellcore Frame Relay Service (FRS)

DataSPAN FRS is a connection oriented packet data service in which an FRS subscriber is connected to a frame relay switch through an access channel where multiple logical link connections to other subscribers may exist. FRS permits subscribers to communicate on one or more logical links simultaneously. FRS subscribers are billed on a usage basis where the actual data going through the frame relay interface unit (FRIU) are tabulated. The counts are then collected by the FRS billing controller and stored in the FRS billing internal storage. During the aggregation phase, the counts are retrieved and table lookups are performed to obtain billing information that is required for the billing record. BellCore frame relay recording is achieved by using a unique call code (089) and appending newly created modules with module code 069. The provisioning of CRS_SUBRU_POOL2_SIZE must take into account that one extension block is required for each permanent logical link connection (PLLC). The number of PLLCs is determined by adding the number of tuples datafilled in subfield CONNECT of Table PVDNCUST plus the number of trunk-to-trunk connections datafilled in Table FRSTRKCN. This capability is packaged in NTXQ35AA (Frame Relay LEC Billing).

Conditions

If package NTXQ35 is present, then

Recommended:

    (the number of PLLCs)

Maximum

A maximum calculation is not applicable in this case.

Record Digits as Outpulsed (RAO)

The RAO feature is included in package NTX102AA (IBN -- Station Message Detail Recording). It allows the recording of digits outpulsed on a trunk. The RAO option is datafilled in table CUSTSMDR against a business group identifier. All calls in this business group that terminate to a trunk produce a D5 extension record.

Conditions

If package NTX102 is present, then

Recommended

    (number of MDC lines where the business group ID has the RAO option)

  X (percentage of MDC offhks that the office is engineered to handle)

Maximum

(number of MDC lines where the business group ID has the RAO option)

Account Code and Authorization Code

The Acount and Authorization Codes features are included in package NTX103. The Account Code feature allows the recording of customer-dialed account codes. The Authorization Code feature allows the recording of customer dialed authorization codes. In table IBNXLA the customer group must be datafilled with a TRSEL of FEAT and the FEATURE set to ACCT (AUTH). In table CUSTHEAD the customer group must be datafilled with the ACCT (AUTH) option. Account Code and Authorization Code information is recorded in a D6 record.

Conditions

If package NTX103 is present, then

Recommended

(engineered percentage of simultaneous MDC offhks)
X   (number of MDC lines where the customer group has access to the Account or Authorization Code feature)

Maximum

(number of MDC lines where the customer group has access to the Account or Authorization Code feature)

Independent Common Carrier (ICC)

The ICC feature is included in package NTXH85AA (CCITT#7 and NCCI#7 for DMS-100). This feature is used to capture billing information for New Common Carrier Interface #7 protocol signaling. The ICCSMDR option is datafilled in Table CUSTSMDR against a business group identifier. All calls in this business group produce a DE extension record.

Conditions

If package NTXH85AA is present, then

Recommended

(number of MDC lines where the custgrp has the ICCSMDR option)
X   (percentage of MDC offhks that the office is engineered to handle)

Maximum

(number of MDC lines where the custgrp has the ICCSMDR option)

Advanced Intelligent Network (AIN)

The blocks provisioned by this pool are used to store data returned from the Service Control Point (SCP) during call processing. The following list illustrates the optional parameters that require an extension block when included in a response message. The number in parentheses indicates the maximum number of extension blocks that can be recorded for a single call.

- AMA service logic program identification module 039 (AMAslpID) (1)
  The first AMAslpID parameter is recorded in this extension block pool. This extension block also records the following parameters if they are received.
  - AMABusinessCustomerID
  - AMAAlternateBillingNumber
- AMALineNumber (2)
- AMADigitsDialedWC (6)

Conditions

If the AIN feature is present, then

Recommended

$$
\begin{aligned}
&\quad\text{(number of billable AIN calls)}\\
+&\quad\text{(number of AIN calls with 1 AMALineNumber parameter)}\\
+&\quad 2\text{ X (number of AIN calls with 2 AMALineNumber parameters)}\\
+&\quad\text{(number of AIN calls with 1 AMADigitsDialedWC parameter)}\\
+&\quad 2\text{ X (number of AIN calls with 2 AMADigitsDialedWC parameters)}\\
+&\quad 3\text{ X (number of AIN calls with 3 AMADigitsDialedWC parameters)}\\
+&\quad 4\text{ X (number of AIN calls with 4 AMADigitsDialedWC parameters)}\\
+&\quad 5\text{ X (number of AIN calls with 5 AMADigitsDialedWC parameters)}\\
+&\quad 6\text{ X (number of AIN calls with 6 AMADigitsDialedWC parameters)}
\end{aligned}
$$

Note: The number of AIN calls includes billable AIN calls as well as any unanswered AIN calls that are recorded as a result of datafill in tables AMAOPTS and BCCODES.

Maximum

A maximum value is not applicable in this case.

Range information

Minimum	Maximum	Default
0	4294967295	100

Activation

Increase - immediate

Decrease - cold restart

Dependencies

The CRS_SUBRU_POOL2 extension block is controlled by this parameter.

Consequences

This parameter provisions a sub-recording unit pool. Failure to obtain a sufficient number of these units results in the loss of call recording data. This pool is critical in generating the AMA data outlined in the description of this parameter.

Verification

This parameter controls the extension block with an external identifier name of CRS_SUBPRU_POOL2 and an index of 97 for operational measurement (OM) group EXT.

Memory requirements

Each unit requires 16 words of memory.

Dump and restore rules

This parameter was introduced in BCS32.

This parameter replaces REVALL_NUMBER_OF_EXTENSION_BLOCKS and NUM_OF_MDR_EXT_BLOCKS which were deleted in BCS32.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36   provisioning rules added for AIN

CRS_SUBRU_POOL3_SIZE

Parameter name

Call Recording Stream Sub-recording Unit Pool3 Size

Functional description of parameter CRS_SUBRU_POOL3_SIZE

This parameter controls the provisioning for the CRS_SUBRU_POOL3 extension block pool.

This parameter is currently defined only for offices that contain an actual user for the Call Recording Stream Platform created by Feature AF2755 (Increased Flexibility of AMA Software Platform). If this parameter appears in the software load, it must be provisioned.

The default value for this parameter is 100. This value is too small for larger offices.

Provisioning rules

This parameter applies only to Bellcore Automatic Message Accounting (AMA) offices.

A description of each application that requires an extension block from the pool controlled by this parameter is provided below as well as the conditions that determine the application's usage in a particular office. In most cases, each application includes a recommended provisioning calculation along with a worst case maximum value. The "engineered percentages" that are required for most of the recommended calculations are meant to aid in determining a reasonable number for a particular application. If an operating company does not know the value of certain percentages, it is recommended that a value of 100% be used. It is better to use the recommended calculation than the maximum calculation even if certain percentages are not exactly known. The maximum value is provided for those operating companies that are unable to provide the information required for the recommended calculation. If the maximum value is used, overprovisioning of the parameter may occur. In some cases, the maximum value is not appropriate and is not provided.

Some of these formulas include an estimated percentage of the billable calls involving the respective application. Note that the term "billable" includes all calls that generate a record. This includes the following types:

- AMA
- Station Message Detail Recording (SMDR) when Message Detail Recording Revenue Accounting Office (MDRRAO) is a customer group option in Table CUSTSMDR and SMDR is turned on for the office.

In some cases, a value of 5% is multiplied into the provisioning formulas. This takes into account the fact that the extension block is only held for a short time. For some applications the extension block is allocated just before the AMA record is released for formatting.

If the conditions for a particular application are met, the application's usage must be determined based on the formula. The sum of these formulas is then used to determine the value of this parameter. If the default value for this parameter is greater than the value determined by the sum of the formulas, the default value should always be used. Never provision this parameter at a value less than that of the default.

Overseas operating center (OOC): AMA modernization

If parameter RECORD_PARTY_NAME is enabled in table TOPAMAOP and the calling name and/or the called name are available to be recorded, module code 038 is appended to the AMA record. Module code 038 requires an extension block from this pool. The subrecording unit is held for a short time because it is allocated just before the AMA record is released to the formatter. If the calling name and called name are both available, moduled code 038 is attached to the AMA record twice. This functionality is packaged in either NTX631AB (OOC Call Processing) or NTXH38AA (Global TOPS -- Basic).

Conditions

If package NTX631AB or NTXH38AA is present and RECORD_PARTY_NAME is set to Y in table TOPAMAOP, then

Recommended

5% X (estimate of the maximum number of simultaneous TOPS/OOC calls where the calling/called name is available)

Maximum

5% X (incoming TOPS/OOC capacity of the office based on engineering specifications)

Centrex AMA ISDN billing

The ISDN module codes 070, 071, and 073 use an extension block from this pool. Module codes 070 and 071 are known as the ISDN core modules. One of these is appended to every billable ISDN-originated call. If a service is used, module code 070 records the use of the service on the originating ISDN set. Module code 071 is the same as module code 070, but it does not record the usage of ISDN services. Module code 073 records billable services delivered to an ISDN functional set upon termination. These features are packaged differently for toll and local offices. For toll offices, package NTX098AA (Bellcore Cama Format) provides this functionality. For local offices, packages NTX753AB (ISDN Functional Mode Basic Rate Services) and NTX159AA (Bellcore LAMA format) provide these features. Module code 073 is never generated in a toll office, but all three module codes can be generated in a local office.

Conditions

If package NTX098AA is included in a toll office, then

Recommended

 (engineered percentage of simultaneous trunk off hooks)
X (engineered percentage of ISDN traffic)
X (percentage of calls that are billable)
X (number of ISUP trkgrp members)

Maximum

 (number of ISUP trkgrp members)

OR

Conditions

If packages NTX159AA and NTX753AB are included in a local office, then

Recommended

 (engineered percentage of ISDN functional sets that can be off hook
 simultaneously)
X (percentage of calls that are billable)
X (percentage of non-billable calls that use a billable service)
X (number of ISDN functional sets that the office services)

Maximum

 (number of ISDN functional sets that the office services)

Centrex AMA TDMTT special billing

This functionality is packaged in NTX165AA (Bellcore--IBN/ESN Detail
Recording) along with Common Control Switching Arrangement (CCSA).
The CCSA package must be present in order to apply option TDMTT to a
line, trunk or Virtual Facility Group (VFG). A trunk can have a facility type
(FACTYPE) of ETS, CCSA, FX, or TDMTT. If a call terminates to a trunk
with a facility type of TDMTT, module code 101 is appended to the AMA
record. Module code 101 requires an extension block from this pool. The
extension block is held for the duration of the call. In addition, if a call
terminates to a VFG with option TDMTT, module code 101 is appended to
the AMA record.

Conditions

Package NTX165AA is present.

Recommended

((engineered percentage of simultaneous trunk off hooks)
X   (number of MDC trkgrp members with the option TDMTT))
+   (number of VFGs with the option TDMTT)

Maximum

(number of MDC trkgrp members with the option TDMTT)
+   (number of VFGs with the option TDMTT)

CLASS billing

The subscriber usage-sensitive pricing (SUSP) option in table AMAOPTS controls all Custom Local Area Signaling Service (CLASS) SUSP billing. It must be active in order to bill CLASS display and Screening List Editing (SLE) features on a per usage basis. SLE features are packaged in NTXE56. CLASS display features are packaged in NTXA82AA (CLASS Line Office Data).

Residential enhanced services (RES) and MDC lines can be datafilled in table RESFEAT for CLASS display features. Each time the subscriber uses a SUSP display service, the service is pegged in order to keep track of the number of times it was delivered to the subscriber. The audit for these features is scheduled by the AMA option CIDSUSPAUD in table AMAOPTS. When the audit is run, the subscribers are billed for the services that they used. These AMA records require an extension block from this subrecording unit pool. The hold time for this block is short.

RES and MDC lines can be datafilled in table RESFEAT for SLE features. Each time a subscriber alters one of their screening lists associated with with a SUSP SLE feature, a record capturing this event is generated. These records require a subrecording unit from this pool. The hold time for this block is short.

An extension block is required from this pool when the AMA field in table RESFEAT is changed from AMA to NOAMA for CLASS SUSP display. The use of the pool for this purpose is negligible.

Conditions

Package NTXA82AA or NTXE56AA (CLASS Screening List Editing) is present.

Recommended

(number of lines with CLASS SUSP Display and/or SLE SUSP features)

Maximum

A maximum value is not applicable in this case.

Number Service Code (NSC) - Enhanced 800 (E800)

E800 service is provided by package NTX554AA (CCS7--E800/SSP) on a service switching point (SSP) and communicates with operating company databases using Signaling System 7 (SS7). The database query is used to obtain routing information as well as other call handling instructions. E800 service is supported by the following types of lines and trunks:

- DMS equal access end office (EAEO) - EAEO/SSP supports E800 calls originating from single or party POTS lines
- DMS access tandem (AT) - AT/SSP supports E800 calls originating from intertoll (IT) and Super CAMA (SC) trunks that use dial pulse (DP), multi-frequency (MF), or equal access (EA) signaling
- DMS TOPS - AT/SSP supports E800 calls originating from IT and SC trunks that use DP, MF, or EA signaling.

Two types of AMA records can be generated for an E800 Service call. The first has a call code of 141. It is generated when equal access is not involved in the call. The second record has a call code of 142. It is used for inter-local Access and Transport Area (interLATA) calls when an equal access carrier is involved. An extension block is required from this subrecording unit pool. It is held for the duration of the call.

Conditions

Package NTX554AA is present.

Recommended

(estimate of the number of simultaneous 800 calls that the office is engineered to handle)

OR

((number of TOPS trunks) X (percentage of trunks used for E800 traffic))
+ ((number of IT trunks) X (percentage trunks used for E800 traffic))
+ ((number of SC trunks) X (percentage of trunks used for E800 traffic))
+ ((number of lines) X (estimate of E800 usage))

Maximum

The percentage in the second recommended calculation is 100 because the maximum formula must assume that all traffic is E800 traffic. Using the maximum calculation will likely lead to overprovisioning of this office parameter.

Number service code (NSC) - 800 PLUS

Package NTX555AB (800 PLUS) provides 800 service for SSP communication with operating company databases that are located at service control points (SCP). The 800 Plus feature is similar to E800 Service, but it supports the following services:

- Single Number Service - enables a subscriber to have one 800 telephone number serve two or more 800 line groups in several zones.

- Variable Call Routing - allows Single Number Service subscribers to specify terminating points for 800 Plus calls based on the time of day and the day of week.

- Out-of-Zone Calling - with basic 800 service, out-of-zone calls are automatically intercepted and the call cannot be completed. With Out-of-Zone Calling, calls that originate out of the subscribed zone are completed and charged at operator assisted rates.

The following lines and trunks support 800 Plus:

- DMS-200 SSP supports 800 Plus calls originating from single or party POTS lines.

- DMS-200 SSP supports 800 Plus calls originating from IT and SC trunks using DP or MF signaling.

- TOPS Toll SSP supports 800 plus calls originating from IT, SC, and TOPS trunks that use DP or MF signaling.

Two types of AMA records can be generated for an 800 Plus call. The first has a call code of 141. It is generated when equal access is not involved in the call. The second record has a call code of 142 and is used for interLATA calls when an equal access carrier is involved. An extension block is required from this subrecording unit pool. This block is held for the duration of the call.

Conditions

Packaage NTX555AB is present.

Recommended

(estimate of the number of simultaneous 800 Plus calls that the office is engineered to handle)

OR

((number of TOPS trunks) X (percentage of trunks used for 800 PLUS traffic))
+ ((number of IT trunks) X (percentage of trunks used for 800 PLUS traffic))
+ ((number of SC trunks) X (percentage of trunks used for 800 PLUS traffic))
+ ((number of lines) X (estimate of 800 Plus usage))

Maximum

The percentage in the second recommended calculation is 100 because the maximum formula must assume that all traffic is 800 Plus traffic. Using the maximum calculation will likely lead to vast overprovisioning of this parameter.

NSC - enhanced 008 (E008)

E008 is an inward call management feature that is packaged in NTXH84AA (Enhanced 008 for Australia). It is used when the office parameter UNIVERSAL_AMA_BILLING is enabled in table OFCENG. E008 service uses an SSP and an SCP to obtain call handling instructions from a query of the operating company database. The call is charged to the directory number that is returned by the SCP as the routing number. An AMA record with call code 142 is generated for all E008 calls.

Conditions

Package NTXH84AA is present.

Recommended

(estimate of the number of simultaneous E008 calls that the office is engineered to handle)

OR

((number of ATUP trunks) X (percentage of trunks used for E008 traffic))
+ ((number of AISUP trunks) X (percentage of trunks used for E008 traffic))
+ ((number of MDC lines) X (estimate of E008 usage))

Maximum

The percentage in the second recommended calculation must be 100 because the maximum formula must assume that all traffic is E008 traffic. Using the maximum calculation will likely lead to vast overprovisioning of this parameter.

Call forwarding conditional (CFC)

The CFC feature gives subscribers to the German Intelligent Network (GIN) services the ability to forward incoming calls at the trunk level. A recording unit from this pool is required to hold information for a forwarding record. This block is required for the duration of the call.

Conditions

The CFC feature is present.

Recommended

(estimated maximum number of simultaneous CFC forwards)

Maximum

(estimated maximum number of simultaneous E008 calls)

Private virtual network (PVN)

PVN service uses the public and private switched networks to provide private network features and capabilities. It provides connections for customers within a LATA and, by way of interLATA carriers (IC), provides connections to other LATAs. PVN service is implemented by the operating company database located at the SCP. A query is made on all PVN calls to this database by the SSP by means of SS7 common channel signaling protocol. The database provides routing information for the call as well as other call handling instructions.

PVN is packaged in NTX983AB (Service Switching Point Private Vitual Networking). It can be applied to an AT or to an EAEO. It supports access to PVN call translation from SC trunk groups signaling feature group D (FGD), IT trunk groups signaling FGD, MDC trunks, MDC Business, Group Stations, MDC attendant consoles, dedicated MDC stations and Remote access lines or trunks.

An AMA record is generated on all originating PVN calls if the billing indicators information is included in the response message from the SCP. The following call codes have been assigned for PVN services:

- 160 - ON-NET PVN call
- 161 - ON-NET PVN overflow call
- 162 - OFF-NET PVN call
- 163 - OFF-NET PVN overflow call
- 164 - PVN call using FGA
- 165 - PVN call using FX
- 166 - PVN call using OUTWATS
- 167 - PVN call using TIE trunks

Billable PVN calls require a subrecording unit from this pool. The extension block is held for the length of the call.

Conditions

Package NTX983AB is present.

Recommended

    (estimate of the number of simultaneous PVN calls that the office is engineered to handle)

X (percentage of PVN calls that are billable)

Maximum

    (number of SC trkgrp members signaling FGD)

\+ (number of IT trkgrp members signaling FGD)

\+ (number of MDC trkgrp members)

\+ (number of MDC Business Group Stations)

\+ (number of MDC Attendant Consoles)

\+ (number of MDC stations)

\+ (number of Remote Access lines or trunks)

Advanced intelligent network (AIN)

In release 0.0 of AIN, it is defined as a network architecture that allows an operating company to design its own features and provide these features across the public and private network. Calls that require these features must trigger a query to the SCP, which is a centralized database in the Common Channel Signaling 7 (CCS7) network. Once a query is received from the SSP, the SCP returns information to the SSP that is necessary to process the call.

Access to the network is gained through the network access point (NAP) or the SSP. Triggers that are set up in the translations alert the SSP that the call

is an AIN call that requires a query to the SCP. The following call types can access the AIN network:

POTS and RES lines SC trunk groups signaling Feature Group D (FGD) IT trunk groups signaling FGD MDC trunks MDC business group stations MDC attendant consoles Dedicated MDC stations Remote access lines or trunks

The SSP generates AMA records and appends AMA modules based on the billing elements received from the SCP and/or AMA data gathered at the SSP. An AMA record is generated whenever the SCP response message includes billing information in the routing instructions.

AIN consists of feature packages NTX983AB (Service Switching Point Virtual Networking) and NTXN28AA (Intelligent Network Billing Attributes).

Conditions

Packages NTX983AB and NTXN28AA are present.

Recommended

(estimate of the number of simultaneous AIN calls that the office is engineered to handle)
X (percentage of AIN calls that are billable)

Maximum

(number of POTS and RES lines)
+ (number of SC trkgrp members signaling FGD)
+ (number of IT trkgrp members signaling FGD)
+ (number of MDC trkgrp members)
+ (number of MDC business group stations)
+ (number of MDC attendant consoles)
+ (number of MDC stations)
+ (number of remote access lines or trunks)

Meridian SuperNode (MSN)

The MSN feature is included in package NTXE75AB (Offnet Access Services). This feature allows the recording of various call information from a Meridian SuperNode switch. The MSN option is datafilled in table CUSTSMDR against a business group identifier. All calls in this business group produce a DB extension record.

Conditions

Package NTXE75AB is present.

Recommended

(number of MDC lines where the custgrp has the MSN option)
X (percentage of MDC offhks that the office is engineered to handle)

Maximum

(number of MDC lines where the custgrp has the MSN option)

Range information

Minimum	Maximum	Default
0	4294967295	100

Activation

Increase - immediate
Decrease - cold restart

Dependencies

The CRS_SUBRU_POOL3 extension block is controlled by this office parameter.

Consequences

This parameter provisions a subrecording unit pool. Failure to obtain a sufficient number of these units results in the incomplete collection of recording data. This pool is critical in generating the AMA data outlined in the description of this parameter.

Verification

This parameter controls the extension block with an external identifier name of CRS_SUBRU_POOL3 and an index of 98 for operational measurement (OM) group EXT.

Memory requirements

Each unit requires 26 words of memory.

Dump and restore rules

This parameter was introduced in BCS32.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 provisioning rules for CFC added and CLASS provisioning rules modified

Parameter name

Call Recording Stream Sub-recording Unit Pool4 Size

Functional description of parameter CRS_SUBRU_POOL4_SIZE

This parameter controls the provisioning for the CRS_PRU_POOL4 extension block pool.

This parameter is currently defined only for offices that contain an actual user for the Call Recording Stream Platform. If this parameter appears in the software load, it must be provisioned.

The default value for this parameter is 100. This value is too small for larger offices.

Provisioning rules

A description of each application that requires an extension block from the pool controlled by this parameter is provided in the following pages as well as the conditions that determine the application's usage in a particular office. In most cases, each application includes a recommended provisioning calculation along with a worst case maximum value. The "engineered percentages" that are required for most of the recommended calculations are meant to aid in determining a reasonable number for a particular application. If an operating company does not know the value of certain percentages, it is recommended that a value of 100% be used. It is better to use the recommended calculation than the maximum calculation even if certain percentages are not exactly known. The maximum value is provided for those operating companies that are unable to provide the information required for the recommended calculation. If the maximum value is used, overprovisioning of the parameter may occur. In some cases, the maximum value is not appropriate and is not provided.

Some of these formulas include an estimated percentage of the billable calls involving the respective application. Note that the term "billable" includes all calls that generate a record, such as the following types:

- Automatic Message Accounting (AMA)
- Station Message Detail Recording (SMDR) when Message Detail Recording Revenue Accounting Office (MDRRAO) is a customer group option in table CUSTSMDR and SMDR is turned on for the office.

In one case, a value of 7% is multiplied into the provisioning formulas. This takes into account the fact that the extension block is only held for a short time. For some applications the extension block is allocated just before the AMA record is released to formatting.

If the conditions for a particular application are met, the application's usage must be determined based on the formula. The sum of these formulas is then used to determine the value of this parameter. If the default value for this parameter is greater than the value determined by the sum of the

formulas, use the default value. Never provision this parameter at a value less than that of the default.

Basic TOPS and Automatic Calling Card Service (ACCS)

A subrecording unit from this pool is required for all TOPS and ACCS billing. An extension block from this pool is important to TOPS AMA. These extension blocks are held for a short time because they are allocated just prior to releasing the AMA record to formatting. TOPS resides in feature package NTX188AA (TOPS--BCR AMA Format). ACCS resides in feature package NTXH48AA (Australian ACCS Support).

Conditions

Feature package NTX188 or NTXH48 is present.

Recommended

(engineered percentage of the number of simultaneous trunk offhooks)
X (7% X ((TOPS_NUM_RU in table OFCENG)
+ (OOC_NUM_RU in table OFCENG)))

Maximum

7% X ((TOPS_NUM_RU in table OFCENG)
  + (OOC_NUM_RU in table OFCENG))

BellCore frame relay service (FRS)

DataSPAN FRS is a connection-oriented "packet" data service in which an FRS subscriber is connected to a frame relay switch through an access channel on which multiple logical link connections to other subscribers may exist. FRS permits subscribers to communicate on one or more logical links simultaneously. FRS subscribers are billed on a usage basis. Counts of the actual data going through the frame relay interface unit (FRIU) are tabulated. The counts are then collected by the FRS billing controller and stored in the FRS billing internal storage. During the aggregation phase, the counts are retrieved and table lookups are done to obtain billing information required for the billing record.

BellCore frame relay recording is achieved by using a unique call code (089) and appending newly created modules with module code 069. The provisioning of CRS_SUBRU_POOL4_SIZE must take into account one extension block per permanent logical link connection (PLLC). The number of PLLCs is equal to the number of tuples datafilled in subfield CONNECT in table PVDNCUST plus the number of trunk-to-trunk connections datafilled in table FRSTRKCN. This capability is in feature package NTXQ35AA (Frame Relay LEC Billing)

Conditions

Feature package NTXQ35AA is present.

Recommended

(number of PLLCs)

Maximum

A maximum calculation is not applicable in this case.

DMS Packet Handler (DMS PH)

DMS PH is a packet handler for the DMS-100 product family that provides a full range of X.25 packet services for ISDN B and D channels. Packet handler provides detailed AMA records for the following call types:

- Intranetwork switched virtual circuit (SVC)
- Intranetwork SVC, long duration
- Internetwork SVC
- Internetwork SVC, long duration
- Intranetwork permanent virtual circuit (PVC)
- Internetwork PVC

Chargeable usage for packet-mode calls varies from that of circuit-mode calls. Circuit-mode call recording is based primarily on elapsed time from connect to disconnect. Packet-mode recording is based on elapsed time as well as a count of packet segments sent and received from a chargeable interface. Four rate periods are assigned by the operating company through datafill. The packet AMA records contain four packet segment counts, one for each rate period. Note that there is no concept of elapsed time for PVCs because a PVC is a permanent nailed-up connection.

A virtual call attempt is always considered chargeable unless the call is blocked by the network or the X.25/X.75 link interface unit (XLIU) has been removed from service. The XLIU is part of the DMS PH architecture that determines and reports the elapsed time to call processing. The XLIU also reports the four rate period segment counts for recording. In addition, the XLIU can handle a maximum of 1000 virtual calls at one time.

The DMS-PH resides in feature package NTXP47AA (DMS Packet Handler Base).

CRS_SUBRU_POOL4_SIZE

Conditions

Package NTXP47AA is present.

Recommended

1000 X (number of XLIUs)

Maximum

A maximum calculation is not applicable in this case.

Range information

Minimum	Maximum	Default
0	4294967295	100

Activation

Increase - immediate
Decrease - cold restart

Dependencies

The CRS_SUBRU_POOL4 extension block is controlled by this parameter.

Consequences

This parameter controls a subrecording unit pool. Failure to obtain sufficient resources for this pool results in the loss of billing for the application outlined in the Provisiong Rules section.

Verification

This parameter controls the extension block with an external identifier name of CRS_SUBRU_POOL4 and an index of 99 for Operational Measurement (OM) group EXT. For more information on OMs, see the *Operational Measurements Reference Manual* 297-1001-814.

Memory requirements

Each unit requires 40 words of memory.

Dump and restore rules

This parameter was introduced in BCS32.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

C-side Link Alarm Thresholds

Functional description of parameter CSLINK_ALARM_THRESHOLDS

This parameter is required for a local or SL-100 switching unit. It specifies the threshold percentages for major and critical alarms for CSIDE failures on the following peripheral module types:

- line concentrating module (LCM)
- international line concentrating module (ILCM)
- ISDN line concentrating module (LCMI)
- line group controller (LGC)
- digital trunk controller (DTC)
- message switch and buffer 6 (MSB6)
- line trunk controller (LTC)
- subscriber carrier module-100 rural (SMR)
- subscriber carrier module (SMS)
- subscriber carrier module-100 urban (SMU)
- message switch and buffer 7 (MSB7)
- remote cluster controller (RCC)
- austrian digital trunk controller (ADTC)
- PCM-30 digital trunk controller (PDTC)
- international line group controller (ILGC)
- intertnational digital trunk controller (IDTC)
- international line trunk controller (ILTC)
- ISDN access controller (IAC)

Once a link failure has been detected the raising of the alarm and its severity depends on the threshold percentage specified by this parameter. The alarm occurs if the percentage of lost C-side links is greater than or equal to the threshold percentage. The calculation of the percent of failed links rounds up to the nearest integer value. For example, if the major threshold is 34% and 3 out of 9 CSIDE links are lost then the alarm is raised.

Provisioning rules

Any percentage is allowed for a major alarm but the critical threshold must be greater than or equal to the major threshold.

This set of thresholds applies to the entire switching unit.

This parameter has two fields, the major and the critical threshold percentages, each with a value range of 1 to 100.

CSLINK_ALARM_THRESHOLDS

A value of 100% turns off the feature for that alarm level.

The default thresholds are 30% for a major alarm and 60% for a critical alarm.

Range information

Minimum	Maximum	Default
		30 60

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter is new in BCS23.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Data Class of Service

Functional description of parameter DATA_COS

This parameter is required for all switching units with the Integrated Business Network (IBN) and the DATAPATH or ESN feature.

Provisioning rules

If the switching unit is connected to an ESN switching unit, set the value of this parameter equal to the terminating NCOS number that indicates that the call is a digital data call.

In a non-ESN enviroment, set the value of this parameter equal to the NCOS value for all incoming digital calls.

Range information

Minimum	Maximum	Default
0	7	0

Activation

Cold restart

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

CUSTOMER_GROUP_IBNGRP_OM_COUNT

Parameter name

Customer Group Integrated Business Network Group Operational
Measurement Count

Functional description of parameter
CUSTOMER_GROUP_IBNGRP_OM_COUNT

This parameter allocates data store for the Integrated Business Network
Group (IBNGRP) operational measurement group.

The value specified for this parameter must be a multiple of 32. (that is, 0,
32, 64, 96, etc.) This restriction is imposed so that the parameter will be
changed infrequently. Frequent changes in the value of this parameter can
lead to fragmentation of data store.

The value specified places an upper limit on the number of IBN customer
groups that can be datafilled. Attempts to add new customer groups to table
CUSTENG when this upper limit has been reached, are rejected.

Provisioning rules

Since consoleless customer groups are assigned customer group numbers
starting from 256 (0 to 255 are reserved for customer groups that have
consoles) by table control, consoleless customer groups can be created only
if the parameter is greater than 256. Since the values are multiples of 32, the
minimum value of the parameter which allows the use of consoleless
customer groups is 288 (256 + 32 = 288).

Range information

Minimum	Maximum	Default
0	4095	32

Activation

Cold restart or NORESTARTSWACT (Refer to the procedure in section
"The NORESTARTSWACT utility".)

Dependencies

Not applicable

Consequences

Attempts to add new customer groups to table CUSTENG when this upper
limit has been reached, are rejected.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS14.

Copy the existing value of this parameter when doing a dump and restore

Parameter history

BCS36 NORESTARTSWACT activation added

DB_MAX_SIZE

Parameter name

Booked Call Data Base Maximum Size

Functional description of parameter DB_MAX_SIZE

The parameter determines the size of the booked call database.

It is associated with the ITOPS booked call database size increase feature that increases the maximum number of calls allowed to be stored at one time in the booked call database from 1280 to 5120.

Provisioning rules

Set the value of this parameter to the number of calls that are required to be in the Booked Call Database at one time.

The parameter will enforce the following values:

1280, 1408, 1536, 1664, 1792, 1920, 2048, 2176, 2304, 2432, 2560, 2688, 2816, 2944, 3072, 3200, 3328, 3456, 3584, 3712, 3840, 3968, 4096, 4224, 4352, 4480, 4608, 4736, 4864, 4992, 5120

Range information

Minimum	Maximum	Default
1280	5120	1280

Activation

Cold restart

Dependencies

Not applicable

Consequences

This parameter uses a large amount of data store.

Verification

Not applicable

Memory requirements

Each unit requires 153 words of memory.

Dump and restore rules

This parameter was introduced in BCS30.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

D-channel Handler Bd Statistically Multiplexed Ratio

Functional description of parameter DCH_BD_STATMUX_RATIO

This parameter is required for a switching unit with the Integrated Services Digital Network (ISDN) feature. It controls the maximum number of logical terminals that can be statistically multiplexed onto one Bd channel to route the packet data to the Data packet network (DPN). It is required to allow the maximum ratio in a particular switching unit to be set.

This parameter directly controls the maximum number of Logical Terminal Identifiers (LTID) (BD or D) that can be mapped into the same Bd channel in table LTMAP.

Default mapping algorithms also use this value as a maximum.

The value should not be set to a value greater than 32 until the Packet Handler is upgraded to handle values greater than 32.

The value of this parameter indirectly controls the number of packet data LTIDs that can be data filled for each DCH.

The number of packet data LTIDs = Number of BD channels X the value of this parameter.

An estimate of the number of packet data LTID for each DCH can be evaluated as follows:

number of packet data LTIDs required = (number of packet data LTIDS expected per loop) X (number of BRA TDM DCH channels) X 4.

The number is related to the level of traffic expected, and to the types of terminal used. An indication of the traffic for an inservice DCH is indicated by the DCHBD OM and is accessible from the channels level of the MAP.

If the maximum number of LTIDs per Bd channel exceeds the value of this parameter the following message is displayed:

```
CAPACITY OF Bd CHANNEL Y ON DCH X EXCEEDED
```

Provisioning rules

Specify the maximum number of logical terminals that can be statistically multiplexed onto one Bd channel to route the packet data to the DPN.

Range information

Minimum	Maximum	Default
0	64	64

DCH_BD_STATMUX_RATIO

Activation

Immediate

Dependencies

The type of packet data terminals in use, and the number of packet data terminals for each loops have will impact the value selected for this parameter.

Consequences

Overprovisioning of this parameter results in a slow response on packet data terminals.

Underprovisioning of this parameter results in a large number of Bd channels being required for each D-Channel Handler (DCH).

Underprovisioning is best illustrated by an example:

If there are 27 Basic Rate Access (BRA) TDM channels provisioned on a DCH, four loops are connected to each of the 27 TDM channels, (that is, 100 loops).

The loops can be displayed by entering QDCH DCH x.

If each loop has two packet data logical terminal provisioned :

4 Bd channels are required for each DCH if value of parameter is 50.

6 Bd channels are required for each DCH if value of parameter is 32.

8 Bd channels are requirefor each DCH if value of parameter is 16.

Verification

Set the value of this parameter, then attempt to ATTACH more than the desired value of packet data LTIDs to loops connected to the same DCH, using the same value as the DCHCHNL option.

See OM GROUP DCHBD for the operational measurements associated with this parameter.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS26.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Dual Tone Multi Frequency Calling Number Delivery Timers

Functional description of parameter DCND_TIMERS

This parameter is required in a switching unit with Japan ISDN User Part (ISUP) trunks. It specifies timeout values for the Dual Tone Multi Frequency Calling Number Delivery (DCND) timers.

DCND provides a method of delivering the calling line identifier (CLID) to the customer premise equipment (CPE) of the called party by way of DTMF transmission.

Provisioning rules

The function and range of values for this parameter are outlined in table 1. Note that all values are given in increments of 10 ms. For example, a value of 8 specifies a time interval of 80 ms.

Table 1
Provisioning of parameter DCND_TIMERS

Parameter field	Function	Range of values
DCND_ON	duration of each digit during DCND transmission (excluding the first DTMF A)	1 to 10
DCND_OFF	interdigit time for the DCND transmission	1 to 10
DCND_A	duration of initial DTMF A	50 to 100
DCND_T2	duration of silent period following the DTMF A and before the DCND transmission	1 to 10
DCND_T3	minimum length of the silent period between the last digit transmitted and the start of physical ringing	1 to 10

Range information

Minimum	Maximum	Default
		5 3 85 6 6

Activation

Immediate

New data is dynamically updated in all affected peripheral modules.

Dependencies

Not applicable

Consequences

This parameter should not be modified unless the DCND transmission using the default timing values cannot be detected by the CPE.

Verification

To verify that this parameter is set and working, make a call to a DCND customer and measure the resulting transmission.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced ion BCS36.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 parameter introduced

Parameter name

Data Call Tester Memory Limit

Functional description of parameter DCT_MEM_LIMIT

This parameter is required in a DMS-100 or DMS-200 switch with the Data Call Tester (DTC) feature. It specifies the amount of memory, in Kbytes, that can be used to store DCT results.

The recommended value is 1024 which specifies 1 Mbyte of memory.

Provisioning rules

The maximum amount of memory required for DCT test results depends on the number of days that the results are kept and the number of concurrently running integrated bit error ratio tests (IBERT). For a summary size of 90 bytes and a bin size of 18 bytes, table 1 shows the typical memory usage for DCT test results generated by an IBERT for each day.

Table 1
Storage required for DCT tests per IBERT per day

Duration	Number of tests	Maximum number of bins/test	Storage required
15 s	5760	1	607 Kbyte
15 min	96	3	13 Kbyte
30 min	48	6	9 Kbyte
1 h	24	12	7 Kbyte
2 h	12	20	5 Kbyte

The amount of memory required is decreased as duration increases as shown in table 1. Although tests with a duration of 15 s require a large amount of memory, repeating such a test is not usually done. Tests with short durations (less than 15 min) should be considered separately.

The following formula is used to estimate the maximum storage requirement:

$$M = (13 \times days \times ibert)$$

where

M	is the amount of memory required for DCT information storage in Kbyte
days	is the number of days results are kept
ibert	is the number of IBERTs running DCT

DCT_MEM_LIMIT

Range information

Minimum	Maximum	Default
0	4096	1024

Activation

Immediate

Dependencies

Not applicable

Consequences

As the value of this parameter is increased, more DTC test results can be stored.

Verification

The following messages are displayed when this office parameter is modified.

```
Test results data restructure is re-initialized
```

This message indicates that the whole data structure is deallocated and re-initialized in the case where the limit is decreased.

```
New limit is set to <limit> KBytes
```

This message confirms that the new limit is set whether it has increased or decreased.

```
***There are tests in progress***
```

This message is displayed when the user is trying to modify the value of this parameter while there are still tests running or pending tests to be executed. A change to the value of this parameter is rejected at this time.

```
***There are active DCT MAP sessions***
```

This message is displayed when the user is trying to decrease this parameter value while there are active MAP sessions using DCT (that is, selected a testbook ID). A change to the value of this parameter is rejected at this time.

```
***Resources shortage***
```

This message is displayed when the user is trying to decrease the value of this parameter and some resources cannot be allocated during the re-initialization of test results. A change to the value of this parameter is rejected at this time.

```
***Command is rejected***
```

This message is displayed in conjunction with other error messages to confirm that the command to change the value of this parameter has been aborted.

Dump and restore rules

This parameter was introduced in BCS36

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 parameter description added

DEBUG_HUNT_SWERRS

Parameter name
Debug Huntgroup Audit Software Errors

Functional description of parameter DEBUG_HUNT_SWERRS
This parameter is required for switching units with one or more hunt groups.

There have been instances of software errors (SWERR) being generated from the hunt audit. These SWERRS are difficult to trace.

The SWERR identifies the terminating agent, but not the originating agent involved.

If the value of this parameter is set to Y(yes), the information on the saved originating agent is displayed as a SWERR that occurs at the same time as the SWERR from the hunt audit. Its text displays the originating agent, that assists in the debugging of SWERRS that are generated from the hunt audit.

Hunt members added after the parameter is set to Y are not debugged, unless the office parameter is first reset to the default value N (no) and then reset to the value of Y.

Provisioning rules
Activation of this office parameter should be administered by Northern Telecom (NT) technical assistance (TAS) personnel.

It should only be set to Y, when there are SWERRS from the hunt audit occuring, that must be debugged.

The value of this parameter should be set to N when debugging has been completed so that the memory required can be deallocated.

Range information

Minimum	Maximum	Default
	•	N

Activation
Immediate

Dependencies
Not applicable

Consequences
Not applicable

Verification

If the value of the parameter is set to Y, the next SWERR from the hunt audit that occurs will be accompanied by a second SWERR with text indicating the originating agent.

Memory requirements

The following memory is allocated when the value of the parameter is set to Y.

99 words + 3 X (highest numbered huntgroup)
+ 2 X (sum of groupsize of every datafilled huntgroup)

Dump and restore rules

This parameter was introduced in BCS26.

Always leave the parameter at the default value during dump and restore.

DEF_AMR5_CAT_CODE

Parameter name
Default AMR5 Category Code

Functional description of parameter DEF_AMR5_CAT_CODE
This parameter is required for toll and combined local/toll switching units with AMR5 signaling.

The default category code is used when an automatic number identification (ANI) must be regenerated and the incoming category code defines the call type as ANIFAIL.

Provisioning rules
Set the value of this parameter to the two or three-digit default category code.

The default category code must be one of the category codes listed in table AMRCAT.

When the route in the AMRCAT table for the default category code is equal to NIL, all ANIFAIL calls are routed to the CAMA position in the Position table.

Range information

Minimum	Maximum	Default
000	999	000

Activation
Immediate

Dependencies
The default category code must be one of the category codes listed in table AMRCAT .

Consequences
Not applicable

Verification
Not applicable

Memory requirements
This parameter has no memory impact.

Dump and restore rules
Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Default Bearer Capability

Functional description of parameter DEFAULT_BEARER_CAPABILITY

This parameter defines the default bearer capability (BC) of the office. In cases where the originator cannot supply a BC, this office parameter determines the BC that is assigned to that call.

If termination checking is done based on bearer capability, this parameter determines the BC for terminating agents that do not have an explicit BC datafilled against it.

Provisioning rules

For current network applications, it is recommended that this parameter remain set at the default value of SPEECH.

Range information

Minimum	Maximum	Default
		SPEECH (This value is the same as the fixed default that existed prior to BCS31)

Activation

Immediate

Dependencies

Not applicable

Consequences

Changing this parameter to a value of 3_1KHZ may have a severe impact on call completion.

If the value of this parameter is changed from SPEECH to 3_1KHZ, the translations associated with ISDN bearer capability routing must be considered. Table RTECHAR must be investigated for any entries using a BC of SPEECH. Entries with a BC of SPEECH may cause all POTS traffic on the switch to route through ISDN Bearer Capability translations. If table OFCENG parameter NUM_RC_EXT_BLKS has not been engineered to accept this traffic load, calls will be blocked.

It should be noted that a potential problem exists in the fact that the public network and several types of ISDN telephones have not been programmed to accept calls with a Bearer Capability of 3.1KHz.

It is recommended that a value of 3_1KHZ be used only within a controlled environment.

Verification

If ISDN User Part (ISUP) is in the office, the user can verify the value of this parameter by making an ISUP call from a POTS line or IBN line. The information transfer capability field in the outgoing IAM message should correspond to the DEFAULT_BEARER_CAPABILITY that has been datafilled.

If Integrated Services Digital Network (ISDN) is in the office, the user can verify the value of this parameter by making a Primary Rate Access (PRA) call from a POTS line or IBN line. Ensure that the BC field in the Q.931 setup message corresponds to the DEFAULT_BEARER_CAPABILITY that has been datafilled.

Similarly, a call can be made from a line to a Basic Rate Access (BRA) set with firmware release greater than BCS29, with a PVC issue other than 0 datafilled in table LTDEF, and which does not have the NOVBD option in table LTDEF. The BC in the Q.931 setup message going to the BRA functional set should correspond to the DEFAULT_BEARER_CAPABILITY that has been datafilled.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter is new with software release BCS31.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Default Carrier or Treatment

Functional description of parameter DEFAULT_CARRIER_OR_TREAT

This parameter is required for an Equal Access End Office and specifies the carrier name or treatment that is used when a subscriber dials a toll call without having a PIC (Preferred INTER–LATA Carrier) or dialing a 10XXX prefix.

Provisioning rules

If the call is to be routed to a carrier, enter C and then the carrier name to which the call must be routed. The C and the carrier name must be seperated by a blank space.

If the call is to be routed to a treatment, enter T and then the treatment name to which the call must be routed. The T and the treatment name must be seperated by a blank space.

The default value is T DACD, which routes calls made without a PIC or 10XXX to the treatment DIAL ACCESS CODE (DACD) in the appropriate treatment table.

Range information

Minimum	Maximum	Default
		T DACD

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS15.

Copy the existing value of this parameter when doing a dump and restore.

DEFAULT_COMMANDCLASS

Parameter name

Default Command Class

Functional description of parameter DEFAULT_COMMANDCLASS

This parameter appears only if the parameter
ENHANCED_COMMAND_SCREENING in table OFCOPT is set to Y
(yes), and the switching unit has software package NTX292AB (Enhanced
Security – with Password Encryption).

Provisioning Rules

Specify the command class to which all commands that have been
automatically captured into the table CMDS during datafill are defaulted.

Range information

Minimum	Maximum	Default
0	30	0

Activation

Immediate

If this parameter is changed, only those commands placed in the CMDS
table by subsequent calls to ADDCOMMAND or ADDCIBINCOM will
have the new default command class. All other entries in the CMDS table
will be unaffected.

Dependencies

This parameter appears only if the parameter
ENHANCED_COMMAND_SCREENING in table OFCOPT is set to Y
(yes), and the switching unit has software package NTX292AB (Enhanced
Security – with Password Encryption).

Consequences

Not applicable   .

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter.

Parameter name

Default Language

Functional description of parameter DEFAULTLANGUAGE

This parameter is required for switching units with the Bilingual Man Machine Interface feature.

Provisioning rules

This parameter specifies the language of the user interface when the language has not been specified as input though the Permit Users command.

The value can be either ENGLISH, FRENCH, GERMAN, or SPANISH.

Range information

Minimum	Maximum	Default
		ENGLISH

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

There are no memory requirements associated with this parameter.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

DIRP_PFILE_AUDIT

Parameter name

Device Independent Recording Package Processed File Audit

Functional description of parameter DIRP_PFILE_AUDIT

This parameter specifies the time that the Device Independent Recording Package (DIRP) PFILE reclamation process will begin. When the audit process is scheduled to begin, all processed DIRP disk files will be deleted. A processed DIRP disk file is preceded by the letter "P" (Processed). After deletion, this reclaimed space can be reused by DIRP for new files if necessary.

Provisioning rules

PFILE reclamation uses system resources. It is recommended that the DIRP_PFILE_AUDIT be set to run at a time of low switch activity.

This parameter has three separate ranges of values as outlined in table 1:

Table 1 Provisioning of parameter DIRP_PFILE_AUDIT	
Field	Range
ONOFF	Y or N
HOUR	0 to 23
MINUTE	0 to 59

The default value is N 3 30. This means that the on/off flag is set to N (off) and the default time is set for 3:30 am. In order to have this audit begin running at this time, set the on/off flag to Y (on).

If a different time is preffered for the start of the PFILE audit, set the on/off flag to Y and change the hour and minute fields accordingly.

If this audit is not desired, leave the on/off flag set to N.

Range information

Minimum	Maximum	Default
		N 3 30

Activation

Immediate

Dependencies

Not applicable.

Consequences

Not applicable.

Verification

Not applicable.

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS33.

Copy the existing value of this parameter when doing a dump and restore.

DISC_TIME_BILLED

Parameter name

Disc Time Billed

Functional description of parameter DISC_TIME_BILLED

This parameter is required for all switching units with Automatic Message Accounting (AMA) tape units and indicates whether the conversation time recorded on the AMA records should be corrected for called party disconnect timing.

Provisioning rules

If this parameter is set to N (no), the value of parameter LONG_TIMED_RELEASE_DISC_TIME or SHORT_TIMED_RELEASE_DISC_TIME in table OFCENG will be subtracted from the conversation time on the AMA record.

If this parameter is set to Y (yes), the time on the AMA record will include the disconnect timing.

The value of this flag is determined by the downstream processor for the AMA tapes

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

See office parameters LONG_TIMED_RELEASE_DISC_TIME and SHORT_TIMED_RELEASE_DISC_TIME in table OFCENG.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of parameter.

Parameter name

Disconnect Timeout Value

Functional description of parameter DISCTO_TIMEOUT_VALUE

This parameter is required in an Integrated Business Network (IBN) Private Branch Exchange (PBX) (SL-100) or in a Plain Ordinary Telephone Service (POTS)/CENTREX (local) switching unit that has the DATAPATH feature.

DATAPATH provides switched data service to a customer equipped with Data Units (DU). The DUs can be interfaced to terminals, mainframes, printers, front-end communications processors, and other devices.

Some devices take a significant amount of time to clear a call in their software (that is, the disassociation between the application task and a communication port is not done immediately after call take down). Because of this delay, it is possible for an immediate subsequent call to that port to gain direct access to the application task that is still associated with that port. This is a serious security loop-hole since the caller bypasses all password checking and gains unauthorized access to the application.

The DISCTO (disconnect timeout) feature is required (for security reasons) to hold a DU line in an unavailable state for a datafillable time after call take down. This is an optional feature assigned on a per line basis.

This feature is available on the following types of DUs:
- LS (low speed)
- HS (high speed)
- CCU (control coax unit)
- AILC (asynch interface line card)
- DAVLC (data above voice line card)
- OPEN (any class).

This parameter specifies the disconnect timeout value, in 1 second intervals. All of the above DUs with the DISCTO feature will have the same timeout value.

The feature cannot be applied to DPX, CPI and DTI DUs, but works with LIU-DTU loop extension.

Provisioning rules

Specify the disconnect timeout value, in 1 second intervals.

Range information

Minimum	Maximum	Default
0	600	15

DISCTO_TIMEOUT_VALUE

Activation

Immediate

Dependencies

A DU requiring this feature must be assigned line option DISCTO in table KSETLINE.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS20.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Digital Modem Hit Time

Functional description of parameter DM_HIT_TIME

This parameter is used during the initialization sequence of the digital modem card (NT3X02) when first connected to any of the following operator positions in a DMS-200 TOPS office:

- Traffic Operator Position System (TOPS)
- Auxiliary Operator Services System (AOSS)
- Overseas Operating Centre (OOC).

It specifies the length of time that the modem carrier can remain undetected by the modem card before the modem is required to report the carrier loss to the DMS central control (CC). This parameter is expressed in units of 10 milliseconds, so that a parameter value of 20 causes a modem to ignore a carrier outage of less than 200 milliseconds.

Range information

Minimum	Maximum	Default
1	255	40

Activation

Immediate

Dependencies

This parameter is not affected by other parameters. It affects the number of available test circuits, amount of system time spent doing diagnostic maintenance, held incoming circuits waiting in queue for operators that are out of service, and available modems for connection to operator positions when carrier outages are being experienced.

Consequences

When underprovisioned, operator positions will more likely be taken out of service for carrier conditions that are not service affecting.

When overprovisioned, operator positions will more likely be left in service for carrier conditions that are service affecting.

Verification

The value of this parameter can be verified by causing a carrier outage in the demodem signal path for a period greater than that which the parameter represents. This should cause the connected position to be taken out of service by the system. A TOPS, AOSS, or OOC log, indicating the lost carrier, should be generated in the system maintenance logs.

DM_HIT_TIME

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS31. It replaces TOPS_DM_HIT_TIME, OOC_DM_HIT_TIME, and AOSS_DM_HIT_TIME as of BCS 31.

When performing a dump and restore from BCS30 or lower to BCS31 or higher, set this parameter to the value of AOSS/OOC/TOPS_DM_HIT_TIME from the old load.

Copy the existing value of this parameter when doing a dump and restore from software release BCS31 to software release BCS31 or higher.

Parameter name

Digital Modem Pulse Code Modulation Encoding

Functional description of parameter DM_PCM_ENCODING

This parameter is required for switching units with NT3X02CA digital modems (DM). It specifies the type of pulse code modulation (PCM) encoding scheme that is required.

The DM is designed to handle communications between the DMS Central Central Control (CC) and Traffic Operator Position System (TOPS) positions and devices, Auxiliary Operator Services System (AOSS) positions and devices and the attendant consoles.

The NT3X02/3X03 DM provides Bell 108 and 202 communication protocols. The NT3X02CA DM provides the Bell 212 communication protocol.

Provisioning rules

If the switching unit is located in Europe and one or more NT3X02CA DMs are provided, set the value of this parameter to DM_A_LAW.

If the switching unit is located in North America, leave the value of this parameter at the default of DM_MU_LAW.

Range information

Minimum	Maximum	Default
		DM_MU_LAW

Activation

Cold restart

Dependencies

Field CARDCODE in table DMODEM specifies the code of the DMs.

Tables AOSSDEV, AOSSPOS, TOPSDEV and field PROTOCOL in table TOPSPOS specifies the communication protocol for each of the AOSS and TOPS positions.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

DM_PCM_ENCODING

Dump and restore rules

This parameter was introduced in BCS22.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

DMS-BUS Poll Frequency

Functional description of parameter DMSBUS_POLL_FREQUENCY

This parameter specifies the frequency at which the DMS-CORE polls the DMS-BUS. This poll is used as an audit to determine the sanity of each DMS-BUS.

A sanity poll query is sent to each DMS-BUS after the number of seconds specified by the value of this office parameter.

Provisioning rules

Set the value of this parameter to 1.

Range information

Minimum	Maximum	Default
1	10	1

Activation

Immediate

The new polling value is applied as soon as the last poll has been completed.

Dependencies

Not applicable

Consequences

If the parameter is set too low, there will be an impact on realtime usage. If it is set too high, there may be an inordinate delay in detecting a DMS-BUS failure.

With an insufficient polling frequency, network wide routing loops may appear if the routing tables in the affected DMS-BUS cannot be updated and the condition of the faulty node is not known.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

DNLPIC_MAX_NUM_DN_TUPLES

Parameter name

Table DNLPIC Maximum Number Of Directory Number Tuples

Functional description of parameter DNLPIC_MAX_NUM_DN_TUPLES

This parameter specifies the number of tuples, in multiples of 10,000 that can be datafilled in table DNLPIC.

Provisioning rules

Specify the maximum number of tuples to be provisioned in table DNLPIC in multiples of 10,000.

Range information

Minimum	Maximum	Default
5	100	5

Activation

Immediate

Dependencies

Table DNLPIC holds the directory numbers of subscribers choosing to select a Primary IntraLATA carrier.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS29.   .

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Table DNPIC Maximum Number of Directory Number Tuples

Functional description of parameter DNPIC_MAX_NUM_DN_TUPLES

This parameter is required in a Bell Operating Company (BOC) switching unit with the Traffic Operator Position System (TOPS) feature.

This parameter specifies the maximum number of entries that can be datafilled in table DNPIC (Directory Number Primary Interlata Carrier).

Provisioning rules

Specify the maximum number of tuples that can be datafilled in table DNPIC. The parameter value is expressed in 10,000 line units with a maximum of one million directory numbers. For example, a value of 5 allows a maximum of 50,000 entries in table DNPIC.

Range information

Minimum	Maximum	Default
0	100	5

Activation

Reload restart

Dependencies

Table DNPIC contains information that associates a directory number with a primary Interlata Carrier (IC). It provides a greater flexibility to TOPS Interlata Carrier Service (TICS). It allows InterLATA calls to have the ability to obtain the IC based on the calling party's directory number instead of the incoming trunk group data.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS21.

Copy the existing value of this parameter when doing a dump and restore.

DRAM_BARGE_IN

Parameter name

Digital Recorded Announcement Machine Barge In

Functional description of parameter DRAM_BARGE_IN

This parameter allows the immediate connection to the broadcasting of Digital Recorded Announcement Machine (DRAM) announcements. It is valid for both Automatic Call Distribution (ACD) lines and Inter-Exchange Trunk (IET) trunks.

Provisioning rules

If this parameter is set to OFFRING, each call that is connected to a broadcast announcement receives audible ringing until the announcement begins a cycle.

If this parameter is set to OFFSILENT, each call that is connected to a broadcast announcement receives silence until the announcement begins a cycle.

If this parameter is set to ONRING, the first call that is connected to a broadcast announcement receives a very short burst of audible ringing while the DRAM is being connected. All subsequent calls are immediately connected.

If this parameter is set to ONSILENT then the first call that is connected to a broadcast announcement receives silence until the announcement is ready. All subsequent calls are immediately connected.

Range information

Minimum	Maximum	Default
		ONSILENT

Activation

Immediate

It is recommended that the parameter be modified on initial office datafill. However, further changes to the parameter will be reflected without requiring a restart.

Dependencies

Not applicable.

Consequences

Not applicable.

Verification

To verify that DRAM_BARGE_IN is properly set and working, perform the following:

1 Select a broadcast DRAM announcement.

   a. Make sure that the announcement is operational.

2 Choose a first terminal and connect it to the announcement. The announcement should then work as specified for the first terminal.

3 While the first terminal is connected, connect a second terminal to the announcement. The announcement should then work as specified for the second terminal.

Memory requirements

Each unit requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS32.

Copy the existing value of this parameter when doing a dump and restore.

DTSR_AUTO_DEACTIVATION_ENABLE

Parameter name

Dial Tone Speed Recording Automatic Deactivation Enable

Functional description of parameter DTSR_AUTO_DEACTIVATION_ENABLE

This parameter controls the ability of Dial Tone Speed Recording (DTSR) to deactivate itself when system resources are at a premium.

Provisioning rules

If this parameter is set to Y (yes), DTSR deactivates itself when certain system resources become scarce. In BCS19, digitone receivers are the only system resource monitored. If a RCVRQ overflow occurs, DTSR deactivates itself. It will reactivate itself 15 minutes later if system resources are available again. If the system resources are still at a premium, DTSR continues to try to reactivate itself until it is successful. A log is produced when DTSR deactivates or reactivates itself (DTSR100 & DTSR101 respectively).

If the value of this parameter is set to N (no), the DTSR does not deactivate itself when digitone receivers are scarce.

Range information

Minimum	Maximum	Default
		Y

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Dump and restore rules

This parameter was introduced in BCS19.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

E2A Link Equipped

Functional description of parameter E2ALINKEQP

This parameter specifies whethe a DMS SuperNode switch is equipped with E2A telemetry links. It is required to activate the computing module (CM) maintenance software that monitors the E2A link status.

Provisioning rules

Set this parameter to Y (yes) to enable the monitoring of the E2A link status by an audit process. The CM MAP level CI command E2ALINK is also enabled.

Set this parameter to N (no) to disable the monitoring of the E2A link status. The E2ALINK command is also disabled.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Change office parameter E2ALINKEQP if the E2A telemetry equipment is added to or removed from the reset system of the DMS SuperNode switch.

Consequences

Incorrect provisioning of this parameter results in either the generation of erroneous logs and alarms for E2A link status or the loss of the E2A link status monitoring facilities.

Verification

To verify that this parameter has been set correctly, issue the CI commands: TABLE OFCENG; POS E2ALINKEQP.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS33.

Copy the existing value of this parameter when doing a dump and restore.

E911_AUD_RING_FROM_PSAP

Parameter name

E911 Audible Ringing From Public Safety Answering Point

Functional description of parameter E911_AUD_RING_FROM_PSAP

This parameter is associated with E911 which provides a centralized emergency service through a DMS-100 or 100/200 switch functioning as an E911 tandem.

This parameter allows for the choice of audible ring-back from either the DMS or the Public Safety Answering Point (PSAP) equipment.

Provisioning rules

Set the value of this parameter to N (no) to allow audible ringing to originate from the DMS.

Set this parameter to Y (yes) to allow the audible ringing to originate from the PSAP equipment.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable.

Consequences

Not applicable.

Verification

To verify the functionality of this parameter, remove the audible ringing card from the customer equipment. The audible ringing will no longer exist unless generated by the DMS equipment.

Memory requirements

This parameter value requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS32.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

E911 Line Appearance On A Digital Trunk Public Safety Answering Point Software Status

Functional description of parameter E911_LDT_PSAP_SW_STATUS

This parameter is associated with E911 which provides a centralized emergency service through a DMS-100 or 100/200 switch functioning as an E911 tandem. It allows the forwarding of either a tone or on-hook signal to a line appearance on a digital trunk (LDT) public safety answering point (PSAP) when the calling party goes on-hook.

Provisioning rules

The parameter may take either of two values: ONHK_TO_LDT_PSAP or TONE_TO_LDT_PSAP.

When the parameter value is set to ONHK_TO_LDT_PSAP, an ONHK is forwarded to the LDT PSAP.

If the parameter value is TONE_TO_LDT_PSAP, a tone is presented to the PSAP attendant whenever the calling party goes on-hook. The tone remains audible to the PSAP attendant until one of the following events occurs:

- a conference is invoked
- ringback is invoked
- the calling party returns off-hook

The tone is presented at any time during which no speech path exists between an agent and an E911 caller and the RINGBACK feature is not active.

Range information

Minimum	Maximum	Default
		ONHK_TO_LDT_PSAP

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

Each unit requires 8 words of memory.

Dump and restore rules

This parameter was introduced in BCS32.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

E911 Local Access Receiver Off-hook Tone Time

Functional description of parameter E911_LOCAL_ACCESS_ROH_TONE_TIME

This parameter is used in a switch that acts as an E911 tandem and contains software packages NTXP58 and NTXN59. It specifies the time that receiver off-hook (ROH) tone lasts during any local access 911 call (line to E911 Virtual Facility Group to Public Safety Answering Point), if the PSAP agent invokes ROH.

Provisioning rules

The recommended value for this parameter is 500 (5 seconds). E911 call scenarios that rely on a DMS to DMS environment, where the call is outgoing from the end office on an OP trunk, use this value.

Range information

Minimum	Maximum	Default
1	1000	500

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

To verify that this parameter is operational, make an E911 local access call and have the PSAP apply ROH to the caller's line. The duration of ROH tone (in seconds) multiplied by 100 will equal the value of this parameter.

Memory requirements

Each unit requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS34.

Copy the existing value of this parameter when doing a dump and restore.

E911_NUMBER_OF_FDBS

Parameter name

E911 Number Of Feature Data Blocks

Functional description of parameter E911_NUMBER_OF_FDBS

This parameter replaces E911_NUMBER_OF_EXT_BLOCKS in BCS34. E911_NUMBER_OF_FDBS specifies the number of E911 feature data blocks (FDB) that are reserved for an office. E911 FDBs hold data during the various stages of an emergency call.

Any DMS switch acting as an E911 tandem and containing software packages NTX447AA (E911--Tandem) and NTXF61AA (DMS Integrated E911 PSAP Functionality) uses this parameter.

E911 FDB usage begins when a call terminates to a public safety answering point (PSAP) or Automatic Call Distribution (ACD) queue. The use of the E911 FDB continues until all parties in the call go on hook.

Provisioning rules

Use the following formula to determine the value for this parameter:

$$((\# \text{ ACD/Line/LDT PSAP agents}) + (\# \text{ slots in ACD PSAP queue})) \times 2$$

Where:

ACD = Automatic Call Distribution
LDT = Line appearance on a digital trunk
PSAP = public safety answering point

Range information

Minimum	Maximum	Default
32	20000	400

Activation

Immediate

Dependencies

The value of this parameter must be smaller than or equal to the value of office parameter NO_OF_CRITICAL_FTR_DATA_BLKS in table OFCENG.

Consequences

Overprovisioning of this parameter decreases the memory resources that are available for other activities.

Underprovisioning of this parameter results in the possibility of features being unable to function. The following features at risk are at risk:

- Orighold, Switch-hook Status Tone

- E911212 logs, Disconnect Timing
- Remote Call Event Records (RCER)
- Automatic Number Identification (ANI)
- Automatic Link Intelligence (ALI)
- Ringback.

If an FDB is unavailable, an E911224 log is generated.

Verification

After the value of this parameter has been changed, the generation of an E911223 log indicates that this change has not been effective.

Memory requirements

No memory requirement is associated with this office parameter. It uses the FDBs that are allocated by office parameter NO_OF_CRITICAL_FTR_DATA_BLOCKS.

Dump and restore rules

This parameter was introduced with software release BCS34.

If performing a dump and restore from software release BCS33 or lower to BCS34 or higher, the parameter E911_NUMBER_OF_EXT_BLOCKS is converted to E911_NUMBER_OF_FDBS. The formula for converting is:

E911_NUMBER_OF_FDBS = E911_NUMBER_OF_EXT_BLOCKS x 2

Copy the existing value of this parameter when doing a dump and restore from software release BCS34 to software release BCS34 or higher.

EA_CCIS6_TANDEM_BILL

Parameter name

Equal Access Common Channel Interoffice Signaling No.6 Tandem Billing

Functional description of parameter EA_CCIS6_TANDEM_BILL

This parameter is required in a DMS-100 equal access end office or a DMS-200 office access tandem switch.

This parameter specifies whether 119 terminating access billing records are produced for calls originating on Common Channel Interoffice Signaling No.6 (CCIS6) trunks.

Switching units that use CCIS6 trunks to interconnect with the InterLATA carriers (IC) or International Carriers (INC), and require a 119 terminating access record to be produced for calls incoming from the IC or INC, must use this parameter.

119 Terminating Access Record billing is only supported for calls originating on CCIS6 trunks and terminating to the following:

- CCIS6
- intertoll (IT)
- SuperCAMA (SC) (2-way)
- Traffic Operator Position System (TOPS) (2-way) trunks and lines

Provisioning rules

Enter Y (yes) followed by a carrier name (for example CARR1) to activate the 119 terminating access record billing.

Leave the value of this parameter at the default of N (no) if 119 terminating access record billing is not required.

If an attempt is made to datafill NILC for the carrier name, the following error message is displayed:

```
NILC NOT PERMITTED FOR CARRIER          .
```

All calls originating on CCIS6 trunks are subject to billing.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

This parameter has no effect on CCIS6 billing unless feature package NTX204AA02 (CCIS Banded Signaling) is present.

The carrier name must be datafilled in table OCCNAME.

In order to define the contents of the IC/INC prefix field in the billing record, and also to control the format of the billing record produced (that is short or long format), table OCCINFO must be datafilled.

If table OCCINFO is not datafilled with the carrier name specified, a default prefix code of 000 is placed into the IC/INC prefix field of the billing record. Also, the long format 119 Terminating access records are produced by default.

Consequences

Not applicable

Verification

With this parameter set to Y followed by a carrier name, a 119 terminating access record should be produced for CCIS6 trunk origination calls.

With this parameter set to N, no 119 Terminating Access Record should be produced for CCIS6 trunk origination calls.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS26.

Copy the existing value of this parameter when doing a dump and restore.

EA_OCS_AND_DP_OVLP_NEEDED

Parameter name

Equal Access Overlap Carrier Selection And Dial Pulse Overlap Needed

Functional description of parameter EA_OCS_AND_DP_OVLP_NEEDED

This parameter is required for a switching unit with the Equal Access feature. It specifies whether the features Overlap Carrier Selection (OCS) and Dial Pulse (DP) trunk overlap outpulsing can both exist in the same switching unit.

If only OCS is needed in a switching unit, the real-time impact can be greatly reduced on non-OCS calls.

Provisioning rules

If this parameter is set to a value of Y (yes), both the OCS and DP features can exist in the same switch.

If the value of this parameter is set to N (no) and office parameter EA_OVERLAP_CARRIER_SELECTION in table OFCENG is set to Y, line to DP trunk overlap outpulsing is not available.

Range information

Minimum	Maximum	Default
		Y

Activation

To activate a change to the value of this parameter, BSY the individual peripheral modules (PM), reload the static data and then return to service (RTS) the PM.

Dependencies

Not applicable

Consequences

If the parameter is left at the default value of Y, both forms work but there is no real-time savings.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS18.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Equal Access Overlap Carrier Selection Digit Collection Method

Functional description of parameter EA_OCS_DIGCOL_METHOD

This parameter is required in an equal access end office (EAEO) with the Overlap Carrier Selection (OCS) feature. It determines the method of digit collection for the OCS feature.

Provisioning rules

This office parameter determines the sequence of opcodes for digit collection that are sent to the line module (LM) when returning the LM to service. Depending on the value of this parameter, the digit collection follows one of the algorithms listed below. For the sake of simplicity, when digits reported to the central control (CC) are mentioned, the prefix digits are excluded. The prefix digits are always reported in the first digits message.

There are four different methods of digit collection for the OCS feature. Set this parameter to a value of NOAMBI, PFXALL, PFXAMB, or TIMING as described below.

No ambiguous codes (NOAMBI)

This value is required if the switch does not have any ambiguous codes.

Since there are no ambiguous codes in the switch, any N0/1X three-digit combination is treated as a numbering plan area (NPA). After determining that the first three digits collected represent an NPA, three more digits can be collected and these six digits can be reported to the CC so that OCS can be started if necessary.

The second digits message contain the last four digits.

If the three-digit code collected is of the form NNX, this implies a seven-digit code. If OCS is to apply to this three-digit code, as determined by a lookup into table LMOVCODE, these three digits are reported to the CC.

The second digits message contains the last four digits. If OCS does not apply to these three digits, four more digits are collected. All seven digits are reported in one digits message.

Ambiguous codes (PFXALL)

This value is required if the switch has ambiguous codes and all ten-digit numbers must be dialed with a prefix and all seven-digit numbers must not be dialed with a prefix, regardless of whether the call is ambiguous.

The switch contains ambiguous codes, but this is not a problem because all ten-digit calls have the prefix 0 or 1 and seven-digit calls do not. If a prefix

is dialed, the first digits message contains six digits and the second contains the last four digits in case OCS is required. If no prefix is dialed, this is a seven-digit call and, depending on whether OCS applies, either seven digits are reported in one message, or three digits are reported in the first message followed by four in the second message.

Ambiguous codes (PFXAMB)

This value is required if the switching unit has ambiguous codes and the prefix method is used for resolving ambiguities. It does not imply that non-ambiguous ten-digit calls must be dialed with a prefix nor that seven-digit non-ambiguous calls must be dialed without a prefix.

Since the switch has ambiguous codes and a prefix cannot be used to determine whether three digits dialed represents an NPA or an NXX if it is of the form N0/1X, all ten-digit calls require four digits messages to the CC and all ambiguous seven-digit calls that require OCS need three digits messages to the CC. This is because the first message reports the first three digits. It is necessary in case is a seven-digit call that requires OCS.

The next message contains the next three digits in case it is a ten-digit call that requires OCS.

The next digits message contains the seventh digit since it may be a seventh-digit call. It is not desirable to apply a timeout after the seventh digit.

The fourth digits message for ten-digit calls consists of the remaining three digits.

For the codes that are not in the form N0/1X, only one digits message is required if OCS does not apply. Two digits messages will be necessary if OCS does apply, that is, one message for reporting the first three digits and the second message for reporting the last four digits.

Timing

This method is required if the switch has ambiguous codes and the timing method is used to resolve ambiguities. OCS will not apply to ambiguous calls using this method.

The switch uses the timing method to resolve ambiguities. A prefix cannot be relied upon to give any information.

For codes in the form N0/1X, three digits messages are required.

The first reports six digits in case it is a non-ambiguous NPA that requires OCS.

The next message reports the seventh digit in the case where this is an ambiguous seventh digit call. The CC must impose the short timing at this time, since the LM is still in long timing mode.

The next message contains the last three digits for ten-digit calls, or a timeout with a last digits messsage for seventh-digit ambiguous calls. It is not required to report after the first three digits because OCS is not compatible with the timing method of resolving ambiguities.

If the first three digits collected are not of the form N0/1X, this is a non-ambiguous seven-digit call. If OCS applies to these three digits, two digits messages are needed, and if OCS does not apply, only one digits message is needed.

Summary

In order to achieve the least number of redundant digits messages, the ideal situation is either a switch that has no ambiguous codes or a switch that has ambiguous codes and forces all users to dial a prefix on ten-digit calls and does not allow the prefix on seven-digit calls.

The most inefficient mode of digit collection exists in those switches that have ambiguous codes that are resolved by the prefix method, but do not force a prefix on non-ambiguous ten-digit calls and do not force the absence of a prefix on seven-digit non-ambiguous calls. In other words, it is inefficient in those switching units that do not impose a uniform method of dialing.

Table 1 shows a summary of the digits messages required for each of the different cases mentioned above. The numbers in brackets indicate after which digit a digits message is reported to the CC:

Table 1
Digit message summary

OCS/ non-OCS	Number of digits	NOAMBI	PFXALL	PFXAMB	TIMING
OCS	7	2 messages (3,7)	2 messages (3,7)	3 messages if N0/1X code (3,6,7) 2 messages if NNX code (3,7)	3 messages if N0/1X code (6, 7,timeout) 2 messages if NNX code (3,7)
OCS	10	2 messages (6,10)	2 messages (6,10)	4 messages (3,6,7,10)	3 messages (6,7,10)
—continued—					

Table 1
Digit message summary (continued)

OCS/ non-OCS	Number of digits	NOAMBI	PFXALL	PFXAMB	TIMING
non-OCS	7	1 message (7)	1 message (7)	3 messages if N0/1X code (3,6,7) 1 message if NNX code (7)	3 messages if N0/1X code (6,7,timeout) 1 message if NNX code (7)
non-OCS	10	2 messages (6,10)	2 messages (6,10)	4 messages (3,6,7,10)	3 messages (6,7,10)
End					

Range information

Minimum	Maximum	Default
		NOAMBI

Activation

To activate a change in the value of this parameter, busy (BSY) the individual LM/LTCs, reload the static data and then return to service (RTS) the LM/LTC.

Dependencies

Parameter EA_OVERLAP_CARRIER_SELECTION in table OFCENG must be set to a value of Y.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS17.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Equal Access Operator Services System Hold Timeout In Minutes

Functional description of parameter EA_OSS_HOLD_TIMEOUT_MINS

This parameter is required for a local equal access end office (EAEO), software package NTX186AA, and for the optional exchange access operator services signaling (EAOSS) feature, software package NTX888AA.

EAOSS provides the operator services system (OSS) with all the information necessary to process calls arriving on a single combined trunk group. This trunk group can contain calls requiring any subset or all of operating company (OC), interexchange carriers (IEC) toll and assistance (TA), OC directory assistance (DA), OC intercept, OC and IEC new services, and OC and IEC direct distance dialing (DDD).

Provisioning rules

This parameter specifies the EAOSS hold time-out, in 1-min intervals.

This parameter is provided to prevent a trouble condition on a call requiring the hold function from holding a line out of service for an extended period of time. The timing is used when a line goes on-hook and the IEC is in an off hook condition. If the line remains on-hook and neither an on-hook or an expanded inband signal is received from the IEC within this timeout interval, the connection is released and a TRK121 record is produced.

If an expanded inband signal is received, the timeout interval is reinitiated.

Range information

Minimum	Maximum	Default
1	4	2

Activation

Immediate

Dependencies

Not applicable

Consequences

If the TRK121 LOG is generated, it indicates that there might be problems with the line being out of service or that the timeout value specified for this parameter is too low.

If the log is generated and there does not appear to be anything wrong with the line, increase the value of this parameter.

The value of this parameter is only applicable to calls originating from the EAEO and routed over a trunk group, with trunk group type OP, using EAOSS signaling. All other calls are not affected.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS24.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Equal Access Overlap Carrier Selection

Functional description of parameter EA_OVERLAP_CARRIER_SELECTION

This parameter is required in an equal access end office (EAEO) with the Overlap Carrier Selection (OCS) feature. It determines the type of digit collection performed by the line module (LM).

Provisioning rules

If the value of this parameter is set to N (no), normal digit collection is performed.

If the value of this parameter is set to Y (yes), the LM performs digit collection for equal access overlap carrier selection.

Range information

Minimum	Maximum	Default
		N

Activation

To activate a change in the value of this parameter, BSY the individual LM/LTC, reload the static data and then return to service (RTS) the LM/LTC.

Dependencies

A call uses OCS only if the entry in subtable STDPRT of table STDPRTCT for the digits dialed has the EA selector and fields RTEPRSNT and OCS set to Y and the data in table OCCINFO for the carrier has field OVERLAP set to Y.

Feature OCS allows outpulsing of digits before the subscriber completes dialing. Domestic calls begin OCS when there are four digits left to be dialed. International calls begin OCS after the country code has been dialed.

The office parameter for the DP overlap outpulsing feature MIN_NUMBER_OF_DIGS_RPTD_ON_OVERLAP is not applicable to OCS.

See parameter EA_OCS_AND_DP_OVLP_NEEDED in table OFCENG for assigning both OCS and DP overlap outpulsing.

Table LMOVCODE contains the codes to which OCS is not applicable.

Setting this parameter to Y affects almost all calls in an EAEO (whether they are equal access or not). The impact is that of an additional digits message it would not get if the parameter was set to N. Calls using OCS save between 2 and 4 seconds of post dial delay per call.

The parameter EA_OCS_DIGCOL_METHOD in table OFCENG specifies the method of digit collection for the OCS feature.

Consequences

This parameter must never be set to Y in a non-EAEO switching unit. If it is set to Y, many digit sequences supported by the line module digit collection scheme will be invalid or handled incorrectly.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS17.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Equal Access Table CICSIZE4 Obsolete

Functional description of parameter EA_TAB_CICSIZE4_OBSOLETE

This parameter is used in a DMS-100 or DMS-200 switch. It specifies whether table CICSIZE4 is required to specify which trunk groups use four-digit carrier identification codes (CIC).

Provisioning rules

Set the value of this parameter to Y (yes) if the office uses only three-digit CICs. This specifies that table CICSIZE4 is unnecessary (obsolete). Table CICSIZE4 will not be datafilled in this case.

Leave the value of this parameter at the default of N (no) if the office uses both three-digit and four-digit CICs. This specifies that table CICSIZE4 contains a list of all trunk groups that use four-digit CICs. All other trunk groups use three-digit CICs.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

When this parameter is set to N table CICSIZE4 will not be datafilled.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

Each unit requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS34.

Copy the existing value of this parameter when doing a dump and restore.

EA_WITH_CD

Parameter name

Equal Acess With Circle Digit

Functional description of parameter EA_WITH_CD

This parameter specifices whether the switching unit has the Circle Digit (CD) and the Equal Access (EA) feature.

Provisioning rules

If the value of this parameter is set to Y (yes), the following applies:

- Circle digit 0 (CD0) cannot be used as an option on eight-or-ten party lines.
- Service orders system (SERVORD) prohibits the addition of the CD0 option in table LENLINES to ten party lines. This limits ten-party lines to only having 9 members on the line
- If the user tries to add CD0 to a line, the message "CD0 incompatible with EA_WITH_CD" appears and disallows a change to the line
- Lines with a circle digit can make 10XXX calls to go through Interlata Carriers (IC)
- Lines with a circle digit can have presubscribed interLATA carriers (PIC)
- Parameter SPDD_DIGIT in table OFCENG cannot be set to 10
- A circle digit can be used for these types of equal access calls:
  - 1   + CD + 7 or 10 digits
  - 0   + CD + 7 or 10 digits
  - 10XXX + 1 + CD + 7 or 10 digits
  - 10XXX + 0 + CD + 7 or 10 digits
  - 10XXX + 0 + CD
  - 10XXX + 0 + CD + #
- does not support any international call types or operator call types that are blocked from completing:
  - 10XXX+00
  - 00

If the value of this parameter is set to N (no), the following applies.

- option CD0 (circle digit zero) can be assigned to eight-and-ten-party lines in table LENLINES
- lines with a circle digit cannot make 10XXX calls. They are routed to vacant code (VACT) treatment.
- lines with a circle digit can have PICs
- the office parameter SPDD_DIGIT in table OFCENG can be set to a value from 0 to 10

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS20.

Copy the existing value of this parameter when doing a dump and restore.

EADAS24H_BUFFER_SIZE

Parameter name

Engineering and Administrative Data Acquisition System 24-hour Buffer Size

Functional description of parameter EADAS24H_BUFFER_SIZE

This parameter is required for a switching unit with the Engineering and Administrative Data Acquisition System interface (EADAS) feature. It specifies the number of words of data store that are allocated for the buffer that collects the 24-hour data for EADAS.

Provisioning rules

This parameter must be datafilled with a value greater than or equal to 12 and less than or equal to 32000 for a switching unit that has the EADAS feature.

If this function is not required, leave the value of this parameter at the default of 0 (zero).

A simplified formula for determining the value of this parameter is as follows:

$$PV = 100 + (7 \times notorval)$$

where

PV   is the parameter value
notorval is the value of parameter NO_OF_TFAN_OM_REGISTERS in table OFCENG

The following is an example of the formula for a switching unit that has 2048 Traffic Separations Measurement System (TSMS) intersections:

$$100 + (7 \times ebf) = 14436$$

where

ebf   is the EADAS24H_BUFFER_SIZE, which is equivalent to 2048 TSMS intersections

The following message is displayed if a value less than 12 or greater than 32000 is specified:

```
BUFFER SIZE MUST BE GREATER THAN OR EQUAL TO 12 AND LESS THAN
OR EQUAL TO 32000
```

For more information regarding EADAS buffer provisioning, see *EADAS Interface Administration Guide*, 297-1001-335.

Range information

Minimum	Maximum	Default
12	32000	0

Activation

Reload restart or NORESTARTSWACT (Refer to the procedure in section "The NORESTARTSWACT utility".)

Dependencies

This parameter must be datafilled before any OM or EADAS class.

This parameter should be datafilled early and a reload restart done immediately afterwards.

If parameters EADAS30M_BUFFER_SIZE and EADAS60M_BUFFER_SIZE in table OFCENG and EADAS_SHORT_XFER_ALLOWED in table OFCOPT are datafilled at the same time as this parameter, only one reload restart is required.

Consequences

Unlike many data structures, the EADAS buffers are contiguous blocks of store and can be up to 32000 words in size. Frequent reallocation can cause store fragmentation problems that can prevent successful subsequent reallocation. Reallocation should not be considered a substitute for proper buffer size calculations and generous initial allocation. It should be used as a means of coping with unexpected office growth between BCSs.

Verification

Not applicable

Memory requirements

If office parameter EADAS_SHORT_XFER_ALLOWED in table OFCOPT is set to N (no), the total number of words required is equal to the value of this parameter.

If office parameter EADAS_SHORT_XFER_ALLOWED in table OFCOPT is set to Y (yes), two blocks of data are provided and the total number of words required is equal to two times the value of this parameter.

Dump and restore rules

This parameter was introduced in BCS19.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 reference to *EADAS Interface Administration Guide*, 297-1001-335, added for provisioning purposes

- NORESTARTSWACT activation added

Parameter name

Engineering and Administrative Data Acquisition System 30-minute Buffer Size

Functional description of parameter EADAS30M_BUFFER_SIZE

This parameter specifies the number of words of data store that are allocated for the buffer that collects the 30-min data for the Engineering and Administrative Data Acquisition System (EADAS).

Provisioning rules

This parameter must be datafilled with a value between 12 and 32000 for a switching unit that has the EADAS feature.

If this feature is not required, leave this parameter at the default value of 0 (zero).

The value for this parameter is derived from the following formula:

$$PV = 15862 + (89 \times custgrp) + (23 \times custsgrp) + [20 \times (trkgrp + lcm)]$$
$$+ (5 \times vfgrp) + (11 \times ac) + [4 \times (huntgrp + mpca)]$$
$$+ [8 \times (ucdgrp + xpmlcd + vpu)] + (17 \times acdgrp)$$
$$+ [47 \times (mpc + nacd)]$$
$$+ (18 \times friu) + (42 \times eiu) + [7 \times (eiu + liu)] + (6 \times enet)$$
$$+ (21 \times maxadmin)$$

For offices with ISDN, add to the above formula

$$8 \times custgrp + (32 \times dch \times 6) + 59 \times dch$$

For offices with CCS7, add to the above formula

$$1000 + 53 \times a + 101 \times b + 16 \times c$$

where

PV	is the parameter value
custgrp	is the number of customer groups
custsgrp	is the number of customer subgroups
trkgrp	is the number of trunk groups
lcm	is the number of line concentrating modules (LCM)
vfgrp	is the number of virtual facility groups
ac	is the number of attendant consoles (AC)
huntgrp	is the number of huntgroups
mpc	is the number of multiprotocol controllers (MPC)
ucdgrp	is the number of uniform call distribution (UCD) groups
xpmlcd	is the number of XMS-based peripheral modules (PM) equipped with line concentrating devices (LCD)

vpu	is the number of voice processor units (VPU)
acdgrp	is the number of Automatic Call Distribution (ACD) groups
mpca	is the number of MPC applications
nacd	is the number of Network ACD (NACD) groups
friu	is the number of frame relay interface units (FRIU)
eiu	is the number of Ethernet interface units (EIU)
liu	is the number of link interface units (LIU)
enet	is the number of enhanced networks (ENET)
maxadmin	is the maximum admin number in use
dch	is the number of D-channel handlers (DCH)
a	is the number of entries in table C7RTESET
b	is the number of entries in table C7LINKS
c	is the number of entries in table C7GTWLKS

For more information regarding EADAS buffer provisioning see the *EADAS Interface Administration Guide* 297-1001-335.

This parameter must be datafilled before any OM or EADAS class.

This parameter must be datafilled early and a reload restart done immediately afterwards.

If parameters EADAS24H_BUFFER_SIZE and EADAS60M_BUFFER_SIZE in table OFCENG and EADAS_SHORT_XFER_ALLOWED in table OFCOPT are datafilled at the same time as this parameter, only one reload restart is required.

This parameter can only be changed from a 0 (zero) to a nonzero value between 12 and 32000.

If a value less than 12 or greater than 32000 is input, the following message appears at the MAP:

```
BUFFER SIZE MUST BE GREATER THAN OR EQUAL TO 12 AND LESS THAN
OR EQUAL TO 32000                          .
```

Range information

Minimum	Maximum	Default
12	32000	0

Activation

Reload restart or NORESTARTSWACT (Refer to the procedure in section "The NORESTARTSWACT utility".)

Dependencies

Not applicable

Consequences

Changing the value of this parameter must be done carefully. Unlike many data structures, the EADAS buffers are contiguous blocks of store, and can be up to 32 000 words in size. Frequent reallocation can cause store fragmentation problems, which can prevent successful subsequent reallocation. Reallocation should not be used as a substitute for proper buffer size calculations and generous initial allocation. It should be used as a means of coping with unexpected office growth between BCSs.

Verification

Not applicable

Memory requirements

If office parameter EADAS_SHORT_XFER_ALLOWED in table OFCOPT is set to N (no), the number of words required is equal to the value of this parameter.

If office parameter EADAS_SHORT_XFER_ALLOWED in table OFCOPT is set to Y (yes), two blocks of data are provided and the number of words is equal to two times the value of this parameter.

Dump and restore rules

This parameter was introduced in BCS19.

Copy the existing value of the parameter when doing a dump and restore.

Parameter history

BCS36 NORESTARTSWACT activation added

EADAS60M_BUFFER_SIZE

Parameter name

Engineering and Administrative Data Acquisition System 60-minute Buffer Size

Functional description of parameter EADAS60M_BUFFER_SIZE

This parameter is required for a switching unit with the Engineering and Administrative Data Acquisition System interface (EADAS) feature. It specifies the number of words of data store that are allocated for the buffer that collects the 60-min data for EADAS.

Provisioning rules

This parameter must be datafilled with a value greater than or equal to 12 and less than or equal to 32000 for a switching unit that has the EADAS feature.

If this feature is not required, leave the value at the default of 0 (zero).

A simplified formula for determining the value of this parameter is as follows:

value = 100 + (7 X value of parameter NO_OF_TFAN_OM_REGISTERS in table OFCENG.

The following is an example of a switching unit that has 2048 TSMS intersections:

EADAS60M_BUFFER_SIZE = 100 + (7 X 2048) = 14436

Range information

Minimum	Maximum	Default
0	32000	0

Activation

Reload restart or NORESTARTSWACT (Refer to the procedure in section "The NORESTARTSWACT utility".)

Dependencies

The datafill of this parameter must precede the datafill of any operational measurement (OM) or EADAS class.

This parameter should be datafilled early and a reload restart done immediately afterwards.

If parameters EADAS30M_BUFFER_SIZE and EADAS24H_BUFFER_SIZE in table OFCENG and option EADAS_SHORT_XFER_ALLOWED in table OFCOPT are datafilled at the same time as this parameter, only one reload restart is required.

Consequences

Unlike many data structures, the EADAS buffers are contiguous blocks of store and can be up to 32,000 words in size. Frequent reallocation can cause store fragmentation problems that in turn may prevent successful reallocation at a later time. Reallocation should not be used as a substitute for proper buffer size calculations and generous initial allocation It should be used as a means of coping with unexpected office growth between BCSs.

Verification

Not applicable

Memory requirements

If office parameter EADAS_SHORT_XFER_ALLOWED in table OFCOPT is set to N (no), the number of words required is equal to the value of this parameter.

If office parameter EADAS_SHORT_XFER_ALLOWED in table OFCOPT is set to Y (yes), two blocks of data are provided and the number of words is equal to two times the value of this parameter.

Dump and restore rules

This parameter was introduced in BCS19.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 NORESTARTSWACT activation added

EAEO_FOUR_DIGIT_CIC_STATUS

Parameter name

Equal Access End Office Four Digit Carrier Identification Code Status

Functional description of parameter EAEO_FOUR_DIGIT_CIC_STATUS

This parameter is used in a DMS-100 switch. It is required to support the implementation of feature group D (FGD) carrier identification code (CIC) expansion for multifrequency (MF) and Signaling System 7 (SS7) at end offices (EO) and access tandems (AT).

The CIC expansion feature is implemented in phases. This parameter controls line module (LM) digit collection in the transition phases through the three available values. The final phase of this transition is a full expansion to four-digit CICs in the series 5XXX and 6XXX and seven-digit carrier access codes (CAC) in the form 101XXXX.

Provisioning rules

Leave the value of this parameter at the default value of THREEDIG to allow three-digit CICs and five-digit CACs (10XXX).

Set the value of this parameter to PERMISSIVE to allow five-digit CACs (10XXX) and seven-digit CACs (1010XXX, 1015XXX, and 1016XXX) during the permissive dialing period.

Set the value of this parameter to FOURDIG so that only four-digit CICs and seven-digit CACs (101XXXX) are valid.

Range information

Minimum	Maximum	Default
		THREEDIG

Activation

To activate a change in the value of this parameter, BSY the individual Peripheral Modules (PM), reload the static data and then RTS the PM.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS34.

Copy the existing value of this parameter when doing a dump and restore.

EBS_BUZZ_SPLASH_ON

Parameter name

Electronic Business Sets Buzz Splash On

Functional description of parameter EBS_BUZZ_SPLASH_ON

This parameter is required for a switching unit with Electronic Business Sets (EBS). It specifies whether an EBS receives a short buzz tone when it has call forwarding active (and ring splash is turned on) or when it has the make set busy feature active.

Provisioning rules

Leave value of this parameter at the default value of Y (yes) if buzz tone is required on an EBS.

Set the value of this parameter to N (no) if buzz tone is not required on an EBS.

Range information

Minimum	Maximum	Default
		Y

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter is new with software release BCS25.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Electronic Business Sets To Trunk Timed Release Disconnect Time

Functional description of parameter EBS_TO_TRUNK_TRD_TIME

This parameter is required for a switching unit with electronic business sets (EBS). It allows the operating company to modify the duration of timed release disconnect (TRD) timing performed on EBS-to-trunk calls.

The operating company can use this parameter to eliminate call cut-offs on EBS-to-trunk calls caused by trunk on-hook transients.

Provisioning rules

If the TRD timing performed on EBS-to-trunk calls is greater than the default value of 500 ms, specify the TRD timing in 10-ms intervals.

Range information

Minimum		Maximum		Default	
50		250		50	
16	(with Meridian OffNet Access)	32767	(with Meridian OffNet Access)		

Activation

A reload of the LM/LTC execs must be performed to activate changes to the value of this office parameter.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Verify that this parameter is working by placing an EBS-to-trunk call and check that the TRD timing is what the parameter indicates.

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

ESAENTRY

Parameter name
Emergency Stand Alone Entry

Functional description of parameter ESAENTRY
This parameter is required for all switching units with remote operation and feature package NTX025AA (Emergency Stand Alone Operation).

The value of this parameter represents the delay between link failure and the remote line module (RLM) dropping into Emergency Stand Alone (ESA) mode.

The time is defined in 10 second intervals. For example, the default value of 6 indicates a dleay of 60 s.

Provisioning rules
Specify the delay between link failure and the (RLM) dropping into ESA mode in 10 s intervals.

Range information

Minimum	Maximum	Default
3	100	6

Activation
Done at the time of the ESA load.

Dependencies
Not applicable

Consequences
Not applicable

Verification
Not applicable

Memory requirements
This parameter has no memory impact.

Dump and restore rules
Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Enhanced Dead System Alarm

Functional description of parameter ENHANCED_DEAD_SYSTEM_ALARM

This parameter specifies the type of dead system alarm (DSA) required for the switching unit.

There are two types of DSAs; the regular DSA and the enhanced DSA. The enhanced DSA can detect the lack of call processing or severe problems with call processing. The enhanced DSA causes the same audible and visual alarms to be raised as the DSA with the addition of a software alarm.

Provisioning rules

If the value of this office parameter is left at the default of N (no), the regular DSA is used.

If the value of this office parameter is set to Y (yes), the enhanced DSA is used.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS20.

Copy the existing value of this parameter when doing a dump and restore.

ESAEXIT

Parameter name

Emergency Stand Alone Exit

Functional description of parameter ESAEXIT

This parameter is required for all switching units with remote operation and feature package NTX025AA (Emergency Stand Alone Operation).

The value of this office parameter represents the delay between links being restored and the remote line module (RLM) coming out of emergency stand alone (ESA) mode.

Provisioning rules

Specify the delay between links being restored and the RLM coming out of ESA mode.

The value is defined in 10-s intervals. For example, the default value of 2 indicates a delay of 20s.

A value of 0 (zero) indicates that a manual RTS (return to service) must be performed.

Range information

Minimum	Maximum	Default
0	100	0

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Expired Password Grace

Functional description of parameter EXPIRED_PASSWORD_GRACE

This parameter appears only if ENHANCED_PASSWORD_CONTROL in table OFCOPT is set to Y (yes).

It specifies the number of logons for which a password may be used if the password is older than the value of parameter PASSWORD_LIFETIME.

If this feature is not required, set this parameter to the maximum value (32767 logons).

Range information

Minimum	Maximum	Default
1	32767	3

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of parameter, unless it is an extension and the operating company has specifically requested a change to the value of this parameter.

FEATURE_ADMIN_CHARGE

Parameter name
Feature Administration Charge

Functional description of parameter FEATURE_ADMIN_CHARGE
This parameter is required in a local or toll switching unit with international translations. It specifies whether feature charging is to be done for administration activities (table control).

For table control operations, if features or options are added to a line, the software automatically attempts to charge for feature or option assignment. There is no differentiation for dump and restore that does the same table control operations.

The value of this office parameter is examined before this charge is attempted.

Provisioning rules
If the value of this parameter is set to N (no), no charge is made.

If the value of the parameter is set to Y (yes), the charge is made.

The operating company should set the value to N when doing operations for which the subscriber has already been charged (for example, reissuing service orders instead of applying the journal file). If the journal file is being applied, the software can tell the difference. Otherwise, the subscriber is charged twice for feature assignment.

The operating company must reset the value of this parameter to Y when these operations are finished, or no assignment charges take place for any new service orders.

Range information

Minimum	Maximum	Default
	•	Y

Activation
Immediate

Dependencies
The features to which charging is applied are stored in table FEATCHG.

Consequences
Not applicable

Verification
Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS21.

Leave the parameter value at the default when doing a dump and restore.

FLOW_CONTROL_TIMEOUT

Parameter name

Flow Control Timeout

Functional description of parameter FLOW_CONTROL_TIMEOUT

This parameter is required in all switching units and specifies the timeout or reset value, in 160-ms intervals, of the one-at-a-time trunk module (TM) or digital carrier module (DCM) trunk attempt threshold.

New traffic that cannot be handled by the central control (CC) in heavy periods, is blocked until the one at a time flag is reset. Every attempt starts this timing in the TM or DCM that is reset when the CC accepts the origination message. If the message is not acknowledged in the interval specified by this parameter, the flag is reset. Immediate start (IM) trunks are exempt from this flow control.

Provisioning rules

Specify the interval for acknowledgment of the origination message before the one-at-a-time flag is reset. The value of this parameter is expressed in 160-ms units. For example, the default value of 6, represents an interval of 960 ms.

Range information

Minimum	Maximum	Default
0	255	6

Activation

If the peripheral module (PM) is not connected to a line trunk controller (LTC), an activation of a change to this parameter is done by issuing a busy (BSY) and return to service (RTS) on the PM.

If the PM is connected to an LTC, activation of a change to this parameter is done by putting the LTC through an RTS sequence. Either BSY and RTS the entire peripheral (both sides) or perform a double warm SWACT to update both the active and inactive sides.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

FRR_ROUTING_RULES_OVERRIDE

Parameter name

Flexible Reroute Routing Rules Override

Functional description of parameter FRR_ROUTING_RULES_OVERRIDE

This parameter gives the network manager the capability to select whether the Network Management (NWM) Flexible Reroute (FRR) controls use the FRR routing rules when re-routing a call over a VIA route.

Prior to BCS30, the routing rules employed to reroute a call by the FRR controls were based on the call type of the rerouted call. These rules are called FRR routing rules. They determine the digits to prefix, the digits to delete and the digits to substitute.

The FRR routing rules are made up of the following two rules:
- standard routing
- in-chain routing.

With standard routing, all digits in the digit register after the prefix fence are outpulsed over the VIA route. This is the same as the definition for the standard routing selector in table OFRT and the RTEREF subtables.

The following are examples of calls using the standard routing rule when routing over the VIA route:
- intra-lata
- feature group A (FGA)
- feature group B (FGB)
- feature group C (FGC)
- feature froup D (FGD) calls routed over an ATC trunk group
- OCC calls.

With in-chain routing the same rule is applied to route over the VIA route as is used to route over the in-chain route.

The following are examples of calls using the in-chain routing rule when routing over the VIA route:
- FGD not routed over an ATC trunk group
- Traffic Operator Position System (TOPS)
- Integrated Business Network (IBN)
- international calls.

Provisioning rules

Set the parameter to Y (yes) to override (on an office-wide basis) the FRR routing rules employed to re-route calls over VIA routes.

When the parameter is set to N (no), FRR controls work as they did before the introduction of this parameter.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable

Consequences

When the override is in effect, re-routed calls use the in-chain routing rule over VIA routes with the exception of FGD calls. When FGD calls reroute from an intertoll trunk group to an ATC trunk group the standard routing must be used. FGD signaling would be violated if in-chain routing was used.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS30.

Copy the existing value of this parameter when doing a dump and restore.

FTRQ0WAREAS

Parameter name

Feature Queue 0 Word Areas

Functional description of parameter FTRQ0WAREAS

This parameter is required in a switching unit with North American translations and the Integrated Business Network (IBN) or Residential Enhanced Services (RES) feature, or in a local (international) switching unit with universal translations.

The value of this parameter is expressed in blocks of 10 FTRQ0WAREAS. For example, a value of 10 indicates that 100 FTRQWAREAS are provisioned.

Provisioning rules

The parameter should be left at the default value of 1.

Range information

Minimum	Maximum	Default
0	3277 for NT40 6553 for SuperNode	1

Activation

Increase – immediate
Decrease – cold restart or NORESTARTSWACT
(Refer to the procedure in section "The NORESTARTSWACT utility".)

Dependencies

Not applicable

Consequences

Not applicable

Verification

To verify that sufficient software resources provided by this parameter have been allocated use CI command OMSHOW FTRQ ACTIVE 1 and read the following entry:

```
    FTRQSEIZ        FTRQOVFL        FTRQHI
1 FTRQ0WAREAS
          10
           0               0               0
```

Measurement FTRQHI records the maximum number of feature queue blocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual*, 297-1001-814 for a description of OM group FTRQ.

Memory requirements

The number of words of memory required by this office parameter is determined by the following calculation:

the value of this parameter X 40

Dump and restore rules

This parameter was introduced in BCS14.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36   activation requirements changed

FTRQ0WPERMS

Parameter name

Feature Queue 0 Word Permanent Blocks

Functional description of parameter FTRQ0WPERMS

This parameter is required for Meridian Digital Centrex (MDC) and Residential Enhanced Services (RES) features.

This parameter specifies, in multiples of 10, the number of FTRQ0WPERMS blocks allocated in data store.

Provisioning rules

Leave the value of this parameter at the default of 1.

These call processing blocks are used for long term information holding. Data may be held in these blocks for up to 60 days.

Range information

Minimum	Maximum	Default
0	3277 (NT40) 6553 (SuperNode)	1

Activation

Increase - immediate
Decrease - cold restart or NORESTARTSWACT
(Refer to the procedure in section "The NORESTARTSWACT utility".)

Dependencies

Not applicable

Consequences

Not applicable

Verification

To verify that sufficient software resources provided by this parameter have been allocated, see the following entry in OM group FTRQ:

```
            FTRQ        FTRQSEIZ     FTRQOVFL       FTRQHI
FTRQ0WPERMS              0            0              0
```

Measurement FTRQHI records the maximum number of feature queue blocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual*, 297-1001-814 for a description of OM group FTRQ.

Memory requirements

Each block requires 6 words of memory. Each increment of the parameter value requires 60 words. For example, a value of 3 requires 180 words of memory.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36   activation requirements changed

Parameter name

Feature Queue 16 Word Areas

Functional description of parameter FTRQ16WAREAS

This parameter is required in a Meridian Digital Centrex (MDC) switching unit.

These blocks are required for the following features:

- Ring Again (RAG) or Network Ring Again
- Query Busy Set (QBS)
- Digital Private Network Call Back When Free
- Stored Program Control Call Management Service (SPC-CMS)
- Automatic Call Distribution (ACD)
- ACD Extended Call Management (CompuCALL)

One block is required for each simultaneous RAG or Network RAG request. The block is held from the time a request is queued until it is deleted (due to RAG recall answer, timeout, cancellation, or error).

Integrated Business Network (IBN) lines with the network RAG feature can use the Last Number Redial (LNR) feature. This increases the provisioning requirement for FTRQ8WAREAS based on the number of IBN lines with Network RAG that do not have the LNR feature. Once an LNR FTRQ block has been allocated against an IBN line that has the Network RAG feature, removal of the Network RAG feature does not cause deallocation of the LNR FTRQ block. Only a restart deallocates the LNR FTRQ block in this situation.

Digital Private Network Signaling System (DPNSS) is a United Kingdom (UK) form of Common Channel Signaling (CCS). Call Back When Free (CBWF) is a service that allows a call across the DPNSS network to be completed automatically, if the original attempt encounters a busy signal. In order for CBWF to function correctly, sufficient 16-word FTR blocks must be provisioned. One area is required for each active CBWF request (originating or terminating).

This parameter is associated with the SPC-CMS feature that enables Stored Program Control (SPC) switches to be included in the Call Management Service (CMS) network to provide One-Way CMS. One-Way CMS provides CMS features such as Calling Number Delivery (CND), Automatic Call Setup (ACS) and Call Screening to the DMS subscribers, but not to the SPC subscribers.

Each agent position needs one of these blocks in order to become active in an ACD group and receive ACD calls. The value of this parameter should

be greater than the maximum number of ACD agent positions that exist at any given time.

Potentially, some agents are not able to become active in an ACD group if there are not enough of these blocks allocated. The worst case scenario occurs when all agent positions datafilled in the switching unit want to be active at the same time. To ensure that this does not happen, the following checks are made when new INCALLS keys are datafilled in table KSETLINE, by either Service Orders or table control.

If the total number of INCALLS keys datafilled in the switching unit exceeds 75% of the value of this parameter, the tuple is added but the following warning is generated:

```
WARNING--POTENTIAL FTRQ 16WAREA PROBLEM--
MORE THAN 75% USED BY ACD.
```

If the above message is generated, the user should increase the value of this parameter.

If the total number of INCALLS keys datafilled in the switching unit already equals the value of this parameter, the tuple is not added and the following warning is generated:

```
ERROR--NO FTRQ 16WAREAs AVAILABLE
```

If the above message is generated, this parameter must be increased before any more INCALLS keys can be datafilled.

One block is required for every ACD agent included in an ACD group that is associated with a host computer through CompuCALL.

Provisioning rules

This parameter represents the number of FTRQ16WAREA blocks provided in groups of 10. For example, a value of 60 represents 600 FTRQ16WAREA blocks.

Use the following formula to determine the number of FTRQ16WAREA blocks required:

$$
\begin{aligned}
&((\text{\# of simultaneous monitored LENs with QBS active} + 9) \\
+\ &(2 \text{ X the number of busy hour ACB and AR feature attempts}) \\
+\ &(\text{number of simultaneous CBWF attempts}) \\
+\ &(\text{maximum number of ACD agents}) \\
+\ &((\text{\# of entries in table SPCTRKS} / \text{average holding time} \\
&\quad \text{in seconds of a call in busy hour)} \text{ X SPCCLITIMEOUT value}))
\end{aligned}
$$

To determine the value of this parameter, divide the number derived from the above formula by 10.

See table KSETFEAT for feature QBS. See table IBNLINES for options ACB or AR. See tables IBNFEAT and KSETLINE for ACD agents. See parameter SPCCLITIMEOUT in table OFCENG. For MDC switching units without the QSB or ACD feature, a RES switching units without the ACB and AR feature or a switching unit in the United Kingdom without the DPNSS feature, leave at the default value.

Range information

Minimum	Maximum	Default
0	3277 (NT40) 6553 (SuperNode)	1

Activation

increase – immediate
decrease – cold restart or NORESTARTSWACT
(Refer to the procedure in section "The NORESTARTSWACT utility".)

Dependencies

At extension time, the value of this parameter must change, if the number of MDC or RES lines with the above features changes or the number of ACD agents changes.

Consequences

When an overflow condition exists on this software resource, due to insufficient quantity of blocks, calls requesting a FTRQ16WAREA block are routed to No Software Resource (NOSR) treatment in the appropriate treatment table.

If the value of this parameter is overprovisioned, memory is wasted.

Verification

To verify that sufficient software resources provided by this parameter have been allocated, see the following entry in OM group FTRQ.

```
       FTRQ       FTRQSEIZ      FTRQOVFL      FTRQHI
FTRQ16WAREAS        0             0             0
```

Measurement FTRQHI records the maximum number of feature queue blocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual*, 297-1001-814 for a description of OM group FTRQ.

Any nonzero value in FTRQOVFL indicates underprovisioning.

Memory requirements

Each block requires 20 words of memory. Because the blocks are provisioned in groups of 10, the total memory used by this parameter is the value multiplied by 200.

Dump and restore rules

This parameter was introduced in BCS21.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 activation requirements changed

FTRQ16WPERMS

Parameter name

Feature Queue 16 Word Permanent Blocks

Functional description of parameter FTRQ16WPERMS

This parameter is required for Meridian Digital Centrex (MDC) and
Residential Enhanced Services (RES) features.

The parameter specifies, in multiples of 10, the number of FTRQ16WPERM
blocks allocated in data store.

These call processing blocks are used for long-term information holding.
Data may be held in these blocks for up to 60 days.

Provisioning rules

Leave the value of this parameter at the default value of 1.

Range information

Minimum	Maximum	Default
0	3277 (NT40) 6553 (SuperNode)	1

Activation

Increase - immediate
Decrease - cold restart or NORESTARTSWACT
(Refer to the procedure in section "The NORESTARTSWACT utility".)

Dependencies

Not applicable

Consequences

Not applicable

Verification

To verify that sufficient software resources provided by this parameter have
been allocated, see the following entry in OM group FTRQ:

```
        FTRQ      FTRQSEIZ      FTRQOVFL       FTRQHI
FTRQ16WPERMS        0             0             0
```

Measurement FTRQHI records the maximum number of feature queue
blocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual*, 297-1001-814 for a
description of OM group FTRQ.

Memory requirements

Each block requires 22 words of memory. Each increment of the value of the parameter requires 220 words. For example, a value of 10 requires 2200 words of memory.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 activation requirement changed

FTRQ2WAREAS

Parameter name

Feature Queue 2 Word Areas

Functional description of parameter FTRQ2WAREAS

This parameter is required in a switching unit with North American translations and the Integrated Business Network (IBN) or Residential Enhanced Services (RES) feature, or a local (international) switching unit with universal translations.

This parameter specifies the maximum number of FTRQ 2 word areas required for the engineering interval.

The value of this parameter multiplied by 10 represents the number of FTRQ2WAREAS blocks provided.

The number of blocks required is equal to the maximum number of the sum of the following simultaneous types of calls or requests:

- number of call hold calls
- number of camp-on calls
- number of call forward busy (CFB) and call forward don't answer (CFDA) calls
- number of network ring again (RAG) requests
- number of call back queuing requests (block is required from the time when a request is queued until it is deleted due to RAG recall answer, timeout, cancellation, or error)
- maximum number of messages stored for the message waiting feature
- number of DN appearances with the last number redial feature where the last call involved dialing 1 to 7 digits
- number of business sets with the business set indicator feature activated and the QBS key depressed (for information on feature QBS, refer to table KSETFEAT)

Multiple position hunt

A FTRQ2WAREA block is required for each line in a multiple position hunt group.

Multiple position hunt (MPH) with queue allows calls to be distributed evenly across multiple non-data link attendant consoles (AC). Calls are presented to the ACs in the order that they arrive at the DMS-100 switch. Calls that cannot be presented to any console are enqueued in the DMS-100 until a console is available to serve that call.

For MPH, the FTRQ2WAREAS blocks are permanently associated with the stations.

Network-wide ring again

This parameter is used by the network-wide ring again (RAG) feature. IBN lines with the network RAG feature can perform last number redial (LNR). LNR increases the provisioning requirement for FTRQ2WAREAS based on the number of IBN lines with network RAG that do not have the LNR feature.

Once an LNR FTRQ block has been allocated against an IBN line that has the network RAG feature, removal of the network RAG feature does not cause deallocation of the LNR FTRQ block. Only a restart deallocates the LNR FTRQ block in this situation.

This parameter is also used by the automatic call distribution (ACD) feature. One FTRQ2WAREA is required for each Answer Agent Key if the ACD/Management Information System (MIS) software is present, whether or not MIS is assigned to the ACD groups.

If a customer group has the ring again recall (RAGRCALL) option assigned in table CUSTSTN, one block should be assigned for each 10 electronic business sets (EBS) that have the RAG option assigned in table KSETLINE.

Provisioning rules

For a new switching unit with North American translations for which traffic figures are not available, the recommended value for this parameter is the lesser of 3277 for an NT-40 switching unit or 6544 for a SuperNode switching unit or 7 for every 100 IBN, RES or KSET lines.

+ (the number of lines on non-data link consoles in an MPH arrangement) /10

+ (X–Y) /10

where X = number of IBN lines to which network RAG is available
and Y = number of IBN lines to which network RAG is available and already have the LNR option

For a local (international) switching unit with universal translations, leave this parameter at the default value.

The maximum number is the maximum number required for the engineering interval.

Range information

Minimum	Maximum	Default
0	3277 (NT-40) (SuperNode)	6553 1

Activation

Increase - immediate

Decrease - cold restart or NORESTARTSWACT

(Refer to the procedure in section "The NORESTARTSWACT utility".)

Dependencies

At extension time, the value of this parameter should change if the number of IBN, RES, or KSET lines increase.

Consequences

Underprovisioning of this parameter prevents calls from being dequeued and terminated on non-data link consoles.

Verification

OM group FTRQ provides the operational measurements for this software resource. The format of OM group FTRQ is as follows:

```
            FTRQ        FTRQSEIZ      FTRQOVFL      FTRQHI
FTRQ2WAREAS              0             0             0
```

Measurement FTRQHI records the maximum number of feature queue blocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual*, 297-1001-814 for a description of OM group FTRQ.

See OM group CALLFWD for the operational measurements associated with the Call Forwarding feature.

See OM group MWTCAR for the operational measurements associated with the message waiting feature.

See OM group LNREDIAL for the operational measurements associated with the last number redial feature.

See OM group CALLHOLD for the operational measurements associated with the call hold feature.

Memory requirements

Each FTRQ2WAREA requires 60 words of memory.

Dump and restore rules

This parameter was introduced in BCS14.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 activation requirements changed

Parameter name

Feature Queue 2 Word Permanent Blocks

Functional description of parameter FTRQ2WPERMS

This parameter is required in a switching unit with North American translations and the Meridian Digital Centrex (MDC) or Residential Enhanced Services (RES) features, or a DMS-100 world switch with universal translations.

The parameter specifies, in multiples of 10, the number of FTRQ2WPERMS blocks allocated in data store. For example, the default value of 1 represents an allocation of 10 FTRQ2WPERMS.

Message waiting

FTRQ2WPERMS blocks are associated with message waiting features.

Station message waiting, (MWT) also known as call request (CAR), provides a system where the originating party of a call can leave a message indication for the terminating party of a call if the terminating party is absent or busy.

The message waiting is indicated by the lighting of a lamp (on an electronic business set), the lighting of a LINK lamp (on a LINK set), or by providing stuttered dial tone (on a 2500 set). The party that receives the message indication can then retrieve the message.

MWT maintains the queued messages against the stations during cold restarts.

For this parameter, MWT refers to all features that can leave messages on a user station, including Attendant Message Waiting, Station Message Waiting, and Electronic Business Set as a Message Center.

The FTRQ2WPERM block is designed for long term information holding. This block is held for up to 60 days.

Provisioning rules

The value for the parameter can be determined based on the following equation:

$$value = ((A \times B) + 9) / 10$$

where

A = total number of IBN lines (2500 and MBS) and RES lines with MWT assigned.

B = average number of messages

The recommended value for B is 0.7.

Range information

Minimum	Maximum	Default
0	3277 (NT40) 6553 (SuperNode)	1

Activation

Increase - immediate
Decrease - cold restart or NORESTARTSWACT
(Refer to the procedure in section "The NORESTARTSWACT utility".)

Dependencies

Not applicable

Consequences

Not applicable

Verification

To verify that sufficient software resources provided by this parameter have been allocated, see the following entry in OM group FTRQ by using the CI command OMSHOW FTRQ ACTIVE 8:

```
        FTRQ      FTRQSEIZ      FTRQOVFL       FTRQHI
FTRQ2WPERMS          0            0              0
```

Measurement FTRQHI records the maximum number of feature queue blocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual*, 297-1001-814 for a description of OM group FTRQ.

Memory requirements

Each block requires 8 words of memory. Each increment of the parameter value requires 80 words.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 activation requirements changed

Parameter name

Feature Queue 32 Word Areas

Functional description of parameter FTRQ32WAREAS

This parameter is included as part of the standard feature processing environment.

This parameter is associated with the Network Message Waiting Indication (NMWI) feature and is required for the support of business lines (non-ACD) with CompuCALL services.

NMWI

NMWI enables a message service on one node to activate and deactivate the message waiting indicator of a subscriber located on a different node, provided the two nodes support transaction capability application part (TCAP) communication between them.

CompuCALL

CompuCALL provides an intelligent communications link between the switch and a customer's computing environment. This link enables services that combine the switch voice processing with the customer's data processing for business and ACD lines. These business lines require the extended call management (ECM) line option to enable association with a host computer through CompuCALL.

Provisioning rules

Set the parameter value according to the following formula:

$$((\text{the number of Network MWI subscribers})$$
$$+ \quad (\text{the number of lines with the ECM option})) / 10$$

Range information

Minimum	Maximum	Default
0	3277 (NT40) 6553 (SuperNode)	1

Activation

Increase - immediate
Decrease - cold restart or NORESTARTSWACT
(Refer to the procedure in section "The NORESTARTSWACT utility".)

Dependencies

Any increase in the number of lines that subscribe to network message services (NMS) must result in an increase in the value of this parameter.

Consequences

Underprovisioning of this parameter results in users of NMS features being unable to save any message information. This also indicates that the Call

Request Retrieval (CRR) feature is ineffective. Underprovisioning of this parameter can also result in the failure of the customer's host computer to associate an ECM line with CompuCALL based services.

Overprovisioning of this parameter wastes data store.

Verification

To verify that sufficient recording units have been allocated, use CI command OMSHOW FTRQ ACTIVE 6 and read the following entry:

```
        FTRQSEIZ            FTRQOVFL            FTRQHI
6 FTRQ32WAREAS
            10
            0                   0                   0
```

Any nonzero value in FTRQOVFL indicates underprovisioning.

Measurement FTRQHI records the maximum number of extension blocks in simultaneous use during the current transfer period.

Memory requirements

Each unit requires 360 words of memory.

Dump and restore rules

This parameter was introduced in BCS30.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 activation requirements changed

Parameter name

Feature Queue 32 Word Permanent Blocks

Functional description of parameter FTRQ32WPERMS

This parameter is used in the following environments:

- DMS-100
- DMS-200 with featured ISDN user part (ISUP)
- centralized private branch exchange (PBX)
- SL-100
- Plain Ordinary Telephone Service (POTS)

It only appears in an office if the FTRQPSUB subsystem is loaded.

This parameter is associated with the Network Message Waiting Indication (NMWI) and Call Logging features.

NMWI

NMWI enables a message service on one node to activate and deactivate the message waiting indicator of a subscriber located on a different node, provided the two nodes support transaction capability application part (TCAP) communication between them.

NMWI uses TCAP and the connectionless class 0 (basic) service provided by the signaling connection control part (SCCP) of the Common Channel Signaling 7 (CCS7) network.

Call logging

The Call Logging feature uses the blocks provisioned by this parameter to store network entries in a subscriber's incoming callers list (ICL). One block is required for each network entry in the subscriber's ICL. Each call logging subscriber can potentially store a maximum of 32 entries. This worst case maximum is considered in the provisioning rules below.

Provisioning rules

Set the parameter according to the following formula:

(the number of subscribers to NMWI)
+ (32 X the number of lines with Call Logging) /10

Range information

Minimum	Maximum	Default
	3277 (NT-40)	1
	6553 (SuperNode)	

Activation

Increase - immediate
Decrease - cold restart or NORESTARTSWACT
(Refer to the procedure in section "The NORESTARTSWACT utility".)

Dependencies

Any increase in the number of lines that subscribe to network message services (NMS) requires an increase in the value of this parameter.

Consequences

Underprovisioning of this parameter results in the failure of NMS features to save message information. The Call Request Retrieval (CRR) feature will be ineffective.

Overprovisioning of this parameter wastes data store.

Verification

To verify that sufficient recording units have been allocated, use CI command OMSHOW FTRQ ACTIVE and read the following entry:

```
        FTRQSEIZ           FTRQOVFL          FTRQHI
12 FTRQ32WPERMS
             0
             0                 0                0
```

Any nonzero value in FTRQOVFL indicates underprovisioning.

Measurement FTRQHI records the maximum number of extension blocks in simultaneous use during the current transfer period.

Memory requirements

Each unit requires 360 words of memory. For example, a value of 2 requires 720 words of memory.

Dump and restore rules

This parameter was introduced in BCS30.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 activation requirement changed

Parameter name

Feature Queue 4 Word Areas

Functional description of parameter FTRQ4WAREAS

This parameter is required in a switching unit with North American translations and the Integrated Business Network (IBN) feature or Residential Enhanced Services (RES) feature or in a local switching unit (international) with universal translations.

The value of this parameter is expressed in units of 10 FTRQ4WAREAS. For example, the default value of 1 represents allocation of 10 FTRQ4WAREAS.

Automatic call distribution management information system

One FTRQ4WAREA is required for each secondary directory number (SDN) assigned to an Automatic Call Distribution position if ACD Management Reports or ACD Management Information System (MIS) software is present in the switching office.

Call park

If the switching unit has the Call Park (PRK) feature, one FTRQ4WAREA is required for each active call park.

Agent status lamp

One FTRQ4WAREA is required for each secondary DN monitored by the enhanced Agent Status Lamp (ASL) feature.

Last number redial

These blocks are required for the Last Number Redial (LNR) feature. One FTRQ4WAREA is required for each directory number (DN) appearance with the LNR feature where the last call involved dialing 8 to 15 digits. An additional FTRQ4WAREA is required for each DN appearance with the LNR feature where the last call involved dialing 1 to 7 digits and no FTRQ2WAREAS were available. The LNR feature attempts to obtain one of these blocks if no FTRQ2AREAS are available. Overprovisioning of these blocks is recommended.

Network-wide ring again

This parameter is used by the network-wide Ring Again (RAG) feature. IBN lines with the network RAG feature can use the LNR feature. This increases the provisioning requirement for FTRQ4WAREAS based on the number of IBN lines with the network RAG that do not have feature LNR.

Once an LNR FTRQ block has been allocated against an IBN line that has the network RAG feature, removal of the network RAG feature does not cause deallocation of the LNR FTRQ block. Only a restart deallocates the LNR FTRQ block in this situation.

Provisioning rules

For all new switching units with North American translations (excluding Bell Canada), for which traffic figures are not available, the recommended value for this parameter is equal to:

the lesser of 6.5 X (Maximum number of IBN, RES or KSET lines required for the engineering interval) /100

+ $(X - Y)/10$

+ (number of ACD lines) /10 (if ACD Management Reports or MIS software is present)

+ (.1 x number of ACD lines) /10 (if enhanced ASL feature is present)

where $X =$ number of IBN lines to which network RAG is available
and $Y =$ number of IBN lines to which network RAG is available and already have the LNR option.

or 3277 for an NT-40 switching unit or 6553 for a SuperNode switching unit.

Round the result up to the next highest integer.

For a local (international) switching unit with universal translations, leave this parameter at the default value.

Range information

Minimum	Maximum	Default
0	3277 (NT-40) 6553 (SuperNode)	1

Activation

Increase – immediate
Decrease – cold restart or NORESTARTSWACT
(Refer to the procedure in section "The NORESTARTSWACT utility".)

Dependencies

For an extension to an existing switching unit, the value of this parameter is the maximum number of IBN, KSET, or RES lines required for the engineering interval.

Consequences

Not applicable

Verification

To verify that sufficient software resources provided by this parameter have been allocated, see the following entry in OM group FTRQ. Use CI command OMSHOW FTRQ ACTIVE 3.

```
            FTRQ        FTRQSEIZ       FTRQOVFL        FTRQHI
3  FTRQ4WAREAS            0              0               0
```

Measurement FTRQHI records the maximum number of feature queue blocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual*, 297-1001-814 for a description of OM group FTRQ.

Any non-zero value on FTRQOVFL indicates underprovisioning.

See OM GROUP LNREDIAL for the operational measurements associated with the Last Number Redial feature.

When an overflow condition exists on this software resource, all calls requesting a FTRQ4WAREA are routed to No Software Resource (NOSR) treatment in the appropriate treatment table.

Memory requirements

Each increment of this parameter requires 80 words of memory. For example a value of 100 requires 8000 words of memory.

Dump and restore rules

This parameter was introduced in BCS14.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 activation requirements changed

FTRQ4WPERMS

Parameter name

Feature Queue 4 Word Permanent Blocks

Functional description of parameter FTRQ4WPERMS

This parameter is required for the Meridian Digital Centrex (MDC) and Residential Enhanced Services (RES) features.

The parameter specifies, in multiples of 10, the number of FTRQ4WPERMS blocks allocated in data store.

These call processing blocks are used for long term information holding. Data may be held in these blocks for up to 60 days.

Provisioning rules

Leave the value of this parameter at the default value of 1.

Range information

Minimum	Maximum	Default
0	3277 (NT40) 6553 (SuperNode)	1

Activation

Increase - immediate
Decrease - cold restart or NORESTARTSWACT
(Refer to the procedure in section "The NORESTARTSWACT utility".)

Dependencies

Not applicable

Consequences

Not applicable

Verification

To verify that sufficient software resources provided by this parameter have been allocated, see the following entry in OM GROUP FTRQ:

```
        FTRQ      FTRQSEIZ     FTRQOVFL      FTRQHI
9   FTRQ4WPERMS       0            0            0
```

Measurement FTRQHI records the maximum number of feature queue blocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual*, 297-1001-814 for a description of OM group FTRQ.

Memory requirements

Each increment of this parameter value requires 100 words. For example, a value of 2 requires 200 words of memory.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 activation requirements changed

FTRQ8WAREAS

Parameter name

Feature Queue 8 Word Areas

Functional description of parameter FTRQ8WAREAS

This parameter is required in a switching unit with the Meridian Digital Centrex (MDC) or Residential Enhanced Services (RES) feature, or in a local world switch (international).

The value of this parameter is specified in units of 10 FTRQ8WAREAS blocks. For example, the default value of 1 represents an allocation of 10 FTRQ8WAREAS.

These blocks are required for the features described below.

Ring again and network ring again

One block is required for each simultaneous Ring Again (RAG) or Network-wide Ring Again request.

The holding time begins when a request is queued and ends when it is deleted due to RAG recall answer, time out, cancellation, or error.

IBN lines with the network RAG feature can use the last number redial (LNR) feature. This increases the provisioning requirement for FTRQ8WAREAS based on the number of IBN lines with network RAG that do not have the LNR feature.

Once an LNR FTRQ block has been allocated against an IBN line that has the network RAG feature, removal of the network RAG feature does not cause deallocation of the LNR FTRQ block. Only a restart deallocates the LNR FTRQ block in this situation.

Automatic call distribution

One FTRQ8WAREA is required for the Automatic Call Distribution (ACD) Observe Agent (OBS) feature for each agent being observed by a supervisor.

One FTRQ8WAREA is required for each ACD agent that receives an inbound or outbound ACD call while extended call management (ECM) is actively reporting information for that agent. As soon as the call ends, the FTRQ8WAREA is released. If no ECM link is active (that is, no information messages are being reported to the host on behalf of that agent), no FTRQ8WAREA is used.

Uniform call distribution

The number of blocks provided for this feature should be equal to the number of agents that are members of a uniform call distribution group at any one point in time.

Last Number Redial

These blocks are required for the LNR feature. One block is required for each directory number (DN) appearance with the LNR feature where the last call involved dialing more than 15 digits. An additional block is required for each DN appearance with the LNR feature where the last call involved dialing 8 to 15 digits and no FTRQ4WAREA blocks were available. A block is also required for each DN appearance with the LNR feature where the last call involved dialing 1 to 7 digits and no FTRQ2WAREA or FTRQ4WAREA blocks were available.

The LNR feature attempts to obtain one of these blocks if no FTRQ2WAREAS or FTRQ4WAREAS blocks are available. It is recommended to overprovision these type of blocks.

See operational measurement (OM) group LNREDIAL_LNRPOVFL for the OMs associated with this parameter and the LNR feature.

Authorization Codes

One of these blocks is required for each call entering authorization codes that are routed to a call back queue (CBQ) queueable route, whether they queue or not.

Call Forward Validation

Call Forward Validation uses one of these blocks for a maximum of 2 min for each validation attempt. The block is only required if the attempt was unsuccessful.

Whenever a member of an MVP group programs call forwarding to a number outside of the MVP group and that number is busy, a request is queued on this agent. When a user in a centrex office hits a busy line a request is queued on this agent. The number of blocks should be increased by the following:

(max no. of users programming call forwarding at any one time) / 10

The 10 represents the probability of hitting a busy line. This is high, but is offset by the fact that in MVP groups, if the forwarded station is within the MVP group, call forwarding is active regardless of the busy or idle status of the line.

Simplified Message Desk Interface

These blocks are required for the Simplified Message Desk Interface (SMDI) feature.

The number of blocks required for this feature is determined by the following formula:

BLOCKS =   (number of calls to SMDI UCD groups during average busy
season busy hour /3600)
X (maximum time lag between UCD group line and data
presented to the data link)

Assume a time lag of two seconds.

SPC-CMS

This parameter is also associated with the SPC-CMS feature that enables SPC (Stored Program Control) switches to be included in the Call Management Service (CMS) network to provide one-way CMS. One-way CMS provides CMS features such as Calling Number Delivery (CND), Automatic Call Setup (ACS), and Call Screening to the DMS subscribers but not to the SPC subscribers.

SPC switches are Stored Program Control switches, specifically SP-1/2W and #1ESS, that are not capable of transmitting calling line information through the standard per trunk signaling (PTS) trunking.

For SPC maintenance messages, a FTRQ8WAREA block is required.

Provisioning rules

For a new switching unit with North American translations for which traffic figures are not available the recommended value for this parameter is the lesser of 3277 for an NT40-based switching unit or 6553 for a SuperNode switching unit or the following:

(0.03 X the number of IBN, RES or KSET lines)
+   ((max number of maintenance calls per
second x SPCCLITIMEOUT value) / 10)
+   (X-Y) / 10

where X=   number of IBN lines to which network RAG is
available
Y=   number of IBN lines to which network RAG is
available and already have the LNR option
+   (number of supervisors with OBS Feature) / 10
+   (maximum number of ACD ECM agents active on calls at
one time) / 10

where number of ACD ECM agents =   total number of ACD agents
belonging to MDC customer
groups with the ECM option

See office parameter SPCCLITIMEOUT in table OFCENG.

Note that the MDC customer groups have the ECM option assigned in table CUSTNTWK. To determine which agents are in ECM-assigned MDC customer groups, see table IBNLINES (for 2500 sets) and table KSETLINE (for Meridian business sets).

For a local world system (international) switching unit the value for this parameter is the lesser of 3277 for an NT40-based switching unit or 6553 for a SuperNode switching unit or the following:

0.2 X   the number of simultaneous Ring Again requests
    +   ((max number of maintenance calls per second x SPCCLITIMEOUT
        value) /10)

Round the result up to the next highest integer.

The maximum number is the maximum number required for the engineering interval.

Range information

Minimum	Maximum	Default
0	3277 (NT40) 6553 (Supernode)	1

Activation

Increase - immediate
Decrease - cold restart or NORESTARTSWACT
(Refer to the procedure in section "The NORESTARTSWACT utility".)

Dependencies

At extension time the value of this parameter must be changed if the number of IBN, RES, KSET lines, SMDI calls, or SPC trunks increases.

Consequences

If an overflow condition exists on this software resource due to underprovisioning, all calls requesting a FTRQ8WAREA are routed to No Software Resource (NOSR) treatment in the appropriate treatment table.

If the value of this parameter is overprovisioned, data store is wasted.

Verification

To verify that sufficient software resources provided by this parameter have been allocated, use the CI command OMSHOW FTRQ ACTIVE 4 and read the following:

```
        FTRQ        FTRQSEIZ      FTRQOVFL      FTRQHI
   4  FTRQ8WAREAS       0            0            0
```

Any nonzero value in field FTRQOVFL indicates underprovisioning.

Measurement FTRQHI records the maximum number of feature queue blocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual*, 297-1001-814 for a description of OM group FTRQ.

Memory requirements

Each increment of this parameter requires 120 words of memory. For example, a value of 3 requires 360 words of memory.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 activation requirements changed

Parameter name

Feature Queue 8 Word Permanent Blocks

Functional description of parameter FTRQ8WPERMS

This parameter is used by Executive Message Waiting (EMW) features in the following environments:

- DMS-100
- DMS-200 with featured ISDN user part (ISUP)
- centralized private branch exchange (PBX)
- SL-100
- Plain Ordinary Telephone Service (POTS)

Associated features include Leave Messaging (LVM), Message List Editing (MLE), Call Covering (CCV), Executive Message Waiting (EMW) Message Waiting (MWT), and Call Request (CAR).

LVM allows a party to leave a message against a base station to return a call. The base station can then use the MWT retrieval capability to return the call to the party that activated the feature.

CCV allows a third party to answer a redirected call and activate CCV to leave a message for the base station on behalf of the calling party.

MLE provides the capability to inspect, delete, or return selected messages.

The Call Logging feature also uses the blocks provisioned by this parameter. FTRQ8WPERM blocks are used to store nodal entries in a subscriber's incoming callers list (ICL). One block is required for each nodal entry in the subscriber's ICL.

A Call Logging subscriber can have a maximum of 32 recorded numbers at any given time. Each subscriber can require 32 FTRQWPERMS. This worst-case maximum is included in the provisioning rules.

The parameter specifies, in multiples of ten, the number of FTRQ8WPERM blocks allocated in data store. FTRQ8WPERM blocks are used for long term information storage. Information is held in these blocks for as long as 60 days.

FTRQ8WPERMS

Provisioning rules

Use the following calculation to determine the value of this parameter:

$$(((\# \text{ of lines with EMW}) \times (\text{Avg num of msg per line})) + 9)$$
$$+ \quad (32 \times \text{the number of lines with Call Logging}) / 10$$

Where:

# of lines with EMW =	total number of IBN lines (2500 and MBS) with EMW assigned.
Avg num of msg per line =	average number of messages queued per line.

Each display set with EMW can potentially hold 31 FTRQ8WPERM blocks. These blocks remain queued against a user's set for as long as 60 days.

Each set has an average of two queued messages.

For 1000 display sets, 28000 words of store are required.

Range information

Minimum	Maximum	Default
0	3277 (NT40) 6553 (SuperNode)	1

Activation

Increase - immediate
Decrease - cold restart or NORESTARTSWACT
(Refer to the procedure in section "The NORESTARTSWACT utility".)

Dependencies

Not applicable

Consequences

Not applicable   .

Verification

To verify that sufficient software resources provided by this parameter have been allocated, see the following entry in OM Group FTRQ.

```
        FTRQ         FTRQSEIZ      FTRQOVFL      FTRQHI
FTRQ8WPERMS          0             0             0
```

Measurement FTRQHI records the maximum number of feature queue blocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual*, 297-1001-814 for a description of OM group FTRQ.

Memory requirements

Each increment of this parameter value requires 120 words of memory. For example, a value of 20 requires 2400 words of memory.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 activation requirements changed

FTRQAGENTS

Parameter name

Feature Queue Agents

Functional description of parameter FTRQAGENTS

This parameter is required in a switching unit with North American translations and the Integrated Business Network (IBN) or Residential Enhanced Services (RES) feature, or a local (international) switching unit with universal translations.

The implementation of Multiple Position Hunt with Queueing requires extra provisioning of FTRQAGENTS.

This parameter is also associated with the SPC-CMS feature.

The value of this parameter is expressed in FTRQAGENT areas of ten. For example, the default value of 1 represents 10 FTRQAGENT areas.

This parameter specifies the number of agents that can have the following features waiting or active at any given time:

- Automatic Call Back or Recall
- Automatic Call Distribution
- Call Back Queuing
- Call Forward Busy
- Call Forward Don't Answer
- Call Forward Validation Terminating
- Call Hold
- Call Park
- Camp on
- Last Number Redial
- Message Waiting/Call Request
- Query Busy Station
- Ring Again
- Station Message Desk Interface
- Uniform Call Distribution
- SPC-CMS
- Multiple Position Hunt with Queue

If the switching unit has the Automatic Call Distribution (ACD) feature, each agent position needs an FTRQ agent area in order to become active in an ACD group and receive ACD calls.

There should be one FTRQAGENT area for each potential ACD agent position.

One FTRQAGENT is required for each secondary directory number (DN) that is assigned to an ACD agent position. One FTRQAGENT is required for each answer agent key when the ACD/Management Information System (MIS) software is present (independent of whether or not MIS is assigned to the ACD groups).

Potentially, some agents will not be able to become active in an ACD group if there are not enough FTRQ agent areas allocated. The worst case scenario occurs when all agent positions datafilled in the switching unit require activation at the same time. To ensure that this does not happen, the following checks are made when new INCALLS keys are datafilled in table KSETLINE, by either service orders or table control:

- if the total number of INCALLS keys datafilled in the switching unit exceeds 75% of the number of FTRQ agent areas allocated, the tuple is added but the following warning is generated:

  ```
  WARNING--POTENTIAL FTRQ AGENT AREA PROBLEM--MORE THAN 75%
  USED BY ACD
  ```

If the above message is generated the operating company should increase the value of this parameter.

- if the total number of INCALLS keys datafilled in the switching unit already equals 100% of the number of FTRQ agent areas allocated, the tuple is not added and the following error message is generated:

  ```
  ERROR--NO FTRQ AGENT AREAS AVAILABLE
  ```

If the above message is generated, the operating company must increase the value of this parameter before this or another tuple can be added.

This parameter is also associated with the SPC-CMS feature that enables SPC (Stored Program Control) switches to be included in the Call Management Service (CMS) Network to provide one-way CMS. One-way CMS provides CMS features such as Calling Number Delivery (CND), Automatic Call Setup (ACS), and Call Screening to the DMS subscribers but not to the SPC subscribers.

SPC switches are Stored Program Control switches, specifically SP-1/2W and #1ESS, which are not capable of transmitting calling line information through the standard per trunk signaling (PTS) trunking.

Each calling line information (CLI) message associated with SPC-CMS requires 1 FTRQAGENTS block.

Provisioning rules

The value of this parameter is the lesser of 3277 for an NT-40 based switching unit and 6553 for a SuperNode based switching unit or the following:

    (number of lines with ACD + number of lines with UCD +
    number of lines with LNR) / 10)
+   0.03 X   (lines with Call Back Queuing
            + lines with CFB
            + lines with CFDA
            + lines with Call Forward Validation Terminating
            + lines with Call Hold
            + lines with Call Park
            + lines with Camp On
            + lines with Message Waiting/Call Request
            + lines with SMDI + KSET Ring Again Keys
            +Query Busy Station Keys)
+   (2 X the number of busy hour Automatic Call Back and Automatic
     Ringback feature attempts / 10)
+   (((No. of entries in table SPCTRKS / average holding time in sec of a
     call in busy hour) x SPCCLITIMEOUT value) / 10)
+   (lines on a non-data link console when a Multiple Position Hunt
     arrangement is employed)
+   (number of SDN keys assigned to ACD agent positions / 10)
+   (number of AAK when ACD MIS software is present / 10)

For a new switching unit, excluding Bell Canada, with North American translations for which traffic figures are not available, the recommended value for this parameter is the lesser of 3,277 for a NT40 based switching unit or 6,553 for a SuperNode switching unit or

    (maximum number of RES lines
+   maximum number of IBN lines
+   maximum number of KSET lines + maximum number of ACD lines
+   maximum number of RAG requests) / 10
+   (((No. of entries in table SPCTRKS / average holding time in sec of a
     call in busy hour) x SPCCLITIMEOUT value) / 10)
+   lines on a non-data link console when a Multiple Position Hunt
     arrangement is employed

For a Bell Canada switching unit, the value for this parameter is the lesser of 3,277 for an NT40-based switching unit or 6,553 for a SuperNode switching unit or

(maximum number of RES lines + maximum number of IBN lines
+ maximum number of KSET lines) / 10
+ (((No. of entries in table SPCTRKS / average holding time in sec of a call in busy hour) X SPCCLITIMEOUT value) / 10)
+ lines on a non-data link console when a Multiple Position Hunt arrangement is employed

For a local switching unit (international) with universal translations, the value for this parameter is the lesser of 3,277 for an NT40-based switching unit or 6,553 for a SuperNode switching unit or the maximum number of simultaneous Ring Again requests / 10.

The maximum number is the maximum number required for the engineering interval.

Range information

Minimum	Maximum	Default
0	3277 (NT40) 6553 (SuperNode)	1

Activation

Increase - immediate
Decrease - cold restart or NORESTARTSWACT
(Refer to the procedure in section "The NORESTARTSWACT utility".)

Dependencies

At extension time, the value of this parameter should be changed, if the number of IBN, RES, or KSET lines, or SPC trunks increases.

Consequences

Underprovisioning of this parameter prevents calls from being dequeued and terminated on a non-data link console.

Verification

To verify that sufficient software resources provided by this parameter have been allocated, use the CI command OMSHOW FTRQ ACTIVE 0 and read the following entry:

```
          FTRQSEIZ        FTRQOVFL        FTRQHI
0 FTRQAGENTS 10
               0               0               0
```

Any nonzero value in FTRQOVFL indicates underprovisioning.

Measurement FTRQHI records the maximum number of feature queue areas in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual* 297-1001-814 for a description of OM group FTRQ.

Memory requirements

To determine the amount of memory required by this office parameter use the following formula:

FTRQAGENTS value X 70

Dump and restore rules

If doing dump and restore from software release BCS29 to software release BCS29 or higher, increase the parameter value by the following:

(average holding time in sec of a call in busy hour X
SPCCLITIMEOUT value) / 10

Parameter history

BCS36 activation requirements changed

Parameter name

Feature Queue Audit

Functional description of parameter FTRQAUDIT

This parameter is required in a switching unit with North American translations and the Integrated Business Network (IBN) or Residential Enhanced Services (RES) feature or a switching unit (international) with universal translations.

This parameter specifies the audit pause time, in 1-min intervals for the feature queing software resources (FTRQ) audit.

Provisioning rules

This parameter should be left at the default value of 10.

Range information

Minimum	Maximum	Default
0	32767	10

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS14

Copy the existing value of this parameter when doing a dump and restore.

FXOGS_REMBSY_BITS

Parameter name

Foreign Exchange Remote Make Busy Bits

Functional description of parameter FXOGS_REMBSY_BITS

This parameter is required in a switching unit that has foreign exchange (FX) trunks. I t specifies what type of supervision is required for busying FX trunks with the option REMBSY (remote make busy). Supervision is provided to maintain a constant seizure so that when the line is reconnected the far end views this line as being seized.

This parameter allows the operating company to specify what type of supervision is needed for busying FX trunks with REMBSY = Y.

Provisioning rules

The values for this parameter are A_OFF_B_OFF_HK, and A_ON_B_OFF_HK.

If this parameter is set to A_ON_B_OFF_HK the supervision is loop closed, ring ground.

Leave the value of this parameter at the default value of A_OFF_B_OFF_HK if loop open, ring ground is the type of supervision required for busying out FX trunks with option REMBSY set to Y.

Set the value of this parameter to A_ON_B_OFF_HK if loop closed, ring ground is the type of supervision required for busying out FX trunks with option REMBSY set to Y.

Range information

Minimum	Maximum	Default
		A_OFF_B_OFF_HK

Activation

Immediate

Dependencies

Option REMBSY is datafilled in table TRKSGRP.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS19.

Copy the existing value of this parameter when doing a dump and restore.

GLOBAL_CUTOFF_ON_DISCONNECT

Parameter name

Global Cutoff On Disconnect

Functional description of parameter GLOBAL_CUTOFF_ON_DISCONNECT

This parameter provides the operating company with the ability to supply an open battery signal at call disconnect to either the originating or terminating agent (depending on which remains offhook) in a call on every standard line in a DMS-100 switching unit. The length of the open battery signal can vary from 500 ms to 10s.

This parameter also specifies when the cutoff relay is operated (relative to disconnect). The operating company can supply an open battery signal as the first operation in processing permanent signal and partial dial (PSPD) subscriber line conditions.

Provisioning rules

This parameter contains three fields.

Field GC_PRESENCE_BOOL specifies whether an open battery signal at disconnect is applied to the agent in the call that remains off hook after the network connection for the call is released.

If this field is set to Y (yes), an open battery signal is sent. If this field is set to N (no), an open battery signal is not sent.

Field GC_RELAY_OPEN_TIME specifies the length of the open battery signal if field GC_PRESENCE_BOOL is set to Y.

Specify the length of the open battery signal in 10-ms units. For example, the default value of 80 specifies an open battery signal of 800 ms. The signal length can be from 500 ms to 10 s (values 5 to 1000). If field GC_PRESENCE_BOOL is set to N, leave the value of this field at the default.

Field GC_DELAY_RELAY_OPEN specifies whether the cutoff relay is operated before or after diconnect timing is initiated.

If the value of this field is set to Y, the cutoff relay is operated after normal disconnect. If the value of this field is set to N, the cutoff relay is operated immediately, followed by disconnect timing.

If this feature is not required, leave the value at the default of N 80 N.

Range information

Minimum	Maximum	Default
		N 80 N

Activation

For a change to this parameter to take effect, all line peripherals must have their EXECS resent. For line modules (LM) and remote line modules (RLM), busy (BSY), load (LOADPM) and return to service (RTS) the peripheral. For XPM-based peripherals (LTC, LGC, and so on), BSY and RTS the inactive unit and perform a warm swact on the peripheral.

Dependencies

See parameter COPP_RELAY_OPEN_TIME in table OFCENG for the time that is associated with the permanent signal and partial dial open battery.

This feature does not affect the actions performed by the line feature Cutoff On Disconnect (COD). In any situation where this parameter is active and a line has the line feature COD, the actions performed by the line feature COD take precedence over those actions performed by this parameter.

Consequences

The value of this parameter should be set to N 80 N when the switching unit is in the cut state using the LMCUT software program.

Problems can be encountered when running a load box if the value of this parameter is set to Y and the switching unit is in the cut state.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

GOS_NUM_RU

Parameter name

Global Operator Services Number Of Recording Units

Functional description of parameter GOS_NUM_RU

This parameter defines the number of recording units that are allocated for use by Traffic Operator Position System (TOPS) calls in an open numbering plan environment.

Provisioning rules

The following formula is recommended for a stand-alone TOPS or a TOPS host operator centralization switching unit, excluding Bell Canada.

Quantity =	((% of MCCS calls + % of ACTS calls + % of CAMA calls + % of 0+ and 0– calls)
X	(number of TOPS trunk group members)
+	(number of TOPS Positions + TOPS waiting Q size)

The following formula is recommended for a TOPS remote operator centralization switching unit, excluding Bell Canada.

Quantity =	(number of incoming calls + % of ACTS calls + % of CAMA calls + % of 0+ and 0– calls)
X	(number of TOPS trunk group members)
+	(3 X number of Voice Links)

The following formula is recommended for a Bell Canada switching unit.

Quantity =	(number of TOPS incoming trunks X 0.75)
+	(number of TOPS positions X 2)
+	(number of voice links X 3)

The value must not exceed the number of TOPS trunk group members.

Range information

Minimum	Maximum	Default
0	32767	0

Activation

Increase - immediate
Decrease - cold restart

Dependencies

Global Operator Services (GOS) recording units are used only if the value of field NUMBERING_PLAN in table TOPSPARM is set to a value of OPEN_NUMBERING.

Consequences

Overprovisioning of this parameter results in wasted data store.

If this parameter is underprovisioned, calls intended for operator service can be routed to treatment.

Verification

Not applicable

Memory requirements

Each GOS recording unit requires 387 words of memory for SuperNode.
Each GOS recording unit requires 194 words of memory for NT40.

Dump and restore rules

This parameter was introduced in BCS34.

Copy the existing value of this parameter when doing a dump and restore.

GROUND_START_DELAY

Parameter name

Ground Start Delay

Functional description of parameter GROUND_START_DELAY

This parameter is required for a switching unit with ground start lines. It specifies the length of delay before the system activates the tip relay on the line card and digit collection can begin. This feature works only with Digitone receivers.

The value of this parameter is expressed in 10-ms intervals. For example, a value of 4 represents 40 ms.

The default value of 4 is sufficient for most switching units.

This parameter need only be altered for the few switching units that require greater delays due to hardware configurations.

Provisioning rules

If the ground start delay is greater than 40 ms, set the value of the parameter to the required ground start delay.

Range information

Minimum	Maximum	Default
4	50	4 (40 ms)

Activation

Immediate

Dependencies

Not applicable

Consequences

If this value is not set correctly, calls from ground start lines do not complete.

Verification

Not applicable

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS24.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Guaranteed Terminal Central Processing Unit Share

Functional description of parameter GUARANTEED_TERMINAL_CPU_SHARE

This parameter is required in all switching units to set the central processing units (CPU) percentage of real time that is given to guaranteed terminals. Changes to this parameter affect the percentage of real time for call processing.

Provisioning rules

The CPU reserves 9% of its processing time for overhead and 8% for background activities such as low priority audits, MAP terminals, and log devices. The remaining 83% of the CPU time is available for engineerable events. The 83% can be fully utilized for call processing. 83% is the call processing capacity of the CPU.

This parameter specifies the fraction of the remaining 83% of CPU in percentage form that is offered to guaranteed terminals. The recommended values are 2 to 16 in increments of 1.

In a signal transfer point (STP) offices there is no call processing software. Therefore, the recommended value for this parameter in an STP office is the maximum of 16.

Range information

Minimum	Maximum	Default
2	16	2
		10 (STP offices only)

Activation

Immediate

Dependencies

Not applicable

Consequences

Any value for this parameter above 2% means that the call processing capacity is reduced from the usual 83%.

The new call processing capacity can be found using the following:

% call processing = 85 – GUARANTEED_TERMINAL_CPU_SHARE

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

GUARANTEED_TERMINAL_CPU_SHARE

Dump and restore rules

This parameter was introduced in BCS21.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 new STP default value and recommended value added

Parameter name

Immediate Ring Enable

Functional description of parameter IMMEDIATE_RING_ENABLE

This parameter is required for a local switching unit with North American translations or a local international switching unit with universal translations.

This parameter specifies whether or not the switching unit has immediate ringing.

With immediate ring, the beginning of the ringing of the subscriber's line is at any point in the ringing cycle rather than only at the beginning of a new cycle. This is accomplished by applying a short burst of ringing to the line at the time of connection, even if this is during the silent period of the ringing cycle.

Immediate ring is not available for four, eight, and ten party lines with coded or superimposed ringing.

Provisioning rules

Set the value of this parameter to Y (yes) if immediate ring is required.

Leave the value of this parameter at the default of N (no) if immediate ring is not required.

For a local international switching unit with universal translations, the recommended value is as follows.

Table 1 Universal translation values by country	
Country	Value
Carribbean Expansion Programme (CEP)	Y
China	N
Turkey	Y

The value should be set to Y for a switching unit in Morrocco if immediate ringing is required.

Range information

Minimum	Maximum	Default
		N

IMMEDIATE_RING_ENABLE

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

.

Parameter name

Inbound Modem Pooling Delay

Functional description of parameter IMP_DELAY

This parameter is used to start a timer in the Inbound Modem Pooling (IMP) feature (on Data Unit (DU) terminations) after the DU has answered. The timer is used while waiting for an inband_sync message from the DU.

Provisioning rules

Inband sync cannot be achieved before T-Link handshaking has started. Since the office parmeter TLINK_DELAY in table OFCENG will delay the starting of the T-Link Handshaking, the delay used in the IMP feature must be increased by the length of the parameter TLINK_DELAY. This change will be implemented in software so the operating company need not modify the existing value of this parameter. Note that the actual length of the timer used in the IMP feature will be the sum of the two parameters IMP_DELAY and TLINK_DELAY.

Range information

Minimum	Maximum	Default
0	5	2

Activation

Immediate

Dependencies

See office parameter TLINK_DELAY in table OFCENG.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS15.

Copy the existing value of this parameter when doing a dump and restore.

INTL_GATEWAY_OFFICE

Parameter name

International Gateway Office

Functional description of parameter INTL_GATEWAY_OFFICE

This parameter is only visible to the administration in an international switching unit with the INTLGTSB subsystem. It specifies whether the switching unit has international translations with gateway attributes.

Provisioning rules

Set the value of this parameter to Y (yes), if the switching unit has feature package NTX496AA03 (Gateway Access) and requires the following gateway attribute:

Determination of KP2 Signals

The KP (start-of-pulse) forward signal is sent to indicate that transmission of the address signals is about to start. In an international context variant KP signals are used as follows:

- KP1 = terminating
- KP2 = transit call

If this parameter is not required, leave the value at the default of N (no).

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS21.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

International Local Office

Functional description of parameter INTL_LOCAL_OFFICE

This parameter appears only in a local (international) switching unit with universal translations. I t specifies that the switching unit is an international local switching unit (that is, it uses international specific software and hardware).

Provisioning rules

Leave the value of this parameter at the default value of Y.

Range information

Minimum	Maximum	Default
		Y

Activation

Cold restart

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was new with software release BCS19.

Copy the existing value of this parameter when doing a dump and restore.

INTRALATA_DEFAULT_USE_TRKLATA

Parameter name

IntraLATA Default Use TRKLATA

Functional description of parameter INTRALATA_DEFAULT_USE_TRKLATA

This parameter is used to determine if default routing through Table
TRKLATA occurs when no entry for a subscriber is found in table DNLPIC.

Provisioning rules

Set the value of this parameter to Y (yes) to allow default routing to occur
when no subscriber entry is found in table DNLPIC.

Set the value of this parameter to N (no) if this function is not required.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

See the *TOPS Customer Data Schema* 297-2271-451 for a description of
table DNLPIC.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

Each unit requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS32.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Inward Wide Area Telephone Service Common Channel Interoffice
Signaling Originating Serving Office Enable

Functional description of parameter INWATS_CCIS_OSO_ENABLE

This parameter is required for switching units with the enhanced inward
wide area telephone service (INWATS) originating serving office (OSO)
function (feature package NTX157AA) using the direct signaling capability
of Common Channel Interoffice Signaling (CCIS).

Provisioning rules

To enable this feature the value of the parameter must be set to Y (yes).

If this feature is not required, leave the value of this parameter at the default
of N.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

If this parameter is set to Y, table INWSNPA must be datafilled. See the *Toll
Customer Data Schema* 297-2201-451 for a description of table INWSNPA.

Consequences

Not applicable

Verification

Not applicable

Dump and restore rules

This parameter was introduced in BCS14.

Copy the existing value of this parameter when doing a dump and restore.

INWATS_LOCAL_TERMINATION

Parameter name

Inward Wide Area Telephone Service Local Termination

Functional description of parameter INWATS_LOCAL_TERMINATION

This parameter provides the capability for INWATS calls to complete from the local source.

Provisioning rules

If this parameter is set to N (no) only the following INWATS calls are allowed to complete:

- Incoming INWATS calls through incoming toll trunk group are completed and allowed to terminate on an INWATS line.
- Incoming INWATS calls are completed if the non-local (field ORIGSOURCE equal to NLCL in table IBNXLA) option is assigned to the Extended Area Service (EAS) trunk group.
- calls through incoming test trunk (trunk group type TD) to INWATS line for line testing
- INWATS calls for the test desk are also completed if the trunk group (trunk group type TD) is assigned the non-local (field ORIGSCRE equal to NLCL) option.
- Calls from co-located lines to INWATS line. In order to permit test calls to the INWATS lines, a loop around outgoing trunk (trunk group type TO) and incoming trunk (trunk group type TI) arrangement can be used. The non-local (field ORIGSOURCE equal to NLCL in table IBNXLA) option must be assigned to the incoming trunk group (trunk group type TI).

If this parameter is set to Y, the following INWATS calls are also allowed to complete:

- Calls originated in the same switching unit. This eliminates the use of loop around arrangement for test calls to the INWATS lines.
- INWATS calls through incoming trunks with local (field ORIGSOURCE equal to LCL in table IBNXLA) option as their originating source.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable

Consequences

If this parameter is set to N, the INWATS calls originated in the same switching unit and the calls through incoming trunks to the INWATS line with the local (field ORIGSOURCE equal to LCL in table IBNXLA) option as their originating source are blocked routed to Unauthorized INWATS Call treatment (UNIN) in the appropriate treatment table.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS19.

Copy the existing value of this parameter when doing a dump and restore.

INWATS_ON_AMA

Parameter name

Inward Wide Area Telephone Service On Automatic Message Accounting Tape

Functional description of parameter INWATS_ON_AMA

This parameter is required for all switching units with Automatic Message Accounting (AMA) tape units. It specifies whether inward wide area telephone service (INWATS) calls are to be recorded on AMA tape.

Provisioning rules

Set the value of this parameter to Y (yes) to enable the recording of INWATS calls on AMA tape.

Leave the value of this parameter at the default of N (no) if recording of INWATS calls on AMA tape is not required.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

If this parameter is set to Y, ensure that the INWATS tuple in table AMAOPTS is set to ON.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Integrated Services Digital Network Data Packet Network Packet Handler Generic

Functional description of parameter ISDN_DPN_PH_GENERIC

This office parameter allows multiple logical terminal identifier (LTID) groups on a single Bd channel.

If the value of this parameter is 27 or greater, multiple LTID groups are allowed on a single Bd channel. Otherwise, all LTIDs on a Bd channel must be from the same LTID group.

Provisioning rules

Set the value of this parameter to match the packet handler's SW generic in the Data Packet Network (DPN).

Range information

Minimum	Maximum	Default
20	100	25

Activation

Immediate

Dependencies

Not applicable

Consequences

When the value of this parameter is 27 or greater, logical terminals from more than one group can be mapped to a Bd channel in LTMAP.

Verification

1   Set ISDN_DPN_PH_GENERIC to 26.

2   Add LTIDs from the same group to a Bd channel.

3   Add LTICs from different group to a Bd channel.

In this case, the LTIDs from different groups should not be allowed.

1   Set ISDN_DPN_PH_GENERIC to 27 or greater.

2   Add LTIDs from different groups to a BD channel

In this case, the LTIDs from different groups should not be allowed.

Memory requirements

This parameter has no memory impact.

ISDN_DPN_PH_GENERIC

Dump and restore rules

This parameter was introduced in BCS30.

Copy the existing value of this parameter when doing a dump and restore .

Parameter name

Integrated Services Digital Network 1A Interworking

Functional description of parameter ISDN_NET_1A_INTERWORKING

This parameter is used to configure the Integrated Services Digital Network (ISDN) basic rate interface (BRI) and ISDN user part (ISUP) interworking software to accomodate connection to a 1A switch. It is for use with feature AG2001 (TR444 Comprehensive Compliance) and configures the software as either TR compliant or non-TR compliant.

ISDN_NET_1A_INTERWORKING is required for all switching units that are equipped with feature AG2001, yet wish to interwork with a non-TR compliant 1A.

Provisioning rules

If the switch supports BRI terminals and is connected to a 1A switch with ISUP trunks, activate non-TR compliance by setting this parameter WORKAROUND_1A.

To maintain TR compliance with feature AG2001, set this parameter to TR_COMPLIANT.

Range information

Minimum	Maximum	Default
		TR_COMPLIANT

Activation

Immediate

Dependencies

Not applicable

Consequences

If the value of this parameter is WORKAROUND_1A, the BRA-ISUP interworking software will not be TR compliant.

If the value of this parameter is TR_COMPLIANT and a BRI functional set on the switch terminates a call to a 1A "Freecall" number (over ISUP trunks), the call will be dropped if not answered before expiry of the terminals T310 timer.

Verification

The parameter value is visible through table control procedures acting on table OFCENG. Positioning on ISDN_NET_1A_INTERWORKING displays the current value.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS32.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

ISDN Service Group Operational Measurement Block Size

Functional description of parameter ISGBDOM_BLKSIZE

This parameter is associated with the ISDN service group (ISGBD) operational measurement that is used to monitor the Bd channel performance on D-Channel Handlers (DCH). The term ISG refers to the 32 channels associated with a DCH.

This parameter controls the size of the block where ISGBD OM store is allocated and deallocated. It is required to allow smaller offices (those that are not equipped with many DCHs) to optimize their store allocation.

Range information

Minimum	Maximum	Default
0	31	16

Activation

Immediate

Provisioning rules

Set the value of this office parameter equal to the expected number of Bd channels.

If the parameter is set to 10 and there are 11 Bd channels in the office, data will be allocated for 20 channels, resulting in store for nine extra.

For quick response when datafilling, set the parameter's value in the range of 16 to 31 to quicken the allocation and deallocation operations. The parameter can be lowered after initial datafill to optimize the unused store requirements.

Dependencies

Not applicable

Consequences

If the value of this parameter is underprovisioned, the process of adding Bd channels will be slow because the code attempts to find a free index (one that was allocated and then deleted) in the tables and, if it cannot, it allocates more store if possible.

Every time more than the parameter value of Bds are datafilled, the code executes the relatively long resize routines. The process of deleting Bd channels is also slow but very efficient in maintaining only the store that the situation needs.

ISGBDOM_BLKSIZE

If the value of this office parameter is overprovisioned the process of adding Bds is fast. A large block is allocated and any subsequent Bd datafills find a free index in the tables and the resize routines are called less often. However, overprovisioning wastes data store.

Verification

Not applicable

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

International Traffic Operator Position System Account Codes

Functional description of parameter ITOPS_ACCOUNT_CODES

This parameter enables the operating company to restrict toll access to
subscriber lines by assigning an authorization access code (account code) to
each line. Lines without an associated account code are denied toll services.
The operator must validate account code numbers. Specific call details
cannot be keyed in by the operator until a valid account code number is
entered.

This parameter specifies whether the account code feature, display and
Automatic Message Accounting (AMA) facilities are operative. Fields
DISPLAY and AMA are added with BCS32 to provide this optionality.

Provisioning rules

To activate the account code feature (field ACTIVE), display (field
DISPLAY), or AMA (field AMA) set the appropriate sub-field to Y.
Otherwise, set it to N. When an option is set to N, the existing ITOPS
functionality is maintained. The three fields of this parameter are outlined in
table 1.

Table 1
Fields in ITOPS_ACCOUNT_CODES

Field	Range of values
ACTIVE	Y or N
DISPLAY	Y or N
AMA	Y or N

Range information

Minimum	Maximum	Default
		N N N

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

There is no memory usage associated with this parameter.

Dump and restore rules

This parameter was introduced in BCS31.

When doing a dump and restore from BCS31 to BCS32 or higher, the value of ITOPS_ACCOUNT_CODES is automatically copied into the ACTIVE field. Fields DISPLAY and AMA appear at the default values.

Copy the existing value of this parameter when doing a dump and restore from BCS32 to BCS32 or higher.

Parameter name

International Traffic Operator Position System Enhanced Automatic Call Distribution

Functional description of parameter ITOPS_ENHANCED_ACD

The enhanced Automatic Call Distribution (ACD) system has been developed to increase the flexibility of and to simplify the call queueing system. This enhanced system takes the calls destined to operator services, analyzes their call properties and assigns them to the appropriate operators or call queues.

This parameter specifies whether the old or the enhanced queueing system is activated.

Provisioning rules

Set the value of this parameter to Y (yes) to use the enhanced queueing system.

Leave the value of this parameter at the default of N (no) to use the old queuing system.

Range information

Minimum	Maximum	Default
		N

Activation

Cold restart

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

There is no memory usage associated with this parameter.

Dump and restore rules

This parameter was introduced in BCS31.

Copy the existing value of this parameter when doing a dump and restore.

ITOPS_HIGH_TRAFFIC_START_TIME

Parameter name

International Traffic Operator Position System High Traffic Start Time

Functional description of parameter ITOPS_HIGH_TRAFFIC_START_TIME

This parameter is required for a switching unit with the International Traffic Operator Position System (ITOPS). It allows the operating company to switch from the low queue to the high queue threshold tables at the hour specified by this parameter.

The high queue threshold tables are used when the operating company prefers the calls to be handled faster.

Tables QTTIDXH, QT0H, QT1H, QT2H, QT3H, QT4H, and QT5H contain the high queue threshold values associated with the related average work time value.

Because the traffic can vary according to the environment, the customer is free to have any low and high traffic start times. There is no restriction that, for example, high traffic start time must be later than the low traffic start time.

Provisioning rules

Specify the hour (0 to 23) to switch from the low to the high queue threshold tables.

If only one set of tables is required, leave this parameter value at the default of 0 (zero).

Range information

Minimum	Maximum	Default
0	23	0

Activation

Immediate

Dependencies

If only one set of tables is required, set the value of this parameter and parameter ITOPS_LOW_TRAFFIC_START_TIME in table OFCENG to 0. In this situation, only low traffic tables are active all the time.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

ITOPS_LOW_TRAFFIC_START_TIME

Parameter name

International Traffic Operator Position System Low Traffic Start Time

Functional description of parameter ITOPS_LOW_TRAFFIC_START_TIME

This parameter is required for a switching unit with the International Traffic Operator Position System (ITOPS). It allows the operating company to switch from the high queue to the low queue threshold tables at the hour specified by this parameter.

The low queue threshold tables are used when the operating company is willing to let the calls wait in the queue for a longer period of time.

Tables QTTIDXL, QT0L, QT1L, QT2L, QT3L, QT4L and QT5L contain the low queue threshold values associated with the related average work time value.

Because the traffic can vary according to the environment, the customer is free to have any low and high traffic start times. There is no restriction that, for example, high traffic start time must be later than the low traffic start time.

Provisioning rules

Specify the hour (0 to 23) to switch from the high to the low queue threshold tables.

If only one set of tables is required, leave the value of this parameter at the default of 0 (zero)

Range information

Minimum	Maximum	Default
0	23	0

Activation

Immediate

Dependencies

If only one set of tables is required, set the value of this parameter and parameter ITOPS_HIGH_TRAFFIC_START_TIME in table OFCENG to 0. In this situation, only low traffic tables are active all the time.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

ITS_NUM_CONCURRENT_SESSIONS

Parameter name

Integrated Testing System Number of Concurrent Sessions

Functional description of parameter ITS_NUM_CONCURRENT_SESSIONS

This parameter defines the resources that a DMS-100 must allocate to support the integrated testing system (ITS) translations language 1 (TL1) interface and testing requirements.

The ITS TL1 system uses an X.25 data link to perform line testing. For a DMS-100 to perform testing, a number of resources must be allocated. These resources are buffers, parameter and result storage, and control storage to perform the actual testing.

The ITS TL1 system is driven by the ITS operations system (OS) that also requires storage resources to handle testing.

The resources determined by the ITS OS support ITS TL1 on the DMS-100.

Provisioning rules

Set the value of this parameter to the number of test sessions that can be run concurrently as determined by the operating company test facilities and the number of concurrent tests that they can support.

The default value is 10. This represents a reasonable allocation of resources for the initial requirements of ITS TL1. Only ISDN TL1 is supported at this time.

Range information

Minimum	Maximum	Default
10	60	10

Activation

Immediate

Dependencies

Not applicable

Consequences

Overprovisioning of this parameter results in unnecessary resource allocation.

Underprovisioning of this parameter results in ITS TL1 commands being rejected, even though the ITS OS has a larger provisioned capability.

Verification

This parameter reflects the number of test sessions that can be run concurrently. ITS TL1 commands requesting more than this allowed number are rejected.

Memory requirements

This parameter uses 5000 bytes overhead plus 1893 bytes per unit. For the default setting of 10 the memory calculation is as follows:

$$5000 + (10 \times 1893) = 23930 \text{ bytes}$$

Dump and restore rules

This parameter was introduced in BCS33.

Copy the existing value of this parameter when doing a dump and restore.

KSET_INTER_GRP_DISP

Parameter name

Business Set Inter-group Display

Functional description of parameter KSET_INTER_GRP_DISP

This parameter determines whether calls arriving from outside the customer group have their information displayed on the terminator's display set.

Provisioning rules

If this parameter is set to Y (yes), calls arriving from outside the customer group have their information displayed on the terminator's display set.

This parameter should only be set to Y, if a customer has display sets that are spread over more than one customer group.

If the value of this parameter is left at the default value of N (no), inter-group calls are not displayed.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

The display shows the short CLLI code on the display business set if the call is from an incoming IBN trunk and the call is flagged as intragroup. This requires the INTRAGROUP field in the trunk group data to be set to Y.

If the intragroup field in the trunk data is set to N, or the translator selector, in table IBNXLA, used to translate the digits received from the trunk has the intragroup field set to N, or the terminating business set belongs to a private customer group or family, the display will show "******".

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS15.

If the value of this parameter is equal to Y (yes), copy the existing value of parameter when doing a dump and restore.

If the value of this parameter is equal to N (no), and this feature is being added by the operating company, the value of this parameter should be changed to Y (yes). If the feature is not added, copy the existing value of the parameter.

KSHUNT_EXT_BLOCKS

Parameter name

Business Set Key Short Hunt Extension Blocks

Functional description of parameter KSHUNT_EXT_BLOCKS

This parameter determines the number of extension blocks allocated for the Business Set Key Short Hunt feature.

Provisioning rules

One of these extension blocks is required for each call that terminates on a short hunt group.

For the assignment of the Business Set Key Short Hunt feature to business stations see table KSETFEAT.

For switching units in the U.S. market, set the parameter to a constant value of 300.

Range information

Minimum	Maximum	Default
0	32767	1000

Activation

Increase - immediate
Decrease - cold restart

Dependencies

At extension time the value of this parameter must change if the number of calls to short hunt groups increases or decreases.

Consequences

If this parameter is overprovisioned, memory is wasted.

Verification

To verify that sufficient extension blocks have been allocated, use CI command OMSHOW EXT ACTIVE 34 and read the following entry:

```
        EXTSEIZ        EXTOVFL        EXTHI        EXTSEIZ2
        EXTHI2
34 KEY_SHORT_HUNT_EXT
  1000
            0              0            0            0
            0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Measurements EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

For operational measurements associated with this parameter, see OM group KSHUNT.

See the *Operational Measurements Reference Manual*, 297-1001-814 for a description of OM groups EXT and KSHUNT.

Memory requirements

Each unit requires 6 words of memory.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

LCDI_SYNC_BURST

Parameter name

ISDN Line Concentrating Device Synchronization Burst

Functional description of parameter LCDI_SYNC_BURST

This parameter is required in a switching unit with the integrated service digital network (ISDN).

This parameter is required for 500/2500 line interface using the integrated service line module (ISLM). It is also required for the Layer 1 Basic Line Monitoring (BLM) feature as it applies to enhanced ISDN line concentrating module (LCME) supported two binary – one quaternary (2B1Q) loops.

This parameter specifies the number of lines that are audited on each synchronization cycle before holding for the delay period specified by office parameter LCDI_SYNC_DELAY.

Provisioning rules

Set the value of this parameter as required to control synchronization auditing for non-LCME ISDN loops and Layer 1 BLM auditing of LCME-based 2B1Q loops. If no auditing is required, set the value of this parameter to 0 (zero).

Range information

Minimum	Maximum	Default
0	10	1

Activation

Immediate

Dependencies

See parameter LCDI_SYNC_DELAY in table OFCENG for the delay, in 1-s intervals, between each synchronization cycle.

Consequences

If this parameter is set to 0, the audit does not run and synchronization mismatches in non-LCME ISDN loops are not detected. Layer 1 BLM mismatches between the central control (CC) and LCME-based 2B1Q loops are not detected.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS30. Prior to BCS30 LCDI_SYNC_BURST was called ISLML_SYNC_BURST.

Copy the existing value of this parameter when doing a dump and restore.

LCDI_SYNC_DELAY

Parameter name

ISDN Line Concentrating Device Synchronization Delay

Functional description of parameter LCDI_SYNC_DELAY

This parameter is required in a switching unit with the integrated service digital network (ISDN).

This parameter is required for 500/2500 line interface using the integrated service line module (ISLM). It is also required by the Layer 1 Basic Line Monitoring (BLM) audit as applied to enhanced ISDN line concentrating module (LCME) supported two binary – one quaternary (2B1Q) loops.

This parameter specifies the delay between each synchronization cycle in 1-s intervals.

Provisioning rules

Set the value of this parameter as required to control synchronization auditing for non-LCME ISDN loops as well as Layer 1 BLM auditing for LCME-based 2B1Q loops.

If this audit is not required, set the parameter value to 300.

Range information

Minimum	Maximum	Default
60	6000	60

Activation

Immediate

Dependencies

See parameter LCDI_SYNC_BURST in table OFCENG for the number of lines that can be audited during each synchronization cycle. Set the values of parameters LCDI_SYNC_DELAY and LCDI_SYNC_BURST so that all ISDN loops are audited in an appropriate period of time.

Consequences

If the value of this parameter is underprovisioned, the synchronization audit uses too much of the available audit class CC CPU time.

If the value of this parameter is overprovisioned, the amount of time required to audit all ISDN loops is excessive.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

LCDR_SEC_ANI_TEST

Parameter name

Local Call Detail Recording Second Automatic Number Identification Test

Functional description of parameter LCDR_SEC_ANI_TEST

This parameter specifies whether a second automatic number identification (ANI) test is performed on local calls from a two or four party line with the Local Call Detail Recording feature.

The second ANI test is always performed on toll calls.

Provisioning rules

If the value of this parameter is set to Y (yes), the second ANI test is performed on local calls.

If the value of this parameter is set to N (no), the second ANI test is not performed on local calls.

Range information

Minimum	Maximum	Default
		N

Activation

Cold restart

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Line Concentrating Module Synchronization Burst

Functional description of parameter LCML_SYNC_BURST

This parameter is required for 500/2500 line interface using the Line Trunk Controller (LTC) peripheral module. It specifies the number of lines that are audited on each synchronization cycle.

Provisioning rules

Specifies the number of lines to be audited on each synchronization cycle.

Range information

Minimum	Maximum	Default
0	100	1

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

LCML_SYNC_DELAY

Parameter name

Line Concentrating Module Synchronization Delay

Functional description of parameter LCML_SYNC_DELAY

This parameter is required for 500/2500 line interface using the Line Trunk
Controller (LTC) peripheral module and specifies the delay in seconds
between each synchronization cycle.

Provisioning rules

Specify the delay in seconds between each synchronization cycle.

Range information

Minimum	Maximum	Default
5	6000	15

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Line Module Long Partial Dial Time

Functional description of parameter LN_LONG_PARTIAL_DIAL_TIME

This parameter is required in a local switching unit and specifies the time, in 160-ms intervals, the line module will wait after a digit is dialed before reporting an end of dialing condition (if no more digits are dialed) when instructed to perform long timing. Digit collection is stopped and translation and routing is done with the digits collected so far. This may result in call completion or partial dial treatment.

For information on partial dial treatment (PDIL), see table TMTCNTL.

Long timing is used in the following instances:

- When the switching unit has 0+ and 0– dialing, long timing is used after the second to seventh and ninth to tenth digits.
- 1+ calls are timed with long timing after the first to seventh and ninth to tenth digits.
- For ambiguous code calls, long timing is used after the first to sixth and eighth and ninth digits.
- International calling (01 or 011+) uses long timing after the first to fifth digits after the access code of 01 or 011.
- The line module uses long timing after the first to seventh digit dialed when the field DGCOLSEL in table DIGCOL is equal to COL and field TMODE has the value of L for the initial digit dialed.

The dialing of an octothorpe (#) indicates end of dialing and the line module immediately reports to the central control (CC) for translation.

This parameter can be used in an SL100 in the United Kingdom to reduce the post dial delay (PDD) for an incoming Digital Private Network Signaling System (DPNSS) call on a DMS PBX.

Provisioning rules

Specify the time, in 160-ms intervals, for the line module to wait after a digit is dialed before reporting an end of dialing condition (if no more digits are dialed) when instructed to perform long timing.

Range information

Minimum	Maximum	Default
7	255	63 (10 seconds)

LN_LONG_PARTIAL_DIAL_TIME

Activation

For all PMs supporting line concentrating devices (LCD), except those connected to an extended multiprocessor system (XMS)-based PM (XPM), a BSY and RTS is required. For LCDs connected to an XPM, a BSY and RTS need only be performed on one LCD for each XPM, but both units of that LCD must be busied at the same time (BSY PM, RTS PM).

Dependencies

The long and short timing data that is downloaded into the line module is dependent upon the value of parameter DIGIT_COL_OFFICE_CODE in table OFCSTD and the data stored in table DIGCOL.

The value of this parameter is used as a long digit timeout prior to receiving minimum digits.

The minimum number of digits is specified in the datafill for a valid route in the IBN translation tables.

This only applies to valid routes which specify minimum digits in the datafill.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of the parameter.

Parameter history

BCS36 corrected activation information

Parameter name

Line Permanent Signal Time

Functional description of parameter LN_PERM_SIG_TIME

This parameter is required in a local or combined local and toll switching unit and specifies the time, in 160-ms intervals, that the switch waits to receive the first digit when a line goes off-hook.

Provisioning rules

If no digits are received within the time period specified by the value of this parameter, the line is routed to permanent signal treatment (PSIG).

For information on treatments, see table TMTCNTL.

Range information

Minimum	Maximum	Default
7	255	125 (20 seconds)

Activation

For all PMs supporting line concentrating devices (LCD), except those connected to an extended multiprocessor system (XMS)-based PM (XPM), a BSY and RTS is required. For LCDs connected to an XPM, a BSY and RTS need only be performed on one LCD for each XPM, but both units of that LCD must be busied at the same time (BSY PM, RTS PM).

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36   corrected activation information

LN_SHORT_PARTIAL_DIAL_TIME

Parameter name

Line Module Short Partial Dial Time

Functional description of parameter LN_SHORT_PARTIAL_DIAL_TIME

This parameter is required in a local switching unit and specifies the time, in 160-ms intervals, that the line module will wait after a digit is dialed before reporting an end-of-dialing condition (if no more digits are dialed) when instructed to perform short timing. Digit collection is stopped and translation and routing is done with the digits collected so far. This may result in call completion or partial dial treatment.

For information on partial dial treatment (PDIL), see table TMTCNTL.

The long and short timing data which is downloaded into the line line module is dependant upon the value of parameter DIGIT_COL_OFFICE_CODE in table OFCSTD and the data stored in table DIGCOL.

Short timing is used in the following instances:

- When switching unit has 0+ and 0– dialing short timing is used after the first and eighth digit when the first digit dialed is a 0 (zero).
- 1+ calls are timed with short timing after the eighth digit.
- For ambiguous code calls, short timing is used after the seventh digit.
- When setting up a Speed Call number, the digits following the two-digit access code use short timing.
- International calling (01 or 011+) use short timing after the sixth to twelfth digits after the access code 01 or 011.
- The dialing of an octothorpe (#), indicates end-of-dialing, and the line module immediately reports to the central control (CC) for translation.
- The line module uses short timing after the first and second digit dialed when field DGCOLSEL in table DIGCOL is equal to RES for the first digit dialed.
- The line module uses short timing when field DGCOLSEL in table DIGCOL is equal to COL and field TMODE has the value of S for the initial digit dialed.

This parameter can be used in an SL100 in the United Kingdom to reduce the post dial delay (PDD) for an incoming Digital Private Network Signalling System (DPNSS) call on a DMS PBX.

Provisioning rules

Specify the time, in 160-ms intervals, for the line module to wait after a digit is dialed before reporting an end-of-dialing condition (if no more digits are dialed) when instructed to perform short timing.

Range information

Minimum	Maximum	Default
7	255	25 (4 seconds)

Activation

For all PMs supporting line concentrating devices (LCD), except those connected to an extended multiprocessor system (XMS)-based PM (XPM), a BSY and RTS is required. For LCDs connected to an XPM, a BSY and RTS need only be performed on one LCD for each XPM, but both units of that LCD must be busied at the same time (BSY PM, RTS PM).

Dependencies

The value of this parameter is used as a short digit timeout after receiving minimum digits and before receiving maximum digits.

The minimum and maximum number of digits are specified in the datafill for a valid route in the IBN translation tables.

This only applies to valid routes that specify minimum and maximum digits in the datafill.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 corrected activation information

LOG_PRIORITIZATION

Parameter name
Log Prioritization

Functional description of parameter LOG_PRIORITIZATION
This option enables or disables the critical message prioritization feature.

Provisioning rules
If this parameter is set to a value of Y (yes), the feature is enabled and all devices in table LOGDEV that have field PRIORITY set to Y, will have critical messages printed before messages of a lower priority. Logs will be prioritized starting from the time of initialization of a device. Logs that were created before the initialization time will not be printed.

Range information

Minimum	Maximum	Default
		N

Activation
Immediate

Activation is not allowed while any log devices are started.

It is recommended that the following steps be taken when activating this parameter:

1   Stop all log devices.

2   Change value of parameter.

3   Change the PRIORITY field in table LOGDEV appropriately for each log device. Those devices on which prioritization is required should set this field to Y.

4   Start required log devices.

Dependencies
Not applicable

Consequences
Not applicable

Verification
Not applicable

Memory requirements
This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS15.

Copy the existing value of this parameter when doing a dump and restore.

LONG_TIMED_RELEASE_DISC_TIME

Parameter name

Long Timed Release Disconnect Time

Functional description of parameter LONG_TIMED_RELEASE_DISC_TIME

This parameter specifies the time, in 10-ms intervals, for which a called party on-hook is timed before releasing the connection to the calling party.

This disconnect timing is used for the following types of calls which have a potentially high setup cost.

- Line or TOPS-to-trunk (trunk group types TO, TOPS, IT, and SC)
- Trunk-to-line (trunk group types SC, TI, and IBN)
- Trunk (trunk group type TI) to trunk (trunk group type TO)
- Trunk (trunk group type SC) to trunk (trunk group types TO, TOPS, IT, OC, OP, A5, P2, and PX).
- Trunk- (ISDN PRA) to-trunk (ISDN PRA)

For calls from trunk (trunk group type SC) to trunk (trunk group type PX and P2), no disconnect timing is done for joint hold and called party hold calls.

Provisioning rules

The recommended value is 1600 (16 s). This higher value gives subscribers more latitude for calls with a high setup cost.

When the value of this parameter is changed, the central control (CC) uses the new value immediately in the billing compensation procedures. However, the peripheral module (PM) uses the old values in calculating the call duration times until the static data is reloaded.

The PMs should be reloaded immediately or billing discrepencies can occur as the values for this parameter are different in the CC and PM.

The following message is issued when making a change to this parameter.

```
WARNING: A RELOAD OF THE LM/LTC STATIC DATA MUST BE PERFORMED
TO ACTIVATE CHANGES TO THE VALUE OF THIS PARAMETER
```

Range information

Minimum	Maximum	Default
16	4080 32767 (with Meridian OffNet Access)	1600 (16 s)

Activation

For all PMs supporting line concentrating devices (LCD), except those connected to an extended multiprocessor system (XMS)-based PM (XPM), a BSY and RTS is required. For LCDs connected to an XPM, a BSY and RTS need only be performed on one LCD for each XPM, but both units of that LCD must be busied at the same time (BSY PM, RTS PM).

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was new in BCS15.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36   corrected activation information

LOWSPR_ALARM_ON_CARD_SPR_BASIS

Parameter name

Lowspare Alarm On Card Spare Basis

Functional description of parameter LOWSPR_ALARM_ON_CARD_SPR_BASIS

This parameter controls the activation of the memory low spare minor and memory low spare major alarms (LowSpr and LOWSpr respectively) and their associated logs.

Provisioning rules

If this parameter is set to the value of Y (yes), the low spare alarms are activated if there are not enough spare blocks to spare out an entire card (of each memory card size). For example, when the memory goes below 24 Mbyte for NT9X14 cards, a low spare alarm is activated.

If this parameter is set to the value of N (no), the low spare alarms are activated only if there are no spare blocks left (for each memory card module size). For example, the low spare alarm is activated when the last 8 Mbyte are allocated for NT9X14 cards.

The default value of Y is the recommended value for non-SuperNode SE offices. The system produces the low spare alarms and logs when an audit determines that there are insufficient memory blocks to spare out an entire card.

On SuperNode SE, where there may not be sufficient memory cards equipped for sparing on a per card basis, this parameter must be set to N.

Range information

Minimum	Maximum	Default
		Y

Activation

Immediate

Dependencies

Not applicable

Consequences

With this parameter set to N, there are no low spare alarms generated until there are no spare blocks left (for each memory module size that is equipped on the switch). This implies that memory faults that affect more than one module or an entire memory card may not be able to have the entire memory card spared out.

Verification

If the switch is equipped with insufficient spare memory blocks to spare out an entire card, the low spare alarm and corresponding log should be present with this parameter set to Y.

With this parameter set to N, the alarms and logs are generated only when there are no spare memory blocks left (for each memory module size that is equipped on the switch).

Memory requirements

Each unit requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS33.

Copy the existing value of this parameter when doing a dump and restore.

LSCM_SYNC_BURST

Parameter name
LSCM Synchronization Burst

Functional description of parameter LSCM_SYNC_BURST
This parameter is associated with the CLASS Message Waiting Indicator
(CMWI) feature that allows a Message Waiting (MWT) subscriber equipped
with a CLASS set with a message waiting lamp and/or a display device to
know if messages have been queued. Messages can be queued in the switch
or at a message center.

Associated with this feature are lamp audits which run periodically to
attempt to keep all lamps in sync with the state that the CC expects. For sets
with a message waiting lamp, the lamp audit process verifies if at least one
message is waiting for the station. When there is, the message waiting lamp
is turned on. No attempt is made at updating the lamp when no messages
are waiting.

Provisioning rules
Specify the number of lines off of each SMS and SMU in the office that will
have its lamp audited as specified by parameter LSCM_SYNC_DELAY.

This office parameter is used to achieve a suitable distribution of messaging
traffic to the peripherals. (See also parameter LSCM_SYNC_DELAY in
table OFCENG)

These parameters are used by the new lamp audit for lines off Subscriber
Module SLC–96 (SMS) and Subscriber Carrier Module DMS-100 Urban
(SMU).

LSCM_SYNC_BURST indicates the number of lines off each peripheral
that should be audited in one audit cycle.

Range information

Minimum	Maximum	Default
0	10	1 One line off each SMS and SMU in the office will have its lamp audited every n seconds (where n is the value of LSCM_SYNC_DELAY).

Activation
Immediate

Dependencies

Not applicable

Consequences

If the burst value is too large or delay value is too small there is no delay between cycles.

Verification

To verify that the lamp audit is working, remove power from a set that has the message waiting indicator on. This should cause the indicator to be turned off. Assuming that the message is not retrieved, the indicator should be turned on by the audit within X seconds where X is:

possible # of lines on PM / (LSCM_SYNC_BURST
/LSCM_SYNC_DELAY)

For example, if there are 640 lines on the PM, LSCM_SYNC_BURST is set to 3 lines, and LSCM_SYNC_DELAY is set to 15 s:

X = 640/3/15 = 3200 seconds (approximately 53 minutes)

Memory requirements

This parameter has no memory impact

Dump and restore rules

This parameter is new with software release BCS31.

Copy the existing value of this parameter when doing a dump and restore.

LSCM_SYNC_DELAY

Parameter name

LSCM Synchronization Delay

Functional description of parameter LSCM_SYNC_DELAY

This parameter is associated with the CLASS Message Waiting Indicator (CMWI) feature that allows a Message Waiting (MWT) subscriber equipped with a CLASS set with a message waiting lamp and/or a display device to know if messages have been queued. Messages can be queued in the switch or at a message center.

Associated with this feature are lamp audits that run periodically to attempt to keep all lamps in sync with the state that the CC expects. For sets with a message waiting lamp, the lamp audit process verifies that at least one message is waiting for the station. When there is, the message waiting lamp is turned on. No attempt is made at updating the lamp when no messages are waiting.

Provisioning rules

Specify the time between lamp audits for lines off of each SMS and SMU in the office.

This office parameter is used to achieve a suitable distribution of messaging traffic to the peripherals. (See also parameter LSCM_SYNC_BURST in table OFCENG)

These parameters are used by the new lamp audit for lines off Subscriber Module SLC-96 (SMS) and Subscriber Carrier Module DMS-100 Urban (SMU).

LSCM_SYNC_DELAY specifies the time in seconds between the start of each audit cycle.

Range information

Minimum	Maximum	·	Default
5	6000		15 n lines off of each SMS and SMU in the office will have its lamp audited every 15 seconds (where n is the value of parameter LSCM_SYNC_BURST).

Activation

Immediate

Dependencies

Not applicable

Consequences

If the burst value is too large or the delay value is too small there is no delay between cycles.

Verification

To verify that the lamp audit is working, remove power from a set with the message waiting indicator on. This should cause the indicator to be turned off. Assuming that the message is not retrieved, the indicator should be turned on by the audit within X seconds where X is:

$$\text{possible \# of lines on PM} / (\text{LSCM\_SYNC\_BURST} / \text{LSCM\_SYNC\_DELAY})$$

For example, if there are 640 lines on the PM, LSCM_SYNC_BURST is set to 3 lines, and LSCM_SYNC_DELAY is set to 15 s:

$$X = 640/3/15 = 3200 \text{ seconds (approximately 53 minutes)}$$

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS31.

Copy the existing value of this parameter when doing a dump and restore.

MARKET_OF_OFFICE

Parameter name

Market of Office

Functional description of parameter MARKET_OF_OFFICE

This parameter is required for all types of switches. It is used to determine the load configuration and the tone set used in a particular market or application.

The tone value is downloaded to peripheral modules (PM), digital trunk controller (DTC), international DTC (IDTC), international line group controller (ILGC), line group controller (LCG) and PCM-30 digital trunk controller (PDTC) as part of the static data when the PM is returned to service.

Service tones are provided by programmable read-only memory (PROM) chips located on either the message interface card or the tone generator card. There are two versions of the message interface card: NT6X43 and NT6X69. Each version of the card has a number of variants. Each variant provides the tones required for one or more markets. The card NT6X69AA requires the tone generator card NT6X79 to provide the tones.

The PM product engineering code (PEC) (field EQPEC in table LTCINV) identifies the card complement of the PM for a particular market or application. For a given EQPEC the message interface card can be any one of the card variants for that market.

See table 1 for the list of markets and applications with associated parameter values, PM PEC, and message interface cards.

Table 1
MARKET_OF_OFFICE values

Market	Value	EQPEC	Message Interface Card
Australia	AUSTRALIA	6X02P2	RAM6X69
		6X02P3	RAM6X69
Austria	AUSTRIA	6102SA	6143B, 6169BA
Brazil	BRAZIL		
Caribbean	CEP	6X02GA	6X43FA, 6X69FA
		6X02HA	6X43FA, 6X69FA
Chile	CHILE	6X02P3	RAM6X69
China	CHINA	6X02KA	6X69KA
		6X02KB	

—continued—

Table 1
MARKET_OF_OFFICE values (continued)

Market	Value	EQPEC	Message Interface Card
Commonwealth of Independent States	CIS		
Eire	EIRE	6X02P2	RAM6X69
Guyana	GUYANA	6X02KA 6X02KB	6X69KA
Germany	GERMANY		
Haiti	HAITI		
Hong Kong	HONG KONG		
Hungary	HUNGARY	6102UA 6102UB	6169UA
Japan	JAPAN	6X02P2	RAM6X69
Mexico	MEXICO	6X02P3	RAM6X69
Morocco	MOROCCO	6X02P3	RAM6X69
North America	NORTHAM	6X02AA 6X02AC 6X02AD 6X02AF 6X02AH	6X43AA, 6X69AA, 6X69AB
Peru	PERU	6X02P3	RAM6X69
Poland	POLAND		
Spain (LCG)	UK	6X02BC	6X43CA, 6X69DA
Spain (PDTC)	SPAIN	6X02BE	6X43EA, 6X69EA
Turkey	TURKEY	6X02BA	6X43BA, 6X69AA, 6X69BB
United Kingdom	UK300 UK PABX UK CENTREX	6X02BC	6X43CA, 6X69DA
End			

British service tones and Spanish service tones on the LGC are the same except for audible ringing in which the cadence is different.

It is possible to distinguish which card is in the shelf from the datafill since 6X69 and 6X79 are optional cards and must be datafilled in the field OPTCARD in table LTCINV. For example, if the EQPEC is 6X02AA

(North American LGC), the message interface card could be any one of 6X43AA, 6X69AA, 6X69AB. If 6X69 is datafilled, the message interface card is 6X69AA. If 6X69 is not datafilled, the message interface card is 6X43AA. Otherwise, the card is 6X69AB. A similar analysis can be applied to each shelf PEC to determine the card or card variant used as the message interface card.

Unique PM loads are required to support each card, card variant or variation in tone cadences.

Provisioning rules

The value of this parameter is dependent upon the software package provided for the switching unit and the tone requirements as described above.

For a switching unit with software package NTX964AA (DMS-100 Centrex International) set the value of this parameter to UK CENTREX.

For a switching unit with software package NTX611AA (UK Business Features) set the value of this parameter to UK PABX.

To activate Japan special number checking, set the value of this parameter to JAPAN.

When this parameter is set to JAPAN, Japanese directory number (DN) unpadding is activated if module JPUNPADG has been included in the load.

Range information

Minimum	Maximum	Default
		NORTHAM

Activation

Cold restart

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter value requires 1 word of memory.

Dump and restore rules

Effective in BCS31, this parameter supersedes the parameter TONE_SET. When doing a dump and restore from a software release before BCS31 to software release BCS31 or higher, if the value of this parameter is NORTHAM, reset its value based on the value of the parameter TONE_SET as follows:

- If the value of TONE_SET is AUSTRIA, CEP, CHINA, HUNGARY, NORTHAM, SPAIN or TURKEY, use the same value.

- If the value of TONE_SET is MCL, use the value UK CENTREX.

- If the value of TONE_SET is UK, use the value UK PABX.

Parameter history

BCS36 Commonwealth of Independent states (CIS) value added

MAX_CMAP_SESSIONS

Parameter name

Maximum Number Of Centralized MAP Sessions

Functional description of parameter MAX_CMAP_SESSIONS

This parameter is required in switching units with the Centralized Map
(CMAP) feature. It specifies the maximum number of CMAP sessions that
can run concurrently on the switching unit.

Provisioning rules

The value of this parameter must be in the range of 2 to 20. When the value
is modified, a parm_aspct procedure checks whether the new value is
acceptable. If it is outside the range (that is, 0, 1, or greater than 20), an
error message is displayed and the request is ignored. Otherwise, the new
value is stored and put into effect during the next restart. A warning is
issued to notify that the new value is not effective immediately.

Range information

Minimum	Maximum	Default
2	20	2

Activation

Warm restart

Dependencies

If the switching unit has switched virtual circuits (SVC), the value of this
parameter affects parameter NOS_QUANTITY_OF_SVCS in table
OFCENG.

Consequences

The allocation of data store (3K of private data per process and other store
resources) and the creation of processes is dependent on this parameter.
Large values may result in unnecessary use of data store and processor time.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS23.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Maximum Digital Test Access On Switch

Functional description of parameter MAX_DTA_ON_SWITCH

This parameter specifies the maximum number of Digital Test Access
(DTA) connections that are permitted on the switch.

Provisioning rules

Specify the maximum number of DTA connections allowed on the switch.

Range information

Minimum	Maximum	Default
5	20	10

Activation

Immediate

Dependencies

Not applicable

Consequences

If the value of this parameter is underprovisioned, craftspersons are
potentially unable to establish the number of DTA monitoring connections
required for maintaining Integrated Services Digital Network (ISDN) lines.
Overprovisioning of this parameter results in inefficient use of data store.

Verification

Not applicable

Memory requirements

The maximum memory usage associated with this parameter is 7168 words
(applicable when the parameter is set to the maximum value of 20).

Dump and restore rules

This parameter was introduced in BCS31.

Copy the existing value of this parameter when doing a dump and restore.

MAX_LINES

Parameter name

Maximum Number of Lines

Functional description of parameter MAX_LINES

This parameter is required for a local switching unit (international) with universal translations. It specifies the maximum number of lines that are datafillable in the switching unit.

The value of this parameter should be increased, if agents with meters cannot be added due to lack of unused meter blocks (MTRBLKS).

After increasing the value of this parameter, an immediate meter backup should be done.

The value of this parameter can be increased, but not decreased.

Provisioning rules

Set the value of this parameter to the maximum quantity of lines required before the next extension.

Range information

Minimum	Maximum	Default
0	65535	0

Activation

Immediate

Dependencies

At extension time the value of this parameter must increase if the number of lines increase.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

11 words of memory are required for each line.

Dump and restore rules

This parameter was introduced in BCS24.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Maximum Multiple Appearance Directory Number Members Per Line Subgroup

Functional description of parameter MAX_MADN_MEMBERS_PER_LSG

This parameter appears only in a local or SL100 switching unit with the Multiple Appearance Directory Number (MADN) feature. It specifies the maximum quantity of MADN members allowed on one line subgroup.

Provisioning rules

For all switching units, excluding IBN and RES switching units in the United States, the recommended value is 4.

For IBN and RES switching units in the United States, the recommended value is 1, and is set to 1 during the process for initial offices.

Range information

Minimum	Maximum	Default
1	4	4

Activation

Immediate

Dependencies

Not applicable

Consequences

VERIFY and VERIFYALL commands output an error message if the maximum quantity of MADN members assigned to a line subgroup exceeds the value of this parameter.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS23.

Copy the existing value of this parameter when doing a dump and restore.

MAX_NO_OF_3_PORTS_IN_CHAIN

Parameter name

Maximum Number of Three-way Ports in a Three-way Calling Chain

Functional description of parameter MAX_NO_OF_3_PORTS_IN_CHAIN

This parameter is required in a Local or SL100 switching unit and specifies the maximum number of 3 way conference circuits that can be used in a Three Way Calling (3WC) chain.

The 3WC chain feature allows a non-controlling party in an existing three way call to add another party to the line.

If an attempt is made to add a three port to an existing chain beyond the engineered limit, the non controller making this attempt will receive 5 seconds of reorder tone.

Provisioning rules

The maximum number of people that can be in the Three-way Calling Chain is equal to the value of this parameter + 2.

For example, if the value of this parameter is 3, the maximum number of conferees is 5.

Enter the maximum number of three port conference circuits which can be associated with a three port conference chain.

Range information

Minimum	Maximum	Default
2	20	3

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Dump and restore rules

This parameter is new in BCS22.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Maximum Number of Automatic Line Test Processes

Functional description of parameter MAX_NO_OF_ALT_TEST_PROCS

This parameter is required for a SL100 or Local switching unit for the Automatic Line Test (ALT) and is intended to speed up ALT by allowing several test processes, from different ALT CI users, to run simultaneously.

Provisioning rules

The value shall be equal to the number of processes required to be run at the same time by the ALT tester.

Range information

Minimum	Maximum	Default
15	200	15

Activation

Activiation requires that no ALT tests, either manual or scheduled, be actively running. When the value is changed, new store is allocated and the old store deallocated. This store is required so that active tests can run.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

Each unit requires 133 words of memory.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

MAX_NO_OF_TRANS_ID

Parameter name

Maximum Number of Transaction Identifiers

Functional description of parameter MAX_NO_OF_TRANS_ID

This parameter is required in a switching unit with the Advanced Intelligent Network (AIN) and Transaction Capability Application Part (TCAP). It specifies the maximum number of transaction identifiers (TRID) that can be allocated.

Each TRID has an associated 50 words of store. This parameter enhances the store allocation for table TCAPTRID by using segmented store to allow a greater number of TRIDs to be allocated. The store required for table TCAPTRID is based on the total TRIDs datafilled in this parameter.

Provisioning rules

Specify the maximum number of TRIDs that can be allocated.

Range information

Minimum	Maximum	Default
0	32000	4096

Activation

Immediate

Dependencies

The total number of TRIDs datafilled in table TCAPTRID must not exceed the value datafilled in this parameter.

Consequences

If the total number of TRIDs datafilled in table TCAPTRID exceeds the value of this parameter the request is rejected and an error message is displayed..

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS36.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 parameter introduced

Parameter name

Maximum Number of Wideband Calls

Functional description of parameter MAX_NUM_WIDEBAND_CALLS

This parameter specifies the number of wideband extension blocks that are engineered for a switch. The number of extension blocks chosen indicates the maximum number of active wideband calls that can exist on a switch at one time. These extension blocks are used to store information that is specific to wideband calls. The extension blocks provisioned by this parameter are held for the duration of the call.

Provisioning rules

Set this parameter to a value equal to the number of simultaneous incoming and outgoing wideband calls that are expected to occur on the switch.

Range information

Minimum	Maximum	Default
0	4096	0

Activation

Increase – immediate
Decrease – cold restart

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

Each extension block requires 200 words of memory.

Dump and restore rules

This parameter was introduced in BCS34. In BCS33 it was called NUM_WIDEBAND_EXT_BLOCKS.

Copy the existing value of this parameter when doing a dump and restore.

MAX_PROGRAMMERS

Parameter name

Maximum Number of Programmers

Functional description of parameter MAX_PROGRAMMERS

This parameter is required for a switching unit with the Call Forwarding Remote Access (CFRA) feature. It specifies the maximum number of users that can simultaneously perform a remote programming action of CFRA.

If CFRA lines are on old peripherals, additional digitone receivers (DGT) are required to ensure that the use of this feature does not impact standard call processing.

In a switching unit where all the line and trunk peripherals are XMS-based peripheral modules (XPM) with Universal Tone Detectors (UTR), no DGT receivers are used by this feature.

The value of this parameter must not exceed the number of receivers or UTRs in the switching unit.

Provisioning rules

Set the value of this parameter to equal the number of CFRA announcement members datafilled in table ANNMEMS.

Range information

Minimum	Maximum	Default
0	127	0

Activation

Immediate

Dependencies

Not applicable

Consequences

Overprovisioning of this parameter value results in an excessive number of users receiving NOSC or NOSR treatments indicating that there are insufficient system resources (for example, DGT receivers, UTRs or announcement circuits).

Underprovisioning of this parameter value results in an excessive number of users receiving NOSR treatment.

Verification

Ensure that the number of users specified can concurrently access CFRA.

See OMGROUP CFRA for the operational measurements associated with this feature.

Dump and restore rules

This parameter was introduced in BCS27.

Copy the existing value of this parameter when doing a dump and restore.

MAX_ROUTE_QUEUED_PER_TRKGRP

Parameter name

Maximum Number of Route Queued Calls per Trunk Group

Functional description of parameter MAX_ROUTE_QUEUED_PER_TRKGRP

This parameter is required for a switching unit with the World Systems and International Traffic Operator Position System (ITOPS) features. It specifies the maximum number of calls that can be queued on a given outgoing route. Each trunk group is allowed a maximum number of calls queued against it. This limits the length of time that a trunk can be held for the processing of route queued calls. If there are too many route queued calls, a trunk may not be available to perform normal two-port call processing.

Provisioning rules

The value of this parameter depends on the number of trunks slated for use by route queueing. The number should be chosen so that the trunk is eventually able to process all of its held calls, and perform normal two port call processing.

Note that the number of calls allowed in the booked call database ranges from 1280 to 5120 as specified by office parameter DB_MAX_SIZE. The extreme case, is that all of the database calls are queued against one trunk group (thus, the system maximum of 5120). This is not desirable. A value should be chosen that will spread out the queueing requests.

Leave at the default value to deactivate the feature.

This parameter must have a non-zero value, to activate the feature.

Range information

Minimum	Maximum	Default
0	100	0

Activation

Immediate

Dependencies

This parameter functions in conjunction with parameter TOTAL_ROUTE_QUEUED_CALLS in table OFCENG.

If the value of parameter TOTAL_ROUTE_QUEUED_CALLS is smaller than the value of this parameter, the maximum length of a queue on a trunk group is never reached because there are not enough queue elements allocated in the system.

If this parameter or parameter TOTAL_ROUTE_QUEUED_CALLS in table OFCENG is decreased so that a call can no longer be put in a call queue, the call remains in the database as untimed but not route queued.

For example, if route Z has 22 calls queued and the value of this parameter is decreased to 20, two of the calls can not be recalled to an operator and must be manually retrieved.

Consequences

Overprovisioning can cause a trunk to process route queued calls all of the time, and not process normal two-port calls due to the fact that the call queue against it is very long.

Underprovisioning results in many attempts at route queueing failing because the maximum is already queued against the trunk group. The header STORE flashes in this case.

Verification

To verify that this parameter is working, make test calls. Each test call queues on one specific outgoing route. When the maximum is reached, an attempt to store a route queued call against this route fails (the header STORE flashes).

Memory requirements

For reserving trunks, 509 words are required for the protected head segment.

8 words are required for each entry in table TRKGRP and 2 bits for each trunk member that meets the restrictions of this feature (those with a signaling type of SIGSYS and a selection sequence of "most idle" and "least idle").

Dump and restore rules

This parameter was introduced in BCS28.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 activation changed to immediate

MAX_SDPOOL_NO

Parameter name

Maximum Number Of Store Data Pools

Functional description of parameter MAX_SDPOOL_NO

This parameter specifies the number of SD pools that are assigned to store data for features and options assigned to lines in tables IBNFEAT, IBNLINES, KSETFEAT, KSETLINES, LENFEAT and LENLINES.

Provisioning rules

For a switching unit without the basic Integrated Business Netywork (IBN) software, the following formula should be used for calculating the number of features that can be assigned to lines:

$$\text{number of features} = (MAX\_SDPOOL\_NO - 1) \times 31742$$

The recommended value for a switching unit with the basic IBN software is 15.

When all available pools are within 510 items of being full, no new lines with features can be added until this parameter is updated.

The default value for a switching unit without the basic IBN software is 3. For a switching unit without the basic IBN software, this value should be checked at the time of an extension to verify that the number of SDPOOLS allocated will accommadate the maximum number of line options and features for the engineering period.

Range information

Minimum	Maximum	Default
3	15	3 or 15

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

For an NT40, each unit of this parameter allocates 262269 words.

For a SuperNode switching unit, each unit allocates 262332 words.

Dump and restore rules

This parameter was introduced in BCS14.

Copy the existing value of this parameter when doing a dump and restore.

MAX_SUBSCRIBERS_IN_VLR

Parameter name

Maximum Number of Subscribers In Visitor Location Register

Functional description of parameter MAX_SUBSCRIBERS_IN_VLR

This parameter specifies the maximum number of mobile stations supported by the DMS mobile switching center (MSC). The value for this parameter is defined in increments of 1K (1024). This value is used by the visitor location register data acess procedures (VLR–DAP) to compute the amount of memory allocated for the VLR database.

Provisioning rules

No special calculations are required to determine the value of this parameter. However, a knowledge of the number of mobile stations (MS) that need to be registered is required.

The default value is 1. It is chosen because each MS tuple is approximately 300 bytes. The miminum MS tuple data size requirement is:

$$300 \times 1024 = 300 \text{ Kbyte.}$$

Range information

Minimum	Maximum	Default
0	160	1

Activation

Reload restart

Dependencies

Not applicable.

Consequences

Underprovisioning of this parameter results in some mobile stations being unable to register in the VLR.

Overprovisioning of this parameter results in excess memory being allocated for the VLR database.

Verification

Not applicable.

Memory requirements

Each unit requires 400 bytes of VLR memory.

Dump and restore rules

This parameter was introduced with software release BCS34.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Maximum Number of Trunk Meter Blocks

Functional description of parameter MAX_TRUNK_METER_BLOCKS

This parameter is required for a switching unit with the World Systems and the DMS-100 metering system. It specifies the number of trunk meter blocks required.

The number must be equal to or greater than the number of trunk groups with trunk group type MTR and field METERIC equal to Y in table TRKGRP.

The value of this parameter must be increased as the number of metered trunk groups is increased. It can never be decreased.

A 0 (zero) value indicates that no trunks are metered. It also signifies that trunk metering should not be active. Once activated, trunk metering cannot be deactivated.

Provisioning rules

Specify the maximum number of metered trunk groups required for the engineering interval.

Range information

Minimum	Maximum	Default
0	2047	0

Activation

Increasing the value from zero (0) to a nonzero value activates trunk metering. It is immediate in the central control (CC). A cold switch activity (SWACT) or Busy (BSY) and return to service (RTS) is required in the IDTCs in order to start trunk metering. All subsequent increases are also immediate in the CC. A cold swact or BSY and RTS is not required in the IDTCs as metering is already activated.

Dependencies

If the maximum number of metered trunk groups is to increase, increase the value of this parameter to the maximum number of metered trunk groups required for the engineering interval.

Consequences

If there are not enough trunk meter blocks, metered trunk groups can not be added to table TRKGRP.

Overprovisioning results in memory being wasted.

MAX_TRUNK_METER_BLOCKS

Verification

Not applicable

Memory requirements

Each trunk meter block uses 10 words of memory, with 10 words always used for the special meter block 0.

Memory required = 10 + (10 X number of trunk meter blocks)

Dump and restore rules

This parameter was introduced in BCS28.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Maximum Number Of Trunks In ACB Scan

Functional description of parameter MAX_TRUNKS_IN_ACB_SCAN

This parameter is part of the Real Time Route Status Data feature. It specifies the number of trunk groups that are included in the scanning process. The scanning process examines each trunk group, assesses the percentage of busy trunks and determines whether the state has changed. If so, it determines if the trunk group's change should be output. The scanning process splits up the number of trunk groups that are scanned into three separate scans in blocks of 1024.

Provisioning rules

Set this parameter to a value of 1024 to specify that one scan is used to scan up to 1024 trunk groups.

Set this parameter to a value of 2048 to specify that two separate scans are used to scan up to 2048 trunk groups.

Set this parameter to a value of 3072 to specify that three separate scans are used to scan up to 3072 trunk groups.

Range information

Minimum	Maximum	Default
1024	3072	1024

Activation

To activate a change to the value of this parameter, perform the following:

1 Change the value of MAX_TRUNKS_IN_ACB_SCAN.
2 Use the CI command ACBCTRL STOP.
3 Use the CI command ACBCTRL START.
4 The change is now activated.

Dependencies

Refer to table ACBTAB for more information concerning the ACB scan.

Consequences

Not applicable

Verification

Not applicable.

Memory requirements

This parameter requires 1 word of memory.

MAX_TRUNKS_IN_ACB_SCAN

Dump and restore rules

This parameter was introduced in BCS33.

Copy the existing value of the parameter when doing a dump and restore.

Parameter name

Maximum Number of Nailed-up Connections

Functional description of parameter MAXNUCS

In an office equipped with the junctored network (JNET), this parameter defines the maximum number of nailed-up connections required for the switch.

In an office equipped with the enhanced network (ENET), this parameter is not required because space is allocated for nailed-up connections as needed. The ENET places no restrictions on the maximum number of nailed up connections.

This parameter allocates store for all nailed connections, not just the maximum number of 801 nailed-up connections that can be assigned in table NLUPCLLI. In addition to the nailed-up connections assigned in table NLUPCLLI, network nailed up connections are required for common channel interoffice signaling (CCIS), interperipheral message links (IPM) and integrated business network (IBN) attendant consoles (AC).

Provisioning rules

The recommended value is the maximum number of nailed-up connections required for tables NLUPCLLI, STINV, and IPMLINV + 3 for each IBN attendant console + 10%.

For switching units with the CCIS feature, the minimum quantity should be 4.

If the value specified for this parameter is less than the current number of nailed-up connections assigned, upon doing a restart the new value for this parameter is ignored and the previous value is retained until another restart occurs. The new value for this parameter becomes effective as soon as the number of nailed-up connections active on the switch becomes less than or equal to the value of parameter MAXNUCS.

For offices equipped with ENET, set this parameter to 0 and datafill tables DATASIZE, IPMLINV, STINV, and NLUPCLLI as required. See the *Common Customer Data Schema*, 297-1001-451 for more information about these tables.

If this feature is not provided set this parameter value to 0.

Range information

Minimum	Maximum	Default
0	9126	100

Activation

Warm restart or NORESTARTSWACT (Refer to the procedure in section "The NORESTARTSWACT utility".)

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

The size of the table is defined in table 1.

Table 1
MAXNUCS memory requirements

Number of nailed up connections	Number of words
1 to 1024	5000
1025 to 2048	10000
2049 to 3072	15000
3073 to 4096	20000
4097 to 5120	25000
5121 to 6144	30000
6145 to 7168	35000
7169 to 8192	40000
8193 to 9216	45000

Dump and restore rules

This parameter was introduced in BCS20.

Copy the existing value of this parameter when doing a dump and restore

Parameter history

BCS36 NORESTARTSWACT activation added

Parameter name

Maximum Number of Serving Translation System

Functional description of parameter MAXSTS

This parameter specifies the maximum number of terminating partitions required for the serving translation system.

Provisioning rules

If partioned FNPAs are required in an IBN load, the recommended value for this parameter is 32 for switching units with less than 33 true serving translation systems. Switching units with more than 32 true serving translation systems must use higher multiples.

The following warning message is generated if this office parameter is changed:

```
WARNING:  A RESTART MUST BE PERFORMED TO ACTIVATE THE CHANGE
MADE TO THIS PARAMETER
```

The following warning message is generated if the office parameter MAXSTS is decreased to a value less than the number of tuples in any of the FNPASTS subtables.

```
TUPLE(S) IN THE FNPASTS SUBTABLE EXCEED THE TARGET SIZE OF
THE FNPASTS SUBTABLE.  AS A RESULT, TUPLES WILL BE LOST UPON
THE RESTART

** RESTART AT YOUR OWN RISK **
```

Range information

Minimum	Maximum	Default
0	999	0

Activation

Warm restart or NORESTARTSWACT (Refer to the procedure in section "The NORESTARTSWACT utility".)

Dependencies

See subtable FNPACODE.FNPASTS for the description of serving translation system.

Consequences

If the value for MAXSTS is reduced to a value less than the number of tuples in any of the FNPASTS subtables, the tuples located at positions greater than the new MAXSTS value are lost.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 NORESTARTSWACT activation added

Parameter name

Meter Audit

Functional description of parameter METER_AUDIT

This parameter is required in a switching unit with international translations and the DMS-100 metering system. It specifies the meter table audit start time as well as the frequency of the audit.

Provisioning rules

Set the value of this parameter to the starting time (0 to 23 hours and 0 to 59 minutes) and the frequency (1 to 24 hours) at which the meter audit is to run.

The starting time should be set to a time when call processing activity is low.

The operating company may change the value of the starting time and frequency. The new value is effective at midnight.

A suggested starting time is early in the morning and a suggested frequency is once a day.

The default value specifies a starting time of 3:15 a.m. and a frequency of once every 24 hours.

Range information

Minimum	Maximum	Default
		3 15 24 HRS

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS18.

Copy the existing value of this parameter when doing a dump and restore.

MF_LAST_DIGIT_DELAY

Parameter name

Multifrequency Last Digit Delay

Functional description of parameter MF_LAST_DIGIT_DELAY

This parameter allows the operating company to modify the additional delay added to the inter-digital timing between the second last and last digits of MF outpulsing.

This delay is required to detect unexpected stop dials.

Provisioning rules

Specify, in multiples of 10 ms, the delay between the last and second last outpulsed digits.

Range information

Minimum	Maximum	Default
0	10	7

Activation

The affected peripherals must be BSYed and RTSed. When a change is made to this parameter the following message is displayed:

WARNING: A RELOAD OF THE PM/XPM EXECS MUST BE PERFORMED TO ACTIVATE CHANGES TO THE VALUE OF THIS PARAMETER.

Dependencies

Not applicable

Consequences

Setting this parameter to 0 (zero) causes the inter-digital timing between the second last and last digits to be within LSSGR specifications, however it creates the possibility of unexpected stop dials.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Minimum Number Of Digits Reported On Overlap

Functional description of parameter MIN_NUMBER_OF_DIGS_RPTD_ON_OVLP

This parameter is required for a local switch with line-to-trunk overlap outpulsing.

Provisioning rules

This parameter specifies the number of digits that are collected before overlap outpulsing starts for calls using overlapped outpulsing.

For example, if this parameter is set to a value of 5, five digits are collected and the remaining digits are overlapped for all codes that are specified in table LMOVCODE.

Range information

Minimum	Maximum	Default
3	32767 (reserved) 15 (programmed)	5

Activation

To activate a change to the value of this parameter, busy (BSY) the individual affected peripheral modules (PM), reload the static data, and return to service (RTS) the PM.

Dependencies

For information on overlap outpulsing, see table LMOVCODE (Line to Trunk Overlap Outpulse).

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

MIN_PASSWORD_LENGTH

Parameter name

Minimum Password Length

Functional description of parameter MIN_PASSWORD_LENGTH

This parameter specifies the minimum number of characters that are allowed for logon passwords.

Provisioning rules

Specify the minimum number of characters that are allowed for logon passwords.

Range information

Minimum	Maximum	Default
1	16	6

Activation

Immediate

Dependencies

This parameter appears only if the switching unit has parameter ENHANCED_PASSWORD_CONTROL in table OFCOPT set to Y (yes) and the software package NTX000AA.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter, unless the operating company has specifically requested a change to this parameter.

Parameter name

Minimum Charge Duration

Functional description of parameter MINIMUM_CHARGE_DURATION

This parameter specifies the time, in 10-ms intervals, that the called party must be off-hook before a call is considered answered. This parameter is used in all DMS switches.

Provisioning rules

The recommended value of this parameter is 208 for operating companies that have a regulatory requirement to not charge for calls of less than 2.0 s.

The value must be a multiple of 16 (that is, 16, 32, 48, and so on).

Range information

Minimum	Maximum	Default
16	4080	208

Activation

For all PMs supporting line concentrating devices (LCD), except those connected to an extended multiprocessor system (XMS)-based PM (XPM), a BSY and RTS is required. For LCDs connected to an XPM, a BSY and RTS need only be performed on one LCD for each XPM, but both units of that LCD must be busied at the same time (BSY PM, RTS PM).

Dependencies

Not applicable

Consequences

If the value of this parameter is changed, the central control (CC) or computing module (CM) uses the new value immediately in the billing compensation procedures. However, the PM uses the old values in calculating the call duration times until the static data is reloaded.

The PMs must be reloaded immediately or billing discrepancies can occur. If the PMs are not reloaded immediately, the values for this parameter are different in the CC and PM.

MINIMUM_CHARGE_DURATION

The following messages are displayed when making a change to this parameter:

```
WARNING: For LMs a BSY,RTS of each peripheral is required.
For LGC/LTC a BSY PM, RTS PM of one LCM per XPM is required
to activate changes to this value.

WARNING: TRUNK PERIPHERALS MUST HAVE THEIR EXECS RESENT
```

Verification

Not applicable

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS15.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 corrected activation information

Parameter name

Minimum Calling Line Identification Length

Functional description of parameter MINIMUM_CLI_LENGTH

This parameter is requires in a switching unit with the SSP-based Virtual Private Network (VPN) feature.

For VPN standard access calls, there must be a minimum length of Calling Line Identification (CLI) provided in the IAI message. The CLI that is provided is checked against this office parameter. If the CLI has the same number of digits or more digits than the number datafilled in this office parameter, the call is assumed to have a full CLI and call routing will continue. It must still be possible to identify a customer group and an NCOS in table CGNSCRN using the CLI. If the CLI length is less than the number datafilled, the call is assumed to contain a partial CLI and is routed to treatment.

Provisioning rules

Set this parameter to the minimum acceptable CLI length.

Range information

Minimum	Maximum	Default
0	11	6

Activation

Immediate

Dependencies

Not applicable

Consequences

If this parameter is set too high, a large number of VPN standard access calls are sent to treatment.

Verification

To verify that this parameter is operational, set the value to a CLI length longer than the regular CLI length. Verify that all standard VPN calls are routed to treatment.

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter is new with software release BCS31.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

        BCS36 maximum value increased

Parameter name

N5 Clear-back Timer

Functional description of parameter N5_CLB_TIMER

This parameter is required for DMS-300 Gateway switches with incoming #5 trunks. It specifies the timeout period before the national part of the connection is released, if a clear-forward signal is not received after a clear-back signal is sent.

Provisioning rules

Specify one of the following timeout values :

- T2 = 2 minutes timeout
- T3 = 3 minutes timeout
- T4 = 4 minutes timeout
- T30 = 30 minutes timeout

Range information

Minimum	Maximum	Default
T2 (2 minutes)	T30 (30 minutes)	T3 (3 minutes)

Activation

The affected peripheral module must be reloaded to activate a change to this parameter.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

N5_USING_UTR

Parameter name

N5 Using Universal Tone Receivers

Functional description of parameter N5_USING_UTR

This parameter controls the type of receivers used for N5 signaling in a DMS-300 office. It is used to determine whether the N5 signaling system can use universal tone receivers (UTR) for digit collection when provisioned on the peripheral module (PM). This typically occurs on PCM30 digital trunk controller (PDTC) peripherals.

Provisioning rules

If the value of this parameter is set to Y (yes), digit reception is performed using UTR receivers if they are provisioned on the PM that provides the trunk interface.

If the value of this parameter is left at the default of N (no), digit reception is done by employing MF300 receivers equipped on a maintenance trunk module (MTM) peripheral.

If this parameter is set to N, MF300 receivers are used for the duration of register signaling. If it is set to Y, UTR receivers are used.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable

Consequences

The setting of this parameter affects the engineering of the office. The correct number and type of receivers must be provisioned.

Verification

Not applicable.

Memory requirements

Each unit requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS34.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

N6 Clear-back Timer

Functional description of parameter N6_CLB_TIMER

This parameter is required for DMS-300 Gateway switches with incoming #6 trunks. It specifies the timeout period after which the national part of the connection is released if a clear-forward signal is not received after a clear-back signal is sent.

Provisioning rules

Specify one of the following timeout values:

- T2 = 2 minutes timeout
- T3 = 3 minutes timeout
- T4 = 4 minutes timeout
- T30 = 30 minutes timeout

Range information

Minimum	Maximum	Default
T2 (2 minutes)	T30 (30 minutes)	T3 (3 minutes)

Activation

Busy (BSY) and return to service (RTS) the #6 trunks to activate a change to this office parameter. No restart is required.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

NACD_BRDCAST_INTERVAL

Parameter name

Networked Automatic Call Distribution Broadcast Interval

Functional description of parameter NACD_BRDCAST_INTERVAL

This parameter is required for switching units with the Networked
Automatic Call Distribution (NACD) feature.

NACD provides automatic load balancing for Networked ACD by enabling
NACD groups to exchange load status information, that is used to determine
the best overflow target group.

At regular intervals, network load status information is broadcast by each
NACD group to each group to which its calls may be routed. As each group
receives network load information from other groups, the information is
saved and used to determine the best NACD group to receive overflowed
calls. Each group is automatically kept up to date on the current load traffic
of the other groups to achieve automatic load balancing.

The automatic load balancing provided by this feature reduces the time it
takes for overflowed calls to be answered by enabling them to be routed to
the group best able to answer them.

Provisioning rules

This parameter specifies the time, in 1 second intervals, between the
broadcast of load status information by each NACD group to other groups in
the network.

This parameter should be set to a multiple of ten in order to define a true
interval. If the parameter is not an interval of ten, broadcasts occur at the
next highest multiple of ten, (for example, a 28 s interval actually occurs
every 30 s).

If other than 60 s, specifies the time, in 1 s intervals, between the broadcast
of load status information by each NACD group to other groups in the
network.

Range information

Minimum	Maximum	Default
0	1800	60

Activation

Immediate

Dependencies

Not applicable

Consequences

If this parameter is set to zero, no periodic broadcast of load status information is performed by any NACD groups

Verification

Not applicable

Dump and restore rules

This parameter was introduced in BCS28.

Copy the existing value of this parameter when doing a dump and restore.

NACD_RI_DELTA_PARM

Parameter name

Network Automatic Call Distribution Resource Index Delta Parameter

Functional description of parameter NACD_RI_DELTA_PARM

This parameter is associated with the Network Automated Call Distribution feature (NACD).

NACD provides the capability for each ACD group to broadcast status information about its own load traffic and store load status information about the rest of the network.

The load status information that is used to determine the best group is the combined value of the preference weighting factor (PWF) and the resource index (RI). The PWF is a customer defined value that is datafilled in table NACDGRP, and provides a means to give preference to a particular NACD group. The RI is calculated on a per-group basis, and indicates the load traffic for that group.

The RI algorithm is introduced based on the following:

- the number of idle agents
- wait time of oldest call
- wait time of most idle agent
- queue size

This parameter specifies the delta value to use when determining whether the NACD RI value has changed enough to warrant an update. The difference between the current RI and the previous RI is computed. This difference is then compared against the value of this parameter. If the difference is greater than or equal to the parameter value, the current RI is broadcast to update the network.

Provisioning rules

The higher the parameter value is set, the less often RI broadcasts are performed.

Range information

Minimum	Maximum	Default
0	32676	5

Activation

Immediate

Dependencies

Not applicable

Consequences

If this parameter is set to zero, the RI is sent each time a broadcast is attempted (see office parameter NACD_BRDCAST_INTERVAL in table OFCENG).

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

NATIONAL_COUNTRY_CODE

Parameter name
National Country Code

Functional description of parameter NATIONAL_COUNTRY_CODE
This parameter is required in a DMS-300 switching unit. It specifies the country code of the country where the switch is located.

To be properly recognized, there must be data for this country code in table OVNTRNSL.

If a country code for which no data exists in table OVNTRNSL is used, the internal country code index into table OVNTRNSL for terminating calls is not updated, but left at the previous value. A check is made for changes on cold and reload restarts.

Provisioning rules
The value of this parameter must be numeric and equal to the country code of the country where the switch is located.

If the switch is located in North America, leave the value of this parameter at the default of 1.

Range information

Minimum	Maximum	Default
		1

Activation
Immediate or cold restart

If a change is made and data for the new country code exists in table OVNTRNSL, the change is effective immediately.

If the country code is not datafilled in table OVNTRNSL, a warning is displayed and the parameter is activated on the next restart after the country code is added to table OVNTRNSL.

Dependencies
Data for this country code must be datafilled in table OVNTRNSL.

Consequences
Not applicable

Verification
Not applicable

Memory requirements
This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS21.

Copy the existing value of this parameter when doing a dump and restore.

NCCBS

Parameter name

Number of Call Condense Blocks

Functional description of parameter NCCBS

This parameter is required for all switching units. It specifies the number of call condense blocks (CCB) required for the switching unit. A CCB is a software register associated with a call throughout its duration, containing information such as the identity of the calling and called appearances.

The parameter value determines the maximum number of simultaneous calls.

As of BCS34, this parameter is used by the DMS packet handler to set up packet calls. One CCB is required for each packet call.

The expected number of simultaneous active calls on an XLIU is 1000. Engineering the switch NCCBS value on this basis does not restrict the number of calls for each XLIU from exceeding 1000 (in which case resources provisioned for voice calls are used).

The recommended minimum value for this parameter is 2000.

Provisioning rules

For Junctored Network (JNET) offices the value of this parameter is calculated with the following equation:

NCCBS = N X 64 X 15 X number of provisioned network modules.

For Enhanced Network (ENET) offices the value of this parameter is calculated with the following equation:

NCCBS = N X 64 X 15 X 15 X number of ENET shelves per plane

For DMS packet handler (JNET offices) the value of this parameter is calculated with the following equation:

NCCBS = (N X 64 X 15 X number of provisioned network modules)
+ (1000 X number of XLIUs provisioned for the office)

For DMS packet handler (ENET offices) the value of this parameter is calculated with the following equation:

NCCBS = (N X 64 X 15 X 15 X number of ENET shelves per plane) +
(1000 X number of XLIUs provisioned for the office)

where

N =   0.8 for a Bell Canada switching unit, excluding a stand-alone signal transfer point (STP).

N =   0.9 for all switching units, excluding a switching unit in the United States or a stand alone signal transfer point (STP).

N =   1.0 for all switching units in the United States, excluding a stand alone signal transfer point (STP).

For a stand alone STP, leave the value of this parameter at the default.

Range information

Minimum	Maximum	Default
0	32767 (NT40) 65535 (SuperNode)	80

Activation

Increase - immediate

Decrease of more than 10% - cold restart

Dependencies

For all switching units, excluding a stand-alone STP, the value of this parameter must be increased if the number of networks increases.

Changing the value of this parameter in an Integrated Business Network (IBN) switching unit can affect the value of parameters NO_OF_SMDR_REC_UNITS and NUMOHCBQTRANSBLKS in table OFCENG.

Changing the value of this parameter in a switching unit with the Common Channel Signaling 7 (CCS7) feature affects the value of parameter NUM_ISUP_EXT_BLKS in table OFCENG.

Changing the value of this parameter in a local switching unit (international) with universal translation scheme affects the value of parameter NUM_CCMTR_EXT_BLKS in table OFCENG.

Consequences

If there are no CCBs available, calls are routed to network blockage normal traffic (NBLN) treatment in treatment tables.

Verification

To verify that sufficient call condense blocks have been allocated, use command interpreter (CI) command OMSHOW CP ACTIVE and read the measurement CCBOVFL.

Any non-zero value in CCBOVFL indicates underprovisioning.

Use CI command OMSHOW CP2 ACTIVE and read measurement CCBHI.

Measurement CCBHI records the maximum number of CCBs in simultaneous use during the current transfer period.

See operational measurements CCBSZ and CCBOVFL in OM group CP and CCBHI in OM group CP2 for the OMs associated with this parameter.

See the *Operational Measurements Reference Manual*, 297-1001-814 for a description of OM groups CP and CP2.

Memory requirements

NT40: 125 words of memory are required for each CCB.

SuperNode: 132 words of memory are required for each CCB.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Network Element Identifier

Functional description of parameter NETWORK_ELEMENT_ID

This parameter appears only in a switching unit that contains software module EOCPPSUB. It specifies the network element identifier that is referenced by the FiberWorld protocol stack.

This network element identifier must be provisioned by the operating company when connecting an AccessNode to a DMS in a multihosting environment. The network element identifier must be unique for each DMS.

Because this parameter is used in the communication stack, it is necessary to reset the stack if the value of this parameter is changed.

Provisioning rules

Specify the unique network element identifier for a DMS switching unit that is connected to an AccessNode in a multihosting environment.

Range information

Minimum	Maximum	Default
0	32767	0

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS36.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 parameter introduced

NFA_ANSWER_DETECT_TIME

Parameter name

Network Facility Access Answer Detect Time

Functional description of parameter NFA_ANSWER_DETECT_TIME

This parameter is required in a switching unit with feature package NTXR25AA (Network Facility Access). It specifies the filter time in 10 ms intervals for detecting answer on a Network Facility Access (NFA) trunk.

Provisioning rules

The filter time value for hook changes can be set at a value from 7 (70 ms) to 9 (90 ms). The recommended value for this parameter is 9. If the switch is using an intelligent peripheral (IP) and transmission medium that can support a shorter timing value, the value can be decreased from the default of 9.

The following message is displayed whenever the value of this parameter is decreased from the default value:

```
WARNING: DECREASING THIS OFFICE PARAMETER FROM THE DEFAULT OF
9 CAN IMPACT THE GRADE OF SERVICE FOR NFA SUBSCRIBERS.
```

Range information

Minimum	Maximum	Default
7	9	9

Activation

Immediate

Dependencies

Not applicable

Consequences

Decreasing the value of this parameter can impact the grade of service for NFA subscribers if the switch is not equipped with an intelligent peripheral (IP) and transmission medium that can support a shorter timing value.

Verification

A change to the value of this parameter can be verified by assigning NFA access to a line. Connect a trunk signaling device to the NFA trunk. Seize the NFA trunk and program the trunk signaling device to return a wink of a specific duration. If the duration of the wink is less than the filter time, the DMS should not recognize it as an answer. If the duration of the wink is longer than the answer time, the DMS should recognize it as an answer followed by a disconnect.

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS36.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 parameter introduced

NFA_IMPLCT_BYPASS_UTR

Parameter name

Network Facility Access Implicit Bypass Universal Tone Receivers

Functional description of parameter NFA_IMPLCT_BYPASS_UTR

This parameter is present in switches equipped with the Network Facility Access feature. It specifies whether universal tone receivers (UTR) are bypassed when digit collection is performed on lines that have the NFA implicit access feature.

Provisioning rules

Set the value of this parameter to Y (yes) to allow network dual tone multi-frequency (DTMF) receivers to be used for digit collection on lines with the NFA Implicit Access feature activated.

When the parameter value is changed from N (no) to Y, the following message appears:

```
WARNING:2X48 DTMF RECEIVERS WILL BE USED ON ALL NFA IMPLICIT
CONNECTIONS.  VERIFY IMMEDIATELY THAT THE OFFICE IS
ENGINEERED WITH ENOUGH DTMF RECEIVERS TO HANDLE ALL NFA
IMPLICIT TRAFFIC.  IF THIS IS NOT THE CASE, THE VALUE OF THIS
PARAMETER SHOULD BE CHANGED BACK TO N.
```

Set the value of this parameter to N to allow UTR to be used for digit collection if the line's peripheral module is engineered with UTR.

When the parameter value is changed from Y to N, the following message appears:

```
UTRS WILL BE USED ON NFA IMPLICIT CONNECTIONS IF THEY ARE
AVAILABLE.
```

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable

Consequences

The value of this parameter must only be set to Y if the office is engineered with enough network DTMF receivers to handle digit collection for all originations from lines that have activated the NFA implicit access feature. If there are not enough DTMF receivers, delays in dial tone and aborted calls can result.

Verification

A change to this parameter can be verified by posting a line from a peripheral engineered with UTRs at the LTP level of the MAP. Assign NFA implicit access to the line. Go off hook from the line and dial one digit. If the parameter value is set to N, UTR is displayed next to the line at the LTP level. If the parameter value is set to Y, the common language location identifier (CLLI) and receiver number associated with the DTMF receiver being used is displayed at the LTP level.

Memory requirements

Each unit requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS35.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 parameter description moved from OFCVAR to OFCENG

NFA_INVERTED_WINK_DURATION

Parameter name

Network Facility Access Inverted Wink Duration

Functional description of parameter NFA_INVERTED_WINK_DURATION

This parameter is required in a switching unit with feature package NTXR25AA (Network Facility Access). It specifies the upper limit of the duration of the inverted wink that is propogated by a DMS on a Network Facility Access (NFA) trunk when the speech path is established between the subscriber and the NFA trunk.

Provisioning rules

The duration of the inverted wink can be set at a value from 6 (between 50 and 60 ms) and 10 (between 90 and 100 ms). The recommended value for this parameter is 10. If the switch is using an intelligent peripheral (IP) and transmission medium that can support a shorter timing value, the value can be decreased from the default of 10.

The following message is displayed when the value of this parameter is decreased from the default value:

```
DECREASING THIS OFFICE PARAMETER FROM THE DEFAULT OF 10 CAN
IMPACT THE GRADE OF SERVICE FOR NFA SUBSCRIBERS.
```

Range information

Minimum	Maximum	Default
6	10	10

Activation

Immediate

Dependencies

Not applicable

Consequences

Decreasing the value of this parameter can impact the grade of service for NFA subscribers if the switch is not equipped with an intelligent peripheral (IP) and transmission medium that can support a shorter timing value.

Verification

A change to the value of this parameter can be verified by assigning NFA access to a line. Establish an NFA trunk connection and measure the duration of the inverted wink.

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS36.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 parameter introduced

NFA_PRE_DIAL_DELAY_TIME

Parameter name

Network Facility Access Pre-dial Delay Time

Functional description of parameter NFA_PRE_DIAL_DELAY_TIME

This parameter is required in a switching unit with feature package NTXR25AA (Network Facility Access). It specifies the amount of pre-dial delay, in 10 ms intervals, between seizing a Network Facility Access (NFA) trunk and outpulsing the first digit.

Provisioning rules

The pre-dial delay can be set to a value from 0 (0 ms) to 15 (150 ms). The recommended value for this parameter is the default of 15. If the switch is using an intelligent peripheral (IP) and transmission medium that can support a shorter timing value, the value can be decreased from the default.

The following message is displayed when the value of this parameter is decreased from the default value:

```
WARNING: DECREASING THIS OFFICE PARAMETER FROM THE DEFAULT OF
15 CAN IMPACT THE GRADE OF SERVICE FOR NFA SUBSCRIBERS.
```

Range information

Minimum	Maximum	Default
0	15	15

Activation

Immediate

Dependencies

Not applicable

Consequences

Decreasing the value of this parameter can impact the grade of service for NFA subscribers if the switch is not equipped with an intelligent peripheral (IP) and transmission medium that can support a shorter timing value.

Verification

A change to the value of this parameter can be verified by assigning NFA access to a line. Go offhook from the line and measure the pre-dial delay. The total call timing should decrease.

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS36.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

  BCS36 parameter introduced

NMULTIBLKS

Parameter name

Number of Multiblocks

Functional description of parameter NMULTIBLKS

This parameter is required for all switching units. It specifies the number of multiblocks required for the engineering period.

A multiblock is used to associate call condense blocks (CCB) if more than one call is associated with the same line or trunk, such as a three-way call.

Multiblocks are required for the following features:

- Three-Way Calling
- Call Waiting
- Traffic Operator Position System (TOPS)

Provisioning rules

The recommended value for this parameter is determined by the following formula:

$$2 \ \text{X} \quad \text{number of 3-port conference circuits}$$
$$+ \quad 0.3 \ \text{X value of parameter NO\_OF\_FTR\_CONTROL\_BLKS}$$
$$+ \quad 0.8 \ \text{X} \ \text{number of TOPS positions}$$

See table CONF3PR for the number of 3-port conference circuits.

For all switching units not covered by the above formula, leave this parameter at the default value of 10.

If a call requires one of these blocks and none are available, the call is routed to No Software Resource (NOSR) treatment in the appropriate treatment table.

Range information

Minimum	Maximum	Default
0	32767 (reserved) 4095 (programmed)	10

Activation

Cold restart

Dependencies

At extension time, recalculate the value of this parameter if the value of one or more of the items in the provisioning rules change.

Consequences

Not applicable

Verification

See operational measurements (OM) MULTSZ and MULTOVFL in OM group CP and MULTHI in OM group CP2 for the OMs associated with this parameter.

To verify that sufficient multiblocks have been allocated, use CI command OMSHOW CP ACTIVE and read the measurement MULTOVFL in OM group CP.

Any nonzero value in measurement MULTOVFL indicates underprovisioning.

Measurement MULTHI records the maximum number of multiblocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual* 297-1001-814 for a description of OM groups CP and CP2.

Memory requirements

Three words of memory are required for each multiblock.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

NMS_ACKNOWLEDGEMENT_TIMEOUT

Parameter name

Network Message Waiting Acknowledgement Timeout

Functional description of parameter NMS_ACKNOWLEDGEMENT_TIMEOUT

This parameter is associated with the Network Message Waiting Indicator (NMWI) feature.

NMWI enables a Message Service on one node to activate and deactivate the message waiting indicator of a subscriber located on a different node, provided the two nodes support transaction capability application part (TCAP) communication between them.

NMWI uses TCAP and the connectionless class 0 (basic) service provided by the signaling connection control part (SCCP) of the CCS7 network.

This parameter specifies the maximum amount of time in seconds, that an NMS TCAP request can wait for an acknowledgement. Beyond this time limit, the NMS request is considered to have timed out.

Provisioning rules

The default value of 3 should be used in most cases for this office parameter. If problems due to underprovisioning or overprovisioning arise, the value of this parameter should be raised or lowered by 1.

Setting this parameter to 0 (zero) is not recommended because it implies that no acknowledgements, positive or negative, are required.

Range information

Minimum	Maximum	Default
0	32767	3

Activation

Immediate

Dependencies

Not applicable

Consequences

Underprovisioning results in too many NMS TCAP requests timing out. Setting this parameter to 0 causes no timing to be performed.

Overprovisioning results in transaction ID existing for longer periods. may Transaction IDs are used up more quickly.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS30.

Copy the existing value of this parameter when doing a dump and restore.

NO_ANS_CALLS_ONTAPE

Parameter name

No Answer Calls On Tape

Functional description of parameter NO_ANS_CALLS_ONTAPE

This parameter specifies whether calls for which no answer is received are to be recorded on the automatic message accounting (AMA) tape. It is used by NT-format AMA software, market specific United Kingdom Traffic Operator Position System (TOPS) software, and Overseas Operator Centre (OOC) TOPS software.

Provisioning rules

If the value of this parameter is set to Y (yes), calls for which no answer is received are recorded on the AMA tape.

If the value of this parameter is left at the default value of N (no), calls for which no answer is received are not recorded on the AMA tape.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Number Of Local Coin Extension Blocks

Functional description of parameter NO_LOCAL_COIN_EXT_BLKS

This parameter appears only in switching units with the Local Coin Overtime Charging feature. It specifies the number of local coin extension blocks required for the switch.

Local coin extension blocks are required when connecting local coin calls to coin overtime treatment.

Provisioning rules

The recommended number of extension blocks is equal to the maximum number of simultaneous connections to the tone or announcement specified in the first element in the route list (table OFRT) assigned to the coin overtime treatment CNOT in subtable LNT of table TMTCNTL.

Range information

Minimum	Maximum	Default
0	32767 (reserved) 32000 (programmed)	15

Activation

Increase - immediate
Decrease - cold restart

Dependencies

At extension time this parameter value must increase if the number of simultaneous connections specified in the provisioning rules increases.

Consequences

Not applicable

Verification

To verify that sufficient recording units have been allocated, use command interpreter (CI) command OMSHOW EXT ACTIVE 27 and read the following entry:

```
    EXTSEIZ        EXTOVFL        EXTHI        EXTSEIZ2
    EXTHI2
27 LCO_EXTENSION_BLOCK
15
         0             0             0             0
         0
```

Measurements EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

NO_LOCAL_COIN_EXT_BLKS

See the *Operational Measurement Reference Manual*, 297-1001-814 for a description of OM group EXT.

Memory requirements

Each extension block requires 12 words of memory.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Number of Other Common Carrier Traffic Separation Operational
Measurement Registers

Functional description of parameter NO_OCCTS_OM_REGISTERS

This parameter is required for switching units with the Equal Access Traffic
Separation Measurement System, Other Common Carrier Traffic Separation
(OCCTS).

This parameter specifies the maximum number of operational measurement
registers that can be assigned in table OCCTSINT.

Provisioning rules

For switching units without software package NTX085AA (Traffic
Separation Peg Count) and parameter OCCTS_ENHANCED_FEATURE in
table OFCENG set to N (no), leave the value of this parameter at the default
of 225.

If the switching unit has software package NTX085AA present and the
value of parameter OCCTS_ENHANCED_FEATURE in table OFCENG is
set to Y (yes), the recommended value is 1000.

Range information

Minimum	Maximum	Default
0	2047	225

Activation

Cold restart

Dependencies

See parameter OCCTS_ENHANCED_FEATURE in table OFCENG for
other parameters and tables that are associated with the OCCTS feature.

Consequences

Once this parameter is set and a cold restart done, the value can not be
decreased. This is to avoid traps that can occur in table control and call
processing if OCCTS registers that were deallocated are used.

Verification

Not applicable

Memory requirements

For memory allocation see parameter OCCTS_IN_MAX_NUMBER in table
OFCENG

Dump and restore rules

For switching units with software package NTX085AA, copy the existing value of this parameter when doing a dump and restore.

For switching units without software package NTX085AA, leave the value of this parameter at the default of 225.

Parameter name

Number of Clone Terminal Identifier

Functional description of parameter NO_OF_CLONE_TIDS

This parameter is used with the Broadcast feature to specify the number of Clone Terminal Identifiers (CTIDS) that are engineered for the office.

This office parameter represents the summation of the maximum number of active concurrent output ports in all broadcast calls supported in the office at any one time.

Provisioning rules

If one CTID is required for each output port, and up to 1000 trunks are being supported with an average of eight destinations each, a maximum of 8000 CTIDs are needed for the broadcast feature. Since CTIDS are not broadcast specific, additional CTIDS are allocated for other uses. The value of this parameter cannot be reduced.

Range information

Minimum	Maximum	Default
0	32000	0

Activation

Immediate

Dependencies

Not applicable.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

Each unit requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS32.

Copy the existing value of this parameter when doing a dump and restore.

NO_OF_CRITICAL_FTR_DATA_BLKS

Parameter name

Number of Critical Feature Data Blocks

Functional description of parameter NO_OF_CRITICAL_FTR_DATA_BLKS

This parameter specifies the number of feature data blocks (FDB) that are reserved in a pool for critical features that must always have access to an available FDB. This parameter is used in collaboration with office parameter E911_NUMBER_OF_FDBS in table OFCENG in order to reserve a pool of FDBs for critical calls.

The use of a critical FDB begins when a call terminates to a public safety answering point (PSAP) or Automatic Call Distribution (ACD) queue and continues until all parties in the call go on hook.

Any DMS switch acting as an Enhanced 911 Emergency Service (E911) tandem and containing software packages NTX447AA (E911 – Tandem) and NTXF61AA (DMS Integrated E911 PSAP Functionality) uses this parameter.

Provisioning rules

This parameter is provisioned based on the cumulative total of all features that use critical FDBs. Only the E911 feature uses critical FDBs. The provisioning rule for this parameter is the same as that of E911_NUMBER_OF_FDBS:

$$((\text{\# ACD/line/LDT PSAP agents}) + (\text{\# slots in ACD PSAP queue})) \times 2$$

where:

- ACD = Automatic Call Distribution
- LDT = line appearance on a digital trunk
- PSAP = public safety answering point

Range information

Minimum	Maximum	Default	
0	32767	50	(if E911 software is not present)
		400	(if NTX447 or NTX451 is present)

Activation

Increase – immediate
Decrease – cold restart

Dependencies

The value of this office parameter must not be smaller than that of E911_NUMBER_OF_FDBS in table OFCENG.

Consequences

Overprovisioning of this parameter decreases memory resources that are available for other activities.

Underprovisioning of this parameter results in the possibility of features being unable to function. The features at risk are orighold, switch–hook status tone, E911212 logs, disconnect timing, remote call event records (RCER), automatic number identification (ANI), automatic link intelligence (ALI), ringback and selective transfer.

Verification

To verify that sufficient data blocks have been allocated, us CI command OMSHOW EXT ACTIVE 86 and read the following:

```
        EXTSEIZ        EXTOVFL        EXTHI        EXTSEIZ2
        EXTHI2
86 CRITICAL_FEATURE_DATA
        400
            0              0              0              0
            0
```

Any nonzero entry in EXTOVFL indicates underprovisioning.

Measurements EXTHI and EXTHI2 record the maximum number of data blocks in simultaneous use during the current transfer period.

Memory requirements

Each unit requires 36 words of memory.

Dump and restore rules

This parameter was introduced in BCS34.

Copy the existing value of this parameter when doing a dump and restore.

NO_OF_FTR_CONTROL_BLKS

Parameter name

Number of Feature Control Blocks

Functional description of parameter NO_OF_FTR_CONTROL_BLKS

This parameter specifies the number of feature control blocks required.

Provisioning rules

Set the value of this parameter to the greater of 2000 or the value of field MAXCQSIZ in table ACDGRP.

An Automatic Call Distribution (ACD) group is defined by datafilling a tuple for the group in table ACDGRP. Field MAXCQSIZ in the tuple defines the total maximum number of calls that can be queued in the group's incoming call queue at one time.

One control block is required for each call that is queued in the incoming call queue or each unanswered call.

Range information

Minimum	Maximum	Default
0	32767	50

Activation

increase – immediate
decrease – cold restart

Dependencies

One FCB is used by each Automatic Call Distribution (ACD) queued call. The maximum number of queued calls for each ACDGRP is specified in field MAXCQSIZ in table ACDGRP. A check is performed by software to determine if there are enough FDBs provisioned in the case that every ACD call queue is full. If the number of queued calls specified by the total of all ACD group exceeds 75% of the value of this parameter, the following warning message is diaplayed when a new ACDGRP is added.

WARNING – – POTENTIALLY NOT ENOUGH FCBS ALLOCATED

Note that if the MAXCQSIZ field of table ACDGRP is set unreasonably high, this warning message may be output unnecessarily.

The above warnings will no longer be generated in the following cases:

- if the size of this parameter is increased
- the value of the total MAXCQSIZ is decreased, by decreasing field MAXCQSIZ of one or more ACD groups in table ACDGRP, so that it no longer exceeds 75% of the value of this parameter

- one or more ACD groups are deleted, decreasing the value of the total MAXCQSIZ, so that it no longer exceeds 75% of the value of this parameter

Consequences

If there are not enough blocks allocated for the total number of calls that can be queued in all ACD groups within the switching unit, calls are lost. When the allocated blocks are all in use, there are no resources to enqueue any arriving calls. Since the MAXCQSIZ upper bound has not been reached, the calls are not deflected (as specified in field THROUTE of table ACDGRP) and these arriving calls are lost.

A check is provided to warn the customer of this potential software resource problem. If an ACD group is datafilled in table ACDGRP, the total of all of the MAXCQSIZ fields is compared against 75% of the value of this office parameter. If the MAXCQSIZ total exceeds 75% of the value of this office parameter, the group is still added but the following warning is generated on the maintenance and administration position (MAP) screen:

```
WARNING--POTENTIALLY NOT ENOUGH FCBs ALLOCATED
```

Verification

To verify that sufficient FCBs have been allocated, use CI command OMSHOW EXT ACTIVE 22 and read the following entry:

```
     EXTSEIZ          EXTOVFL          EXTHI          EXTSEIZ2
     EXTHI2
22 FEATURE_CONTROL_BLOCK
50
     0                0                0              0
     0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Operational measurement EXTHI records the maximum number of extension blocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual*, 297–1001–814 for a description of OM group EXT.

Memory requirements

Each FTR control block requires 121 words of memory.

Dump and restore rules

This parameter was introduced in BCS14

Copy the existing value of this parameter when doing a dump and restore.

NO_OF_FTR_XLA_BLKS

Parameter name

Number of Feature Translation Blocks

Functional description of parameter NO_OF_FTR_XLA_BLKS

This parameter specifies the quantity of feature translation data extension blocks required.

One feature translation data extension block is used each time the user flashes. As soon as the user finishes dialing, the extension block is released.

One feature translation data extension block is required for each activation of the Station Origination Restrictions (SOR) feature.

In switching units with the Advanced Intelligent Network (AIN), a feature translation extension block is attached at the beginning of subsequent digit collection, and released when sufficient digits have been collected and analyzed.

Provisioning rules

For a local or SL-100 switching unit, set the parameter value to 600.

For a local switching unit in the United States, set the parameter value to 200.

For a local switching unit with the World Systems feature set the parameter value equal to the value of parameter NO_OF_FTR_CONTROL_BLKS in table OFCENG.

Range information

Minimum	Maximum	Default
0	32767 (reserved) 32000 (programmed)	50

Activation

Increase – immediate
Decrease – cold restart

Dependencies

Not applicable

Consequences

If an insufficient quantity of extension blocks are provided, the user is incapable of flashing or activating the SOR feature. Also, the AIN feature is unable to collect subsequent digits when they are requested by an AIN send_to_resource response message requesting normal digit collection, or when subsequent normal digit collection is required in the case of

encountering the AIN Customized Dial Plan Vertical Service Code trigger in table IBNXLA or XLANAME.

Verification

To verify that sufficient recording units have been allocated, use command interpreter (CI) command OMSHOW EXT ACTIVE 47 and read the following entry:

```
            EXTSEIZ        EXTOVFL        EXTHI        EXTSEIZ2
            EXTHI2
47 FEATURE_XLA_DATA
                 50
                  0
                  0         0              0            0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Operational measurement EXTHI records the maximum number of extension blocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Guide* 297-1001-814 for a description of OM group EXT.

Memory requirements

Each unit requires 60 words of memory.

Dump and restore rules

This parameter was introduced in BCS22.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 AIN feature translation extension block usage added

NO_OF_HIS_CONTROL_BLKS

Parameter name

Number of History Control Blocks

Functional description of parameter NO_OF_HIS_CONTROL_BLKS

This parameter is required for a switching unit with Common Channel
Signaling 7 (CCS7) and primary rate access (PRA) trunks.

This parameter is also associated with the SPC-CMS feature that enables
SPC Stored Program Control (SPC) switches to be included in the Call
Management Service (CMS) network to provide one-way CMS. One-way
CMS provides CMS features such as Calling Number Delivery (CND),
Automatic Call Setup (ACS), and Call Screening to DMS subscribers but
not to the SPC subscribers.

SPC switches are Stored Program Control switches, specifically SP-1/2W
and 1ESS, that are not capable of transmitting calling line information
through the standard Per Trunk Signaling (PTS) trunking.

This parameter is required for the following call types:

- TUP and ATUP calls on the DMS-300
- ATUP calls on the DMS-100
- TUP+ calls on the DMS-100
- Australian ISUP
- Flexible Signaling Trunk (FST) R2 calls on the DMS-100

Provisioning rules

The following formulas are used to calculate the value of this parameter:

For an originating or terminating end office, the value is equal to:

$$
\begin{array}{ll}
& (2 \text{ X (number of CCS7 trunks + number of PRA trunks))} \\
+ & (\text{number of SPC trunks datafilled in table SPCTRKS}) \\
+ & (\text{number of incoming FST R2 trunks}) \\
+ & (\text{number of two-way FST R2 trunks})
\end{array}
$$

(Note: CCS7 refers to the number of user (voice) trunks, not signaling
trunks.

For a tandem switching unit, the value is equal to:

$$
\begin{array}{ll}
& (\text{number of CCS7 trunks}) \\
+ & (\text{number of PRA trunks}) \\
+ & (\text{number of SPC trunks datafilled in table SPCTRKS}) \\
+ & (\text{number of incoming FST R2 trunks}) \\
+ & (\text{number of two-way FST R2 trunks})
\end{array}
$$

This parameter must be provisioned not only on the switch running the CND or SPC features, but also on any other switch (for example, Tandem) in the network.

For a switching unit with the advanced intelligent network (AIN), the value is equal to:

1 X (the value of office parameter NCCBS in table OFCENG)

Range information

Minimum	Maximum	Default
0	262144	50

Activation

Increase - immediate
Decrease - cold restart

Dependencies

At extension time the value of the parameter must increase if the maximum number of signaling system #7 (SS7), PRA, or SPC trunks required for the engineering interval increases.

Consequences

If an insufficient quantity of units is specified, network call completion can fail. Additionally, the activation of network services can fail even after the call has been established.

For SPC trunks, underprovisioning results in no calling line information being delivered to the terminating agents. However, the call is completed normally.

Verification

To verify that sufficient recording units have been allocated, use CI command OMSHOW EXT ACTIVE 55 and read the values under EXTOVFL and EXTHI and EXTH2.

```
        EXTSEIZ        EXTOVFL        EXTHI        EXTSEIZ2
        EXTHI2
55 HISTORY_CONTROL_DATA
        250
            0              0              0              0
            0
```

Any nonzero value under register EXTOVFL indicates underprovisioning.

Registers EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

Memory requirements

Each unit requires 26 words of memory.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 provisioning rules changed to allow for FST two-way R2 trunks and the advanced intelligent network

Parameter name

Number of History Data Blocks

Functional description of parameter NO_OF_HIS_DATA_BLKS

This parameter is required for a switching unit with Common Channel Signaling 7 (CCS7), or primary rate access (PRA) trunks or PCM30 channel associated signaling (CAS) flexible signaling trunk (FST) R2 trunks.

This parameter is also associated with the SPC-CMS feature that enables stored program control (SPC) switches to be included in the Call Management Service (CMS) network to provide one-way CMS. One-way CMS provides CMS features such as Calling Number Delivery (CND), Automatic Call Setup (ACS), and Call Screening to DMS subscribers, but not to the SPC subscribers.

SPCs are stored program control switches, specifically SP-1/2W and 1ESS, that are not capable of transmitting calling line information through the standard per trunk signaling (PTS) trunking.

With the enhancement of the call history facility (CHF) in BCS33, this parameter is modified to include the number of regular, large, and extra-large history data blocks (HDB).

As of BCS35, extra large HDBs are used to store unrecognized Initial Address Messages (IAM). Before BCS35, large HDBs performed this function.

Provisioning rules

The HDBs are used for all ISDN user part (ISUP), primary rate interface (PRI), and telephone user part (TUP) calls to keep call setup information for basic calls or feature specific information for feature calls. The number of HDBs and their size used for each call depends on the call type and features.

The following calculation is used for an office with an average mix of features and traffic:

# of HDB =   (# of ISUP HDB + # of PRI HDB + # of SPC HDB
              + # of FST R2 HDB)

Where:

# of ISUP HDB =   2.25 regular HDB
               +   0.13 large HDB
               +   0.02 extra-large HDB for each ISUP/TUP trunk (and their variants)

# of PRI HDB =   3 regular HDB + 0 large HDB + 0 extra-large HDB for each PRI trunk

# of SPC HDB   =   3 regular HDB + 0 large HDB + 0 extra-large HDB per SPC trunk

# of FST R2 HDB =   1 regular HDB + 1 large HDB per incoming FST R2 trunk

           +   1 regular HDB + 1 large HDB per two-way FST R2 trunk

In other words:

NO_OF_HIS_DATA_BLKS = X1, X2, X3

X1 = # of regular HDB =   2.25 X (# of ISUP trunk)
                  +   3 X (# of PRI trunk)
                  +   3 X (# of SPC trunk)
                  +   1 X (# of incoming FST R2 trunks)
                  +   1 X (# of two-way FST R2 trunks)

X2 = # of large HDB =   0.13 X (# of ISUP trunk)
                 +   1 X (# of incoming FST R2 trunks)
                 +   1 X (# of two-way FST R2 trunks)

X3 = # of extra-large HDB = 0.02 X (# of ISUP trunks)

Note: Round up any decimal values to a whole number.

The first field is the number of regular HDBs. The second field is the number of large HDBs. The third field is the number of extra-large HDBs.

International market

The provisioning rules for a DMS–300 switching unit are as follows:

X1 =   1 X (number of TUP variant trunks)
    +   4 X (number of ISUP variant trunks)

X2 =   1 X (number of TUP variant trunks) ·
    +   0.5 X (number of TUP+ trunks)
    +   1 X (number of ISUP variant trunks)

X3 =   0.5 X (number of AISUP trunks)

TUP variant trunks consist of ATUP trunks. ISUP variant trunks consist of ANSI, ISUP and AISUP trunks.

United States market

The following provisioning rule is recommended for switching units in the United States. A single call can use more than one HDB depending on the features involved.

The value of NO_OF_HIS_DATA_BLKS = X1, X2, X3

X1

If feature package NTX167AB (CCS7 Trunk Signaling) is present, then

X1 = 2.1 X (maximum number of SS7 trunks required)

If feature package NTX790AC (ISDN-Primary Rate Interface) is present, then

+ 1.2 X (maximum number of PRA trunks required)

If feature package NTX946AB (EBS Call Name Display) is present, then

+ 0.2 X (number of business set lines)

X2

If feature package NTX167AB is present with NTXE13AB or NTXE14AB, then

X2 = 1.3 X (maximum number of SS7 trunks required)

If NTXN46 or NTX753 is present and NTXE13 or NTXE14 are not, then

X2 = 0.05 X (maximum number of SS7 trunks required)

If feature package NTXQ42 (Advanced Intelligent Network) is present add the following:

1 X (total number of AIN subscribers)

Note: If this number is less than 10 (default), use the value of 10.

X3

X3 = 0.02 X (the number of ISUP trunks)

If feature package NTXQ42 (Advanced Intelligent Network) is present add the following:

(total number of AIN subscribers)
X (the percentage of AIN traffic for those subscribers)

Table 1 shows the ISUP and ISDN features with the size and quantity of HDBs that they use for each call.

Optional features that use the basic ISUP or ISDN features use those blocks plus any additional blocks listed by the optional package. For example, an equal access end office ISUP call uses two regular HDBs plus one large HDB. The base packages are indicated with brace brackets {}, followed by the optional feature packages that may require extra HDBs.

Table 1
HDB use by NTX package

NTX package	Feature package name	HDBs required per call
{NTX167}	CCS7 Trunk Signaling	2 regular
NTXE13	CCS7 ISUP InterLATA Connection to EAEO	+ 1 large
NTXE14	CCS7 ISUP InterLATA	+ 1 large
		Note: If both NTXE13 and NTXE14 are present, only one additional HDB is required for Equal Access use.
NTXA79	IBN Trunk with ISUP Signaling	no extra HDBs
NTX875	CCS7 Mass Trunk Conversion	no extra HDBs
{NTX167 and NTX550}	TCAP	2 regular
NTXN46	Networked ACD on CCS7	+ 1 regular + 1 large
		Note: Network automatic call distribution (NACD) on CCS7 does not hold the HDB for the duration of the call.
NTXA68	Network Message Service	no extra HDBs
{NTX167 and NTXA79}		2 regular
NTXA39	Meridian Network Attendant Service	no extra HDBs
NTXA35	Meridian Network Number Display	no extra HDBs
NTXN01	Multilocation Business Group	+ 1 regular
NTXA39	Network Attendant Services	no extra HDBs
—continued—		

Table 1
HDB use by NTX package (continued)

NTX package	Feature package name	HDBs required per call
NTXA80	Network Name Display	+ 1 regular
NTXJ68	IBN ISUP Netinfo Translations	no extra HDBs
{NTX790}	ISDN PRA	1 regular
NTX791	ISDN PRA: Network Ring Again	+ 1 regular
NTXN47	Networked ACD on PRA (needs NTXE22)	no extra HDBs
{NTX167 and NTX790}		3 regular
NTX794	PRA CCS7 Interworking	no extra HDBs
{NTX790 and NTX946}		3 regular
NTX792	ISDN PRA: Network Name Display	no extra HDBs
{NTX946}	EBS Call Name Display	1 regular
{NTXE22}	ACD Supergroup	no extra HDBs
{NTX753}	ISDN Functional Mode Basic Rate Services	1 regular (for compatibility 1 large (for subaddress)

End

Range information

Minimum	Maximum	Default
0 0 0	655360 655360 655360	50 10 0

Activation

Increase - immediate
Decrease - cold restart

Dependencies

At extension time, the value of the parameter must be increased if the maximum number of CCS7, PRA or SPC trunks required for the engineering interval increases, the Network Name Display feature is added, or the Calling Name Display feature is added to SPC trunks.

Consequences

If an insufficient quantity of units is specified, calls are completed, but additional features such as Network Number and Name Display are lost.

For SPC, underprovisioning causes calls to lose calling line information that is delivered to the terminating agents, but the call completes normally.

Verification

To verify that sufficient recording units have been allocated, use CI command OMSHOW EXT ACTIVE 109 111 and read the following entries:

```
KEY (EXT_FORMAT_CODE)
INFO (EXTINFO)
      EXTSEIZ         EXTOVFL       EXTHI        EXTSEIZ2
      EXTHI2
109 REGULAR_HISTORY_DATA
       50
              0              0              0             0
              0
110 LARGE_HISTORY_DATA
       10
              0              0              0             0
              0
111 EXTRA_LARGE_HISTORY_DA
        5              0              0             0
              0
              0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Operational measurement EXTHI records the maximum number of extension blocks in simultaneous use during the current transfer period.

Memory requirements

Each regular HDB requires 24 words of memory. Each large HDB requires 80 words of memory. Each extra-large HDB requires 132 words of memory.

Dump and restore rules

This parameter was introduced in BCS25.

The following algorithm is used to reformat from BCS30, BCS31 or BCS32 to BCS33:

Old value: X

If X > 50 (default):

X1 = X
X2 = .67 * X
X3 = 100

If X < or = 50 leave X1, X2, and X3 at default. No reformat is required.

Parameter history

BCS36 provisioning rules changed to allow for FST two-way R2 trunks

- DMS–300 provisioning rules added
- AIN provisioning added

NO_OF_LARGE_EXT_BLKS

Parameter name

Number Of Large Extension Blocks

Functional description of parameter NO_OF_LARGE_EXT_BLKS

This parameter is required in a switching unit with North American translations and the Integrated Business Network (IBN) Network Ring Again (RAG) feature. It specifies the quantity of large extension blocks used by some transaction capability application part (TCAP) applications for encoding and decoding purposes. The extension blocks from this parameter are also used by Network Automatic Call Distribution (NACD).

NRAG extends the scope of the nodal Ring Again feature to include the ability for a user to use the RAG feature on a station served by a different switching unit in the network. In order for a user to use the RAG feature on a station served by a different switching unit, the original call to the busy user must be set up over an ISDN user part (ISUP) trunk.

NACD uses large extension blocks for the load status indicator (LSI) update process and time delay overflow calls.

The LSI update process allows each NACD group on the switch to periodically send a measure of its capacity to accept calls to each of its remote counterparts, as part of the NACD load balancing algorithm. This allows each group to know every other group's ability to accept ACD calls. LSI values are sent using signaling system #7 SS7 or primary rate interface (PRI) TCAP messages. Each time an LSI value is received, a large extension block is used.

The NACD time delay overflow feature allows ACD calls queued on an NACD group for an extended period of time to be rerouted to the group most able to handle the call (that with the highest LSI value). When the timer expires, a TCAP message is sent to the remote group requesting its status (does the remote group have a free agent?). The remote group responds with another TCAP message. If the remote group does not have a free agent, the call is taken by the first available group. The time delay overflow option uses one large extension block when a TCAP message is received by a remote switch for a time delay overflow call. The originating switch also uses one large extension block while processing responses from the remote switch. The number of large extension blocks required by time delay overflow depends on the number of possible simultaneous time delay overflow calls in progress on the switch.

Provisioning rules

If the switch has the RAG feature only, leave the value of this parameter at the default of 16.

Datafill one additional extension block for each NACD group on the switch that is networked to a remote switch. This number can be determined by counting the number of tuples using REM selectors in table NACDGRP.

Datafill one additional extension block for each of the maximum number of simultaneous time delay overflow calls. To determine this number, see field MAXCQSIZ in table ACDGRP and determine the number of tuples that have option TMDELOFL assigned and are also NACD groups.

If the switch does not have the RAG or NACD features, set the value to 0 (zero).

Range information

Minimum	Maximum	Default
0	32767	16

Activation

Increase – immediate
Decrease – cold restart

Dependencies

Changing the value of this parameter affects the value of parameter NUMPERMEXT in table OFCENG.

Consequences

If this parameter is underprovisioned, some TCAP applications do not function.

If this parameter is overprovisioned, memory is wasted.

Verification

To verify that sufficient extension blocks have been allocated use command interpreter (CI) command OMSHOW EXT ACTIVE 62 and read the following entry:

```
    EXTSEIZ        EXTOVFL       EXTHI         EXTSEIZ2
    EXTHI2
62 TC_AP_LARGE_EXT_BLKS
    16
       0              0             0             0
       0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Operational measurements EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

Memory requirements

Each extension block requires 100 words of memory.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Number Of Large Feature Data Blocks

Functional description of parameter NO_OF_LARGE_FTR_DATA_BLKS

This parameter specifies the number of large feature data blocks (FDB) required.

Provisioning rules

Set this parameter to a fixed value of 1200 unless otherwise specified by Northern Telecom.

Range information

Minimum	Maximum	Default
0	32767	50

Activation

Increase – immediate
Decrease – cold restart

Dependencies

One large FDB is used by each Automatic Call Distribution (ACD) queued call. The maximum number of queued calls for each ACDGRP is specified in field MAXCQSIZ in table ACDGRP. A check is performed by software to determine if there are enough FDBs provisioned in the case that every ACD call queue is full. If the number of queued calls specified by the total of all ACD group exceeds 75% of the value of this parameter, the following warning message is diaplayed when a new ACDGRP is added.

```
WARNING – – POTENTIALLY NOT ENOUGH LARGE HDBS ALLOCATED
```

Note that if the MAXCQSIZ field of table ACDGRP is set unreasonably high, this warning message may be output unnecessarily.

The above warning is no longer generated in the following cases:

- if the size of this parameter is increased
- the value of the total MAXCQSIZ is decreased, by decreasing field MAXCQSIZ of one or more ACD groups in table ACDGRP, so that it no longer exceeds 75% of the value of this parameter
- one or more ACD groups are deleted, decreasing the value of the total MAXCQSIZ, so that it no longer exceeds 75% of the value of this parameter

Consequences

When underprovisioning of these blocks occurs, the features that require one of these blocks are routed to No Software Resource (NOSR) treatment in the appropriate treatment table.

In an Integrated Business Network (IBN) switching unit the following operational measurements report any failures due to an overflow on these software resources:

- OM group CALLFWD
- OM group CALLWAIT
- OM group MWTCAR
- OM group CALLHOLD

Verification

To verify that sufficient large FDBs have been allocated, use CI command OMSHOW EXT ACTIVE 83 and read the following entry:

```
    EXTSEIZ         EXTOVFL         EXTHI         EXTSEIZ2
    EXTHI2
83 LARGE_FEATURE_DATA
    50
      0               0               0             0
      0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Operational measurements EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

Memory requirements

Each unit requires 41 words of memory.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Number Of Medium Extension Blocks

Functional description of parameter NO_OF_MEDIUM_EXT_BLKS

This parameter is required in a switching unit with North American translations and the residential and private virtual network (PVN) services. It specifies the quantity of extension blocks used by some transaction capability application part (TCAP) applications for encoding and decoding purposes.

As of BCS34, this parameter is used to provision internal resources to allow home location register (HLR) queries to be performed. Each HLR response or time out results in the use of one medium extension block.

Provisioning rules

The default value of this parameter is 16.

For switches equipped with HLR, add the following to the default:

(NUMTRIDS X 1.2)

For the value of NUMTRIDS see field NUMTRIDS in table TCAPTRID.

Range information

Minimum	Maximum	Default
0	32767	16

Activation

Increase – immediate
Decrease – cold restart

Consequences

If this parameter is underprovisioned, some TCAP applications do not function.

If this parameter is overprovisioned, memory is wasted.

Verification

To verify that sufficient extension blocks have been allocated use command interpreter (CI) command OMSHOW EXT ACTIVE 67 and read the following entry:

```
        EXTSEIZ       EXTOVFL       EXTHI        EXTSEIZ2
        EXTHI2
67  TC_AP_MEDIUM_EXT_BLOCKS
        16
        0             0             0            0
        0
```

NO_OF_MEDIUM_EXT_BLKS

Any nonzero value in EXTOVFL indicates under provisioning.

Measurements EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

Memory requirements

Each extension block requires 50 words of memory.

Dump and restore rules

This parameter was introduced in BCS26.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Number Of Medium Feature Data Blocks

Functional description of parameter NO_OF_MEDIUM_FTR_DATA_BLKS

This parameter specifies the number of medium feature data blocks required.

Provisioning rules

Set this parameter to a value of 500 unless otherwise specified by Northern Telecom.

The BCS33 feature Three Port Flexible Call Chaining involves the addition of three-port conference circuits. This parameter should be increased by three times the number of three-port conference circuits that are added. For example, the addition of 6 three-port conference circuits results in the need for 18 additional medium FDBs. The present value must be increased by 18.

This parameter is also associated with Residential Enhanced Services (RES) feature Automatic Call Back and Automatic Ring-Again (ACB/AR).

Range information

Minimum	Maximum	Default
0	32767	50

Activation

Increase - immediate
Decrease - cold restart

Dependencies

One medium FDB is used by each Automatic Call Distribution (ACD) queued call. The maximum number of queued calls for each ACDGRP is specified in field MAXCQSIZ in table ACDGRP. A check is performed by software to determine if there are enough FDBs provisioned in the case that every ACD call queue is full. If the number of queued calls specified by the total of all ACD group exceeds 75% of the value of this parameter, the following warning message is diaplayed when a new ACDGRP is added.

```
WARNING - - POTENTIALLY NOT ENOUGH MEDIUM HDBS ALLOCATED
```

Note that if the MAXCQSIZ field of table ACDGRP is set unreasonably high, this warning message may be output unnecessarily.

The above warning is no longer generated in the following cases:

- if the size of this parameter is increased

- the value of the total MAXCQSIZ is decreased, by decreasing field MAXCQSIZ of one or more ACD groups in table ACDGRP, so that it no longer exceeds 75% of the value of this parameter

- one or more ACD groups are deleted, decreasing the value of the total MAXCQSIZ, so that it no longer exceeds 75% of the value of this parameter

Consequences

If underprovisioning of these blocks occurs, the features that require one of these blocks are routed to No Software Resource (NOSR) treatment in the appropriate treatment table.

Underprovisioning of this parameter prevents calls from terminating on non-data link consoles in an MPH arrangement.

In an Integrated Business Network (IBN) switching unit, the following operational measurements (OM) report any failures due to an overflow on these software resources:

- OM group CALLFWD
- OM group CALLWAIT
- OM group MWTCAR
- OM group CALLHOLD

Verification

To verify that sufficient FDBs have been allocated, use command interpreter (CI) command OMSHOW EXT ACTIVE 82 and read the following entry:

```
   EXTSEIZ          EXTOVFL         EXTHI           EXTSEIZ2
   EXTHI2
82 MEDIUM_FEATURE_DATA
   50
      0               0               0               0
      0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

OMs EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

Memory requirements

Each unit requires 21 words of memory.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Number of Private Virtual Network Extension Blocks

Functional description of parameter NO_OF_PVN_EXTBLK

This parameter appears in a switching unit that is equipped with the service switching point (SSP) and private virtual network (PVN) features.

SSP features can be provided in equal access end offices (EAEO) and access tandems (AT) with or without equal access (EA).

PVN uses the public and private switched network to provide private network features and capabilities. It provides connections for customers within a local access and transport area (LATA) and, through inter-LATA carriers (IC), connections to other LATAs.

PVN service is implemented by means of operating company-provided databases located at the service control points (SCP). A query is made on all PVN calls to one of these databases from a switch that is equipped with the SSP and PVN services. Queries and responses between the SSP or PVN and the SCP use the SS7 common channel signaling protocol. The response message from the SCP indicates whether the call must be completed, how it must be routed, and what information must be included in the Automatic Message Accounting (AMA) record for the call. The response can also instruct the SSP or PVN to obtain additional input from the caller such as an authorization code.

This parameter specifies the maximum number of PVN extension blocks required for the engineering interval.

A PVN_EXT_BLOCK is used to store the PVN call information and is attached to a PVN call during the translation stage.

Provisioning rules

The recommended formula is as follows.

$\quad$(N X (number of PVN calls/s X nominal SCP response time)
+$\quad$(Y X (number of PVN calls/s X average class of service override time)
+$\quad$(Z X (number of PVN calls/s X average remote access call access time)

where $\;$N = % of PVN calls that do not require an authorization code or remote access

$\quad\quad\quad$Y = % of PVN calls that require class of service override (authorization code collection required)

$\quad\quad\quad$Z = % of PVN calls dialed as remote access calls (PVN-DISA)

The recommended time for the SCP response is 3 s.

The average class of service override time (in seconds) includes the nominal response time and the average authorization code collection time including retry attempts.

The average remote access call access time (in seconds) includes the nominal response time and the length of time required to enter the Personal Identification Number (PIN) and called number.

Range information

Minimum	Maximum	Default
0	32767	150

Activation

Increase - immediate
Decrease - cold restart

Dependencies

At extension time the value must change, if one or more of the formula values changes.

Consequences

If insufficient PVN extension blocks are assigned in an SSP, PVN calls failing to get a PVN extension block are given No Software Resource (NOSR) treatment.

Verification

To verify that sufficient recording units have been allocated, use command interpreter (CI) command OMSHOW EXT ACTIVE 57 and read the following entry:

```
        EXTSEIZ       EXTOVFL       EXTHI       EXTSEIZ2
        EXTHI2
57 PVN_EXT_BLK
        150
          0             0             0             0
          0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Operational measurements (OM) EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

Memory requirements

Each unit requires 86 words of memory.

Dump and restore rules

This parameter was introduced in BCS26.

Copy the existing value of this parameter when doing a dump and restore.

NO_OF_PVN_TERM_EXTBLK

Parameter name

Number of Private Virtual Network Term Extension Blocks

Functional description of parameter NO_OF_PVN_TERM_EXTBLK

This parameter appears in a switching unit that is equipped with the Service Switching Point (SSP) and Private Virtual Network (PVN) features.

SSP features can be provided in equal access end offices (EAEO) and access tandems (AT) with or without equal access (EA).

PVN is a feature that uses the public and private switched network to provide private network features and capabilities. It provides connections for customers within a local access and transport area (LATA) and, through interLATA carriers (IC), connections to other LATAs.

PVN service is implemented by means of operating company provided databases located at the service control points (SCP). A query is made on all PVN calls to one of these databases from a switch that is equipped with the SSP and PVN features. Queries and responses between the SSP/PVN and the SCP use the SS7 common channel signaling protocol. The response message from the SCP indicates whether the call should be completed, how it should be routed, and what information should be included in the Automatic Message Accounting (AMA) record for the call. The response may also instruct the SSP/PVN to obtain additional input from the caller such as an authorization code.

This parameter specifies the maximum number of PVN term extension blocks required for the engineering interval.

A PVN_TERM_EXT_BLOCK is used to store the PVN call information and is attached to a PVN call during the translation stage.

Provisioning rules

The recommended formula is as follows:

(number of PVN calls requiring termination info / second)
X (average PVN call holding time in seconds)

Set the value to 0 if the feature is not required.

Range information

Minimum	Maximum	Default
0	32767	150

Activation

Increase – immediate
Decrease – cold restart

Dependencies

At extension time the value must change, if one or more items in the formula changes value.

Consequences

If insufficient PVN_TERM_EXT_BLKs are assigned in an SSP, PVN calls required to send termination information to the SCP cannot send termination information.

Verification

To verify that sufficient extension blocks have been allocated, use CI command OMSHOW EXT ACTIVE 68 and read the following entry:

```
        EXTSEIZ            EXTOVFL          EXTHI    EXTSEIZ2
        EXTSEIZ2
68 PVN_TERM_EXT_BLK
     150
          0                   0               0         0
          0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Measurements EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

Memory requirements

Each unit requires 39 words of memory.

Dump and restore rules

This parameter was introduced in BCS26.

Copy the existing value of this parameter when doing a dump and restore.

NO_OF_SC_EXT_BLKS

Parameter name

Number of Speed Call Extension Blocks

Functional description of parameter NO_OF_SC_EXT_BLKS

This parameter is required for all switching units that have the Meridian Digital Centrex (MDC) or Residential Enhanced Services (RES) speed calling feature.

One extension block is required for each active speed call (SC) that stores 12 or more digits.

Provisioning rules

The recommended formula for this parameter is 1% of the number of MDC, RES, and KSET lines with speed calling.

Range information

Minimum	Maximum	Default
0	32767	10

Activation

Increase - immediate
Decrease - cold restart

Dependencies

Recalculate the value of this parameter if the the number of MDC, RES or KSET lines with the speed calling changes.

Changing the value of this parameter affects the value of parameter NUMPERMEXT in table OFCENG.

Consequences

Not applicable

Verification

To verify that sufficient extension blocks have been allocated, use command interpreter (CI) command OMSHOW EXT ACTIVE 12 and read the following entry:

```
        EXTSEIZ         EXTOVFL         EXTHI         EXTSEIZ2
        EXTHI2
12 CUSTOM_CALLING_DATA
     10
        0               0               0               0
        0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Operational measurements EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual*, 297-1001-814 for a description of OM group EXT.

Memory requirements

12 words of memory are required for each extension block.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

NO_OF_SMALL_EXT_BLKS

Parameter name

Number of Small Extension Blocks

Functional description of parameter NO_OF_SMALL_EXT_BLKS

This parameter is required in a switching unit with North American translations and the Integrated Business Network (IBN) Network Ring Again (NRAG) feature or the Network Message Waiting Indicator (NMWI) feature or the Network Automatic Call Distribution (NACD) feature.

NRAG extends the scope of the nodal Ring Again feature to include the ability for a user to RAG on a station served by a different switching unit in the network. In order for a user to RAG on a station served by a different switching unit, the original call to the busy user must be set up over an ISDN user part (ISUP) trunk.

NMWI enables a message service on one node to activate and deactivate the message waiting indicator of a subscriber located on a different node, provided the two nodes support transaction capability application part (TCAP) communication between them, and have ISUP and primary rate access (PRA) or both connections between them in order to provide the message service with the subscriber's directory number (DN) and, optionally, the subscriber's name.

NACD uses small extension blocks for the load status indicator (LSI) update process and time delay overflow calls. The LSI update process allows each NACD group on the switch to periodically send a measure of its capacity to accept calls to each of its remote counterparts, as part of the NACD load balancing algorithm. This allows each group to know every other group's ability to accept ACD calls. LSI values are sent using signaling system #7 (SS7) or primary rate interface (PRI) TCAP messages. Each time an LSI value is sent, a small extension block is used.

The NACD time delay overflow feature allows ACD calls queued on an NACD group for an extended period of time to be rerouted to the group most able to handle the call (that with the highest LSI value). When the timer expires, a TCAP message is sent to the remote group requesting its status (does the remote group have a free agent?). The remote group responds with another TCAP message. If the remote group does not have a free agent, the call is taken by the first available group.

Time delay overflow uses small extension blocks if the protocol errors occur in time delay overflow call scenarios.

Provisioning rules

If the switch has the NRAG feature only, leave the value of this parameter at the default of 16.

If the switch is equipped with NMWI, add the value of OFCENG office parameter NO_OF_XLARGE_EXT_BLKS divided by 10.

Datafill one additional extension block for each NACD group on the switch that is networked to a remote switch. This number can be determined by counting the number of tuples using REM selectors in table NACDGRP.

Datafill additional extension blocks equal to the number derived from 5% of the tuples in field MAXCQSIZ in table ACDGRP that have option TMDELOFL assigned and are also NACD groups.

For a switching unit without NRAG, NMWI, or NACD, set the parameter value to 0 (zero).

Range information

Minimum	Maximum	Default
0	32767	16

Activation

Increase – immediate
Decrease – cold restart

Dependencies

Changing the value of this parameter affects the value of parameter NUMPERMEXT in table OFCENG.

Consequences

If the value of this parameter is underprovisioned, NRAG, NMWI, and NACD features do not function properly.

If the value of this parameter is overprovisioned, data store is wasted.

Verification

To verify that sufficient extension blocks have been allocated use CI command OMSHOW EXT ACTIVE and read the following entry:

```
      EXTSEIZ         EXTOVFL         EXTHI          EXTSEIZ2
      EXTHI2
60  TC_AP_SMALL_EXT_BLKS
      16
         0               0               0              0
         0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Operational measurements EXTHI and EXTHI2 record the maximum number of extension blocks blocks in simultaneous use during the current transfer period.

Memory requirements

Each extension block requires 10 words of memory.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Number Of Small Feature Data Blocks

Functional description of parameter NO_OF_SMALL_FTR_DATA_BLKS

Software release BCS29 introduced three sizes of feature data blocks (FDB) to achieve data store efficiencies. This parameter specifies the number of small FDBs required.

Provisioning rules

The recommended value for a switching unit in the United States with BCS34 or higher software is 900.

Other offices should set this parameter to a fixed value of 300 unless otherwise specified by Northern Telecom.

Range information

Minimum	Maximum	Default
0	32767	50

Activation

Increase - immediate
Decrease - cold restart

Dependencies

Not applicable

Consequences

If underprovisioning of these blocks occurs, features that require one of these blocks are routed to No Software Resource (NOSR) treatment in the appropriate treatment table.

In an Integrated Business Network (IBN) switching unit the following operational measurements report any failures due to an overflow on these software resources:

- OM group CALLFWD
- OM group CALLWAIT
- OM group MWTCAR
- OM group CALLHOLD

NO_OF_SMALL_FTR_DATA_BLKS

Verification

To verify that sufficient small FDBs have been allocated, use the command interpreter (CI) command OMSHOW EXT ACTIVE 81 and read the following entry:

```
        EXTSEIZ         EXTOVFL         EXTHI          EXTSEIZ2
        EXTHI2
81 SMALL_FEATURE_DATA
        50
         0               0               0              0
         0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Measurements EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

Memory requirements

Each unit requires 13 words of memory.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 new recommended value for U.S. market added

Parameter name

Number of Variable Call Detail Recording Recording Units

Functional description of parameter NO_OF_VCDR_REC_UNITS

This parameter specifies the number of recording units that are allocated for variable call detail recording (VCDR) billing.

Provisioning rules

Allow sufficient recording units to accomodate the maximum number of expected simultaneous Integrated Business Network (IBN) calls requiring VCDR billing records. Each leg of the call can require an additional recording unit (that is, three–way calls).

Range information

Minimum	Maximum	Default
0	32767	2

Activation

Increase – immediate
Decrease – cold restart

Dependencies

Not applicable

Consequences

Underprovisioning of this office parameter results in the blocking of calls that are unable to obtain an extension block billing information record.

Verification

To verify that sufficient recording units have been allocated, use command interpreter (CI) command OMSHOW EXT ACTIVE 102 and read the following entry:

```
KEY (EXT_FORMAT_CODE)
INFO (EXTINFO)
        EXTSEIZ         EXTOVFL         EXTHI           EXTSEIZ2
        EXTHI2
102 VCDR_RECORDING_UNIT
        100
            0               0               0               0
            0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Measurements EXTHI ansd EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

Memory requirements

Each unit requires 69 words of memory.

Dump and restore rules

This parameter was introduced in BCS32.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Number of Extra Large Extension Blocks

Functional description of parameter NO_OF_XLARGE_EXT_BLKS

This parameter is required in a switching unit with North American translations and the Integrated Business Network (IBN) Network Ring Again (NRAG) feature, the Network Message Waiting Indicator (NMWI) feature or the Residential Enhanced Services Feature Automatic Call Back and Automatic Ring-Again (ACB/AR).

NRAG extends the scope of the nodal ring again feature to include the ability for a user to use the RAG feature on a station served by a different switching unit in the network.

In order for a user to use the RAG fetaure on a station served by a different switching unit, the original call to the busy user must be set up over an ISDN user part (ISUP) trunk.

The NMWI feature affects provisioning of this parameter.

NMWI enables a message service on one node to activate and deactivate the message waiting indicator of a subscriber located on a different node, provided the two nodes support transaction capability application part (TCAP) communication between them, and have ISUP or primary rate access (PRA) connections between them in order to provide the message service with the subscriber's directory number (DN) and optionally, the subscriber's name.

A simplified message desk interface (SMDI) provides a central answering service by integrating Call Forwarding (CFW), Uniform Call Distribution (UCD), and Message Waiting (MWT). An SMDI is made up of a group of UCD agents that receive information on incoming calls through a dedicated datalink interface. The incoming information includes the calling party number, the forwarding from station number, and the type of call forwarding involved.

If the SMDI uses the text messaging system (TMS), an SMDI agent takes the message from the calling party. If the SMDI uses the voice messaging system (VMS), the calling party can record a message through dedicated voice ports. Incoming calls are answered automatically by the VMS. Both systems use the datalink connection to activate and deactivate the SMDI user's MWT indicator.

An SMDI can support up to 64 datalinks for transferring information and each datalink is able to support up to 63 message desks.

NO_OF_XLARGE_EXT_BLKS

Provisioning rules

The value of this office parameter includes the number of extra large extension blocks used by NMWI. One block is used for each NMWI activation or deactivation and is held for the duration determined by office parameter NMS_ACKNOWLEDGEMENT_TIMEOUT in table OFCENG.

Calculate the parameter value as follows:

(# of requests/s x NMS_ACKNOWLEDGEMENT_TIMEOUT)
+ (16, if the switch has the NRAG feature)
+ (16, if the switch has the ACB/AR feature)
+ (.02 x # of RES lines - up to 100)

Where:
# of requests/second = sum of # of requests/second for each SMDI in office

For example, an office with 5 SMDIs (each of which can handle 4 requests per second) and NMS_ACKNOWLEDGEMENT_TIMEOUT set to the default value (3) requires an additional (5 X 4) X 3 = 60 extra large extension blocks.

The number of requests per second that an SMDI can handle depends on either the number of agents available (if the SMDI uses TMS) or the number of voice ports available (if the SMDI uses VMS).

For example, take an office with 2 SMDIs, one using TMS with 10 agents, each of which can handle 1 request every 5 s, and another using VMS with 20 voice ports, each of which can handle a request every 4 s. The following calculation indicates how many requests per second this office can handle:

(10 X 1 request/5 s) + (20 X 1 request/4 s)

In this case the 7 requests per second can be handled.

For a switching unit without the network RAG or network MWI features, set the value of this parameter to 0 (zero).

Range information

Minimum	Maximum	Default
0	32767	16

Activation

Increase - immediate
Decrease - cold restart

Dependencies

Changing the value of this parameter affects the value of parameter NUMPERMEXT in table OFCENG.

Consequences

If the value of this parameter is underprovisioned, NMWI and NRAG do not function properly.

If the value of this parameter is overprovisioned, data store is wasted.

Verification

To verify that sufficient extension blocks have been allocated use CI command OMSHOW EXT ACTIVE 63 and read the following entry:

```
    EXTSEIZ          EXTOVFL          EXTHI          EXTSEIZ2
    EXTHI2
63 TC_AP_XLARGE_EXT_BLKS
    30
       0                0                0               0
       0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Measurements EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

Memory requirements

Each extension block requires 200 words of memory.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

NO_RING_ON_TIP_FOR_LM

Parameter name

No Ring On Tip For Line Modules

Functional description of parameter NO_RING_ON_TIP_FOR_LM

This parameter specifies whether distinctive ringing current is forced to the ring side for line modules (LM).

Provisioning rules

Set this parameter to Y to apply all of the distinctive ringing current to the ring side.

Set this parameter to N (no) to apply some of the distinctive ringing current to the tip side.

Range information

Minimum	Maximum	Default
		N

Activation

Use the commands BSY and RTS on the affected LMs at the PM level of the MAP.

Dependencies

Not applicable.

Consequences

Not applicable.

Verification

Not applicable.

Memory requirements

Each unit requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS34.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Number of Traffic Separation Measurement System Operational Measurement Registers

Functional description of parameter NO_TFAN_OM_REGISTERS

This parameter is required for switching units with the traffic separation measurement system (TFAN).

This parameter specifies the maximum number of operational measurement (OM) registers that can be assigned in the Traffic Separation Intersection table.

See parameter TFAN_ENHANCED_FEATURE in table OFCOPT for other parameters and tables that are associated with the TFAN feature.

Provisioning rules

For switching units without software package NTX085AA or NTX470AA, the value must be left at the default value.

Changing the value of this parameter is not allowed unless package NTX085AA or NTX470AA is present and parameter TFAN_ENHANCED_FEATURE in table OFCOPT is set to Y (yes).

NTX470AA is equivalent to NTX085AA, but it is used in switching units (international) with universal translations.

For switching unit in the United States with software package NTX085AA, the recommended value is 1000.

Range information

Minimum	Maximum	Default
0 (zero)	2047	225

Activation

Cold restart

Once this parameter is set and a cold restart is done, its value may not be decreased. This avoids traps that may occur in table control and call processing if TFAN registers that were deallocated are used.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Query OM group TFCANA from the CI level of the MAP.

Memory requirements

For memory allocation see parameter TFAN_ENHANCED_FEATURE, in table OFCOPT.

Dump and restore rules

For switching units with software package NTX085AA or NTX470AA, copy the existing value of this parameter when doing a dump and restore.

For switching units without software package NTX085AA or NTX470AA, leave the value at the default of 225.

Parameter name

Node

Functional description of parameter NODE

This parameter defines the node type for the link.

Provisioning rules

This parameter was introduced to the DMS–300 in BCS32. It should be set to a value of CP_CORE 0 for switches equipped with software feature AJ1271 or feature AJ1472.

The node consists of two parts; the node type and the node instance. The following values are valid for the node type:

- EIOC_MP (NT40 component of the EIOC)
- EIOC_FP (DVS component of the EIOC)
- CP_CORE, CM (call processing system)
- CFP (customer programmable component of the DVS)
- FOREIGN (node that lies outside the normal switch configuration)

The valid range for the node instance is 00 – 1F.

Range information

Minimum	Maximum	Default
		FOREIGN 0

Activation

Any restart

Dependencies

Not applicable.

Consequences

Not applicable.

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS32.

Copy the existing value of this parameter when doing a dump and restore.

NOP_DNA_DEFAULT_ACCESS

Parameter name

Network Operations Protocol X.25 Data Network Access Default Access

Functional description of parameter NOP_DNA_DEFAULT_ACCESS

This parameter is required in a switching unit with Network Operations Protocol (NOP) remote operation (RO) Service.

This parameter provides additional control over access to the switching unit by way of applications using NOP. It is used to enable or disable access to the Pass-Thru MAP application from any calling X.25 data network address (DNA) that is not specifically enabled by the NOPCTRL enable command.

Provisioning rules

If the value of this parameter is set to ACCESS_ENABLED, access to the switch is subject to the controls provided by the NOP logon user identification (ID) and password and tables NOPADDR, NOPAPPLN, and NOPUSERS.

If the value of this parameter is set to ACCESS_DISABLED, access to the switch is also subject to the controls provided by the NOP logon user identification (ID) and password and tables NOPADDR, NOPAPPLN, and NOPUSERS. In addition, access to the switch is blocked unless permission has been granted to the calling X.25 DNA by use of the NOPCTRL enable command.

NOP logon attempts blocked by the action of this parameter cause ROAPPL ROFLOGA (failed login attempts) to be pegged.

Range information

Minimum	Maximum	Default
	•	ACCESS_ENABLED This value represents the acess screening that was present prior to the implementation of this parameter.

Activation

Immediate

Dependencies

The function of this parameter supplements controls implemented in table NOPADDR, NOPAPPLN, and NOPUSERS.

Consequences

Not applicable

Verification

If this parameter is set to ACCESS_ENABLED, verify that it is possible to establish a Pass-Thru MAP session for a calling DNA that has been properly datafilled in table NOPADDR and set to the PTAE_APPL or ALL values in table NOPAPPLN.

If this parameter is set to ACCESS_DISABLED, verify that it is no longer possible to establish a Pass-Thru MAP session for a calling DNA that has been properly datafilled in table NOPADDR and set to the PTAE_APPL or ALL values in table NOPAPPLN. Also verify that a session can be established once the calling DNA has been enabled using the NOPCTRL command.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS36

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 parameter introduced

NOP_USERID_SECURITY_ACCESS

Parameter name

NOPUSERS Identification Security Access

Functional description of parameter NOP_USERID_SECURITY_ACCESS

This parameter allows the telco to restrict access to a DMS switch by user identification.

Provisioning rules

Set the value of this parameter to Y(yes) to restrict access if the remote user identification is not defined either in table NOPUSERS or table USERINF. This also restricts access to the application a userid can access. The authorized applications of the userid are defined in table NOPUSERS.

If NOP_USERID_SECURITY_ACCESS is set to N (no), no restriction exists for the user identification.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Set the value of this parameter to Y without defining a remote userid in table NOPUSERS. Attempt an RO call with one of the applications (PADN, PTAE, etc.). Switch access should not be possible. Set the parameter to N and access to the switch should be available.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS30.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Network Operating System Quantity of Switched Virtual Circuits

Functional description of parameter NOS_QUANTITY_OF_SVCS

This parameter specifies how many switched virtual circuits (SVC) are required by the operating company. This directly affects how many processes are running on the system, since there are as many incoming and outgoing tasks as there are SVCs.

Provisioning rules

The quantity of SVCs required can be determined by examining the applications that need SVCs. They are as follows:

Data collection using NOS FT

6 SVCs are required (the number of FT data types + 1).

Centralized MAP

CMAP can have from 2 to 10 SVCs. The number of SVCs allocated for CMAP should be equal to the value of parameter MAX_CMAP_SESSIONS in table OFCENG.

Centralized Alarms

Centralized alarms require two SVCs

The range of this parameter is increased in BCS30 by the NOP outgoing call capability that allows applications using NOP (Network Operation Protocol) RO (Remote Operations) services on the DMS to initiate outgoing calls.

Nop Outgoing call capability is not an application that uses the RO service, but is an enhancement to the RO service. It does not directly use any SVSs.

This parameter impacts the automatic call distribution management information system (ACD MIS)

Both NT–40 and SuperNode support a maximum of 60 simultaneous RO sessions

The maximum number of ACD MIS sessions allowed on a switch is equal to parameter MAX_ACDMIS_SESSIONS or the value of this parameter, whichever is less.

There is no dependency between the two parameters. It is possible for MAX_ACDMIS_SESSIONS to be greater than NOS_QUANTITY_OF_SVCS even though the maximum number of ACD MIS sessions can never be greater than NOS_QUANTITY_OF_SVCS.

NOS_QUANTITY_OF_SVCS

Range information

Minimum	Maximum	Default
1	60	5

Activation

Warm restart

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS18.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Network Resource System Audit Delay

Functional description of parameter NRS_AUD_DELAY

This parameter specifies the delay, in minutes, between successive network resource system (NRS) audit cycles for the Datapath modem pooling feature.

Provisioning rules

Specify the delay between network resource system (NRS) audit cycles.

A value of 0 (zero) disables the audits.

Range information

Minimum	Maximum	Default
0	60	10

Activation

A new value takes affect at the beginning of an audit cycle.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS15.

Copy the existing value of this parameter when doing a dump and restore.

NSS_RDD_REPLDIGS_LENGTH_A

Parameter name

Network Services Software REPLDIGS Template Length A

Functional description of parameter NSS_RDD_REPLDIGS_LENGTH_A

To minimalize the real time requirement for sending a transaction
capabilities application part (TCAP) response message from the network
services software (NSS) database control point (DBCP) to the NSS service
switching point (SSP), templates of the REPLDIGS response message are
built when the REPLDIGS subsystem is initially brought into service. These
templates are of a fixed length. However, the length of a return result
response message can be from 1 to 18 digits long as specified in the
REPLDIGS field in table REPLDATA at the DBCP. Because it is not
practical to create templates for each possible length, the office parameters
NSS_RDD_REPLDIGS_LENGTH_A and
NSS_RDD_REPLDIGS_LENGTH_B allow the operating company to
choose the two most popular return result message length templates. If these
templates are not created ahead of time, this real-time intensive task must be
performed by the DBCP when the query is processed.

When a query is successfully processed at the DBCP and the number of
digits to be returned is equal to the value specified by
NSS_RSS_REPLDIGS_LENGTH_A or
NSS_RSS_REPLDIGS_LENGTH_B, a template is used to send the
response. Otherwise, the response TCAP message is assembled without a
template, consuming a considerable amount of real-time.

Provisioning rules

This office parameter must be provisioned based on the value datafilled in
table REPLDATA and the network dialing plan. For example, if the
majority of the tuples in table REPLDATA have the REPLDIGS field
datafilled to specify four digits, NSS_RDD_REPLDIGS_LENGTH_A must
be set to 4. The next most frequent value found must be datafilled in office
parameter NSS_RDD_REPLDIGS_LENGTH_B.

Range information

Minimum	Maximum	Default
1	18	7

Activation

Busy (BSY) and return to service (RTS) the REPLDIGS subsystem in the
SCCPLOC level of MAPCI. This map level can be accessed by entering the
following:

```
>mapci;mtc;ccs;ccs7;sccploc
```

Dependencies

Not applicable.

Consequences

Incorrectly provisioning this parameter results in the majority of TCAP messages being built without a template and consuming real-time.

Verification

Check the datafill in table REPLDATA to confirm that this office parm is set properly.

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced with software release BCS33.

Copy the existing value of the parameter when doing a dump and restore.

NSS_RDD_REPLDIGS_LENGTH_B

Parameter name

Network Services Software REPLDIGS Template Length B

Functional description of parameter NSS_RDD_REPLDIGS_LENGTH_B

To minimize the real time requirement for sending a transaction capabilities application part (TCAP) response message from the network services software (NSS) database control point (DBCP) to the NSS service switching point (SSP), templates of the REPLDIGS response message are built when the REPLDIGS subsystem is initially brought into service. These templates are of a fixed length. However, the length of a return result response message can be from 1 to 18 digits long as specified in the REPLDIGS field in table REPLDATA at the DBCP. Because it is not practical to create templates for each possible length, the office parameters NSS_RDD_REPLDIGS_LENGTH_A and NSS_RDD_REPLDIGS_LENGTH_B allow the operating company to choose the two most popular return result message length templates. If these templates are not created ahead of time, this real-time intensive task must be performed by the DBCP when the query is processed.

When a query is successfully processed at the DBCP, and the number of digits to be returned is equal to the value specified by NSS_RSS_REPLDIGS_LENGTH_A or NSS_RSS_REPLDIGS_LENGTH_B, a template is used to send the response. Otherwise, the response TCAP message will be assembled without a template, consuming a considerable amount of real-time.

Provisioning rules

This office parameter must be provisioned based on the values datafilled in table REPLDATA and the network dialing plan. For example, if the majority of the tuples in table REPLDATA have the REPLDIGS field datafilled to specify four digits, NSS_RDD_REPLDIGS_LENGTH_A must be set to 4. The next most frequent value found must be datafilled in office parameter NSS_RDD_REPLDIGS_LENGTH_B.

Range information

Minimum	Maximum	Default
1	18	10

Activation

Busy (BSY) and return to service (RTS) the REPLDIGS subsystem in the SCCPLOC level of MAPCI. This map level can be accessed by entering the following:

```
>mapci;mtc;ccs;ccs7;sccploc
```

Dependencies

Not applicable.

Consequences

Incorrectly provisioning this parameter results in the majority of TCAP messages being built without a template and consuming considerable amounts of real-time.

Verification

Check the datafill in table REPLDATA to confirm that this office parameter is set properly.

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced with software release BCS33.

Copy the existing value of this parameter when doing a dump and restore.

NTC_RNGBACK_TIME

Parameter name

Notification of Time and Charge Ringback Time

Functional description of parameter NTC_RNGBACK_TIME

This parameter is required in a DMS-100 switching unit in the Japanese market with Integrated Business Network (IBN) ISDN User Part (ISUP) trunks and the Notification of Time and Charge (NTC) feature. It specifies the amount of time, in seconds, that a subscriber is allowed to answer an NTC call back during the ring back stage of NTC before the call back is released or reattempted.

Provisioning rules

Specify the length of time that ringing is applied to a subscriber line during NTC call back before the call back is released or reattempted.

Range information

Minimum	Maximum	Default
1	99	30

Activation

Immediate

Dependencies

The number of NTC call back reattempts is determined by office parameter NTC_REATTEMPTS in table OFCVAR.

Consequences

Overprovisioning of this parameter value may result in increased time being reserved for the hardware resources that notify the originating subscriber of an NTC call back.

Underprovisioning of this parameter value may not provide adequate time for a subscriber to answer an NTC call back.

Verification

To verify the operation of this parameter, originate and complete an NTC feature activation call. Wait for the NTC callback. Verify that the ringback time is equal to the value of this parameter.

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS36.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

    BCS36 parameter introduced

NUM_CALLREC_STREAMS

Parameter name

Number of Call Recording Streams

Functional description of parameter NUM_CALLREC_STREAMS

This parameter specifies the number of streams that can be data filled in table CRSFMT.

This parameter is used by the following call recording platforms:

- Central Automatic Message Accounting
- CNS Standard Base Package
- IBN – Station Message Detail Recording
- ISC – Call Detail Recording
- Local Automatic Message Accounting
- TOPS Call Processing

Provisioning rules

Specify the number of streams that can be datafilled in table CRSFMT.

Range information

Minimum	Maximum	Default
1	15	1

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter.

Parameter name

Number of Dynamically Controlled Routing Extension Blocks

Functional description of parameter NUM_DCR_EXT_BLKS

This parameter appears only in a toll switch that has the Dynamically Controlled Routing (DCR) feature.

This parameter is used to allocate a pool of extension blocks for the DCR feature. One DCR extension block is allocated for each DCR call that uses a a route list with field RTESEL equal to T (T-route list) from the DIRRTE field of table DESTNODE when routing the call. The DCR extension block is required for the duration of the call unless the T-route list overflows, which results in the usage and the deallocation of the extension block.

Provisioning rules

To determine the value for this parameter use the following formula:

(estimate of the number of high-day busy hour calls that will be routed to T-route lists in the DIRRTE field of table DESTNODE)

X (the average call holding time) /100

Note that the average call holding time default is 180 s.

Provision the number of extension blocks required to serve this usage from erlang B tables at grade of service B.001.

The default value of 0 (zero) should be used in a switching unit that uses only S (Standard) routes in the DIRRTE field of table DESTNODE for all of its DCR destinations.

Range information

Minimum	Maximum	Default
0	32000	0

Activation

Increase - immediate
Decrease - cold restart

Dependencies

Not applicable

Consequences

If the value of this parameter is underprovisioned, the request for a DCR extension block can overflow. This causes No Software Resources (NOSR) treatment to be set for the call.

Verification

To verify that sufficient extension blocks have been allocated, use CI command OMSHOW EXT ACTIVE 40 and read the following entry:

```
        EXTSEIZ        EXTOVFL        EXTHI        EXTSEIZ2
        EXTHI2
40 DCR_EXTENSION
        0
        0              0              0              0
        0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Measurement EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Guide*, 297-1001-814 for a description of OM group EXT.

Memory requirements

Each unit requires 5 words of memory.

Dump and restore rules

This parameter was introduced in BCS20.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Number of Dynamically Controlled Routing Network Processors With Access

Functional description of parameter NUM_DCR_NP_ACCESS

This parameter is required in a SuperNode switching unit with the Multiple Network Access (MNA) feature. It is used to limit the number of networks that can access a DMS switch.

When the value of this parameter is set to 1, the switch is able to support only a single dynamically controlled routing (DCR) network processor (NP). When the value of this parameter is greater than 1, the switch can be accessed by multiple NPs.

Provisioning rules

Specify the number of network accesses for the switch based on the DCR network configuration.

Range information

Minimum	Maximum	Default
1	6	1

Activation

Immediate

Dependencies

The number of entries in table DCRNETID must not exceed the value of this parameter.

Consequences

Not applicable

Verification

Add a number of DCR network identifications in table DCRNETID equal to the value of this parameter and verify network access for each.

Memory requirements

Each network access requires 14600 bytes of memory.

Dump and restore rules

This parameter was introduced in BCS36.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 parameter description added

NUM_ENGR_NWM_TRKGRP_CTRLS

Parameter name

Number of Engineerable Network Management Trunk Group Controls

Functional description of parameter NUM_ENGR_NWM_TRKGRP_CTRLS

This parameter is used by the Network Management System and defines the maximum number of trunk groups that can be controlled simultaneously by the trunk group controls.

Provisioning rules

The value of this parameter must be equal to the maximum number of trunk groups with flexible reroute (FRR) controls that can be controlled simultaneously.

Range information

Minimum	Maximum	Default
0	255	0

Activation

Cold restart

Dependencies

The value of this parameter must increase if the number of trunk groups with flexible reroute (FRR) controls that can be controlled simultaneously increases or the FRR feature is added.

See parameter NUM_OF_RTEB_EXTBLKS in table OFCENG for a description of the FRR feature.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

The number of words required by this parameter is determined by the following formula:

(parameter value X 10) + 10

Dump and restore rules

This parameter was introduced in BCS21.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Number of Integrated Business Network International Translation Extension Blocks

Functional description of parameter NUM_IBN_IXLA_EXT_BLOCKS

This parameter is required for a Meridian Digital Centrex (MDC) switch with International Direct Distance Dialing (IDDD) through the Automatic Route Selection (ARS) feature. It specifies the maximum number of MDC world system (international) translation extension blocks required for the engineering interval.

The value of this parameter dictates the maximum number of calls that can simultaneously route to universal translations from MDC.

Provisioning rules

Set the value of this parameter according to the following formula:

(the maximum number of outgoing MDC (trunk group type IBNTO) trunks that carry IDDD through ARS traffic that can be reached when translating through table PXHEAD)
+ (the number of two-way FST R2 trunks)

Range information

Minimum	Maximum	Default
0	32767 (reserved) 32000 (programmed)	0

Activation

Increase – immediate
Decrease – cold restart

To activate a change to the value of this parameter, BSY (busy) the individual Peripheral Modules (PM), reload the static data and then RTS (return to service) the PM.

Dependencies

Not applicable

Consequences

If insufficient blocks are provided, calls receive no software resources (NOSR) treatment after the number of simultaneous MDC calls that are to route through table PXHEAD reaches the maximum value of this parameter.

Verification

To verify that sufficient extension blocks have been allocated, use CI command OMSHOW EXT ACTIVE 15 and read the following entry:

```
     EXTSEIZ          EXTOVFL          EXTHI          EXTSEIZ2
     EXTHI2
15 IBN_INTL_XLA_EXT_BLOCK
        0
          0              0                0                0
          0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Measurements EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

Memory requirements

Each unit requires 26.5 words of memory.

Dump and restore rules

This parameter is new with software release BCS28.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 provisioning rules changed to allow for FST two-way R2 trunks

Parameter name

Number of International Centralized Automatic Message Accounting Recording Units

Functional description of parameter NUM_ICAMA_RECORDING_UNITS

This parameter is required for a toll switch (international) with universal translations and the International Centralized Automatic Message Accounting (ICAMA) and/or the International Administration Accounting (IAA) feature.

This parameter specifies the maximum number of ICAMA recording units required before the next extension.

Provisioning rules

Set the value of this parameter equal to the number of simultaneous toll calls originating on trunks with trunk group type ANI that have the required call class and/or the number of simultaneous toll calls originating on trunks with trunk group type MTR that have field IAA equal to Y in table TRKGRP.

See table TRKGRP for trunk group types ANI and MTR.

Range information

Minimum	Maximum	Default
0	32767	100

Activation

Increase – immediate
Decrease – cold restart

Dependencies

See parameters ICAMA_REQUESTED and IAA_REQUESTED in table OFCVAR for other parameters and tables associated with this feature.

To activate the above features, parameters ICAMA_REQUESTED and/or IAA_REQUESTED in table OFCVAR must be set to Y.

Consequences

Underprovisioning of this parameter results in some toll calls being unable to obtain an ICAMA recording unit.

Overprovisioning results in wasted data store.

Verification

To verify that sufficient recording units have been allocated, use CI command OMSHOW EXT ACTIVE 48 and read the following entry:

```
    EXTSEIZ         EXTOVFL         EXTHI         EXTSEIZ2
    EXTHI2
48 ICAMA_RECORDING_UNIT
    100
        0               0               0               0
        0
```

Measurements EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual*, 297–1001–814 for a description of OM group EXT.

Any nonzero value in EXTOVFL indicates underprovisioning.

Memory requirements

Each unit requires 22 words of memory.

Dump and restore rules

This parameter was introduced in BCS23.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Number of International Call Transfer Extension Blocks

Functional description of parameter NUM_ICT_EXT_BLKS

This parameter is required for an international switching unit with universal translations and the International Call Transfer (ICT) feature. It specifies the number of call transfer extension blocks.

One block is required for a call that has been transferred one or more times. This block remains linked to the call condense block (CCB) for the duration of the transferred call.

Provisioning rules

Enter the maximum number of simultaneous active call transfers or call transfer attempts.

Range information

Minimum	Maximum	Default
0	32767	20

Activation

Increase – immediate
Decrease – cold restart

Dependencies

Not applicable

Consequences

Not applicable

Verification

To verify that sufficient extension blocks have been allocated, use CI command OMSHOW EXT ACTIVE 65 and read the following entry:

```
      EXTSEIZ         EXTOVFL         EXTHI           EXTSEIZ2
      EXTHI2
65 ICT_INFO_BLOCK
      20
         0               0               0               0
         0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Measurements EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

Memory requirements

Each extension block requires 16 words of memory.

Dump and restore rules

This parameter was introduced in BCS26.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Number of International Recording Units

Functional description of parameter NUM_INTL_RECORDING_UNITS

This parameter is required in a local switching unit (international) with universal translations and the International Call Recording (ICR) feature. It specifies the number of recording units that are allocated for the ICR feature.

For a brief description of ICR, see parameter INTL_ICR_REQUESTED in table OFCVAR.

A log message is generated each time a toll call is made and no extension blocks are available. The call is allowed to continue and no alarms are raised.

Provisioning rules

Set the value of this parameter equal to the maximum number of toll calls (originated from lines) that can be in progress at one time.

Range information

Minimum	Maximum	Default
0	32767	0

Activation

Increase - immediate
Decrease - cold restart

Dependencies

At extension time, the value of this parameter must increase if the number of call types defined in the provisioning rules increases.

Consequences

Not applicable

Verification

To verify that sufficient recording units have been allocated, use CI command OMSHOW EXT ACTIVE 38 and read the following entry:

```
        EXTSEIZ        EXTOVFL        EXTHI         EXTSEIZ2
        EXTHI2
37 INTL_RECORD_UNIT
        0
        0              0              0             0
        0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Measurements EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual*, 297 -1001 -814 for a description of OM group EXT.

Memory requirements

Each unit requires 28 words of memory.

Dump and restore rules

This parameter was introduced in BCS20.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Number of ISDN User Part Extension Blocks

Functional description of parameter NUM_ISUP_EXT_BLKS

This parameter is only required by DMS-250 switches. In all other cases, it is replaced by the office parameters NO_OF_HIS_CONTROL_BLKS and NO_OF_HIS_DATA_BLKS in table OFCENG.

Provisioning rules

Set the value to 0 (zero) for all non-DMS-250 switches.

Range information

Minimum	Maximum	Default
0	32767	0

Activation

Increase - immediate
Decrease - cold restart

Dependencies

Not applicable

Consequences

Not applicable

Verification

For all non-DMS-250 switches, verify that the value of this parameter is 0.

Memory requirements

Each unit requires 31 words of memory.

Dump and restore rules

This parameter was introduced in BCS21.

Copy the existing value of this parameter when doing a dump and restore.

NUM_MTR_EXT_BLOCKS

Parameter name

Number of Metering Extension Blocks

Functional description of parameter NUM_MTR_EXT_BLOCKS

This parameter is required in a local switching unit (international) with the universal translation scheme. It specifies the number of central control (CC) metering extension blocks allocated for CC metering.

The number of extension blocks must equal the number of CC metered calls that can be in progress at any one time.

CC metered calls that require extension blocks consist of the following two types:

- custom calling featured calls requiring multiple legs
- long duration calls

The value of this parameter depends upon the size of the switch and the volume of calls the switching unit is expected to handle.

This parameter name is changed from NUM_CCMTR_EXT_BLOCKS to NUM_MTR_EXT_BLOCKS in BCS32.

Provisioning rules

The number of blocks is determined by the following calculation:

(Value of parameter NO_OF_FTR_CONTROL_BLKS in OFCENG)
+ (10% of the value of parameter NCCBS in table OFCENG)

Range information

Minimum	Maximum	Default
0	32767	100

Activation

Increase – immediate
Decrease – cold restart

Dependencies

See parameter CCMTR_FAILURE_FREE_CALL in table OFCENG for the routing of new calls when the software resources supplied by this parameter are not available.

Consequences

If insufficient extension blocks are specified, an existing call continues relying only on XMS–based peripheral modules (XPM) metering.

Verification

To verify that sufficient extension blocks have been allocated, use CI command OMSHOW EXT ACTIVE 45 and read the following entry:

```
    EXTSEIZ        EXTOVFL        EXTHI          EXTSEIZ2
    EXTHI2
45 INTL_CCMTR_EXT_BLOCK
    25
      0              0              0              0
      0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Measurements EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual*, 297–1001–814 for a description of OM group EXT.

Memory requirements

Each unit requires 13 words of memory.

Dump and restore rules

This parameter was introduced in BCS22.

Copy the existing value of this parameter when doing a dump and restore.

NUM_OF_CCIS_INWATS_BLOCKS

Parameter name

Number of Common Channel Inter-office Signaling Inward Wide Area Telephone Service Extension Blocks

Functional description of parameter NUM_OF_CCIS_INWATS_BLOCKS

This parameter is required in common channel inter-office signaling (CCIS) inward wide area telephone service (INWATS) originating screening (OS) switching units. It specifies the number of CCIS INWATS extension blocks required.

Provisioning rules

The recommended value is 3 blocks for each 1000 simultaneous CCIS INWATS calls on all Automatic Number Identification (ANI) trunks.

Range information

Minimum	Maximum	Default
0	32767	30

Activation

Increase - immediate
Decrease - cold restart

Dependencies

At extension time the value of this parameter must be increased if the number of simultaneous CCIS calls on ANI trunks increases.

Consequences

Not applicable

Verification

To verify that sufficient extension blocks units have been allocated, use CI command OMSHOW EXT ACTIVE 4 and read the following entry:

```
      EXTSEIZ       EXTOVFL       EXTHI        EXTSEIZ2
      EXTHI2
4 CCIS_INWATS_BLOCK
      30
         0            0            0              0
         0
```

Measurements EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual*, 297-1001-814 for a description of OM group EXT.

Any nonzero value in EXTOVFL indicates underprovisioning.

Memory requirements

Each block requires 17 words of memory.

Dump and restore rules

This parameter was introduced in BCS24.

Copy the existing value of this parameter when doing a dump and restore.

NUM_OF_INWATS_EXT_BLOCKS

Parameter name

Number of Inward Wide Area Telephone Service Extension Blocks

Functional description of parameter NUM_OF_INWATS_EXT_BLOCKS

This parameter specifies the number of inward wide area telephone service (INWATS) extension blocks allocated in a combined originating serving office (OSO) and terminating serving office (TSO).

INWATS extension blocks are used only in a combined OSO/TSO call. If the the office is an OSO only or a TSO only, the office parameter should be set to 0 (zero).

Provisioning rules

Specify the maximum number of simultaneous combined OSO/TSO calls in the office. If the office does not function as a combined OSO/TSO, then the parameter value must be 0.

Range information

Minimum	Maximum	Default
0	32767	300

Activation

Increase - immediate
Decrease - cold restart

Dependencies

The default value is 300. This was chosen based upon the default value for the NUM_OF_CCIS_INWATS_BLOCKS, which performs a similar function for CCS INWATS OSO offices.

Consequences

Overprovisioning of this office parameter wastes data store.

Underprovisioning results in combined OSO/TSO calls being blocked.

Verification

To verify that sufficient extension blocks have been allocated, use CI command OMSHOW EXT ACTIVE 79 and read the following entry:

```
      EXTSEIZ         EXTOVFL         EXTHI         EXTSEIZ2
      EXTHI2
79 INWATS OSO/TSO EXT BLK
      30
         0              0              0              0
         0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Measurements EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

See the *Operational Measurement Reference Manual*, 297-1001-814 for a description of OM group EXT.

Memory requirements

Each extension block requires 4 words of memory.

Dump and restore rules

This parameter was introduced in BCS28.

Copy the existing value of this parameter when doing a dump and restore.

NUM_OF_NSC_EXT_BLK

Parameter name

Number of Number Services Call Extension Blocks

Functional description of parameter NUM_OF_NSC_EXT_BLK

This parameter appears only in a local or toll switching unit that has the service switching point (SSP) software package. It specifies the quantity of number services call (NSC) extension blocks that are required for E800 or 800+ type calls.

Provisioning rules

This parameter is provisioned according to the following formula:

$$(Y \times (\text{\# of 800 calls/s}) \times (\text{avg 800 call delay before answer}))$$
$$+ \quad (Z \times (\text{\# of 800 calls/s}) \times (\text{avg 800 call holding time}))$$

where:

Y = % of 800 calls for which the SCP does not request a termination information message

Z = % of 800 calls where the SCP requests a termination information message

For example, 800+ and E008 services do not use termination information messages. The number of extension blocks required for these services is determined as follows:

Assume:

*   Twenty 800 calls/s
* $Y = 100\%$
* $Z = 0\%$ Average 800 call delay before answer = 30 s

The calculation would be $(1 \times 20 \times 30) = 600$

In the case above, the number of NSC extension blocks is mainly dependent on the delay time between the sending of the SCP query message and the receipt of the answer message from the called party.

If the SCP does not request a termination information message, the NSC_EXT Block is attached to the 800 call for the duration of the SCP database query.

The following is an example of the provisioning of this parameter for E800 service. E800 service can use termination messages.

Assume:

- Twenty 800 calls/sec
- $X = 80\%$ $Y = 20\%$
- Average 800 call delay before answer = 30 s
- Average 800 call holding time = 180 s

Calculation: $(0.8 \times 20 \times 30) + (0.2 \times 20 \times 180) = 480 + 720 = 1200$

In this case, the number of NSC extension blocks varies as the percentage of calls requiring a termination information message changes. No additional padding is required if the average call duration is known.

If the SCP requests a termination information message, the NSC_EXT block is attached to the 800 call for the duration of the call.

Note that the examples given are not meant to define any limits. All figures must be calculated using engineering information obtained from the operating company.

Range information

Minimum	Maximum	Default
0	32767	150

Activation

Increase - immediate
Decrease - cold restart

Dependencies

Not applicable

Consequences

If insufficient blocks are provided, calls failing to obtain a block are routed to No Software Resources (NOSR) treatment.

Verification

To verify that sufficient extension blocks have been allocated, use CI command OMSHOW EXT ACTIVE 35 and read the following entry.

```
        EXTSEIZ      EXTOVFL      EXTHI      EXTSEIZ2
        EXTHI2
35 NSC_EXT_BLK
     150
        0            0            0              0
        0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Measurements EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual*, 297-1001-814 for a description of OM group EXT.

Memory requirements

Each unit requires 46 words of memory.

Dump and restore rules

This parameter was introduced in BCS21.

Copy the existing value of this parameter when doing a dump and restore from software release BCS25 to software release BCS25 and higher.

Parameter name

Number of NT Recording Units

Functional description of parameter NUM_OF_NT_RECORDING_UNITS

This parameter is required for a switching unit that has the Automatic Message Accounting (AMA) option Centralized Automatic Message Accounting (CAMA) or Local AMA (LAMA) and field KEY in table CRSFMT set to NTFMT.

It specifies the number of NT recording units required to collect the call data while all the AMA buffers are full.

These units are required for switching units with LAMA or local/toll switching units with CAMA that have the Call Forwarding feature.

These units are required for switching units that have the Number Services Call (NSC) feature.

With the CFW or NSC, the charge unit is held for the call duration.

Provisioning rules

The recommended formula for a switching unit is

Units = 50   + (0.1 of the number of POTS lines with CFW including all remote lines)
+ (0.1 of the number of IBN lines with CFW including all remote lines)
+ (0.1 of the number of lines with Remote CFW)
+ (number of INWATS lines X 36) / 100) X 4)
+ (0.2 of the number of IBN lines)
+ (50 X number of Super CAMA trunk group members, SC trunk group type / 1000)
+ (value of parameter NUM_NSC_EXT_BLK in table OFCENG)

Always round up to the next increment of 50.

Range information

Minimum	Maximum	Default
1	32767 (reserved) 14500 (programmed)	100

Activation

Increase – immediate
Decrease – cold restart

NUM_OF_NT_RECORDING_UNITS

Dependencies

At extension time the value of this parameter must increase, if one or more of the items in the provisioning rules increases.

Consequences

Insufficient recording units cause a line or trunk that requires a recording unit to be routed according to the AMA_FAILURE_FREE_CALL parameter in table OFCENG.

Verification

To verify that sufficient recording units have been allocated, use CI command OMSHOW EXT ACTIVE 5 and read the following entry:

```
        EXTSEIZ          EXTOVFL          EXTHI          EXTSEIZ2
        EXTHI2
5 NT_RECORDING_UNITS
        100
            0                0                0              0
            0
```

Measurements EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

Any nonzero value in EXTOVFL indicates underprovisioning.

See the *Operational Measurements Reference Manual* 297-1001-814 for a description of OM group EXT.

Memory requirements

35 words of memory are required for each recording unit.

Dump and restore rules

This parameter was introduced in BCS25

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Number of Flexible Reroute Extension Blocks

Functional description of parameter NUM_OF_RTEB_EXTBLKS

This parameter is required for a local, toll, combined local/toll or traffic operator position system (TOPS) switching unit. It specifies the number of extension blocks that the flexible reroute (FRR) feature requires.

The FRR control is an expansive network management trunk group control that makes it possible to reroute calls from an in-chain route to a VIA when the in-chain route is overloaded or has failed.

An FRR control involves two trunk groups. The first trunk group, the in-chain route, is the one to which the FRR control is applied. This trunk group is also referred to as the controlled trunk group. Calls that cannot be carried over this trunk group are offered to the second trunk group, the VIA route. Calls offered to the VIA route are referred to as rerouted calls.

An extension block is used as part of the process to reroute a call. The extension block remains attached to a rerouted call while it moves through the routing phase of call processing.

In addition to activating FRR controls manually from the MAP they can also be activated through table PREPLANS.

The FRR Control feature requires the Basic Network Management software package to function properly.

Provisioning rules

Two extension blocks are required for each rerouted call. These extension blocks remain attached to the call until it is taken down.

The number of extension blocks required is determined by the following calculation:

2 x (the total number of rerouted calls in the setup state)
+   (those calls in the talking state)

Range information

Minimum	Maximum	Default
0	5000	0

Activation

Increase - immediate
Decrease - cold restart

Dependencies

See parameter NUM_ENGR_NWM_TRKGRP_CTRLS in table OFCENG for the maximum number of trunk groups with the FRR feature that can be controlled simultaneously.

Consequences

If an extension block is not available for a call that is about to be rerouted, the call continues to advance through its in-chain route list instead of being rerouted to its VIA route list.

Verification

To verify that sufficient extension blocks have been allocated, use CI command OMSHOW EXT ACTIVE 52 and read the following entry:

```
     EXTSEIZ         EXTOVFL         EXTHI          EXTSEIZ2
     EXTHI2
52 RTEB_EXTENSION
     0
       0               0               0               0
       0
```

Measurement EXTHI records the maximum number of extension blocks in simultaneous use during the current transfer period.

Any nonzero value in EXTOVFL indicates underprovisioning.

See OM groups NWMFRRCT and NWMFRRTG for additional operational measurements associated with this parameter.

See the *Operational Measurements Reference Manual*, 297-1001-814 for a description of OM groups EXT, NWMFRRCT and NWMFRRTG.

Memory requirements

Each unit requires 41 of words of memory.

Dump and restore rules

This parameter was introduced in BCS23.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Number of Routing Characteristic Extension Blocks

Functional description of parameter NUM_RC_EXT_BLKS

This parameter specifies the number of routing characteristic (RC) extension blocks required. It is required in all switching units where calls are translated and routed based on several routing characteristics in conjunction with the called digits.

Advanced intelligent network (AIN) calls receiving analyze_route or forward_call responses use routing characteristics to translate and route the response. The operating company must ensure that sufficient extension blocks are provisioned for this additional use.

Provisioning rules

The recommended value for this parameter is determined by the following calculation:

$$A = ccb \times tr$$

where

A	is the number of RC extension blocks
ccb	is the number of call condense blocks (CCB)
tr	is the percentage of traffic using routing characteristics

Range information

Minimum	Maximum	Default
0	32766	0

Activation

Increase – immediate
Decrease – cold restart

Dependencies

Not applicable

Consequences

If this parameter is underprovisioned, calls using routing characteristics are given treatment.

Verification

To verify that sufficient recording units have been allocated, use CI command OMSHOW EXT ACTIVE 91 and read the following entry:

```
        EXTSEIZ         EXTOVFL         EXTHI           EXTSEIZ2
        EXTHI2
91 NUM_RC_EXT_BLKS
     0
        0               0               0               0
        0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Measurements EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

Memory requirements

Each unit requires 5 words of memory.

Dump and restore rules

This parameter was introduced in BCS31.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 AIN impact added

Parameter name

Number of Signaling Management Environment Control Blocks

Functional description of parameter NUM_SME_CONTROL_BLOCKS

This parameter is required for an integrated services digital network (ISDN) switching unit with feature Signaling Management Environment (SME).

This parameter specifies the maximum number of SME control blocks required for the engineering interval.

The SME control block is used by the Signaling Management architecture (SMA) agents whose calls are supported by SME.

A SME100 log is originated during any restart if an attempt to allocate the data store required for these control blocks fails.

A SME102 log is originated if the following conditions are met:

- The number of control blocks is greater than 0 (zero) and less than the current value of this parameter prior to a restart.

- An attempt to allocate the data store required for the new and old value for the number of control blocks fails during a restart.

A SME104 log is originated if the following conditions are met:

- The number of control blocks is greater than 0 (zero) and less than the current value of this parameter prior to a restart.

- An attempt to allocate the data store required for the new value for the number of control blocks fails during a restart.

- An attempt to allocate the data store required for the old value for the number of control blocks is successful during a restart.

A SME106 log is originated if an attempt to get an unused control block has failed. The SME106 log indicates that the value of this parameter should be increased.

A SME108 log is originated if a call that has a control block attached to it is being cleaned up and the control block is being dumped.

A SME108 log is an error condition that should not occur. This LOG should be recorded and a Customer Service Report (CSR) should be generated.

NUM_SME_CONTROL_BLOCKS

Provisioning rules

SME control blocks are only required in offices that have ISDN functional basic rate access (BRA). To calculate the number of SME control blocks required, the following formula should be used:

$$A = b \times c / d$$

where

A	is the NUM_SME_CONTROL_BLOCKS to be engineered
b	is the number of call processes in the office (value of parameter NUMCALLPROCESSES)
c	is the number of ISDN BRA terminals
d	is the total number of lines in the office

If the NUM_SME_CONTROL_BLOCKS to be engineered is greater than 0 (zero), but less than 50, the number of SME control blocks should be set to 50.

Range information

Minimum	Maximum	Default
0	32767 (theoretical) 110 (recommended)	50

Activation

Warm restart

Dependencies

Not applicable

Consequences

Overprovisioning the number of SME control blocks does not have any effect on the SMA or on any calls. It will, however, be a waste of data store.

Underprovisioning the number of SME Control Blocks causes some calls destined for the SMA to fail.

Verification

If a SME106 log is not generated after the restart, the SME control blocks have been successfully allocated.

Memory requirements

Each unit requires 12 words of memory.

Dump and restore rules

This parameter was introduced in BCS28.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36   corrected formula for calculating number of SME control blocks

NUM_SME_DATA_BLOCKS

Parameter name

Number of Signaling Management Environment Data Blocks

Functional description of parameter NUM_SME_DATA_BLOCKS

This parameter is required for an Integrated Service Digital Network (ISDN) switching unit with the Signaling Management Environment (SME) feature. It specifies the maximum number of SME data blocks required for the engineering interval.

The SME data block is used by the signaling management architecture (SMA) agents with calls supported by SME.

A SME101 log is originated during any restart if an attempt to allocate the data store required for these control blocks fails.

A SME103 log is originated if the following conditions are met:

- the number of control blocks is greater than 0 and smaller than the current value of this parameter prior to a restart

- the attempt to allocate the data store required for the new and old value for the number of control blocks fails during a restart

A SME105 log is originated if the following conditions are met:

- the number of control blocks is greater than 0, and smaller than the current value of this parameter prior to a restart

- the attempt to allocate the data store required for the new value for the number of control blocks fails during a restart

- the attempt to allocate the data store required for the old value for the number of control blocks is successful during a restart.

A SME107 log is originated if an attempt to get an unused control block has failed. It indicates that the value of this parameter must be increased.

A SME109 log is originated if a call that has a control block attached to it is being cleaned up and the control block is being dumped. A SME109 log is an error condition that should not occur. This log should be recorded and a Customer Service Report (CSR) should be generated.

Provisioning rules

The number of SME data blocks required in an office can be determined by the following formula:

NUM_SME_DATA_BLOCKS = NUM_SME_CONTROL_BLOCKS X 2

Range information

Minimum	Maximum	Default
0	32767 (theoretical) 220 (recommended)	100

Activation

Warm restart

Dependencies

Not applicable

Consequences

Overprovisioning the number of SME data blocks does not have any effect on the SMA or on any calls. It wastes data store.

Underprovisioning the number of SME data blocks causes some calls destined for the SMA to fail.

Verification

If a SME107 log is not generated after the restart, the SME data blocks have been allocated.

Memory requirements

Each unit requires 36 words of data store.

Dump and restore rules

This parameter is new with software release BCS28.

Copy the existing value of this parameter when doing a dump and restore.

NUMBER_OF_CDR_UNITS

Parameter name

Number of Call Detail Recording Units

Functional description of parameter NUMBER_OF_CDR_UNITS

This parameter is required by DMS-300 switches to specify the number of call detail recording (CDR) entries that can be accumulated for calls in progress.

Provisioning rules

This number should be 10% greater than the number of simultaneous calls.

Range information

Minimum	Maximum	Default
0	131072	5000

Activation

Increase - immediate
Decrease - cold restart

Dependencies

Not applicable

Consequences

Not applicable

Verification

To verify that sufficient recording units have been allocated, use CI command OMSHOW EXT ACTIVE 30 and read the following entry.

```
     EXTSEIZ        EXTOVFL        EXTHI          EXTSEIZ2
     EXTHI2
30 CDR300_RECORDING_UNIT
     100
        0              0              0              0
        0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Measurements EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

See the *Operational Measurement Reference Manual*, 297-1001-814 for a description of OM group EXT.

Memory requirements

Each recording unit requires 21 words of memory. For example, if this parameter is left at the default value, 105000 words of memory will be used (5000 x 21 words).

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

NUMBER_OF_DIGITS_PER_DN

Parameter name

Number of Digits Per Directory Number

Functional description of parameter NUMBER_OF_DIGITS_PER_DN

This parameter is required for a local switching unit. It specifies the number of digits that are collected by the line module for a directory number before reporting.

If the number of digits dialed for a directory number is less than the value of this parameter, the calling party will be routed to Permanent Signal/Partial Dial (PSPD) treatment in the appropriate treatment table.

If the number of digits dialed for a directory number is more than the value of this parameter, the calling party will be routed to Blank Directory Number (BLDN) or Vacant Code (VACT) treatment in the appropriate treatment table.

Provisioning rules

For all local switching units, excluding those in the United Kingdom (UK), specify the number of digits in a local directory number.

For a switching unit in the UK, the value of this parameter shall be equal to the minimum number of digits for a local directory number.

Range information

Minimum	Maximum	Default
5	15	7

Activation

If peripheral module is not connected to an LGC or LTC, an activation of a change to this parameter is done by issuing a BUSY (BSY) and RETURN TO SERVICE (RTS) on the peripheral module.

If peripheral module is connected to an LGC or LTC, an activation of a change to this parameter is done by putting the LGC or LTC through a RTS sequence. Either BSY and RTS the entire peripheral (both sides) or perform a double warm SWACT to update both the active and inactive sides.

Dependencies

For additional digit collection data see parameter DIGIT_COL_OFFICE_CODE in table OFCSTD.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

NUMCALLPROCESSES

Parameter name

Number of Call Processes

Functional description of parameter NUMCALLPROCESSES

This parameter specifies the number of call processes (CP) required for the switching unit.

A CP is a software entity associated with a call whenever active processing is required (during set up, take down, and feature processing). It consists of the current location in call processing software, plus other memory needed to hold data temporarily. When a call releases a call process, this temporary data is either lost or stored in an extension block.

With call condense on, all call types, with the exceptions of AOSS, CAMA, OCC, and TOPS positions and Voice Links, have the CP released.

CPs are directly related to call volumes and holding time of the CP.

Provisioning rules

The value of this parameter is calculated with the following equation:

$$Num = (a \times b \times c) + d + 20$$

where

Num	the number of call processes
a	is the peak calls per second
b	is (0.1) expected CP waits per call
c	is (5 s) average wait
d	is $2 \times$ (CAMA + AOSS + TOPS + OOC positions + VL members)

The recommended value for all switching units is:

$$Num = 70 + 2 \times (CAMA + TOPS + OOC + AOSS \text{ positions,}$$
$$\text{including administration positions} + VL \text{ members})$$

Range information

Minimum	Maximum	Default
1	2072	70

Activation

Increase - immediate
Decrease - cold restart

Dependencies

At extension time, the value of this parameter must change if the quantity of the above type of positions changes.

If the switching unit has the Centralized Automatic Message Accounting (CAMA) feature, see table CPOS for the number of CAMA positions.

If the switching unit has the Traffic Operator Position System (TOPS) feature, see table TOPSPOS for the number of TOPS positions.

If the switching unit has the Overseas Operator Centre (OOC) feature, see table TOPSPOS for the number of OOC positions.

If the switching unit has the Auxiliary Operator Service System (AOSS) feature, see table AOSSPOS for the number of AOSS positions.

If the switching unit has the Operator Centralized Remote (OC) feature, see table VLMEM for the number of VL members.

Consequences

Not applicable

Verification

See measurements CPSZ, CPSZ2, ORIGDENY and WAITDENY in operational measurement (OM) group CP and CPHI in OM group CP2 for the OMs associated with this parameter.

Measurement CPHI records the maximum number of call processes in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual*, 297-1001-814 for a description of OM groups CP and CP2.

Memory requirements

The number of words of memory required for each call process is 130 plus the value of parameter CPSTACKSIZE in table OFCSTD.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

NUMCPWAKE

Parameter name

Number of Call Processing Wakeups

Functional description of parameter NUMCPWAKE

This parameter is required in all switching units and specifies the maximum number of call process wakeups in the system.

Wakeups are used by the system when processing of a call must wait a predetermined time for other functions to occur. The process requesting a wakeup defines the wait time and the instructions or message to be sent to the call on waking up.

Wakeups are placed on time queues until they time out at which time a message is sent to the associated call.

Wakeups are required for the maximum number of simultaneous calls for the following call types:

- Trunk to Tone

- Trunk to Announcement

If the switch is equipped with lines, additional wakeups are required when a line connects to one of the following call types:

- Alarm Sending and Checking

- Announcements

- Call Waiting Disconnect

- Call Waiting Initialization

- Centralized Automatic Message Accounting (CAMA) Recall

- Coin Biller for Local Coin Overtime

- Direct Dial Overseas

- Emergency Service Bureau

- Emergency Service Bureau Ringback

- Hotel/Motel Message Register Pulsing

- Local Coin Overtime Charging

- Local Coin Overtime Treatment

- POTS Call Forward Don't Answer (CFDA)

- Silent Switchman

- Test Desk

- Tones (all tones in tables TONES and STN)

- Trunk Recall

- Trunk to CAMA Call

If the switch has the Meridian Digital Centrex (MDC) or the Residential Enhanced Services (RES) feature, five additional wakeups are required for each attendant console. Additional wakeups are also required for the following call types:

- Call Back Queuing
- Call Forward Don't Answer
- Call Hold
- Call Park
- Calls Queuing for Attendant Console
- Camp-on
- Camp-on Time out
- Cut-Thru Dialing
- Expensive Route Warning Tone
- Off-Hook Queuing
- Permanent Hold
- Ring Again
- Transfer Feature
- Three-Way Call Public Announcement

If the switch is toll, additional wakeups are required for the following call types:

- CAMA Recall
- Super CAMA (trunk group type SC) and Outgoing to Traffic Operator Position System (TOPS) or Traffic Service Position System TSPS (trunk group type OP)
- Tandem Direct Dial Overseas

If the switch has the TOPS feature, additional wakeups are required for the following:

- Remote Operator Number Identification (RONI)
- TOPS Administration TTYs
- TOPS Coin Functions
- TOPS Position (one for each position)
- TOPS Trunk Check for CAMA Suspension

If no call processing wakeups are available, a SWERR message is generated and a warning message states that not enough CPWAKES have been provided.

NUMCPWAKE

Provisioning rules

Set the value of this parameter to 1000 unless otherwise instructed by Northern Telecom.

Range information

Minimum	Maximum	Default
0	32767 (reserved) 20000 (programmed)	80

Activation

Increase - immediate

Decrease - cold restart

Dependencies

At extension time the value of this parameter must change, if the quantity of any of the items in the provisioning rules change.

Consequences

If the value of this parameter is set too low along with low values for other call processing software parameters, the operational measurement overflow register WAKEOVFL pegs.

If call processing parameters are within range, underprovisioning of this parameter affects the timing that a call is moved along in call processing (for example, extension blocks) that causes a call to die. The operational measurement (OM) overflow register WAKEOVFL does not peg.

Verification

See measurements WAKESZ and WAKEOVFL in OM Group CP and WAKEHI in OM Group CP2 for the OMs associated with this parameter.

To verify that sufficient call processing wakeups have been allocated, use CI command OMSHOW CP ACTIVE and read the measurement WAKEOVFL in OM group CP.

Any nonzero value in measurement WAKEOVFL indicates underprovisioning.

Measurement WAKEHI in OM group CP2 records the maximum number of call processing wakeups in simultaneous use during the current transfer period.

In a switching unit with the MDC or RES feature, see OM groups CALLFWD, CALLWAIT, and CALLHOLD for OMs associated with this parameter.

See the *Operational Measurements Reference Manual* 297-1001-814 for a description of OM groups CP and CP2.

Memory requirements

Each CPWAKE block requires 33 words of memory.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

NUMECCBS

Parameter name

Number of Extended Call Control Blocks

Functional description of parameter NUMECCBS

This parameter is required for all switching units. It specifies the number of extended call control blocks (ECCB) provided.

This parameter is a read-only parameter. Its value cannot be changed. It can be used to see how many ECCBs have been provided.

Its value is automatically determined by the value of other parameters in the switching unit.

Range information

Minimum	Maximum	Default
1	Value of parameter NCCBS in table OFCENG.	65

Activation

Not applicable

Dependencies

Not applicable

Consequences

Not applicable

Verification

The following operational measurements are assigned to this parameter:

- PEG: CP2_ECCBSZ
- USAGE: CP2_ECCBTRU
- OVERFLOW: CP2_ECCBOVFL

When there are no blocks available, lines are routed to Network Blockage Normal Traffic (NBLN) treatment in the treatment tables.

Any nonzero value in CP2_ECCBOVFL indicates underprovisioning.

Memory requirements

13 words of memory are allocated for each block.

Dump and restore rules

This parameter was introduced in BCS15.

The value of this parameter is always calculated automatically (including over dump and restore).

Parameter name

Number of Integrated Business Network Console Queuing Extension Blocks

Functional description of parameter NUMIBNCQEXTBLK

This parameter controls the number of calls that can be associated (queued, on hold, or active) with IBN attendant consoles at any time. It represents the number of queuing extension blocks required for the switching unit.

Provisioning rules

The value of this parameter is calculated with the following equation:

$$Ext = con \times 15$$

where

Ext   is the number of extension blocks
con   is the number of attendant consoles

Range information

Minimum	Maximum	Default
0	32767 (reserved) 16000 (programmed)	50

Activation

Increase – immediate
Decrease – cold restart

Dependencies

At extension time the value of this parameter must increase if the quantity of attendant consoles increases.

Consequences

Not applicable

Verification

To verify that sufficient extension blocks have been allocated, use CI command OMSHOW EXT ACTIVE 14 and read the following entry:

```
           EXTSEIZ        EXTOVFL        EXTHI          EXTSEIZ2
           EXTHI2
14  IBNCQEXT
     50
        0              0              0              0
        0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Measurements EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual*, 297-1001-814 for a description of OM group EXT.

Memory requirements

Each extension block requires 16 words of memory.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Number of Long Buffers

Functional description of parameter NUMLONGBUFFERS

This parameter is required for switching units with the ISDN user part (ISUP). It specifies how many long incoming buffers have been provisioned for ISUP traffic. These buffers are used to handle ISUP messages that exceed the 49-byte limit of the conventional message.

Provisioning rules

This parameter no longer exists for SuperNode applications. The required number of long buffers is set internally to the value of office parameter NUMCPLETTERS.

For NT40 switches with no ISUP trunks, set the value to 0.

For NT40 switches with ISUP trunks but no featured calls, the default value is sufficient.

For NT40 switches with ISUP trunks and featured calls, use the following equation:

$$Buff = 300 + (f \times n)$$

where

Buff   is the number of long buffers
f   is the number of ISUP featured calls / total number of ISUP calls
n   is the number of ISUP trunks

The percentage of featured ISUP calls is equal to the number of featured ISUP calls originating from, terminating on, or tandeming through the switching unit.

A featured ISUP call is one that carries feature information, such as network name display.

This parameter must be provisioned not only on the switch running ISUP, but also on any other switch (for example, tandem) that receives a long message in passing.

NUMLONGBUFFERS

Range information

Minimum	Maximum	Default	
0 (feature deactivated) 300 (values 1 to 299 are invalid)	2000	356	(NT40 North American loads with ISUP trunks)
		650	(NT40 international loads with ISUP trunks)
		0	(NT40 - no ISUP trunks)

Activation

Increase - immediate
Decrease - cold restart

Dependencies

Not applicable

Consequences

If this parameter is overprovisioned, store is wasted. The value of this parameter is set too high if the OM field INLBHI (group CP2) is much less than the value of this parameter.

Underprovisioning of this parameter results in lost messages, hung calls, and system degradation. The value of this parameter is too low when the OM field INLBOVFL (group CP) contains a large number.

Verification

The actual number of long buffers provisioned is the sixth information field in the OM group CP. This can be seen by using the CI command OMSHOW CP ACTIVE.

See measurements INLBSZ, INLBSZ2 and INLBOVFL in OM group CP and INLBHI in OM group CP2 for the operational measurements (OM) associated with this parameter.

Measurement INLBHI records the maximum number of long buffers in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual*, 297-1001-814 for a description of OM groups CP and CP2.

Memory requirements

Each unit requires 180 words of memory.

Dump and restore rules

This parameter was introduced in BCS27.

Copy the existing value of this parameter when doing a dump and restore.

NUMOHCBQTRANSBLKS

Parameter name

Number of Off-hook and Call Back Queuing Transaction Blocks

Functional description of parameter NUMOHCBQTRANSBLKS

This parameter specifies the number of Transaction Blocks required for the Off–Hook (OHQ) and Call Back Queuing (CBQ) feature.

The value should be equal to the maximum number of calls which can be involved in OHQ or CBQ.

Provisioning rules

If the switching unit is a class 5 with the IBN feature, the maximum number that can be assigned is equal to the lesser of 10% of the value of parameter NCCBS or 1169.

If the switching unit is a stand alone IBN, the maximum number that can be assigned is equal to the lesser of 40% of the value of parameter NCCBS or 1169.

Range information

Minimum	Maximum	Default
0	1169	0

Activation

Cold restart

Dependencies

See operational measurements groups OHQCBQCG and OHQCBQRT in the Operational Measurements Reference Manual 297-1001-814 for the OMs that can be affected by this parameter when it is underprovisioned.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

Each unit requires 10 words of memory.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Number of Permanent Extension Blocks

Functional description of parameter NUMPERMEXT

This parameter is required for all switching units that have one or more of the elements found in the provisioning formula listed below.

Provisioning rules

For all switching units, the recommended number is given by the formula:

Value = (NO_OF_FTR_CONTROL_BLKS in table OFCENG)
+ (1.5 X NO_OF_SC_EXT_BLKS in table OFCENG)
+ (NO_LOCAL_COIN_EXT_BLKS in table OFCENG)
+ (40 X number of Automatic Call Distribution and Uniform
   Call Distribution groups)

Range information

Minimum	Maximum	Default
0	32767	1

Activation

Increase – immediate
Decrease – cold restart

Dependencies

At the time of an extension, recalculate the value of this parameter if the value of one or more of the formula elements changes.

Consequences

Not applicable

Verification

To verify that sufficient extension blocks have been allocated, use CI command OMSHOW EXT ACTIVE 3 and read the following entry:

```
        EXTSEIZ       EXTOVFL       EXTHI        EXTSEIZ2
        EXTHI2
3 PERM
        75
          0             0             0             0
          0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Measurements EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

In an Integrated Business Network (IBN) switching unit, see OM group CALLWAIT for operational measurements (OM) associated with this parameter.

See the *Operational Measurements Reference Manual* 297–1001–814 for a description of OM group EXT.

Memory requirements

Each permanent extension block requires 32 words of memory.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Number of Terminal Linkage Blocks

Functional description of parameter NUMTLBS

This parameter controls the number of terminal linkage blocks used in the input and output systems for input and output not related to call processing.

Provisioning rules

For all switching units, excluding Bell Canada, the value of this parameter should be equal to 20 plus the number of nodes in the switching unit.

The number of nodes is defined in table NNASST and should be equal to the sum of the following:

- number of digital carrier modules
- number of digital trunk controllers
- number of input output controllers
- number of line concentrating modules
- number of line group controllers
- number of line trunk controllers
- number of maintenance trunk modules
- number of message switch and buffers
- number of network modules
- number of outside plant modules
- number of remote line concentrating modules
- number of remote line modules
- number of subscriber carrier modules
- number of trunk modules

Set the value of this parameter to 512 for Bell Canada switching units.

Range information

Minimum	Maximum	Default
20	4096	20

Activation

Warm restart

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

Each block requires 5 words of memory.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 maximum value corrected

Parameter name
Network Management Busy Lamp Update Time

Functional description of parameter NWMTGBLU
This parameter is required in switching units with software package NTX060AB (Network Management). It indicates the network management trunk group busy lamp update time.

A busy trunk group is one with no idle trunks.

For information on Network Management, see the *Network Management System Reference Manual*, 297-1001-453.

Provisioning rules
Specify the network management trunk group busy lamp update time, (that is, the frequency at which the lamps are updated) in 10 second increments.

Range information

Minimum	Maximum	Default
		12 (2 minutes)

Activation
Immediate

Dependencies
Not applicable

Consequences
Not applicable

Verification
Not applicable

Memory requirements
This parameter has no memory impact.

Dump and restore rules
Copy the existing value of this parameter when doing a dump and restore.

NX25_RR_EACH

Parameter name

NX25 Receive Ready For Each

Functional description of parameter NX25_RR_EACH

This parameter is required in a switching unit with NX25 software.

Provisioning rules

If the value of this parameter is set to Y (yes), a receive ready message is sent for each data packet received.

If the value of this parameter is set to N (No), receive ready messages are sent only when data packets are received and no data frames are ready to be transmitted (that is, no packets are available or the transmit window is full.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS23

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Operations Administration and Maintenance Hardware Present

Functional description of parameter OAM_HW_PRESENT

Software Packages NTXF93AA (ISDN Provisioning) and NTXF92AA (ISDN (OAM) Base) enable integrated service provisioning to be performed from the DMS. These packages require the datafill of Packet Handler (PH) parameters on the DMS and the existence of hardware for processing and provisioning of the PH.

This parameter enables the DMS software to detect the presence of this hardware. This feature changes the packaging restrictions to allow enhanced SERVORD functionality such as automatic DS1 channel selection and SPECCONN table datafill to function without the presence of the OAM hardware.

This parameter affects the Data Packet Network (DPN) packet handler provisioniong only. It does not provide any function for the DMS packet handler.

Provisioning rules

If package NTXF93AA is installed, but the associated OAM processor hardware is not installed and in service, this parameter should be set to a value of N (no).

When the hardware is installed and in service, the parameter can be set to a value of Y (yes).

Range information

Minimum	Maximum	Default
		N

The default value of N (no OAM hardware present) is chosen because a customer typically receives a software load before the associated hardware has been installed and put into service.

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

To verify that this parameter is functional, set the parameter to Y and attempt to attach a LAPB or LAPD Logical Terminal Identifier (LTID) to an Integrated Services Digital Network (ISDN) line. There should be no tuples in table PHINFO for the LTID for this test. The SLT ATT command should fail with a warning that a data network address (DNA) must be added to the LTID in table PHINFO. If the LTID can be attached with the OAM_HW_PRESENT parameter set to N, and the command does not fail as described with the parameter set to Y, the parameter is not functioning properly.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS30.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

OCCTS Enhanced Feature

Functional description of parameter OCCTS_ENHANCED_FEATURE

This parameter is required for switching units with the Equal Access End Office feature. It specifies whether the operating company requires additional registers, source, and destination numbers for the Equal Access Traffic Measurement Separation System.

Provisioning rules

The value of this parameter should not be changed to Y (yes), unless the switching unit has software package NTX085AA.

For switching units without software package NTX085AA, leave the value of this parameter at the default of N (no).

If this parameter is set to Y:

- The number of OCCTS OM registers is increased from 256 to 2048.
- If more than 256 registers are required, parameter NO_OCCTS_OM_REGISTERS in table OFCENG has to be datafilled to specify the quantity.
- The number of source and destination numbers are increased from 15 to 127.
- If more than 15 source numbers are required, parameter OCCTS_IN_MAX_NUMBERS in table OFCENG has to be datafilled to specify the quantity.
- If more than 15 destination numbers are required, parameter OCCTS_OUT_MAX_NUMBERS in table OFCENG has to be datafilled to specify the quantity.

If this parameter is set to N, the number of OCCTS OM registers are 256 and the number of source and destination numbers are 15.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

The OCCTS OM register numbers and OCCTS source and destination numbers are assigned in tables OCCTSINT and OCCINFO.

OCCTS_ENHANCED_FEATURE

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Other Common Carrier Traffic Separation Incoming Maximum Number

Functional description of parameter OCCTS_IN_MAX_NUMBER

This parameter is required for switching units with the Equal Access Traffic Separation Measurement System, Other Common Carrier Traffic Separation (OCCTS) feature.

This parameter specifies the maximum number of source traffic separation numbers (NSTS) that can be assigned to other common carriers in table OCCINFO to separate equal access traffic.

Provisioning rules

The following values can be assigned to this parameter:

- SIZE_15
- SIZE_31
- SIZE_63
- SIZE_127

These values provide a quantity of NSTSs as outlined in table 1.

Table 1 Parameter values		
Value	Number of DTSNs	NSTS numbering
SIZE_15	16	0 to 15
SIZE_31	32	0 to 31
SIZE_63	64	0 to 63
SIZE_127	127	0 to 127

Changing the value of this parameter is not allowed unless package NTX085AA is present and parameter OCCTS_ENHANCED_FEATURE in table OFCENG is set to Y (yes).

For switching units without software package NTX085AA and the value of parameter OCCTS_ENHANCED_FEATURE in table OFCENG set to N (no), leave the value of this parameter at the default of SIZE_15.

If the switching unit has software package NTX085AA and the value of parameter OCCTS_ENHANCED_FEATURE in table OFCENG is set to Y, the recommended value is SIZE_127.

OCCTS_IN_MAX_NUMBER

Range information

Minimum	Maximum	Default
		SIZE_15

Activation

Cold restart

Once this parameter is set and a cold restart is performed, its value can not be decreased. This avoids traps that may occur in table control and call processing if OCCTS registers that were deallocated are used.

Dependencies

See parameter OCCTS_ENHANCED_FEATURE in table OFCENG for other parameters and tables that are associated with the OCCTS feature.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

The amount of memory used by this parameter is calculated with the following equation:

$$mem = 3 \times nsts \times ndts + 2 \times u \times nstr + 6 \times nac \times nstr$$

where

mem	is the amount of memory in words
nsts	is the number of source TS numbers
ndts	is the number of destination TS numbers
u	is 2 with usage only, 6 with pegs and usage
nstr	is the number of assignable OM registers
nac	is the number of operational measurement accumulating classes defined

For example, a switching unit has chosen to allocate 64 source TS numbers, 128 destination TS numbers and 256 assignable OM registers. The usage option is equipped. Data is to be accumulated for hourly and daily intervals (2 accumulation classes).

$$mem = 3 \times 64 \times 128 + 2 \times 2 \times 256 + 6 \times 2 \times 256 = 28672 \text{ words}$$

Dump and restore rules

This parameter was introduced in BCS16.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Other Common Carrier Traffic Separation Outgoing Maximum Number

Functional description of parameter OCCTS_OUT_MAX_NUMBER

This parameter is required for switching units with the Equal Access Traffic Separation Measurement System, Other Common Carrier Traffic Separation (OCCTS). It specifies the maximum number of destination traffic separation numbers (NDTS) that can be assigned to outgoing and two-way trunk groups in table TRKGRP, announcements in table ANNS, tones in table TONES, and special tones in table STN to separate equal access traffic.

Provisioning rules

The following values can be assigned to this parameter:

- SIZE_15
- SIZE_31
- SIZE_63
- SIZE_127

These values provide a quantity of NSTSs as outlined in table 1.

Table 1 Parameter values		
Value	Number of DTSNs	NSTS numbering
SIZE_15	16	0 to 15
SIZE_31	32	0 to 31
SIZE_63	64	0 to 63
SIZE_127	127	0 to 127

Changing the value of this parameter is not allowed unless package NTX085AA is present and parameter OCCTS_ENHANCED_FEATURE in table OFCENG is set to Y (yes).

For switching units without software package NTX085AA and the value of parameter OCCTS_ENHANCED_FEATURE in table OFCENG set to N (no), leave the value of this parameter at the default of SIZE_15.

If the switching unit has software package NTX085AA and the value of parameter OCCTS_ENHANCED_FEATURE in table OFCENG is set to Y, the recommended value is SIZE_127.

Range information

Minimum	Maximum	Default
		SIZE_15

OCCTS_OUT_MAX_NUMBER

Activation

Cold restart

Once this parameter is set and a cold restart is performed its value may not be decreased. This avoids traps that may occur in table control and call processing if OCCTS registers that were deallocated are used.

Dependencies

See parameter OCCTS_ENHANCED_FEATURE in table OFCENG for other parameters and tables that are associated with the OCCTS feature.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

See parameter OCCTS_IN_MAX_NUMBER in table OFCENG for memory requirements.

Dump and restore rules

This parameter was introduced in BCS16.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Office Common Language Location Identifier Name

Functional description of parameter OFFICE_CLLI_NAME

This parameter is required for switching units with common channel interoffice switching. It specifies the switching unit common language location identifier (CLLI) code.

The code is required when test translations are performed on a trunk and its circuit identification name is received. A comparison (automatic and/or manual) can be made to verify that the test passed.

This parameter must be datafilled in all switching units because it is required by the Technical Assistance Service (TAS) for listing of the TAS non-res tape.

Provisioning rules

Specify the switching unit CLLI code.

Range information

Minimum	Maximum	Default
		$ (a null vector)

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS18.

Copy the existing value of this parameter when doing a dump and restore.

OFFICE_DS_FUNCTION_NUMBER

Parameter name

Office Direct Signaling Function Number

Functional description of parameter OFFICE_DS_FUNCTION_NUMBER

This parameter is required for switching units with the common channel interoffice signaling (CCIS) direct signaling capability (software package NTX197AA).

The CCIS network administration centre (CNAC) assigns a unique function number to every node or separately identifiable function within a node in the network.

This parameter specifies the function number that uniquely identifies the destination of direct signaling messages destined for the node.

Provisioning rules

Specify the function number that uniquely identifies the destination of direct signaling messages destined for the node.

Range information

Minimum	Maximum	Default
0	32767	0

Activation

Cold restart

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS14.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Office Direct Signaling Supplementary Query Data Sampling Rate

Functional description of parameter OFFICE_DS_SQD_SAMPLING_RATE

This parameter is required for switching units with the CCIS direct signaling capability (software package NTX197AA). It specifies the office direct signaling supplementary query data (SQD) sampling rate that is used in conjunction with the mechanized calling card signaling (MCCS) direct signaling application.

Provisioning rules

Specify the office direct signaling SQD sampling rate to be used in conjunction with the MCCS direct signaling application.

The switching unit selects every nth queries (where n is the value of this parameter) and transmits an additional message that contains information to perform division of revenue studies for MCCS.

Range information

Minimum	Maximum	Default
0	127	0

Activation

Cold restart

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS14

Copy the existing value of this parameter when doing a dump and restore.

OFFICE_ID_ON_AMA_TAPE

Parameter name

Office Identification on Automatic Message Accounting Tape

Functional description of parameter OFFICE_ID_ON_AMA_TAPE

This parameter specifies the office identifier to be written in the Automatic Message Accounting (AMA) Service Observing tape header record.

This parameter is defined by the operating company.

Provisioning Rules

Specify the office identifier to be written in the AMA Service Observing tape header record.

Range information

Minimum	Maximum	Default
		000000

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

Copy the existing value of this parameter when performing dump and restore procedures.

Parameter name

Office Identifier On Call Detail Recording Tape

Functional description of parameter OFFICE_ID_ON_CDR_TAPE

This parameter is required in a DMS-300 switch. It specifies the office identification code on each Call Detail Recording (CDR) block header that can be stored on either tape or disk.

Provisioning rules

This parameter is set by Northern Telecom and should be changed only in consultation with Northern Telecom.

Range information

Minimum	Maximum	Default
		DS1MTL

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

OFFICE_LANGUAGE

Parameter name

Office Language

Functional description of parameter OFFICE_LANGUAGE

This parameter is required for a switching unit with the Call Forwarding Remote Access (CFRA), Automatic Recall (AR), Automatic Callback (ACB) and Calling Number Delivery (CND) features.

It controls the language in which subscribers receive announcements for the above features.

This parameter consists of the following two fields:

- PRIMARY
- SECONDARY

The value of these fields can be one of the following:

- LANG1 (language 1)
- LANG2 (language 2)
- BILING (bilingual)
- NIL (no language).

The value of the PRIMARY field cannot be NIL.

The values of these fields indicate the language in which subscribers receive announcements for the above features.

Most announcements are provided in the language specified by the PRIMARY field. The exception is for subscribers who have the SL line option. They will receive announcements in the language specified by the SECONDARY field.

Provisioning rules

In unilingual areas the following values are recommended:

- PRIMARY: LANG1
- SECONDARY: NIL

In bilingual areas the following values are recommended:

- PRIMARY: LANG1
- SECONDARY: LANG2

The following configurations are also possible.

- The primary language can be set to BILING with the secondary language set to LANG1 or LANG2.
- The primary language can be set to LANG1 or LANG2 with the secondary language set to BILING.

Range information

Minimum	Maximum	Default
		LANG1 LANG2

Activation

Immediate

Dependencies

The language (English or French) associated with LANG1 or LANG2 is
determined in table DRMUSERS.

Consequences

Not applicable

Verification

Make a call that invokes an announcement. If the user does not have the SL
line option, the annoucement is presented in the language specified by the
PRIMARY field.

If the user does have the SL line option, the announcement is presented in
the language specified by the SECONDARY field.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS27.

Copy the existing value of this parameter when doing a dump and restore.

OMPRTFORMAT

Parameter name

Operational Measurement Print Format

Functional description of parameter OMPRTFORMAT

This parameter defines the number of registers that can have their contents printed on one line of output by the operational measurement printer.

The contents of one register occupies the space of eleven characters.

Provisioning rules

Specify the number of registers that can have their contents printed on one line of output by the operational measurement printer.

Range information

Minimum	Maximum	Default
1	10	6

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Operational Measurement Tape Suppression

Functional description of parameter OMTAPESUPPRESSION

This parameter enables or disables the suppression of zero data from the operational measurement tape.

Provisioning rules

If the value is set to Y (yes), the unequipped members of D records are not output to tape.

If the value is set to N (no), the unequipped members of D records are output to tape.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

OMTELCOLABEL

Parameter name

Operational Measurement Operating Company Label

Functional description of parameter OMTELCOLABEL

This parameter specifies the label to be put on operational measurement
(OM) tapes. This label is defined by the operating company

Provisioning rules

Specify the operational measurement (OM) tape label.

Range information

Minimum	Maximum	Default
		$ (a nil vector)

Activation

The parameter value takes effect when the next OM tape is mounted.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Operational Measurement Transfer

Functional description of parameter OMXFR

This parameter specifies the time interval in which active OM registers are copied to the holding registers.

Provisioning rules

This parameter can have a value of 15 minutes (X15) or 30 minutes (X30).

This value is usually left at 30 minutes, but can be changed to 15 at the discretion of the operating company.

If the switching unit has the engineering administration data aquisition system (EADAS) and option EADAS_SHORT_XFER_ALLOWED in table OFCOPT is set to N (no), this parameter must have the value of X30.

If the switching unit has the engineering administration data aquisition system (EADAS) and option EADAS_SHORT_XFER_ALLOWED in table OFCOPT is set to Y (yes), this parameter can have the value of X15 or X30.

If office parameter OMHISTORYON is set to Y, this parameter is disabled in table OFCENG and there is a 5 minute OM transfer period.

Range information

Minimum	Maximum	Default
		X30

Activation

Cold restart

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

ORIGS_TO_BLEED

Parameter name

Originations To Bleed

Functional description of parameter ORIGS_TO_BLEED

This parameter is required only for an access tandem (AT) switching unit. It controls the amount of origination bleeding that occurs during batching.

If this parameter is activated, (set to a nonzero value), there is no significant effect on call processing when occupancy is low in AT switching units. The effects of this parameter become noticeable above 50% call processing (CP) occupancy.

Bleeding improves overall performance in an AT switching unit that is batching. This only occurs in a few select switching units. If a switching unit is not batching, bleeding may have a negative effect on system performance.

The batching syndrome that manifests itself in an AT environment becomes evident in a switching unit when very large numbers of ORIGDENYs appear even when the switching unit is not at capacity. The ORIGDENYs are indications of large origination delays and a loss of an orig message before service is given.

The batching syndrome occurs due to the small number of call types, the lack of variation on the timings of the calls (for example, all trunks with the same signaling format - MF wink) and the above priority scheme. The calls have a tendency to synchronize themselves into batches of progress and origination work.

Origination bleeding allows a variable amount of origination work into the system during the long periods of progress work. The value of this parameter specifies the amount that it is varied.

With bleeding, the batching still exists to a certain extent, as it does in all switches, however the number of ORIGDENYs almost disappears and the number of INEFDENYs is reduced significantly at high load. This is where the capacity savings occur.

Provisioning rules

To turn on the origination bleeding feature, set the parameter to one of the following values. The value of this parameter has the approximate implications outlined in table 1.

Table 1
Provisioning parameter ORIGS_TO_BLEED

Value	Function
1	bleed 10% of offered originations at capacity
2	bleed 20% of offered originations at capacity
3	bleed 30% of offered originations at capacity

Leave the value of this parameter at the default of 0 to turn off the origination bleeding feature.

The following message is displayed if an attempt is made to alter this parameter to a value other than 0 to 3.

VALUE MUST BE IN (0 - 3) RANGE

Range information

Minimum	Maximum	Default
0	3 (programmed) 32767 (reserved)	0

Activation

Immediate

The following warning is displayed each time this parameter value is changed:

** WARNING ** — DO NOT CHANGE THIS PARAMETER TO A NON ZERO VALUE. THIS PARAMETER SHOULD ONLY BE CHANGED IN ACCESS TANDEM OFFICES. CHANGES TO THIS OFFICE PARAMETER ARE PERFORMANCE AFFECTING AND MAY DEGRADE OFFICE CAPACITY.

Dependencies

Not applicable

Consequences

Changing this parameter to a value other than 0 outside the access tandem environment is not recommended. This office parameter affects all call processing and could be performance affecting if activated.

Consequences observed before capacity is reached and this parameter is incorrectly implemented or a switching unit is not batching may be:

- Extreme progress queue delays. The higher this parameter is set, the longer the progress delays will be in a non-batching switching unit.
- large numbers of CPLOOVFLs
- a reduction in calls per hour at capacity

Verification

See OM GROUP CP for the definitions of INEFDENY and ORIGDENY.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS26.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Origination Threshold

Functional description of parameter ORIGTHRES

This parameter is required in all switching units. It specifies the number of CPLETTERS reserved for system progress messages during high load. During this interval, pending origination work is buffered in the CPLETTERS. In order to protect calls in progress, the number of pending originations is limited by ORIGTHRES.

This parameter is calculated by the software and should not be reset. It is used to threshold call originations depending on the available number of CP letters. Under very serious degradation where the switch is having difficulty recovering, call processing originations can be turned off. This must only be done by TAS.

Except for the above, this parameter must not be changed. This parameter is automatically updated when parameter NUMCPLETTERS is changed and a cold restart is initiated.

Provisioning rules

For a World Switch the value is 500. This represents the value of parameter NUMCPLETTERS minus 1500. Therefore, with the fixed value of 2000 for parameter NUMCPLETTERS, the value of the parameter is 500.

For an NT-40 switching unit the value is 1744. This represents the value of parameter NUMCPLETTERS minus 256. Therefore, for an NT-40 switching unit with the fixed value of 2000 for parameter CPLETTERS, the value of the parameter is 1744.

For a SuperNode switching unit, the value is 1550. This represents the value of parameter NUMCPLETTERS minus 450. Therefore, for a SuperNode switching unit with the fixed value of 2000 for parameter NUMCPLETTERS, the value of the parameter is 1550.

Range information

Minimum	Maximum	Default
0	500 (World switch) 1744 (NT-40) 1550 (SuperNode)	1550

Activation

This parameter is activated immediately if parameter NUMCPLETTERS in table OFCENG is changed and a cold restart is initiated.

Dependencies

Not applicable

Consequences

Not applicable

Verification

The following operational measurements track this threshold value:

- OM group CP
    - fields CPLOSZ, CPLOVLF and CPLLOW

Any nonzero value in CPLOVFL indicates underprovisioning of CPLETTERS or the occurence of a severe overload condition. The overload condition can be verified by nonzero values in the ORIGDENY OM.

See the *Operational Measurements Reference Manual*, 297-1001-814 for a description of OM group CP.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS15.

The value of this parameter is calculated by software and should not be reset.

Parameter name

Operator Services Calls Waiting Queue Size

Functional description of parameter OS_CALLS_WAITING_Q_SIZE

This parameter specifies the maximum number of queued calls that can be in the operator services automatic call deflection (ACD) system at one time.

Provisioning rules

Set this parameter equal to the maximum number of queued calls that should be allowed in the operator services ACD system at one time.

Range information

Minimum	Maximum	Default
0	32767	0

Activation

Cold restart

Dependencies

Not applicable

Consequences

Underprovisioning causes overflows in the queues during peak times. Overprovisioning wastes data store.

Verification

Not applicable

Memory requirements

Each unit requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS31.

Copy the existing value of this parameter when doing a dump and restore.

OS_CT_SEARCH_DEPTH

Parameter name

Operator Services Controlled Traffic Search Depth

Functional description of parameter OS_CT_SEARCH_DEPTH

This parameter specifies the number of positions that are searched in the controlled traffic position queue to look for an operator that can handle the incoming call under the operator services Automatic Call Distribution (ACD) system.

Provisioning rules

Set the parameter to the number of positions that should be searched in the controlled traffic position queue to look for an operator that can handle the incoming call under the operator services ACD system based on the number of operators available for this function.

Range information

Minimum	Maximum	Default
0	10	0

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

There is no memory usage associated with this parameter.

Dump and restore rules

This parameter was introduced in BCS31.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Operator Services Number of Call Queues

Functional description of parameter OS_NUM_CALL_QUEUES

This parameter specifies the number of call queues that are available in the operator services Automatic Call Distribution (ACD) system for calls to be queued on .

Provisioning rules

Set this parameter equal to the number of call queues that should be available for calls to be queued on within the operator services ACD system.

Range information

Minimum	Maximum	Default
0	64	0

Activation

Cold restart

Dependencies

Not applicable

Consequences

Underprovisioning of this parameter value causes queueing to be too general. The specialties of certain operators are not used. Overprovisioning can increase the time it takes for a call to find the correct queue to queue on.

Verification

Not applicable

Memory requirements

Each unit requires 3 words of memory.

Dump and restore rules

This parameter was introduced in BCS31.

Copy the existing value of this parameter when doing a dump and restore.

OS_NUM_POSITIONS

Parameter name

Operator Systems Number of Positions

Functional description of parameter OS_NUM_POSITIONS

This parameter specifies the maximum number of positions for operator services Automatic Call Distribution (ACD) that are active in the office at one time.

Provisioning rules

Set this parameter equal to the maximum number of operator services ACD positions that may be active in the office at one time.

Range information

Minimum	Maximum	Default
0	1024	0

Activation

Cold restart

Dependencies

Not applicable

Consequences

If this parameter value is underprovisioned, the queueing system can not handle all of the positions present. If it is overprovisioned, there is an increase in the real-time usage for the queueing system.

Verification

Not applicable

Memory requirements

Each unit requires 7 words of memory.

Dump and restore rules

This parameter was introduced in BCS31.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Password Lifetime

Functional description of parameter PASSWORD_LIFETIME

This parameter determines the duration, in number of days, for which a password may be used.

Provisioning rules

The interval is timed from the date of the last password change for the corresponding user identification.

If this feature is not required, set the parameter to the maximum value (32767 days).

Range information

Minimum	Maximum	Default
1	32767	30

Activation

Immediate

Expired passwords cannot be rejuvenated by changing the value of this parameter.

Dependencies

This parameter appears only if ENHANCED_PASSWORD_CONTROL in table OFCOPT is set to Y (yes).

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter, unless it is an extension and the operating company specifically requests a change.

PATCH_BUNDLE

Parameter name

Patch Bundle

Functional description of parameter PATCH_BUNDLE

This parameter is used to enable or disable patch bundle hiding. Before the implementation of this parameter, all patches in the patch package appeared individually in the PATCHER INFORM list. PATCH_BUNDLE allows all patches inside the package to be hidden with the exception of the last patch. All patches remain on the switch and are applied.

In documentation, prior to BCS33, this parameter is listed as SHOW_BUNDLE_GUTS.

Provisioning rules

PATCH_BUNDLE has the following two settings:

- SHOW
- HIDE

Set the value of this parameter to HIDE to allow patch bundle hiding. Set the value of this parameter to SHOW to leave all patches in the package visible.

Range information

Minimum	Maximum	Default
		SHOW Most operating companies do not bundle patches. Therefore they are unaffected, even when this parameter is set to HIDE

Activation

Immediate

Dependencies

Not applicable.

Consequences

Not applicable.

Verification

Not applicable.

Memory requirements

Each unit requires 1 word of memory.

Dump and restore rules

This parameter was introduced with software release BCS32.

Copy the existing value of this parameter when doing a dump and restore.

PHINFO_AUDIT_TIME

Parameter name

Packet Service Data Audit Time

Functional description of parameter PHINFO_AUDIT_TIME

This parameter applies to Integrated Services Digital Network (ISDN) switching units. It specifies the start time of the packet service data audit that runs every 24 hours. The audit checks for mismatched data between the DMS and the packet handler.

This parameter affects the Data Packet Network (DPN) packet handler only. It does not affect the function of the DMS packet handler.

Provisioning rules

The parameter input has an hour field an a minute field. Set the hour field at a value within the range of 0 to 23. Set the minute field at a value within the range of 0 to 59. Specify the desired (24 hr) audit start time.

Range information

Minimum	Maximum	Default
00 00	23 59	2 0 (2:00 a.m.)

Activation

Immediate

Verification

Not applicable.

Consequences

Not applicable.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Plus 48 Volts Overtime Coin Test

Functional description of parameter PLUS48V_OVERTIME_COIN_TEST

This parameter appears only in switching units with the Local Coin Overtime Charging feature (feature package NTX090AA). It specifies the voltage for the overtime coin present test.

Provisioning rules

Overtime coin present tests can be done by applying either –48V or +48V to the tip side.

If this parameter is set to a value of Y (yes), the overtime coin present test is performed using +48V.

When the value of this parameter is set to N (no), the overtime coin present test is performed using –48V.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

PM_PCM_PROTOCOL_SELECTION

Parameter name

Peripheral Module Pulse Code Modulation Protocol Selection

Functional description of parameter PM_PCM_PROTOCOL_SELECTION

This parameter is required by a digital trunk module (DTM) (for enhanced DRAM) and a conference trunk module (CTM) to specify the pulse code modulation (PCM) protocol.

In BCS35, field TONESET is added to this parameter. It is used to derive a second global data byte to be sent to a CTM when it is reloaded. Fields LAW, INVERSION, CEP, and RANGE are used to derive the first global data byte that is sent to the CTM or DTM when it is reloaded.

Field TONESET is used only for the CTM. It specifies the equivalent of the Group Codec card tone set that resides on the CTM card. In other words, it is the product engineering code (PEC) of the pack that would have been used in a standard maintenance trunk module (MTM) configuration with the NT3X67 conference pack.

Provisioning rules

This parameter consists of the following five fields as outlined in table 1.

Table 1
Provisioning parameter PM_PCM_PROTOCOL_SELECTION

Field name	Range of values	Description	Default value
LAW	MU, A	PCM laws	MU
INVERSION	NONE, EVEN, ODD, BOTH	bit inversion schema	NONE
CEP	Y, N	with or without CEP (tone mode selector)	N
RANGE	K48, K32	PM SRAM ranges	K48
TONESET	NT2X59AA, NT2X59AB, NT2X59AC, NT2X59BA, NT2X59CA, NT2X59CB, NT2X59DA, NT2X59EA	tone set selected by corresponding Group Codec PEC	NT2X59AA

In the above table the term SRAM refers to Static Random Access Memory.

Table 2 illustrates some valid market-specific combinations for the values of fields LAW, CEP, and TONESET.

Table 2 Valid combinations			
Application	LAW (1st field)	CEP (3rd field)	TONESET (5th field)
Domestic (North America)	Mu	N	NT2X59AA
Teleglobe	Mu	N	NT2X59AB
CTS–MTM	Mu	N	NT2X59AC
Turkey	A	Y	NT2X59BA
A–Law with CEP tones	A	Y	NT2X59DA

Range information

Minimum	Maximum	Default
		MU NONE N K48 NT2X59AA

Activation

All CTMs and DTMs in the switch must be reloaded.

Dependencies

Not applicable

Consequences

If this parameter is not datafilled correctly, CTM operations fail.

Verification

Change the values of this parameter and load the CTM. Test the CTM at both the peripheral module (PM) and trunk test position (TTP) levels of the MAP. Set up a conference call and check that confirmation is obtained as each new conferee is added.

Memory requirements

This parameter requires 10 words of memory.

Dump and restore rules

This parameter was introduced in BCS34.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 table of valid LAW, CEP, and TONESET fields added

Parameter name

Peripheral Processor Message Buffers

Functional description of parameter PPMBUFFS

This parameter is required in all switching units and specifies the number of peripheral processor (PP) message buffers required for sending messages to peripheral modules (PM).

If 90% of the PP message buffers are used, a PM139 log is generated. The log is invoked by an audit process that runs every 3 min.

Provisioning rules

The recommended value is the result of the following formula or 244, whichever is less.

$$A = 24 + [(0.3 \times b) + c + (d/10) + (e/20) + (f/2000) + g]$$

where

A	is the number of PP message buffers required
b	is the number of CPOS
c	is the number of devices
d	is the number of DGT and MF receivers
e	is the size of the largest trunk group
f	is the total number of lines
g	is the total number of peripheral modules

For a SuperNode office, the recommended value is 244.

In the provisioning formula for NT40, devices entails any input/output (I/O) device where a line test position (LTP) or trunk test position (TTP) can be run.

PMs include all peripherals (hosts, tributaries, and remotest) such as: LGCs, LTCs, DTCs, LCMs, RLMs, RLCMs, OPMs, SCMs, RSCs, RMMs, RSMs, DRCCs, SMU–RCUs, SMR–RCTs, SMS–RCSs, DCMs, TMs, MTMs, LMs, and so on.

Universal tone receiver (UTR) requirements are included under total number of PMs.

Range information

Minimum	Maximum	Default
40	244	80

Activation

Cold restart or NORESTARTSWACT (Refer to the procedure in section "The NORESTARTSWACT utility".)

Dependencies

Re-engineer the value of this parameter using the above formula.

Consequences

If the value of this parameter is set too low, switch degradations can occur. The usage of PPMBUFFS is dynamic. During high traffic situations (or high maintenance situations due to unexpected and severe facility failures such as subscriber cable cuts) a greater than normal number of PPMBUFFS is required. The given formula incorporates a safety margin to handle high usage occurrences.

Verification

Not applicable

Memory requirements

Each buffer requires 140 words of memory.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 provisioning rules updated and NORESTARTSWACT activation added

Parameter name

Preemptable Six-port Conference Circuit Threshold

Functional description of parameter PREEMPTABLE_CONF6_THRESHOLD

This parameter is required for a switching unit with the Integrated Business Network (IBN) and the Present Conferencing or Progressive Conferencing feature.

It specifies the percentage of the total number of six port conference circuits (NT3X67AA) in the switching units that are available for use by the preset and progressive conferencing features.

Provisioning rules

Specify the percentage of the total number of six port conference circuits (NT3X67AA) in the switching units that are available for use by the preset and progressive conferencing features.

For example, if there are 10 six port conference circuits in a switching unit and this parameter is set to a value of 40, the total number of six port conference circuits in use at any one time by the conference features cannot exceed 4.

Range information

Minimum	Maximum	Default
0	100	0

Activation

Immediate

The change is effective after the next audit.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Dump and restore rules

This parameter was renamed in software release BCS31. When doing a dump and restore from a software release less than BCS31 to software release BCS31 or higher, copy the value of parameter PRESET_CONF6_THRESHOLD.

PRINT_NET102_LOGS

Parameter name

Print NET102 Logs

Functional description of parameter PRINT_NET102_LOGS

This parameter specifies whether NET102 logs are generated.

The NET102 logs are still sent to the integrity level buffer, regardless of the value of this parameter.

Provisioning rules

If the value of this parameter is left at the default of Y(yes), NET102 logs are generated.

When the value is set to N (no), no NET102 logs are sent to the log system and a message indicating this is displayed when the INTEG level of the map is entered.

Range information

Minimum	Maximum	Default
		Y

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

To determine if the parameter is set correctly look in table OFCENG. If the value is Y, NET102 logs should be generated. If the value is N, no NET102 logs should be generated.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS26.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

PSTN Global Title Translations Size

Functional description of parameter PSTN_GT_SIZE

This parameter allows Custom Local Area Signaling Service (CLASS) global title translations to be varied from 6 to 10 digits.

This parameter allows an office to change the CLASS GTT size for table C7GTT. This means that ajoining offices that have ambiguous NPA NXX combinations can extend the GTT size up to 10 to establish uniqueness.

Provisioning rules

Set the parameter to the desired maximum CLASS GTT size.

Range information

Minimum	Maximum	Default
6	10	6

Activation

Immediate

Dependencies

Not applicable

Consequences

If this parameter is set too low, ambiguous global title translations can occur.

Verification

Not applicable

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS31.

Copy the existing value of this parameter when doing a dump and restore.

QMSFM_NUM_QUEUES

Parameter name

Queue Management System Force Management Number of Queues

Functional description of parameter QMSFM_NUM_QUEUES

This parameter specifies the total number of Traffic Operator Position System (TOPS) queue management system (QMS) call queues that are reported on by force management.

Provisioning rules

TOPS QMS force management reports on all TOPS QMS call queues in the range of 0 to (QMSFM_NUM_QUEUES −1) up to a maximum value of 256.

Range information

Minimum	Maximum	Default
0	256	9

Activation

Immediate

Dependencies

Not applicable

Consequences

Underprovisioning of this parameter results in incomplete queue information.

Overprovisioning of this parameter results in wasted system store.

Verification

Check QMFADS, QFADS, and QTADS reports to ensure that information pertaining to queues 0 to (QMSFM_NUM_QUEUES −1) is included.

Memory requirements

Each unit requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS34.

Copy the existing value of the parameter when doing a dump and restore.

Parameter name

Queue Management System Force Management Number of Services

Functional description of parameter QMSFM_NUM_SERVICES

This parameter specifies the total number of Traffic Operator Position System (TOPS) queue management system (QMS) services that are reported on by force management.

Provisioning rules

TOPS QMS force management reports on all TOPS QMS services in the range of 0 to (QMSFM_NUM_SERVICES −1) up to a maximum value of 16.

Range information

Minimum	Maximum	Default
1	16	3

Activation

Immediate

Dependencies

Not applicable.

Consequences

Underprovisioning of this parameter results in incomplete service information.

Overprovisioning of this parameter results in wasted system store.

Verification

Check QMFADS, QFADS, and QTADS reports to ensure that information pertaining to services 0 to (QMSFM_NUM_SERVICES −1) is included.

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS34.

Copy the existing value of this parameter when doing a dump and restore.

QMSFM_NUM_STUDY_REG

Parameter name

Queue Management System Force Management Number of Study Registers

Functional description of parameter QMSFM_NUM_STUDY_REG

This parameter specifies the total number of Traffic Operator Position System (TOPS) queue management system (QMS) study registers that are allocated.

Provisioning rules

Specify the total number of TOPS QMS study registers that are allocated.

Range information

Minimum	Maximum	Default
1	450	100

Activation

Immediate

Dependencies

Not applicable.

Consequences

Underprovisioning of this parameter results in administrators running out of study registers.

Overprovisioning of this parameter results in wasted system store.

Verification

Use the command RQ at a QFADS TTY to see how many study registers are allocated.

Memory requirements

Each unit requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS34.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

R2 Analog Answer Filter Time

Functional description of parameter R2_AN_ANSWER_FLTR_TIME

This parameter is required in a switching unit with R2 signaling. It specifies the length of time that the answer line signal must be present before it is recognized as a valid signal and not a glitch.

Provisioning rules

Specify the length of time for answer signal recognition. The value of this parameter is expressed in 10-ms units. For example, the default value of 10 represents 100 ms.

Range information

Minimum	Maximum	Default
0	255	10

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

R2_AN_BLK_FLTR_TIME

Parameter name

R2 Analog Block Filter Time

Functional description of parameter R2_AN_BLK_FLTR_TIME

This parameter is required in a switching unit with R2 analog signaling. It specifies the filter time for blocking or abnormal line signaling during idle.

Provisioning rules

Specify the filter time for blocking or abnormal line signaling during idle. The value of this parameter is expressed in 10-ms units. For example, the default value of 10 represents 100 ms.

Range information

Minimum	Maximum	Default
0	255	10

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.   .

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

R2 Analog Clear Back Filter Time

Functional description of parameter R2_AN_CLR_BCK_FLTR_TIME

This parameter is required in an office with R2 analog signaling. It specifies the time that the clear back line signal must be present before it is recognized as a valid signal and not a glitch.

Provisioning rules

Specify the time for clear back signal recognition. The value of this parameter is expressed in 10-ms units. For example, the default value of 10 represents a period of 100 ms.

Range information

Minimum	Maximum	Default
0	255	10

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

R2_AN_CLR_FWD_FLTR_TIME

Parameter name

R2 Analog Clear Forward Filter Time

Functional description of parameter R2_AN_CLR_FWD_FLTR_TIME

This parameter is required in a switching unit with R2 analog signaling. It specifies the length of time that the clear forward line signal must be present before it is recognized as a valid signal and not a glitch.

Provisioning rules

Specify the length of time for clear forward line signal recognition. The value of this parameter is expressed in 10–ms units. For example, the default value of 10 represents 100 ms.

Range information

Minimum	Maximum	Default
0	255	10

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

R2 Analog Idle Filter Time

Functional description of parameter R2_AN_IDLE_FLTR_TIME

This parameter is required in a switching unit with R2 analog signaling. It specifies the filter time for a valid idle line signal after a clear forward signal.

Provisioning rules

Specify the filter time for a valid line signal after a clear forward signal. The value of this parameter is expressed in 10-ms units. For example, the default value of 10 represents 100 ms.

Range information

Minimum	Maximum	Default
0	255	10

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

R2_AN_OG_CSM_FLTR_TIME

Parameter name

R2 Analog Outgoing Channel Supervision Message Filter Time

Functional description of parameter R2_AN_OG_CSM_FLTR_TIME

This parameter is required in a switching unit with R2 analog signaling. It specifies the filter time on channel supervision messages (CSM) for recognizing a valid clear forward line signal.

Provisioning rules

Specify the filter time on CSM for valid clear forward signal recognition. The value of this parameter is expressed in 10-ms units. For example, the default value of 8 represents 80 ms.

Range information

Minimum	Maximum	Default
0	255	8

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

R2 Analog Reanswer Filter Time

Functional description of parameter R2_AN_RE_ANS_FLTR_TIME

This parameter is required in a switching unit with R2 analog signaling. It specifies the filter time for recognition of a valid reanswer signal after a clear back signal.

Provisioning rules

Specify the filter time for recognition of a valid reanswer signal after a clear back signal. The value of this parameter is expressed in 10-ms units. For example, the default value of 30 represents 300 ms.

Range information

Minimum	Maximum	Default
0	255	30

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

R2_AN_RLS_ACK_FLTR_TIME

Parameter name

R2 Analog Release Acknowledgement Filter Time

Functional description of parameter R2_AN_RLS_ACK_FLTR_TIME

This parameter is required in a switching unit with R2 analog signaling. It specifies the filter time for recognizing a valid release acknowledgement line signal.

Provisioning rules

Specify the filter time for recognizing a valid release acknowledgement line signal. The value of this parameter is expressed in 10-ms units. For example, the default value of 10 represents 100 ms.

Range information

Minimum	Maximum	Default
0	255	10

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

R2 Analog Ready To Send Guard Time

Functional description of parameter R2_AN_RTS_GUARD_TIME

This parameter is required in a switching unit with R2 analog signaling. It specifies the time that is waited for a clear forward signal after a ready to send signal is received from an outgoing trunk.

Provisioning rules

Specify the time that is waited for a clear forward signal after a ready to send signal has been received from an outgoing trunk. The value of this parameter is expressed in 160-ms units. For example, the default value of 15 represents a wait of 2.4 s.

Range information

Minimum	Maximum	Default
0	255	15

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

R2_AN_SEIZE_FLTR_TIME

Parameter name

R2 Analog Seize Filter Time

Functional description of parameter R2_AN_SEIZE_FLTR_TIME

This parameter is required in a switching unit with R2 analog signaling. It specifies the filter time for recognition of a valid seize line signal.

Provisioning rules

Specify the filter time for seize signal recognition. The value of this parameter is expressed in 10-ms units. For example, the default value of 8 represents 80 ms.

Range information

Minimum	Maximum	Default
0	255	8

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

R2 Analog Wait Before Clear Forward

Functional description of parameter R2_AN_WAIT_BEFORE_CF

This parameter is required in a switching unit with R2 analog signaling. It specifies the length of time that is waited after a seize message is sent before a clear forward signal is sent.

Provisioning rules

Specify the length of time that is waited after a seize message is sent before a clear forward signal is sent. The value of this parameter is expressed in 10-ms units. For example, the default value of 10 represents 100 ms.

Range information

Minimum	Maximum	Default
0	255	10

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

R2_AN_WAIT_FOR_ANSWER

Parameter name

R2 Analog Wait For Answer

Functional description of parameter R2_AN_WAIT_FOR_ANSWER

This parameter is required in a switching unit with R2 analog signaling. It specifies the length of time that a trunk waits for an answer signal after receiving all of the address digits.

Provisioning rules

Specify the length of time that a trunk waits for an answer signal after receiving all of the address digits. The value of this parameter is expressed in seconds.

Range information

Minimum	Maximum	Default
0	32767	300

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

R2 Analog Wait For Idle

Functional description of parameter R2_AN_WAIT_FOR_IDLE

This parameter is required in a switching unit with R2 analog signaling. It specifies the length of time that a trunk waits for idle after receiving a release acknowledgement signal.

Provisioning rules

Specify the length of time that a trunk waits for idle after receiving a release acknowledgement signal. The value of this parameter is expressed in 160-ms units. For example, the default value of 15 represents a value of 2.4 s.

Range information

Minimum	Maximum	Default
0	255	15

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

R2_AN_WAIT_FOR_RLS_ACK

Parameter name

R2 Analog Wait For Release Acknowledgement

Functional description of parameter R2_AN_WAIT_FOR_RLS_ACK

This parameter is required in a switching unit with R2 analog signaling. It specifies the length of time that is waited for a release acknowledgement signal after a clear forward signal is received.

Provisioning rules

Specify the length of time that is waited for a release acknowledgement signal after a clear forward signal is received. The value of this parameter is expressed in 160-ms units. For example, the default value of 15 represents a wait of 2.4 seconds.

Range information

Minimum	Maximum	Default
0	255	15

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

R2 Digital Abnormal Signaling Condition During Idle

Functional description of parameter R2DIG_ABNRML_DURING_IDLE

This parameter is required in a switching unit with R2 digital signaling. It specifies the timer used by logutil for reporting a log after an abnormal signaling condition occurs during idle.

Provisioning rules

Specify the timer used by logutil for reporting a log after an abnormal signaling condition occurs during idle. The value of this parameter is expressed in seconds.

Range information

Minimum	Maximum	Default
0	255	10

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

R2DIG_ABNRML_DURING_OPLS

Parameter name

R2 Digital Abnormal During Outpulse

Functional description of parameter R2DIG_ABNRML_DURING_OPLS

This parameter is required in a switching unit with R2 analog signaling. It specifies the filter time that is used to determine a change of line signaling during outpulsing. Any change of line signaling lasting for a period of time less than that specified by this parameter is ignored.

Provisioning rules

Specify the filter time that is used to determine a change of line signaling during outpulsing. The value of this parameter is expressed in 10-ms units. For example, the default value of 10 represents a filter time of 100 ms.

Range information

Minimum	Maximum	Default
0	255	10

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

R2 Digital Answer Filter Time

Functional description of parameter R2DIG_ANSWER_FLTR_TIME

This parameter is required in a switching unit with R2 digital signaling. It specifies the length of time that the answer signal must be present before it is recognized as a valid signal and not a glitch.

Provisioning rules

Specify the length of time that the answer signal must be present before it is recognized as a valid signal. The value of this parameter is expressed in 10-ms units. For example, the default value of 10 represents 100 ms.

Range information

Minimum	Maximum	Default
0	255	10

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

R2DIG_BLK_FLTR_TIME

Parameter name

R2 Digital Block Filter Time

Functional description of parameter R2DIG_BLK_FLTR_TIME

This parameter is required in a switching unit with R2 digital signaling. It specifies the filter time for blocking of abnormal line signaling during idle.

Provisioning rules

Specify the filter time for blocking of abnormal line signaling during idle. The value of this parameter is expressed in 10-ms units. For example, the default value of 10 represents a filter time of 100 ms.

Range information

Minimum	Maximum	Default
0	255	10

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

R2 Digital CD Bits

Functional description of parameter R2DIG_CD_BITS

This parameter is required in a switching unit with R2 digital signaling. It specifies the two-bit hex string for initialization of the CD bits.

Provisioning rules

Specify the two-bit hex string for initialization of the CD bits. The allowable values are 00, 01, 10, and 11.

Range information

Minimum	Maximum	Default
		01

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

R2DIG_CLR_BCK_FLTR_TIME

Parameter name

R2 Digital Clear Back Filter Time

Functional description of parameter R2DIG_CLR_BCK_FLTR_TIME

This parameter is required in a switching unit with R2 digital signaling. It specifies the length of time that the clear-back signal must be present before it is recognized as a valid signal and not a glitch.

Provisioning rules

Specify the length of time for clear-back signal recognition. The value of this parameter is expressed in 10-ms units. For example, the default value of 30 represents 300 ms.

Range information

Minimum	Maximum	Default
0	255	30

Activation

Busy (BSY) and return to service (RTS) the affected peripiheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

R2 Digital Clear Forward Filter Time

Functional description of parameter R2DIG_CLR_FWD_FLTR_TIME

This parameter is required in a switching unit with R2 digital signaling. It represents the length of time that a clear forward signal must be present before it is recognized as a valid signal and not a glitch.

Provisioning rules

Specify the length of time for clear forward signal recognition. The value of this parameter is expressed in 10-ms units. For example, the default value of 20 represents 200 ms.

Range information

Minimum	Maximum	Default
0	255	20

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

R2DIG_HOLD_SZ_IN_GLARE

Parameter name

R2 Digital Hold Seize In Glare

Functional description of parameter R2DIG_HOLD_SZ_IN_GLARE

This parameter is required in a switching unit with R2 digital signaling. It specifies the time that a trunk stays in the seized condition after double seizure.

Provisioning rules

Specify the time that a trunk stays in the seized condition after double seizure. The value of this parameter is expressed in 10-ms units. For example, the default value of 10 represents 100 ms.

Range information

Minimum	Maximum	Default
0	255	10

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

R2 Digital Idle After Glare

Functional description of parameter R2DIG_IDLE_AFTER_GLARE

This parameter is required in a switching unit with R2 digital signaling. It specifies the length of time that a trunk stays in the idle condition after returning to idle following double seizure.

Provisioning rules

Specify the length of time that a trunk stays in the idle condition after returning to idle following double seizure. The value of this parameter is expressed in 10-ms units. For example, the default value of 10 represents 100 ms.

Range information

Minimum	Maximum	Default
0	255	10

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

R2DIG_IDLE_FLTR_TIME

Parameter name

       R2 Digital Idle Filter Time

Functional description of parameter R2DIG_IDLE_FLTR_TIME

       This parameter is required in a switching unit with R2 digital signaling. It specifies the filter time for a valid idle line signal after a clear-forward signal is received.

Provisioning rules

       Specify the filter time for a valid idle line signal after a clear-forward signal is received. The value of this parameter is expressed in 10-ms units. For example, the default value of 10 represents a filter time of 100 ms.

Range information

Minimum	Maximum	Default
0	255	10

Activation

       Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

       Not applicable

Consequences

       Not applicable

Verification

       Not applicable

Memory requirements

       This parameter has no memory impact.

Dump and restore rules

       This parameter was introduced in BCS25.

       Copy the existing value of this parameter when doing a dump and restore.

Parameter name

R2 Digital Outgoing CSM Filter Time

Functional description of parameter R2DIG_OG_CSM_FLTR_TIME

This parameter is required in a switching unit with R2 digital signaling. It specifies the filter time on CSM for recognizing a valid reanswer signal following a clear-back signal.

Provisioning rules

Specify the filter time on CSM for recognizing a valid reanswer signal following a clear-back signal. The value of this parameter is expressed in 10-ms units. For example, the default value of 10 represents a filter time of 100 ms.

Range information

Minimum	Maximum	Default
0	255	10

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

R2DIG_RE_ANS_FLTR_TIME

Parameter name

R2 Digital Recognition of Answer Filter Time

Functional description of parameter R2DIG_RE_ANS_FLTR_TIME

This parameter is required in a switching unit with R2 digital signaling. It specifies the filter time for recognition of a valid reanswer signal following a clear-back signal.

Provisioning rules

Specify the filter time for recognition of a valid reanswer signal following a clear–back signal. The value of this parameter is expressed in 10-ms units. For example, the default value of 30 represents a filter time of 300 ms.

Range information

Minimum	Maximum	Default
0	255	30

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

R2 Digital Seize Acknowledgement Filter Time

Functional description of parameter R2DIG_SEIZE_ACK_FLTR_TIME

This parameter is required in a switching unit with R2 digital signaling. It specifies the filter time for recognition of a valid seize acknowledgement line signal.

Provisioning rules

Specify the filter time for recognition of a valid seize acknowledgement line signal. The value of this parameter is expressed in 10-ms units. For example, the default value of 2 represents a filter time of 20 ms.

Range information

Minimum	Maximum	Default
0	255	2

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

R2DIG_SEIZE_FAILURE_TIME

Parameter name

R2 Digital Seize Failure Time

Functional description of parameter R2DIG_SEIZE_FAILURE_TIME

This parameter is required in a switching unit with R2 digital signaling. It specifies the length of time that a trunk waits for the next line signal while in the seize acknowledgement or wait for answer state.

Provisioning rules

Specify the length of time that a trunk waits for the next line signal while in the seize acknowledgement or wait for answer state. The value of this parameter is expressed in seconds.

Range information

Minimum	Maximum	Default
0	255	20

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

R2 Digital Seize Filter Time

Functional description of parameter R2DIG_SEIZE_FLTR_TIME

This parameter is required in a switching unit with R2 digital signaling. It specifies the filter time for recognition of a valid seize line signal.

Provisioning rules

Specify the filter time for recognition of a valid seize line signal. The value of this parameter is expressed in 10-ms units. For example, the default value of 2 represents 20 ms.

Range information

Minimum	Maximum	Default
0	255	2

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

R2DIG_WAIT_FOR_ANSWER

Parameter name

R2 Digital Wait For Answer

Functional description of parameter R2DIG_WAIT_FOR_ANSWER

This parameter is required in a switching unit with R2 digital signaling. It specifies the length of time that a trunk waits for answer after receiving all of the address digits.

Provisioning rules

Specify the length of time that a trunk waits for answer after receiving all of the address digits. The value of this parameter is expressed in seconds.

Range information

Minimum	Maximum	Default
0	32767	300

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore..

Parameter name

R2 Digital Wait For Seize Acknowledgement

Functional description of parameter R2DIG_WAIT_FOR_SEIZE_ACK

This parameter is required in a switching unit with R2 digital signaling. It specifies the length of time that a trunk waits for a seize acknowledgement signal following a seize signal.

Provisioning rules

Specify the length of time that a trunk waits for a seize acknowledgement signal following a seize signal. The value of this parameter is expressed in 160-ms units. For example, the default value of 20 represents 3.2 s.

Range information

Minimum	Maximum	Default
1	25	20

Activation

Busy (BSY) and return to service (RTS) the affected peripheral modules.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

R2SM_TIMEOUT

Parameter name

R2 Simplified Test Timeout

Functional description of parameter R2SM_TIMEOUT

This parameter is for use with the R2 Simplified Test. During this test, the incoming exchange translates incoming register signals and routes the call to the appropriate testline termination. After returning the answer signal, a composite 1020 + 1140 Hz tone is returned to the originating exchange in the answer state. The originating exchange transmits a composite tone of 1380 + 1980 Hz to acknowledge the test. The incoming exchange then stops the sending of the composite tone.

The originating exchange continues to transmit the tone for a period defined by this parameter. This acknowledgement is datafillable in time periods ranging from 0.5 seconds to 5 seconds.

Provisioning rules

Set this parameter to the required acknowledgement interval in increments of 0.5 seconds. This value must be an integer, so the time interval must be multiplied by two before datafilling. For example, the default value of 4 denotes an interval of two seconds.

Range information

Minimum	Maximum	Default
1 (0.5 seconds)	10 (five seconds)	4 (two seconds)

Activation

Immediate

Dependencies

Not applicable.

Consequences

Not applicable.

Verification

Not applicable.

Memory requirements

Each unit requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS34.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

R2 T3 Line Signaling Wait For Answer Automatic

Functional description of parameter R2T3_WAIT_FOR_ANSWER_AUTO

This parameter is associated with the T3 Line Signaling feature that provides the T3 line signaling protocol for the Australian DMS-300 gateway. It provides a timer that defines the maximum time a call may be in an unanswered state.

For operator assisted calls (semi-automatic) the default time is 20 minutes while direct dialed calls (automatic traffic) are timed for a default of 3 minutes. These timers are set up on a per-call basis after register signaling determines the call type.

This parameter defines the timing if the call is direct dialed. When this timer expires the call is taken down.

Provisioning rules

Leave the value of this parameter at the default unless otherwise specified by Northern Telecom.

Range information

Minimum	Maximum	Default
0	32767	180

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS30.

Copy the existing value of this parameter when doing a dump and restore.

R2T3_WAIT_FOR_ANSWER_SEMIAUTO

Parameter name

R2 T3 Wait For Answer Semi-automatic

Functional description of parameter R2T3_WAIT_FOR_ANSWER_SEMIAUTO

This parameter is associated with the T3 Line Signaling feature that provides the T3 line signaling protocol for the Australian DMS-300 gateway.

This parameter specifies a timer that defines the maximum time that a call may be in an unanswered state. For operator assisted calls (semi-automatic) this time defaults to 20 minutes while direct dialed calls (automatic traffic) defaults to 2 minutes. These timers are set up on a per-call basis after register signaling determines the call type.

This parameter defines the timing if the call is operator assisted. When this timer expires the call is taken down.

Provisioning rules

Leave the value of this parameter at the default unless otherwise specified by Northern Telecom.

Range information

Minimum	Maximum	Default
0	32,767	1200

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS30.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Recovery Interval After Reload

Functional description of parameter RECOVERY_INTERVAL_AFTER_RELOAD

This parameter is common to all switching units. It regulates the amount of time, in minutes, that the scheduler uses to assign higher percentages of call processing unit (CPU) time to guaranteed terminals and maintenance following a reload restart. This is done at the expense of call processing and takes effect only if guaranteed terminals and maintenance need the extra time.

As a result, login and terminal response from guaranteed terminals and maintenance activities speeds up immediately after a reload restart in a heavily loaded switch.

Once the time specified by this parameter expires, the CPU time available for the various scheduler classes reverts to normal proportions. These proportions are defined by the value of the parameter GUARANTEED_TERMINAL_CPU_SHARE in table OFCENG.

There should be no visible effect on a switching unit that is not loaded. The scheduler gives any unused time to any class that needs it.

Provisioning rules

The default value should be used unless otherwise specified by Northern Telecom.

Range information

Minimum	Maximum	Default
0	45	10

Activation

A new value takes effect immediately and applies to the next reload restart.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS21.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Recovery Interval After Warm or Cold Restart

Functional description of parameter RECOVERY_INTERVAL_AFTER_WARMCOLD

This parameter is common to all switching units. It specifies the amount of time, in minutes, that the scheduler assigns 16% of the call processing unit (CPU) time to the guaranteed terminals scheduler class after a warm or a cold restart.

This percentage applies only if the switch is under a heavy load and the extra time is required by the guaranteed terminal class. The scheduler enforces only the percentages given to the various classes if there is no free CPU time available. More available time for guaranteed terminals speeds up login and response time at guaranteed terminals after a restart. The extra time offered to guaranteed terminals is taken from the time normally offered to call processing.

When the time specified by this parameter expires, the CPU time available for the various scheduler classes reverts to the normal proportions. These proportions are defined by the value of the parameter GUARANTEED_TERMINAL_CPU_SHARE in table OFCENG.

There should be no visible effect on a switching unit that is not loaded. The scheduler gives any unused time to any class that requires it.

Provisioning rules

The default value should be used unless otherwise specified by Northern Telecom.

Range information

Minimum	Maximum	Default
0	16	2

Activation

A new value takes effect immediately and applies to the next reload restart.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

RECOVERY_INTERVAL_AFTER_WARMCOLD

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS21.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Remote Terminal Equipped

Functional description of parameter REMTERMEQP

This parameter is required for a local SuperNode switch. It indicates to the DMS-CORE computing module (CM) routine exercise (REX) test software whether a terminal is connected to the CM remote terminal interface (RTIF) remote channel.

CM REX test software can verify the consistency of this parameter with the RTIF status data.

Provisioning rules

If this parameter is left at the default of Y, the CM REX test software can verify that the RTIF status data indicates the appearance of a remote terminal. If this parameter is set to a value of Y, and there is no remote terminal, the REX test fails.

Set this parameter to a value of N if no remote terminal is equipped.

Range information

Minimum	Maximum	Default
		Y

Activation

Immediate

Dependencies

Not applicable

Consequences

An incorrect value for this parameter results in either an invalid failure of the CM REX test or incomplete CM REX test RTIF diagnostic coverage.

Verification

To verify that this parameter has been correctly set, use CI command sequence TABLE OFCENG, POS REMTERMEQP and verify the given result.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

REVERSE_EC_EQUIP

Parameter name

Reverse Echo Canceller Equipped

Functional description of parameter REVERSE_EC_EQUIP

This parameter is used in a DMS-100 switch for trunks using the United Kingdom (UK) variant of national User Part (BTUP) signaling system. It specifies the connection configuration of the echo canceller (EC) modules connected to the switch. This information is passed directly to the central control (CC). It is also passed on to the XMS–based peripheral module (XPM) by static downloading.

Provisioning rules

To specify the conventional EC connection configuration, set the value of this parameter to N (no).

To specify the reverse wired EC connection configuration, set the value of this parameter to Y (yes).

Range information

Minimum	Maximum	Default
		N

Activation

Immediate (in the CC).

The XPM must receive information about a change in the value of this parameter. This can be done in the following 3 ways:

- WARM SWACT the XPM twice.
- COLD SWACT the XPM.
- Manually busy (BSY) and return to service (RTS) the XPM.

Dependencies

Not applicable

Consequences

If the value of this parameter does not match the connection configuration, the call processing logic of the activation of the EC modules is incorrect.

Verification

Check the EC modules connection configuration and verify that the value of this parameter matches the configuration.

Memory requirements

Each unit requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS35.

Copy the existing value of this parameter when doing a dump and restore.

REVRING

Parameter name

Revertive Ringing

Functional description of parameter REVRING

This parameter is required for a switching unit with revertive ringing. It controls the operation of the revertive ringing feature

Provisioning rules

The value of this parameter can be set to CONDITIONAL_REVRING, REVRING or NO_REVRING.

When the value is REVRING and an 8 or 10 party line makes a call to a party on the same line, the calling party does not receive a ring splash if the call is from tip to ring, or ring to tip. When the call is from tip to tip or ring to ring, both parties hear ringing.

When the value is REVRING and a two or four party line makes a call to a party on the same line, the calling party receives a ring splash if the call is from tip to ring or ring to tip. When the call is from tip to tip or ring to ring, both parties hear ringing.

When the value is CONDITIONAL_REVRING and a 2, 4, 8, or 10 party line with coded ringing makes a call to a party on the same line, the calling party receives a ring splash if the call is from tip to ring or ring to tip. When the call is from tip to tip or ring to ring, both parties hear ringing.

When the value is CONDITIONAL_REVRING and a 4 or 8 party 10 party line with coded ringing makes a call to a party on the same line, the calling party receive a ring splash if the call is from tip to ring or ring to tip. When the call is from tip to tip or ring to ring, both parties hear ringing.

When the value is NO_REVRING and a 2, 4, 8, or 10 party line makes a call to a party on the same line, the calling party does not receive a ring splash if the call is from tip to ring or ring to tip. When the call is from tip to tip or ring to ring, both parties hear ringing.

When the value is CONDITIONAL_REVRING in a switching unit with superimposed ringing and a 4 party line with the ONI option (8 party line is automatically ONI), if the party line dials a 7 digit number that is a reverting call, the calling party recieves dial tone and must dial the party identification code. The calling party then receives Originating Revertive Multi-party treatment. When the calling party goes on-hook both parties are rung. The calling party gets ring splash and the called party gets normal ringing.

Range information

Minimum	Maximum	Default
		REVRING

Activation

Immediate

Dependencies

The operating company is responsible for supplying each subscriber of a 4PTY or 8PTY ONI line with a party identification digit as outlined in tables 1 and 2.

Four party superimposed ringing subscribers are identified with the following digits:

Table 1 Four party superimposed ringing	
Party	**Digit**
Ring party negative (R–)	2
TIP party negative (T–)	3
Ring party positive (R+)	4
TIP party negative	5

Eight party superimposed ringing subscribers are identified with the following digits:

Table 2 Eight party superimposed ringing	
Party	**Digit**
RING party negative (R–)	2
TIP party negative (T–)	3
RING party positive (R+)	4
TIP party positive (T+)	5
Ring party negative (R–)	6
TIP party negative (T–)	7
RING party positive (R+)	8
TIP party positive (T+)	9

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Ringing Number Answer Timeout

Functional description of parameter RING_NO_ANSWER_TMO

This parameter is required for an International Switching Centre with R1 signaling. It allows the operating company to specify the timeout period for a connection to be released if an answer signal is not received within the timeout period.

The default value for this parameter is T3, a 3.3 minute timeout.

Table 1 outlines additional values that can be assigned to this parameter.

Table 1
Values for RING_NO_ANSWER_TMO

Value	Timeout
T2	2 minutes
T4	4 minutes
T30	30 minutes

Range information

Minimum	Maximum	Default
		T3

Activation

No restart is required.

Reload the affected peripheral modules (PM).

Reload the EXECs in all peripherals with incoming R1 trunks.

For T8As use the following command string:
- BSY;LOADPM EXEC;RTS.

FOR DTCs perform the following:

1 BSY INACTIVE
2 LOADPM INACTIVE CC EXEC
3 RTS INACTIVE
4 Wait for inactive data sync SWACT
5 Warm swact
6 Repeat the BSY, LOADPM .. EXEC, RTS for the newly inactive unit

RING_NO_ANSWER_TMO

Dependencies

    Not applicable

Consequences

    Not applicable

Verification

    Not applicable

Memory requirements

    This parameter has no memory impact.

Dump and restore rules

Dump and restore rules

    This parameter was introduced in BCS20.

    Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Remote Line Concentrating Module Emergency Stand Alone Notify Tone

Functional description of parameter RLCM_ESA_NOTIFY_TONE

This parameter allows the customer to specify a cadenced (on/off) tone instead of standard dial tone to alert users going off-hook that a remote line concentrating module (RLCM) is in emergency stand alone (ESA) mode.

Provisioning rules

Set the value of this parameter to Y (yes) to specify a cadenced tone to alert users going off-hook that an RLCM is in ESA mode.

Set the value of this parameter to N (no) to specify a standard dial when an RLCM is in ESA mode.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Activation is immediate within the CC, but it takes effect at the time of the nightly update of ESA static data or, after manually using the LOADPM command (with ESADATA command option) for the specified ESA module.

Dependencies

Not applicable

Consequences

Not applicable

Verification

If the parameter is present and set to Y (yes) the station user receives continuous bursts of tone (.25s on / .25s off) instead of standard dial tone when the XPM hosting the station is in ESA mode.

Memory requirements

This parameter has no memory requirements.

Dump and restore rules

This parameter was introduced in BCS31.

Copy the existing value of this parameter when doing a dump and restore.

RLCM_ESAENTRY_BADCSIDE

Parameter name

Remote Line Concentrating Module Emergency Stand Alone Entry Bad C-side

Functional description of parameter RLCM_ESAENTRY_BADCSIDE

This parameter is used to control the performance of the remote line concentrating module (RLCM) emergency stand alone (ESA) feature and to control the performance of the remote digital line module (RDLM) ESA feature.

Provisioning rules

The value of this parameter is the desired delay between failure of the RLCM's or RDLM's communication with the C-side peripheral and dropping into ESA mode. This condition is detected by the loop around message mechanism.

The time is defined in minute intervals. For example a value of 6 specifies a period of 6 minutes.

Range information

Minimum	Maximum	Default
1	60	15

Activation

BUSY (BSY) and return to service (RTS) the RLCMs or RDLMs.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS21.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Remote Line Concentrating Module Emergency Stand Alone Entry Bad Link

Functional description of parameter RLCM_ESAENTRY_BADLINK

This parameter is used to control the performance of the remote line concentrating module (RLCM) emergency stand alone (ESA) feature and to control the performance of the remote digital line module (RDLM) ESA feature.

Provisioning rules

Set the value of this parameter to the desired delay between links failure and the RLCM or RDLM dropping into ESA mode.

The delay time is defined in 10-s intervals. For example, a value of 6 indicates a delay of 60 s).

Range information

Minimum	Maximum	Default
3	100	3

Activation

BUSY and return to service (RTS) the RLCMs or RDLMs.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS21.

Copy the existing value of this parameter when doing a dump and restore..

RLCM_ESASDUPD_BOOL

Parameter name

Remote Line Concentrating Module Emergency Stand Alone Static Data Update Boolean

Functional description of parameter RLCM_ESASDUPD_BOOL

This parameter is used to control the performance of the remote line concentrating module (RLCM) emergency stand alone (ESA) feature and the remote digital line module (RDLM) ESA feature.

Provisioning rules

The value of this parameter determines whether ESA static data is downloaded to all ESA equipped RLCMs or RDLMs during the nightly update of ESA static data.

If the value of this parameter is left at the default value of Y (yes), the static data is downloaded during the nightly update.

If the value of this parameter is set to N (no), the static data is not downloaded during the nightly update.

Range information

Minimum	Maximum	Default
		Y

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS21.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Remote Line Concentrating Module Emergency Stand Alone Static Data Update Hour

Functional description of parameter RLCM_ESASDUPD_HOUR

This parameter is used to control the performance of the remote line concentrating module (RLCM) emergency stand alone (ESA) feature and the remote digital line module (RDLM) ESA feature.

Provisioning rules

The value of this parameter is the daily starting time for downloading of ESA static data to all RLCMs, sequentially, according to the data defined in table LCMINV. It is also used as the daily starting time for downloading of ESA static data to all RDLMs, sequentially, according to data defined in table DLMINV.

Specify the time in hour intervals (for example, a value of 4 represents four o'clock in the morning).

The value should be chosen such that:

- It is a time of low traffic on the switch.
- It is not the same time as the weekly LCM or DLM REX test.
- It is not the same time as the RSC nightly update. See parameter RSC_ESASDUPD_HOUR in table OFCENG.

Range information

Minimum	Maximum	Default
0	23	4

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS21.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Remote Line Concentrating Module XMS-based Peripheral Module Emergency Stand Alone Exit

Functional description of parameter RLCM_XPMESAEXIT

This parameter is used to control the performance of the remote line concentrating module (RLCM) emergency stand alone (ESA) feature and the remote digital line module (RDLM) ESA feature.

Provisionig rules

The value of this parameter is the desired delay between links being restored (or communication with C-side peripheral recovered) and RLCM or RDLM coming out of ESA mode.

Specify the time in 10-s intervals. For example, a value of 2 represents a delay of 20 s).

A value of 0 (zero) indicates that a manual RTS (return to service) is required.

Range information

Minimum	Maximum	Default
0	100	0

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS21.

Copy the existing value of this parameter when doing a dump and restore.

RNG_TMEOUT_NO_OF_SECS

Parameter name

Ringing Timeout Number of Seconds

Functional description of parameter RNG_TMEOUT_NO_OF_SECS

This parameter is required for a local switching unit in North America or a local (international) switching unit with universal translations and specifies the number of seconds before ringing on a line times out, in 1-s intervals.

This value is downloaded to the appropriate peripheral modules (PM).

For a PM connected to an international line group controller (ILGC) in a local (international) switching unit, a parameter value of 0 (zero) indicates no timeout on ringing.

Provisioning rules

Set the value of this parameter, in 1-s intervals, to equal the number of seconds before ringing on a line times out.

Range information

Minimum	Maximum	Default
1 (North America) 0 (International)	326	240 (4 min)

Activation

For all PMs supporting line concentrating devices (LCD), except those connected to an extended multiprocessor system (XMS)-based PM (XPM), a BSY and RTS is required. For LCDs connected to an XPM, a BSY and RTS need only be performed on one LCD for each XPM, but both units of that LCD must be busied at the same time (BSY PM, RTS PM).

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 corrected activation information

Parameter name

Ringing Timeout Trunk to Line in Seconds

Functional description of parameter RNG_TMEOUT_TKLN_SECS

This parameter defines the time, in seconds, that is allowed for the application of ringing tone during trunk to line calls.

When subscriber A calls subscriber B (during a trunk to line call) and B does not answer, ringing can be applied for the duration specified by this parameter. When this time expires, the ringing is stopped from the terminating office.

Provisioning rules

Specify the length of time that is allowed for the application of ringing tone during trunk to line calls.

The value of this parameter must be higher than the preanswer timeouts for toll and international calls specified by field PREANSTO in table CTRLTMRS.

If the preanswer timeout for a given call class is equal to 0 or has a value greater than the value of this parameter, the ringing timeout for that call class will be equal to the value of this parameter.

If the value of this parameter is left at the default of 0 (zero), the ringing timeout specified by office parameter RNG_TMEOUT_NO_OF_SECS in table OFCENG is used for trunk to line calls.

Range information

Minimum	Maximum	Default
0	326	0

Activation

Immediate

Dependencies

Office parameter RNG_TMEOUT_NO_OF_SECS in table OFCENG specifies the length of time that ringing tone can be applied for line to line calls.

Consequences

If the value of this parameter is kept below the preanswer timeout for toll and international calls, this parameter will have control over the answer timeout of these calls.

RNG_TMEOUT_TKLN_SECS

Verification

To verify that this parameter is functional perform the following steps:

1 Set PREANSTO fields in table CTRLTMRS to any value smaller than the value of this parameter except 0.

2 Verify that the answer timeouts are equal to the PREANSTO values.

3 Set PREANSTO fields in table CTRLTMRS to 0.

4 Verify that the ringing timeouts are equal to the value of this parameter.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS36.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 parameter introduced

Parameter name

Remote Office Test Line Out of Service Level

Functional description of parameter ROTL_OUT_OF_SERVICE_LEVEL

This parameter is required for all switching units with the remote office test line (ROTL) unit. It specifies the percentage of trunks that can be put out of service by ROTL.

Provisioning rules

The values that can be assigned to this parameter are

- NA (NO ALARM)
- MN (MINOR ALARM)
- MJ (MAJOR ALARM)
- CR (CRITICAL ALARM).

To convert these values into a percentage read fields MINALM, MAJALM, or CRITALM in table CLLIMTCE.

Range information

Minimum	Maximum	Default
		MJ

Activation

Immediate

Dependencies

See fields MINALM, MAJALM, or CRITALM in table CLLIMTCE.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

ROTL_TIME_IN_20MIN

Parameter name

Remote Office Test Line Time In 20 Minute Intervals

Functional description of parameter ROTL_TIME_IN_20MIN

This parameter is required for all switching units with the remote office test line (ROTL) unit. It specifies the maximum time, in twenty minute intervals, that is waited for any incoming message from ROTL test ports and its scan points.

Provisioning rules

Specify the maximum time, in twenty minute intervals, that is waited for any incoming message from ROTL test ports and its scan points.

Range information

Minimum	Maximum	Default
1	9	1

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Route On Forward Transfer

Functional description of parameter ROUTE_ON_FOT

This parameter applies to DMS–300 gateway switching units. It determines how forward transfer signals are handled on CCITT #5 and #6 signaling trunks.

Provisioning rules

When this parameter is set to a value of Y (yes), forward transfer signals received on CCITT #5 or #6 signaling trunks cause existing connections to CCITT R1 or #7 signaling trunks to be dropped.

An attempt to establish another connection is made using the digits held in office parameter FOT_DIGITS.

When this parameter is set to N (no), forward transfer signals are handled in the usual manner (on most inter-workings the forward transfer is propagated).

Range information

Minimum	Maximum	Default
		N

Activation

Immediate.

Dependencies

Not applicable

Consequences

See parameter FOT_DIGITS in table OFCVAR.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

RSC_ESA_NOTIFY_TONE

Parameter name

Remote Switching Centre Emergency Stand Alone Notify Tone

Functional description of parameter RSC_ESA_NOTIFY_TONE

This parameter is associated with the Distinctive Tone Burst For Emergency Operation feature that enhances the existing emergency stand alone (ESA) abilities of suitibly equipped remote cluster controllers (RCC). It allows, short bursts of tone preceding standard dial tone to remote switching terminals (RST) to alert users that have gone off-hook that emergency operation is in effect.

Provisioning rules

Set the parameter to Y (yes), to activate the Distinctive Tone For Emergency Stand Alone Operation feature.

Set the parameter to N (no), to deactivate the Distinctive Tone For Emergency Stand Alone Operation feature.

Range information

Minimum	Maximum	Default
		N

This value is selected to ensure that the normal and emergency modes of switch operation are transparent to most customers.

Activation

Immediate

Activation is immediate within the CC, but takes effect at the time of the nightly update of RCC ESA static data or after manually using the LOADPM command (with the ESADATA command option) for the specified peripheral.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Verification

Verify that the station user receives approximately 6 short bursts of tone preceding standard dial tone when the XMS-based peripheral module (XPM) hosting the station is in ESA mode when this parameter is set to Y.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS30.

Copy the existing value of this parameter when doing a dump and restore.

RSC_ESAENTRY_BADCSIDE

Parameter name

Remote Service Centre Emergency Stand Alone Entry Bad C-side

Functional description of parameter RSC_ESAENTRY_BADCSIDE

This parameter is required and appears only in a switching unit with the remote cluster controller (RCC) and the Emergency Stand Alone (ESA) feature.

Provisioning rules

Set the value of this parameter to the desired delay between failure of the remote service centre's communication with the C-side peripheral and dropping into ESA mode. This condition is detected by the loop around message mechanism.

The time is defined in one minute intervals. For example a value of 6 represents a delay of 6 minutes.

Range information

Minimum	Maximum	Default
5	60	5

Activation

Done at the time of the nightly update of RCC ESA static data, LOADPM with ESADATA option, and RTS (return to service) if needed.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS20.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 default value corrected

Parameter name

Remote Service Centre Emergency Stand Alone Entry Bad Link

Functional description of parameter RSC_ESAENTRY_BADLINK

This parameter is required and appears only in a switching unit with the remote cluster controller (RCC) and the emergency stand alone (ESA) feature.

Provisioning rules

Set the value of this parameter to the desired delay between a link failure and the remote switching centre dropping into ESA mode.

The delay time is defined in 10–s intervals. For example, a value of 6 results in a 60 s delay.

The recommended value for this parameter is the default of 0 (zero).

Range information

Minimum	Maximum	Default
0	100	0

Activation

Done at the time of the nightly update of RCC ESA static data. A LOADPM with ESADATA option and return to service (RTS) is needed.

Dependencies

Not applicable

Consequences

If this parameter is not set to a value of 0, an intermittent link fault can cause the centrol control (CC) to query an RCC during the RSC_ESAENTRY_BADLINK timeout, determine that it is not in ESA mode. and begin a return to service (RTS) process that fails due to the link fault.

Verification

Not applicable

Dump and restore rules

This parameter was introduced in BCS20.

Copy the existing value of this parameter when doing a dump and restore.

RSC_ESASDUPD_BOOL

Parameter name

Remote Service Centre Emergency Stand Alone Static Data Update Boolean

Functional description of parameter RSC_ESASDUPD_BOOL

This parameter is required and appears only in a switching unit with the remote cluster controller (RCC) and the emergency stand alone (ESA) feature.

The value of this parameter determines whether ESA static data should be downloaded to all RCCs during the nightly update of the remote switching centre (RSC) static data.

Provisioning rules

If the value is left at the default value of Y (yes), the static data is downloaded during the nightly update.

If the value of this parameter is set to N (no), the static data is not downloaded during the nightly update.

Range information

Minimum	Maximum	Default
		Y

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS20.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Remote Service Centre Emergency Stand Alone Static Datat Update Hour

Functional description of parameter RSC_ESASDUPD_HOUR

This parameter is required and only appears in a switching unit with the remote cluster controller (RCC) and the emergency stand alone (ESA)feature.

Provisioning rules

The value of this parameter is the daily starting time for downloading ESA static data to all remote service centres, sequentially, according to the datafill in table RCCINV.

The time is defined in hour intervals. For example a value of 2 specifies a start time of two o'clock in the morning.)

Range information

Minimum	Maximum	Default
0	23	1

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS20.

Copy the existing value of this parameter when doing a dump and restore.

RSC_XPMESAEXIT

Parameter name

Remote Cluster Controller Xms-based Peripheral Module Emergency Stand Alone Exit

Functional description of parameter RSC_XPMESAEXIT

This parameter is required and appears only in a switching unit with the remote cluster controller (RCC) and the emergency stand alone (ESA) feature.

Provisioning rules

Set the value of this parameter to the desired delay between links being restored (or communication with C-side peripheral recovered) and the remote service centre coming out of ESA mode.

The time is defined in 10-s intervals (for example, a value of 2 indicates a delay of 20 s).

A value of 0 (zero) indicates that a manual return to service (RTS) is required.

Range information

Minimum	Maximum	Default
0	100	6

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter value requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS20.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Service Analysis Parameters

Functional description of parameter SAPARMS

This parameter is required for switching units with the Service Analysis feature (software package NTX065AA).

This parameter is required in a Turkey Local and Toll switching unit with software package NTX906AA International Service Analysis.

The format for P_SAPARMS is as follows:

Description of field names		
Field name	**Entry**	**Explanation**
OFC	alphanumeric	*Office name.* Enter the office name. Default is OFFICE.
MAXTSECS	1 – 120	*Maximum talk seconds.* Enter the time, in seconds, that the voice monitor is on. Default is 30.
MAXUSERS	1 – 5	*Number of service analysis users.* Enter the maximum number of service analysis users. Default is 3.
SYSTONE	Y or N	*Tone.* Enter Y (yes) when automatic report of connection of tone in analyzing switching unit is required, otherwise enter N (no). Default is Y.
SYSANN	Y or N	*Announcement.* Enter Y (yes) when automatic report of connection of announcement in analyzing switching unit is required, otherwise enter N (no). Default is Y.

Range information

Minimum	Maximum	Default
		OFFICE 30 3 Y Y

Activation

Warm restart

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory requirements.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

SC and OP Trunk Automatic Number Identification Request Time

Functional description of parameter SC_OP_ANI_REQ_TIME

This parameter is required for switching units with the 4X Operation – Bell Format automatic number identification (ANI) feature. It specifies the maximum time, in 1 second intervals, that an OP trunk waits for the ANI request signal from the far end for a call that originates from a SuperCAMA (SC) trunk.

Provisioning rules

If other than 15 seconds, specify the time, in 1-s intervals, that an OP trunk waits for the ANI request signal from the far end for a call that originates from a SC trunk.

If this option is not required, leave the value of this parameter at the default value.

Range information

Minimum	Maximum	Default
0	59	15

Activation

Immediate

Dependencies

Not applicable

Verification

Set up a call between an SC and OP trunk with no ANI request signal from the far end and verify how long the OP trunk wait for an ANI request signal.

Consequences

If the time interval is too short, calls from SC to OP trunks are routed to ANIFAIL.

If the time interval is too long, the holding time for calls from SC to OP trunks could increase.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

SCREEN_AC_LOGIDS

Parameter name

Screen Attendant Console Login Identifers

Functional description of parameter SCREEN_AC_LOGIDS

This parameter is required for a Meridian Stored Logic 100 (MSL100) switching unit. It specifies whether the validation of an attendant LOGIN ID is required.

If the value of this parameter is set to Y (yes), and an attendant attempts to login with an ID that is datafilled in table ACLOGID, the office parameter check is ignored and the attendant is permitted to log in if all other checks are met.

If the attendant attempts to login with an ID that is not datafilled in table ACLOGID, the login attempt is rejected and the attendant receives the message "DISALLOWED" on the key lamp display, and a LOGFAIL report is generated.

If the value of this parameter is left at the default value, the attendant is still allowed to log in with an ID that is not datafilled in table ACLOGID unless an attendant is already logged in using the same ID.

The attendant can login using any three-digit login IDs, except 000 and numbers that are already being used by other attendants at other console positions.

Provisioning rules

Set the value of this parameter to Y, if validation of an attendant's login ID is required.

Leave the value of this parameter at the default value, if validation of an attendant's login ID is not required.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

If the value of this is parameter is Y, login at an attendant console with a login ID that is not datafilled in table ACLOGID.

The login attempt will be rejected and the message "DISALLOWED" will be displayed on the key lamp display, and a LOGFAIL report will be generated.

If value of parameter is N, login at an attendant console with a login ID that is not datafilled in table ACLOGID. The LOGIN will be accepted.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS27.

Copy the existing value of this parameter when doing a dump and restore.

SDB_QUERY_TIMEOUT

Parameter name

Services Database Query Timeout

Functional description of parameter SDB_QUERY_TIMEOUT

This parameter is required for a switching unit with Telecom Canada automated calling card service (ACCS). Operating companies that use BellCore ACCS use the field TIMEOUT in tables CCVPARMS and BNSPARMS to provide the function of this parameter.

Provisioning rules

The value of this parameter specifies the length of time (in seconds) that the system waits before generating a timeout error after a services database (SDB) query has been sent but not received.

Range information

Minimum	Maximum	Default
0	255	2

Activation

immediate

Dependencies

Not applicable.

Verification

Not applicable.

Consequences

Not applicable.

Memory requirements

This parameter value requires 1 word of memory.

Dump and restore rules

Prior to BCS34, this parameter was named ACCS_QUERY_TIMEOUT. When performing dump and restore from BCS33 or lower to BCS34 or higher, a reformat procedure (QUERY_TIMEOUT_RFMT) deletes the office parameter in offices that use BellCore ACCS and renames it in offices that use Telecom Canada ACCS.

This parameter was introduced with software release BCS34.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Signaling Engineering And Administration System Buffer Volume

Functional description of parameter SEAS_BUFFER_VOL

This parameter is required for a DMS signal transfer point (STP) switching unit with the signaling engineering and administration system (SEAS) software package. This package supports the user application layer (UAL) interface to the signaling engineering and administrative center (SEAC). It also supports the user program layer (UPL). The UAL interface is synonymous with the transport layer of the OSI communications protocol model. The UPL software layer provides SEAS application-level support for the STP.

SEAS is an operations-support software system with a database developed by Bellcore. It provides personnel of the operating company SEAC with mechanized support capabilities to provision, engineer, and administer the network of STPs and signaling links for each regional Bell company or Bell Operating Company (BOC).

This parameter specifies the disk volume name on which the buffer file is to be defined for storing outgoing messages when the communication links to the SEAC are not operational. This volume is also used to store SEAS operational measurement (OM) data. The size of this volume is described in the *SEAS Reference Guide*, 297-5101-020.

If the disk containing the buffer volume is removed from service, only UAL messages can be transmitted if at least one Permanent Virtual Circuit (PVC) is INSV. When the disk has returned to service, UPL messages can again be transmitted.

SEAS files can not be deleted from the disk volume.

There are 75 files created on this disk volume. Of the 75 files, 74 of them are related to SEAS OM data collection.

If a Good Morning (GM) message is received while the disk volume is not INSV or ISTB, the message is accepted and processed accordingly.

If the DSKALLOC command REINIT is issued on the disk volume when a SEAS message is to be transmitted and all PVCs are SYSB, a SEAS103 log is generated and the message is not transmitted. The SEAS files are recreated when the disk volume is returned to service and UPL messages can be transmitted and received.

If the SEAS state is MANBd from an OFFL state and the disk volume is MANB, SEAS files are not allocated on the disk, the files can be allocated once the disk is returned to service.

If the SEAS state is OFFLd from an MANB state, all SEAS files are erased from the disk volume. If the SEAS state is OFFLd from a MANB state and the disk volume is MANB, SEAS files are not de-allocated on the disk. The files can be de-allocated once the disk is returned to service.

If the disk volume is removed from service, when a message is to be transmitted and no PVCs are inservice, a disk log is generated and the message is not transmitted. Messages can be transmitted once the disk volume is returned to service.

If the disk volume becomes full while a SEAS message is being received, a SEAS log is generated and the message is discarded. When space becomes available on the disk volume, messages can again be written to it and transmitted once SEAS PVCs become available.

If the disk volume is MANB and there are PVCs INSV, no abnormal logs are generated (i.e. the transmission audit may try to find files on the disk).

When the disk volume is returned to service and contains a SEAS message while there are PVCs INSV, the SEAS message on the disk file is transmitted.

If a message is to be transmitted and all PVCs are SYSB, the message is written to the disk volume. If a message is to be transmitted while all PVCs are SYSB and one message is already stored in the buffer file, the message is not stored and a log is generated.

If the buffer file contains a SEAS message and the first PVC becomes available, the message is transmitted.

If all PVCs go SYSB while awaiting confirmation of a message and the confirmation timer expires, the SEAS message is written to the buffer file located on the disk volume.

Provisioning rules

Specify the 1 to 12 character name assigned to the disk volume on which the buffer file is to be defined for storing outgoing messages when the SEAS links are not operational.

Range information

Minimum	Maximum	Default
		D000SEASBF

Activation

Immediate

To affect a change to this parameter requires SEAS and the PVC concerned to be off-line.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS26.

Copy the existing value of this parameter when doing a dump and restore.

SEAS_MSG_BLK_NUM

Parameter name

Signaling Engineering and Administration System Number of Message Blocks

Functional description of parameter SEAS_MSG_BLK_NUM

This parameter is required for a DMS Signal Transfer Point (STP) switching unit with the signaling engineering and administration system (SEAS) software package. This package supports the user application layer (UAL) interface to the signaling engineering and administrative center (SEAC). It also supports the user program layer (UPL). The UAL interface is synonymous with the transport layer of the OSI communications protocol model. The UPL software layer provides SEAS application-level support for the STP.

SEAS is an operations-support software system with a database developed by Bellcore. It provides personnel of the operating company SEAC with mechanized support capabilities to provision, engineer, and administer the network of STPs and signaling links for each regional Bell company or Bell Operating Company (BOC).

This parameter sets the number of message blocks defined for use by the applications in the SEAS interface.

Message blocks are used to receive commands and to send responses.

Provisioning rules

If the number of message blocks required for use by the applications in the SEAS interface is not 100, specify the quantity required.

Range information

Minimum	Maximum	Default
10	200	100

Activation

Immediate

To affect a change to this parameter, SEAS and the PVC concerned must be off-line.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory requirements.

Dump and restore rules

This parameter was introduced in BCS26.

Copy the existing value of this parameter when doing a dump and restore.

SEAS_MSG_BLK_VOL

Parameter name

Signaling Engineering and Administration System Message Block Volume

Functional description of parameter SEAS_MSG_BLK_VOL

This parameter is required for a DMS Signal Transfer Point (STP) switching unit with the signaling engineering and administration system (SEAS) software package. This package supports the user application layer (UAL) interface to the signaling engineering and administrative center (SEAC). It also supports the user program layer (UPL). The UAL interface is synonymous with the transport layer of the OSI communications protocol model. The UPL software layer provides SEAS application-level support for the STP.

SEAS is an operations-support software system with a database developed by Bellcore. It provides personnel of the operating company SEAC with mechanized support capabilities to provision, engineer, and administer the network of STPs and signaling links for each regional Bell company or Bell Operating Company (BOC).

This parameter specifies the 1 to 12 character disk volume name on which the incoming and outgoing SEAS message blocks to be stored in the format of one file for each message block.

If the disk volume name is removed from service while a SEAS message is being received, that message and all messages sent from the SEAC are not received until the disk is returned to service. When the disk is returned to service, messages can again be received.

SEAS files can not be deleted from the disk volume.

If a Good Morning (GM) message is received while the disk volume is not INSV or ISTB, the message is accepted and processed accordingly.

If the DSKALLOC command REINIT is issued on the disk volume when incoming SEAS messages are received, a SEAS103 log is generated and the message is not confirmed. The SEAS files are recreated when the volume is returned to service and UPL messages can again be transmitted and received.

If the SEAS state is MANBd from an OFFL state and the disk volume is MANB, SEAS files are not allocated on the disk, the M/B flag remains set to false and the files may be allocated once the disk is returned to service.

If the SEAS state is OFFLd from an MANB state, all SEAS files are erased from the disk volume. If the SEAS state is OFFLd from a MANB state and the disk volume is MANB, SEAS files are not de-allocated on the disk, the M/B flag remains set to true and the files may be de-allocated once the disk is returned to service.

If the disk volume is removed from service, a disk log is generated and the message is not confirmed when a message is received. Messages may be received and confirmed when the disk volume is returned to service.

If the disk volume becomes full while a SEAS message is being received, a SEAS log is generated and the message is discarded. When space becomes available on the disk volume, SEAS messages can again be transmitted and received.

The size of this volume is described in the SEAS operations manual.

Provisioning rules

Specify the 1 to 12 character disk volume name.

Range information

Minimum	Maximum	Default
		D000SEASBK

Activation

Immediate

To affect a change to this parameter, the SEAS and the PVC concerned must be off-line.

Dependencies

The number of SEAS files created on the disk volume is equal to the value of parameter SEAS_MSG_BLK_NUM in table OFCENG.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS26.

Copy the existing value of this parameter when doing a dump and restore.

SEAS_SEG_SIZE

Parameter name

Signaling Engineering and Administration System Segment Size

Functional description of parameter SEAS_SEG_SIZE

This parameter is required for a DMS Signal Transfer Point (STP) switching unit with the signaling engineering and administration system (SEAS) software package. This package supports the user application layer (UAL) interface to the signaling engineering and administrative center (SEAC). It also supports the user program layer (UPL). The UAL interface is synonymous with the transport layer of the OSI communications protocol model. The UPL software layer provides SEAS application-level support for the STP.

SEAS is an operations-support software system with a database developed by Bellcore. It provides personnel of the operating company SEAC with mechanized support capabilities to provision, engineer, and administer the network of STPs and signaling links for each regional Bell company or Bell Operating Company (BOC).

This parameter specifies the size of the message segment used to split a long message into smaller units (segments).

If the value is 4060, the size of transmitted segments is 4060 bytes (including UAL and UPL).

The segment length in multi-segment messages can be smaller than or equal to the size specified by this parameter.

Provisioning rules

If other than 4060, specify the size of the message segment to be used to split up a long message into smaller units (segments).

Range information

Minimum	Maximum	•	Default
2048	4096		4060

Activation

Immediate

To affect a change to this parameter, SEAS and the PVC concerned must be off-line.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS26.

Copy the existing value of this parameter when doing a dump and restore.

SEAS_TIME_ZONE

Parameter name

Signaling Engineering And Administration System Time Zone

Functional description of parameter SEAS_TIME_ZONE

This parameter is required for a DMS Signal Transfer Point (STP) switching unit with the signaling engineering and administration system (SEAS) software package. This package supports the user application layer (UAL) interface to the signaling engineering and administrative centre (SEAC). It also supports the user program layer (UPL). The UAL interface is synonymous with the transport layer of the OSI communications protocol model. The UPL software layer provides SEAS application level support for the STP.

SEAS is an operations–support software system with a database developed by Bellcore. It provides personnel of the operating company SEAC with mechanized support capabilities to provision, engineer, and administer the network of STPs and signaling links for each regional Bell company or Bell Operating Company (BOC).

This parameter specifies the time zone in which an STP is located. The time zone is used as part of a time stamp in messages that are sent to the SEAC.

Provisioning rules

If other than the Uninitialized Value (NTZ), enter one of the following values as outlined in table 1.

**Table 1
SEAS_TIME_ZONE values**

Value	Time Zone	Standard/Daylight
NST	Newfoundland	Standard time
NDT	Newfoundland	Daylight time
AST	Atlantic	Standard time
ADT	Atlantic	Daylight time
EST	Eastern	Standard time
EDT	Eastern	Daylight time
CST	Central	Standard time
CDT	Central	Daylight time
MST	Mountain	Standard time
MDT	Mountain	Daylight time
PST	Pacific	Standard time
—continued—		

Table 1
SEAS_TIME_ZONE values (continued)

Value	Time Zone	Standard/Daylight
PDT	Pacific	Daylight time
YST	Yukon	Standard time
YDT	Yukon	Daylight time
HST	Hawaiin-Alaskan	Standard time
HDT	Hawaiin-Alaskan	Daylight time
BST	Bering	Standard time

End

Range information

Minimum	Maximum	Default
		NTZ

Activation

Immediate

To affect a change to this parameter, SEAS and the PVC concerned must be offline.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS26.

Copy the existing value of this parameter when doing a dump and restore.

SEAS_UAL_RETRY_COUNT

Parameter name

Signaling Engineering And Administration System User Application Layer Retry Count

Functional description of parameter SEAS_UAL_RETRY_COUNT

This parameter is required for a DMS Signal Transfer Point (STP) switching unit with the signaling engineering and administration system (SEAS) software package. This package supports the user application layer (UAL) interface to the signaling engineering and administrative center (SEAC). It also supports the user program layer (UPL). The UAL interface is synonymous with the transport layer of the OSI communications protocol model. The UPL software layer provides SEAS application level support for the STP.

SEAS is an operations–support software system with a database developed by Bellcore. It provides personnel of the operating company SEAC with mechanized support capabilities to provision, engineer, and administer the network of STPs and signaling links for each regional Bell company or Bell Operating Company (BOC).

This parameter defines the number of retries that are attempted for message transmission between the SEAC and the DMS–STP nodes over a specific permanent virtual circuit (PVC).

The value of this parameter is equal to the number of times an unconfirmed message is to be transmitted.

When a SEAS message has been retransmitted over a PVC the number of times specified by this parameter, the PVC is set to a SYSB state and Good Morning 1 (GM1) messages are transmitted. When GM1 messages are transmitted, the far end removes the link from service also. An attempt is then made to transmit the original SEAS message over the next INSV PVC.

Provisioning rules

If other than 1, specify the number of times an unconfirmed message is to be transmitted.

Range information

Minimum	Maximum	Default
1	5	1

Activation

Immediate

To affect a change to this parameter, SEAS and the PVC concerned must be off line.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS26.

Copy the existing value of this parameter when doing a dump and restore.

SEAS_UAL_SEAC_NODE_NAME

Parameter name

Signaling Engineering and Administration System User Application Layer
Signaling Engineering and Administrative Center Node Name

Functional description of parameter SEAS_UAL_SEAC_NODE_NAME

This parameter is required for a DMS Signal Transfer Point (STP) switching
unit with the signaling engineering and administration system (SEAS)
software package. This package supports the user application layer (UAL)
interface to the signaling engineering and administrative center (SEAC). It
also supports the user program layer (UPL). The UAL interface is
synonymous with the transport layer of the OSI communications protocol
model. The UPL software layer provides SEAS application level support for
the STP.

SEAS is an operations-support software system with a database developed
by Bellcore. It provides personnel of the operating company SEAC with
mechanized support capabilities to provision, engineer, and administer the
network of STPs and signaling links for each regional Bell company or Bell
Operating Company (BOC).

This parameter specifies the destination node field used for filling part of the
header of outgoing messages. It is also used to verify the source of
incoming SEAS messages.

The first character of the destination node field must be E.

Provisioning rules

Specify the 1 to 12 character name assigned to the destination node field.
The first character must be an upper case E. This first character is used to
identify the type of CCS network element. The upper case E is used to
identify the network element as a SEAC.

The remaining 11 characters must be upper case alphanumerics (that is A
thru Z plus 0 thru 9, with no special characters allowed).

Range information

Minimum	Maximum	Default
		ESEASNJPYRRC

Activation

Immediate

To affect a change to this parameter SEAS and the PVC concerned must be
off-line.

Dependencies

Not applicable

Consequences

If the value of the parameter is not the same as the name used by the SEAC, the incoming message is discarded, a SEAS102 log is generated with an information error message, and no UAL site-to-site confirmation is given.

Verification

Verify that the name assigned to this parameter is the same that is used by the SEAC to identify itself.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS26.

Copy the existing value of this parameter when doing a dump and restore.

SEAS_UAL_SITE_TO_SITE_TIMER

Parameter name

Signaling Engineering and Administration System User Application Layer Site To Site Timer

Functional description of parameter SEAS_UAL_SITE_TO_SITE_TIMER

This parameter is required for a DMS Signal Transfer Point (STP) switching unit with the signaling engineering and administration system (SEAS) software package. This package supports the user application layer (UAL) interface to the signaling engineering and administrative centre (SEAC). It also supports the user program layer (UPL). The UAL interface is synonymous with the transport layer of the OSI communications protocol model. The UPL software layer provides SEAS application level support for the STP.

SEAS is an operations-support software system with a database developed by Bellcore. It provides personnel of the operating company SEAC with mechanized support capabilities to provision, engineer, and administer the network of STPs and signaling links for each regional Bell company or Bell Operating Company (BOC).

This parameter specifies the timeout period for acknowledgement handshakes between the SEAC and the DMS-STP nodes.

When a single segment message is transmitted with the confirmation flag set to 01 and no GM4 message is received within the timeout period specified by this parameter, the message is retransmitted.

The value of this parameter is equal to the site-to-site confirmation timeout period. Retransmisson of messages continues until the site-to-site confirmation times out. The value of this parameter is also equal to the timeout period for GM1 messages (T2) and GM2 messages (T3).

Provisioning rules

If other than 15 seconds, specify the timeout period for acknowledgement handshakes between the SEAS and the DMS-STP nodes, in one second intervals.

Range information

Minimum	Maximum	Default
5	95	15

Activation

Immediate

To affect a change to this parameter, SEAS and the PVC concerned must be offline.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS26.

Copy the existing value of this parameter when doing a dump and restore.

SEAS_UAL_STP_NODE_NAME

Parameter name

Signaling Engineering and Administration System User Application Layer
Signal Transfer Point Node Name

Functional description of parameter SEAS_UAL_STP_NODE_NAME

This parameter is required for a DMS Signal Transfer Point (STP) switching
unit with the signaling engineering and administration system (SEAS)
software package. This package supports the user application layer (UAL)
interface to the signaling engineering and administrative center (SEAC). It
also supports the user program layer (UPL). The UAL interface is
synonymous with the transport layer of the OSI communications protocol
model. The UPL software layer provides SEAS application level support
for the STP.

SEAS is an operations-support software system with a database developed
by Bellcore. It provides personnel of the operating company SEAC with
mechanized support capabilities to provision, engineer, and administer the
network of STPs and signaling links for each regional Bell company or Bell
Operating Company (BOC).

This parameter specifies the source node field to be used for filling part of
the header of outgoing SEAS messages. It is also used to verify that the
DMS-STP is the proper receiver of incoming messages.

The name assigned to the value of this parameter must be a combination of
numerics or upper case alphabetic characters, any others are disallowed.
The first character of the source node field must be T.

Provisioning rules

Specify the 1 to 12 character name assigned to the Source Node Name.

The first character must be an upper case T. This first character is used to
identify the type of CCS network element. The upper case T is used to
identify the network element as an STP. The remaining 11 characters MUST
be upper case alphanumerics (that is A thru Z plus 0 thru 9, with NO special
characters allowed)

Range information

Minimum	Maximum	Default
		TBNROTTAWA00

Activation

Immediate

To affect a change to this parameter, SEAS and the PVC concerned must be
off-line.

Dependencies

Not applicable

Consequences

If the value of this parameter is not the same as the SEAC uses to identify the DMS-STP, the incoming message is discarded, a SEAS102 log is generated with an information error message and no UAL site-to-site confirmation is given.

Verification

Verify that the name assigned to this parameter is the same that is used by the SEAC to identify the DMS-STP.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS26.

Copy the existing value of this parameter when doing a dump and restore.

SEP_EQUIPPED

Parameter name

Service Evaluation System Equipped

Functional description of parameter SEP_EQUIPPED

This parameter is required for a local, toll or combined local/toll switching unit and specifies whether the DMS Service Evaluation System (SES) interface feature resides in software.

The value of this parameter is set to Y (yes), if the DMS SES interface resides in software. This parameter can only be set to Y, in switching units with the DMS SES Interface feature (software package NTX215AA).

This feature is part of the interface between the DMS and the No.2 Service Evaluation System (No.2 SES). The No.2 SES evaluates call completion and produces statistics on call disposition. Call completion and disposition information generated by the No.2 SES can stimulate maintenance on facilities with poor performance records and help detect some fraudulent uses of network resources.

The DMS/No.2 SES interface is an entirely automated system for service evaluation.

Depending on type of switching unit, the DMS performs two types of service evaluation:

1 Incoming Trunk Service Evaluation (ITSE) which evaluates calls incoming from an InterLATA Carrier Point of Presence through an access tandem to an end switching unit.

2 Dial Line Service Evaluation (DLSE) which evaluates calls that originate from lines and fit the standard North American numbering plan.

Provisioning rules

The value of this parameter can only be changed by Northern Telecom personnel.

Range information

Minimum	Maximum	Default
		Y

Activation

Immediate

Dependencies

This feature requires the Multi-Protocol Controller software package (NTX273AA) to function properly.

Table SEILINKS is required, if the value of this parameter is set to Y.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS23.

Copy the existing value of this parameter when doing a dump and restore.

SET_TO_UNBALANCE

Parameter name

Set To Unbalance

Functional description of parameter SET_TO_UNBALANCE

This parameter informs the Automatic Line Testing (ALT) feature that a balance test must be performed on all new plain ordinary telephone service (POTS) lines with a padgroup of STDLN.

Provisioning rules

Set the value of this parameter to Y (yes) so that, when a command is issued in a service order on a POTS line, and table LNINV is set to STDLN and the manual overdrive (MNO) field is set to N (no), the padgroup is changed by the service order to the setting of UNBAL.

A restart sets the value of this parameter to N. The value of this parameter is always N when an office load arrives on sight.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable.

Consequences

Not applicable.

Verification

This parameter can be verified by performing a command on a POTS line with table LNINV set to STDLN and the MNO set to N. After execution of the new command, the padgroup of the line is set to UNBAL and a balance test is requested.

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS32.

Set the value of this parameter to N when doing a dump and restore from software release BCS32 to software release BCS32 or higher.

Parameter name

Silent Switchman Timeout

Functional description of parameter SILENT_SWITCHMAN_TIMEOUT

This parameter is required for a local switching unit with maintenance assistance package software and Integrated Business Network (IBN) switching units with proprietary business set software.

This parameter is required for the silent switchman feature. It specifies the length of time that a line is cut off for testing of an open circuit.

A tester dialing the silent switchman access code receives busy tone for 10 seconds. Then the line is cut off for the time specified by this parameter to allow for testing of an open circuit.

Provisioning rules

If the time allowed for testing an open circuit is other than 100 seconds, specify the time in one second intervals.

Range information

Minimum	Maximum	Default
0	255	100

Activation

Immediate

Dependencies

The silent switchman code can be a three or seven digit number.

A pseudo fixed code of SSMAN is required in the CLLI table for the silent switchman feature.

If a three digit number is chosen, the number must be assigned in the HNPACODE table with code type SCD3.

If a seven digit number is chosen, the number must be assigned in the WRDN table.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Screening List Editing Items In Segment

Functional description of parameter SLE_ITEMS_IN_SEGMENT

This parameter is associated with the screening list editing (SLE) portion of the Call Screening Feature. Call screening services allow subscribers to screen out certain incoming calls. For each call screening feature a list of directory numbers (DN) identifying incoming calls for special treatment is maintained by the switch. SLE allows these lists to be created and modified by the subscriber.

This parameter works with parameter SLE_MAX_SEGMENT_COUNT to determine the size of the RESFEAT and SLELIST tables.

The value of this parameter limits the maximum length of any list since all items for one list must be stored within the same segment.

This parameter can only be changed when no store is allocated for SLE data, (that is, RESFEAT and SLELIST tables are empty, and parameter SLE_MAX_SEGMENT_COUNT is set to zero).

Provisioning rules

Set the parameter value to the largest possible size of any list over the engineering interval based on the following formula:

$$A = 10L + N$$

where

A	is the maximum length of a SLE list
L	is the number of lists in the office. This is the sum of all instances of SLE features, and will become the number of tuples in the RESFEAT table pertaining to SLE.
N	is the total number of all entries in all lists in the office. This should be estimated assuming that all lists will be fully used.

Range information

Minimum	Maximum	Default
1024	8191	1024

Activation

This parameter can only be reset when the RESFEAT and SLELIST tables are empty, and the SLE_MAX_SEGMENT_COUNT has been set and activated to 0. For this reason, it should only be set on initial load build, or during dump and restore, before the SLE_MAX_SEGMENT_COUNT parameter is set.

SLE_ITEMS_IN_SEGMENT

Dependencies

Calculate the value of this office parameter before activating the SLE_MAX_SEGMENT_COUNT parameter.

Consequences

Underprovisioning of this office parameter results in subscribers not being able to fully assign their lists, or assign new lists.

Overprovisioning wastes data store.

Verification

Not applicable

Memory requirements

This parameter works with the SLE_MAX_SEGMENTS_COUNT parameter to provide store for SLE lists. The store consumption is:

$$3 \times SLE\_MAX\_SEGMENT\_COUNT \times (2 + SLE\_ITEMS\_IN\_SEGMENT)$$

The data store impact of the SLE feature is determined by the number of SLE TCAP transaction identifiers, the number of tuples in the SLELIST table and the number of tuples in the RESFEAT table which pertain to SLE lists.

Dump and restore rules

This parameter was introduced in BCS29.

This value should be recalculated each time the office data is restored, and for initial loads in new offices. It should be calculated based on maximum values to the next restore.

Parameter name

Screening List Editing Maximum Programmers

Functional description of parameter SLE_MAX_PROGRAMMERS

This parameter is associated with the screening list editing (SLE) aspect of the Call Screening feature.

Call Screening services allow subscribers to screen out certain incoming calls. For each call screening feature a list of directory numbers (DN) identifying incoming calls for special treatment is maintained by the switch. SLE allows these lists to be created and modified by the subscriber.

This parameter specifies the maximum number of simultaneous SLE sessions that can be supported in an office.

Provisioning rules

Set the value of this parameter equal to the lowest number of SLE announcements contained on any one digital recorded announcement machine (DRAM). For example, if there are two DRAMS with SLE announcements in the office, with 18 and 24 announcements respectively the parameter value should be set to 18.

The maximum number of SLE programmers should not exceed the maximum number of SLE announcement circuits available in the office.

Range information

Minimum	Maximum	Default
0	127	0

Activation

Immediate

Dependencies

Not applicable

Consequences

Overprovisioning results in an excessive number of users receiving NOSC treatment. Underprovisioning results in an excessive number of users receiving NOSR treatment.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Screening List Editing Maximum Segment Count

Functional description of parameter SLE_MAX_SEGMENT_COUNT

This parameter is associated with the screening list editing (SLE) portion of the Call Screening feature. Call screening services allow subscribers to screen out certain incoming calls. For each call screening feature a list of directory numbers (DN) identifying incoming calls for special treatment is maintained by the switch. SLE allows these lists to be created and modified by the subscriber.

This parameter defines the maximum amount of store that can be allocated for SLE lists. This parameter value can be increased or decreased. A restart is required to activate the change. This does not reflect the amount of store actually assigned, as the system only allocates store as required, and has the means to ensure that store is used efficiently. Decreasing the value does not mean that store is reclaimed. No data is lost as a result of reducing this number. Store is not released until it has been de-assigned. However, new store cannot be allocated above the set value.

Provisioning rules

Determine the value of office parameter SLE_ITEMS_IN_SEGMENT before doing this calculation.

The formula for determining the value of this parameter is:

$$A = 5L + N/v$$

where

A	is the value of this parameter
L	is the the number of lists in the office. This is the number of tuples in the RESFEAT table that pertain to SLE lists.
N	is the total number of all entries in all lists in the office. This is the number of tuples in the SLELIST table.
v	is the value of SLE_ITEMS_IN_SEGMENT

Range information

Minimum	Maximum	Default
0	2048	0

Activation

Warm restart

Dependencies

The value of parameter SLE_ITEMS_IN_SEGMENT must be set before the value of this parameter.

SLE_MAX_SEGMENT_COUNT

Consequences

Underprovisioning of this parameter can result in subscribers being unable to fully assign their lists or assign new lists.

Verification

Not applicable

Memory requirements

This parameter works with parameter SLE_ITEMS_IN_SEGMENT to provide store for SLE lists. The store consumption is:

3 X SLE_MAX_SEGMENT_COUNT
    X (2 + SLE_ITEMS_IN_SEGMENT)

The data store impact of the SLE feature is determined by the number of SLE transaction capability application part (TCAP) transaction ids, the number of tuples in table SLELIST and the number of tuples in table RESFEAT that pertain to SLE lists.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Screening List Editing Transaction Capability Application Part Response Time

Functional description of parameter SLE_TCAP_RESPONSE_TIME

This parameter is associated with the screening list editing (SLE) aspect of the Call Screening feature.

Call Screening services allow subscribers to screen out certain incoming calls. For each call screening feature, a list of directory numbers (DN) identifying incoming calls for special treatment is maintained by the switch. SLE allows these lists to be created and modified by the subscriber.

The SLE feature must validate all DNs entered on a screening list. To validate internodal DNs, SLE uses the transaction capability application part (TCAP) and the signaling connection control part (SCCP) of the CCS7 protocol to access DN data from the terminating switch.

DN validation is achieved by a TCAP query/response transaction.

This parameter defines, in seconds, how long the system waits for TCAP to respond to an interoffice query for DN validation. If the parameter value is reached before a response is received, the DN data is assumed to be unavailable and the DN is not added to the subscriber's SLE list.

Provisioning rules

This parameter should remain at the Bellcore recommended value of 3 unless an unacceptable number of short-term denials of response occur.

Range information

Minimum	Maximum	Default
1	10	3

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

SLE_TCAP_RESPONSE_TIME

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

.

Parameter name

Screening List Editing Transaction Threshold

Functional description of parameter SLE_TRANSACTION_THRESHOLD

This parameter is associated with the screening list editing (SLE) portion of the Call Screening Feature. Call screening services allow subscribers to screen out certain incoming calls. For each call screening feature a list of directory num bers (DN) identifying incoming calls for special treatment is maintained by the switch. SLE allows these lists to be created and modified by the subscriber.

Data store associated with these lists is allocated as required. It is not reclaimed when data is unassigned, although it will be reused, when possible. This can lead to store fragmentation, resulting in inefficient store use. An audit style process, referred to as the compaction process, runs on a daily basis to eliminate the fragmentation. See the description of office parameter SLE_WAKEUP_TIME in table OFCENG.

The compaction process can also be triggered to start once a certain number of transactions have occurred. This prevents excessive fragmentation on days when SLE is being heavily used.

This parameter specifies the number of transactions (list additions or deletions) that can occur before the compaction process runs autonomously.

Provisioning rules

This parameter should remain at the default value, unless an excessive number of SLE103 logs, indicating NO DATA STORE as the reason associated with the log, are being generated. If this occurs, the parameter value should be reduced to half the value of transactions that have occurred in the most recent SLE104 logs.

An SLE104 log is generated when the process completes. It contains store consumption statistics, such as the store reclaimed, allocated and used by the SLE Process.

Range information

Minimum	Maximum	Default
1024	32767	32767

Activation

Immediate

Dependencies

Not applicable

SLE_TRANSACTION_THRESHOLD

Consequences

Underprovisioning of this parameter value causes the compaction process to run too often, wasting system real-time.

Overprovisioning can cause SLE data to become fragmented. As a result, SLE users may be unable to add entries to their lists, until the next run of the compaction process runs.

See office parameter SLE_MAX_SEGMENT_COUNT in table OFCOPT.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Screening List Editing Wakeup Time

Functional description of parameter SLE_WAKEUP_TIME

This parameter is associated with the screening list editing (SLE) portion of the Call Screening feature. Call screening services allow subscribers to screen out certain incoming calls. For each call screening feature, a list of directory numbers (DN) identifying incoming calls for special treatment is maintained by the switch. SLE allows these lists to be created and modified by the subscriber.

Data store associated with these lists is allocated as required. It is not reclaimed when data is unassigned, although it will be reused, when possible. This can lead to store fragmentation, resulting in inefficient store use. An audit style process, referred to as the compaction process, runs on a daily basis to eliminate the fragmentation.

This parameter specifies the time of day, using a 24-hour clock, when the compaction process runs (0–23 hrs, 0–59 minutes).

Provisioning rules

Set the parameter value to the start of a low traffic period to ensure the compaction process runs as quickly as possible.

Range information

Minimum	Maximum	Default
0 0	23 59	1 37

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

The parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

SOUTHBOUND

Parameter name

South Bound

Functional description of parameter SOUTHBOUND

This parameter is associated with the BCS30 enhancements to the 800+ Southbound feature that provides the capability to route U.S. 800 numbers to any U.S. carriers that provide 800 service screening and routing to the 800 U.S. customer. This parameter enables a phased implementation of the feature by assigning one of three different values (OFF, TRANSIENT, ON).

This feature allows the U.S. customer to purchase 800 service zone coverage in Canada and to provide multiple carrier routing capability.

Provisioning rules

Set the parameter value to OFF to turn off the Southbound routing.

When the value of this parameter is set to OFF, calls are routed to INWATS tables if the number returned from the 800+ database query is of the form 800+NXX+XXXX. If the returned number is not preceded by 800 the call retranslates by way of normal translation.

Set the parameter value to TRANSIENT if the operating company wants to pre–datafill table NSCSNPA with special routing code (SRC) entries. This is blocked when this parameter is set to OFF.

It is recommended to initially set the parmameter to OFF in order to datafill the 800+ southbound translations and, at a later time. the parameter should be set to ON when all translations are set up appropriately.

When this parameter is set to TRANSIENT, calls originating in the office on incoming trunks impulsing an SRC stream with a number service code (NSC) selector datafilled for that call, proceed to table NSCSNPA. An 800+ database query is made if there was a match on the SRC. The call routes as explained in the OFF mode after the 800+ database query.

It is important to coordinate the status of the network when deploying Southbound according to the following criteria:

- Is the service control point (SCP) setup for enhanced Southbound?
- Are other switches impulsing SRCs to this switch?
- Are U.S. offices expecting SRC/00Y to be outpulsed?

The value ON is used when full Southbound service is required.

Range information

Minimum	Maximum	Default
		ON

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS30.

Copy the existing value of this parameter when doing a dump and restore.

SPANISH_OUTGOING_RINGING_TIMEOUT

Parameter name

Spanish Outgoing Ringing Timeout

Functional description of parameter SPANISH_OUTGOING_RINGING_TIMEOUT

This parameter is required for a PBX switching unit in Spain. It specifies the time that the originating party is allowed to listen to audible ringing when the call is outgoing on PCM30 trunks.

Provisioning rules

Specify the time, in 1-s intervals, that the originating party is allowed to listen to audible ringing for an outgoing call on a PCM30 trunk.

Range information

Minimum	Maximum	Default
1	720	600

Activation

EXECs must be reloaded in all PCM30 digital trunk controllers (PDTC) using the following procedure:

1   Busy (BSY) and return to service (RTS) the inactive unit.

2   Perform a warm SWACT.

Dependencies

If this parameter is required, parameter RNG_TIMEOUT_NO_OF_SECS in table OFCENG must be set to a value greater than 60 s. The originating switching unit for a call incoming to the DMS in the Spanish network provides 60 s of ring-no-answer timing.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS23.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36   activation changed from cold restart

Parameter name

Stored Program Control Calling Line Information Timeout

Functional description of parameter SPCCLITIMEOUT

This parameter is associated with the SPC-CMS feature that permits inclusion of stored program control (SPC) switches in the call management service (CMS) network to provide one-way CMS.

One-way CMS provides CMS features such as Calling Number Delivery (CND), Automatic Call Setup (ACS), and Call Screening to the DMS subscribers but not to the SPC subscribers. SPC switches are stored program control switches, specifically SP–1/2W and #1ESS.

Data store is provided to hold the Calling Line Information (CLI) from an SPC Switch while waiting for the associated voice call to arrive. A timer is started when a CLI FTRQ block is enqueued. When the timer expires, the calling line information is considered invalid and the FTRQ block is released.

This parameter specifies the length of time, in seconds, that the CLI from an SPC switch remains accessible by an incoming call before being discarded.

Provisioning rules

Specify, in seconds, the worst case time difference between the PTS (per trunk signaling) circuit seizure by the SPC switch and the collection of the last digit at the DMS end for all SPC trunk circuits in the office.

Range information

Minimum	Maximum	Default
1	32	9

Activation

Immediate

Dependencies

Not applicable

Consequences

If the timeout value is set too high, the feature queue block resource used to hold the CLI data could be exhausted.

If the timeout value is set too low, the CLI data would be lost before the voice call arrives.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Single Party Direct Dial Digit

Functional description of parameter SPDD_DIGIT

This parameter defines the circle digit for single, two, four, eight and ten party lines.

The circle digit feature permits 8 and 10 party line subscribers to dial direct when making a toll call. Each member of the party line is assigned one circle digit from 0 to 9.

The format of calls supported are:

- 1+ (circle digit) + 7/10 digits
- 0+ (circle digit) + 7/10 digits

This office parameter keeps the switching unit's numbering plan consistent by having single party, two party, and four party lines dial a circle digit as well.

If the switching unit does not support the circle digit feature, leave the value of this parameter at the default value of 0 (zero).

If the switching unit has the circle digit, but not the equal access feature (parameter EA_WITH_CD in table OFCENG equal to N), the value of this parameter ranges from 0 to 10. The value of 10 represents the circle digit 0 (zero). The value of 0 disables the circle digit feature.

If the switching unit has the circle digit and equal access feature, (parameter EA_WITH_CD in table OFCENG equal to Y), the value of this parameter can range from 0 to 9. Circle digit 0 corresponds to the SPDD_DIGIT value 10.

Range information

Minimum	Maximum	Default
0	10	0

Activation

Immediate

Dependencies

If the user attempts to change the value of this parameter to 10, when the value of parameter EA_WITH_CD in table OFCENG is set to Y, the following message appears at the MAP:

```
THIS VALUE INCOMPATIBLE WITH EA_WITH_CD
```

The value of the parameter remains unchanged in this case.

SPDD_DIGIT

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Spill Automatic Number Identification 9

Functional description of parameter SPILL_ANI_9

This parameter is required in a local or combined local and toll switching unit. It specifies whether the automatic number identification (ANI) specified by office parameter BELL_ANI_INTERCEPT_ID in table OFCENG is outpulsed on intercept calls on a trunk group with trunk group type OP.

Provisioning rules

Set the value of this parameter to Y (yes) if the ANI identification digit is to be outpulsed on intercept calls on a trunk group with trunk group type OP.

Set the value of this parameter to N (no) if the ANI identification digit is not required on intercept calls on a trunk group with trunk group type OP.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

See office parameter BELL_ANI_INTERCEPT_ID in table OFCENG.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

SPMS_START_OF_MONTH

Parameter name

Switch Performance Monitoring System Start Of Month

Functional description of parameter SPMS_START_OF_MONTH

This parameter is required in all switching units with the switch performance monitoring system (SPMS). It specifies the day of the month for the start of the report month.

SPMS is an optional feature available on all members of the DMS-100 and Meridian SL-100 families of switches. It provides, on demand, reports of index values that describe how well the switch is operating at various levels of detail. The indexes are computed from switch-generated operational measurements (OM) day by day and as an average over the customer defined report month.

The report month index values are suitable for use in customer administrative plans for evaluating the quality of switch performance and of the maintenance and provisioning effort that underlies that performance. Either the report month or the daily index values may be used in a systematic effort to find and clean up trouble spots within the switch.

The operating company frequently makes use of index plans to evaluate the operation of switches over long periods of time. The indexes used in these plans have numeric values typically ranging from 100 (for perfect performance) down to 0 (for worst possible performance). Index values of 98.5 or better are excellent. Index values in the range 96 to 98.5 are good.

Poor index values correlate with higher levels of customer trouble reports attributable to switch performance. This correlation is enhanced by the choice of importance that are applied to the index components.

While the indexes themselves have a common interpretation regardless of the switching technology involved, their components are calculated based on technology-specific standards. The determination of these standards frequently requires a lengthy calibration period for the technology concerned.

The indexes are typically reported as averages over a reporting month. The duration of the reporting month is determined by the calendar, but the month may start on a day other than day 1 for administrative convenience.

Provisioning rules

Specify the day of the month for the start of the report month. The allowable values range from day 1 to day 28.

Range information

Minimum	Maximum	Default
1	28	1

Activation

Immediate

Dependencies

The following tables that are automatically datafilled at load time are required for this feature:

- SPMSIDX
- SPMSRSLT
- SPMSMTD.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS23.

Copy the existing value of this parameter when doing a dump and restore.

SPP_MAX_PROGRAMMERS

Parameter name

Station Programmable Personal Identification Number Maximum Number of Programmers

Functional description of parameter SPP_MAX_PROGRAMMERS

This parameter is required for a switching unit with the Station Programmable PIN (SPP) feature. It specifies the maximum number of users that can simultaneously perform a personal identification number (PIN) change using the SPP feature.

If SPP lines are connected to pre-XMS-based peripheral modules, additional digitone receivers (DGT) are required for this feature to ensure that the use of this feature does not affect standard call processing.

In a switching unit where all the line and trunk peripherals are XMS-based peripheral modules (XPM) with universal tone receivers (UTR), no DGT receivers are used by this feature.

The value of this parameter should not exceed the number of receivers or UTRs in the switching unit.

Provisioning rules

Set this parameter to a value equal to the number of SPP announcement members that are datafilled in table ANNMEM. Although UTR and digitone usage is affected by this parameter, the number of SPP announcement members directly affects simultaneous capabilities.

The default value of 0 (zero) is not recommended. It does not allow any SPP use.

Range information

Minimum	Maximum	Default
0	127	0

Activation

Immediate

Dependencies

Not applicable.

Consequences

If this parameter is underprovisioned, an excessive number of users receive no software resource (NOSR) treatment.

Verification

If this parameter is datafilled correctly, simultaneous SPP use is enabled for the number of users specified by this parameter.

See Operational Measurement (OM) group SPP in the *Operational Measurements Reference Manual*, 297-1001-814 for the measurements that are associated with this feature.

Memory requirements

This parameter value requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS32.

Copy the existing value of the parameter when doing a dump and restore.

SRDBUPD_SWITCH_ID

Parameter name

Selective Routing Database Update Switch Identifier

Functional description of parameter SRDBUPD_SWITCH_ID

This parameter is associated with E911 that provides a centralized
emergency service through a DMS-100 or 100/200 switch functioning as an
E911 tandem.

This parameter is the office identifier that is assigned to the switch by the
automatic location identification (ALI) database from which recent change
(RC) files are received. RC files are requested from the ALI database with
names in the form of (mmmddx.SEQ) where "mmm" represents the first
three characters of the month, "dd" is the two-digit day of the month and "x"
is the one-character switch identification assigned by the ALI database and
datafilled as the value of this parameter.

Provisioning rules

The value of this parameter is assigned by the remote ALI database from
which RC files are received. Datafill of this parameter should be
coordinated with ALI database administration. The range of values for this
parameter is $ and A to Z. The default value is $ and must be changed
before datafilling table SRDBXFER with a tuple where field DIRECT is set
to a value of OUTGOING.

Range information

Minimum	Maximum	Default
		$

Activation

Immediate

Dependencies

Not applicable.

Consequences

Not applicable.

Verification

Not applicable

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS32.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

SS7 Congestion Control Time

Functional description of parameter SS7_CONGESTION_CONTROL_TIME

This parameter is associated with the SS7 Dynamic Overload Control (DOC) feature that uses SS7 signaling to transmit machine congestion (MC) signals to the connecting switches of an overloaded switch.

It applies only to DMS-300 switching units with package NTXF43AA.

Congestion controls applied to an overloaded switch are activated when either of the following messages are received from the overload switch:

- an ISDN User Part (ISUP) release message containing the automatic congestion level parameter
- a CCITT blue book telephone user part (TUP) ACC message, received on an outgoing trunk after having sent a clear guard message and before receiving a release guard message in reply

This parameter specifies the length of time (in seconds) that congestion controls are applied to SS7 trunks terminating to an overloaded switch.

Congestion controls remain active for the duration of the value specified by this parameter. Subsequent ISUP release messages, containing the automatic congestion level parameter, reset the value of this parameter.

The parameter must be increased to the maximum value during maintenance activity to prevent the congestion controls from toggling on and off.

Connecting switches respond to the overload notification by activating pre-planned controls through their receiver dynamic overload controls (RDOC) programs.

Provisioning rules

Set the parameter to 15, unless otherwise specified by Northern Telecom.

Range information

Minimum	Maximum	Default
0	255	5

The default value was chosen because 5 seconds is the shortest amount of time to apply congestion controls to SS7 trunks terminating to an overloaded switch.

Activation

Immediate

SS7_CONGESTION_CONTROL_TIME

Dependencies

Not applicable

Consequences

If this parameter is underprovisioned, congestion controls to the overloaded switch are not applied long enough to alleviate the overloaded condition.

Verification

To verify the SS7_CONGESTION_CONTROL_TIME, a connecting switch needs to go into overload. The congestion controls applied to the overloaded switch should be for the length of this timer.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS30.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Service Switching Point Equal Access Acknowledgement Wink Delay Time

Functional description of parameter SSP_EA_ACKWINK_DELAY_TIME

This parameter appears only in a local or toll switching unit that has the Service Switching Point (SSP) software package.

Provisioning rules

The value of this parameter is equal to the time, in 10-ms intervals, that the Access Tandem / Service Switching Point (AT/SSP) delays before sending the acknowlegdement wink back to the Equal Access End Office (EAEO), on receiving called number from the EAEO.

The AT/SSP must delay at least 200 ms, but no more than 1 s before sending an acknowledgment wink to the EAEO.

The default value is 20 (200 ms).

Range information

Minimum	Maximum	Default
20	100	20

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS21.

Copy existing value of parameter when doing dump and restore.

Parameter history

BCS36 changed activation from cold restart to immediate and corrected minimum parameter value from 10 (100 ms) to 20 (200 ms)

SSP_NSC_CARRIER_ID

Parameter name

Service Switch Point Number Services Code Carrier Identifier

Functional description of parameter SSP_NSC_CARRIER_ID

This parameter appears only in a local or toll switching unit that has the Service Switch Point (SSP) software package. It determines whether an E800 call is routed to the BOC or interLATA carrier (IC) for completion following a Transaction Capabilities Application Part (TCAP) query.

If the the four-digit carrier identification code (CIC) returned in the TCAP response is the same as the service code digits specified in this parameter, the call is routed to the BOC. Otherwise, the call is routed to the IC specified by the CIC digits.

Prior to BCS36, the value of this parameter was a three-digit CIC code. For BCS36 and higher, a four-digit code must be specified.

Provisioning rules

Specify the 4-digit number service code (NSC) value.

Range information

Minimum	Maximum	Default
0000	9999	0110

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS21.

During a dump and restore from BCS35 and lower to BCS36 and higher the three-digit value of this parameter is automatically converted to a four-digit value by prefixing the previous value with a 0 (zero).

Parameter history

BCS36 activation requirements changed and 4-digit CIC code information added

ST_AUDIT_START_TIME

Parameter name

Signaling Terminal Audit Start Time

Functional description of parameter ST_AUDIT_START_TIME

This parameter specifies the time of day (start time) at which the signaling terminal daily diagnostics audit runs.

Provisioning rules

Specify the start time, hour (0 to 23) and the minute (0 to 59) that the ST daily diagnostics start running.

For example, if the start time is 2:30 a.m., the value is 2 30.

Range information

Minimum	Maximum	Default
0 00	23 59	2 30

Activation

A change to this parameter value is activated on the next audit cycle.

Dependencies

Not applicable

Consequences

If set to a busy time, the daily diagnostics starts running. This should not cause any problems, but uses real time in the switch that should be used for other audits.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS28.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Signaling Terminal Inventory Block Size

Functional description of parameter STINV_BLOCK_SIZE

This parameter is required to specify how much the Signaling Terminal Inventory (STINV) table is increased by when there are no free locations in which to store data.

The craftsperson can control how much the memory is fragmented by with this parameter. It can also decrease the amount of wasted memory .

If a switching unit has a large number of signaling terminals, the table is extended in size by the value of this parameter each time a new data storage location for an ST is required, and there are no free locations. These elements are then used until again the table needs to be extended.

If the value of this parameter is small, the table must be extended many times for a switching unit with a large number of signaling terminals (ST).

If the value of this parameter is large, the table is only be extended once when the first value for the parameter is entered. This improves performance since extending the table takes time as all the entries from the small table are copied into the new larger table.

When a table is extended and the items are copied into the new table, the old table is returned to the system. If this occurs many times, the memory in the switch contains many of these returned tables that are too small to be useful and are wasted.

Provisioning rules

The recommended value for this parameter is one greater than the number of STs in a switching unit.

If the parameter is set to a value less than the default value, the default value of 15 is used.

Range information

Minimum	Maximum	Default
0	1023	15

Activation

Immediate

Dependencies

Not applicable

Consequences

Overprovisioning means that a larger amount of memory than needed is allocated by the table control routine. This memory is not used and therefore is held needlessly.

Underprovisioning means that table STINV causes memory to become fragmented and unusable.

Verification

Not applicable

Memory requirements

This parameter has no memory requirements.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Suppress Automatic Number Identification to Calling Line Identification Display

Functional description of parameter SUPPRESS_ANI_TO_CLID_DISPLAY

Automatic Number Identification (ANI) digits received over Super Centralized Automatic Message Accounting (SC) and TOPS trunks at the DMS-200 toll office can be converted into the address digits of an outgoing CCS7 initial address message (IAM) calling party number parameter. This parameter provides a choice to suppress the display of ANI digits to the terminating subscriber for these call types on a per office basis.

Provisioning rules

Set this parameter to Y (yes) to suppress the ANI display by coding the calling party number parameter as "presentation restricted".

Set this parameter to N (no) to enable the ANI display. Note that the ANIATTRS screening table is still checked to determine if the ANI should be suppressed from display.

Range information

Minimum	Maximum	Default
		Y

Activation

Immediate

Dependencies

Not applicable.

Consequences

Not applicable.

Verification

Not applicable.

Memory requirements

This parameter value requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS33.

Copy the existing value of this parameter when doing a dump and restore.

SWCT_AMA_PREBILLING

Parameter name

Switch Of Activity Automatic Message Accounting Prebilling

Functional description of parameter SWCT_AMA_PREBILLING

This parameter provides the ability to process all unprocessed Automatic Message Accounting (AMA) data and output to the current AMA device during a warm SWACT.

Provisioning rules

If this parameter is set to Y (yes), calls that are billable at the time of the next warm SWACT are billed according to the duration of the call up to the time at which they are processed for premature billing.

Only calls with Centralized Automatic Message Accounting (CAMA) or Local Automatic Message Accounting (LAMA) (TOPS data not included) recordings in switching units using the NT or Bellcore formats are billed prematurely during a warm SWACT.

DMS-250 and DMS-300 switching units do not use premature billing during a warm SWACT.

Station Message Detail Recording (SMDR), Integrated Business Network (IBN), and TOPS data are not affected (that is, data records are not output for these types of data).

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of parameter.

Parameter name

T108 Integrated Services Digital Network Timeout In Minutes

Functional description of parameter T108ISDN_TIMEOUT_IN_MINUTES

When a T108 integrated services digital network (ISDN) test line call is
made from an ISDN phone, a loopback is applied (at the line card) towards
the customer premises on the B channel. It remains set for the number of
minutes specified by this parameter. When the specified time has elapsed,
the call is taken down and the loopback is released.

Provisioning rules

The recommended value for this parameter is the default of 20, which
represents a time of 20 min.

Range information

Minimum	Maximum	Default
1 (min)	1440 (min)	20 (min)

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS35.

Copy the existing value of this parameter when doing a dump and restore.

TABLE_ADJNODE_INUSE

Parameter name

Table ADJNODE In Use

Functional description of parameter TABLE_ADJNODE_INUSE

This parameter specifies whether table ADJNODE is used by the switching unit.

Table ADJNODE contains nodal information pertaining to adjacent nodes and must be datafilled for ISDN user part (ISUP) and Primary Rate Interface (PRI) trunks. An index exists in each table TRKSGRP tuple that points to the applicable ADJNODE tuple for a particular trunk subgroup.

This parameter provides the capability to remove reference to the table ADJNODE by providing a NIL index in table TRKSGRP for all ISUP trunks.

Provisioning rules

If the value of this parameter is set to Y (yes), all entries for ISUP trunks in table TRKSGRP display the real index. This may be an index pointing to table ADJNODE or a value of NIL.

If the value of this parameter is set to N (no), all entries for ISUP trunks in table TRKSGRP are affected. Field ADJNODE in table TRKSGRP displays NIL regardless of the actual datafill. However, the index stored in the physical store remains unchanged.

Range information

Minimum	Maximum	Default
		Y

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS36.

If the value of this parameter is set to N during a BCS upgrade, the value NIL is stored in physical store and ISUP trunk information in table TRKSGRP is lost.

Parameter history

BCS36   parameter introduced

TAPEXLATE

Parameter name

Tape Translation

Functional description of parameter TAPEXLATE

This office parameter is for use with the following features:

- Local Features II
- Toll Features II
- International Switching Centre (ISC) Basic
- CNS Operational Measurement on Tape

This parameter specifies the type of translation to be applied to operational measurement (OM) registers as they are written to tape or disk.

Provisioning rules

The value of this parameter is dependant upon the operating company downstream processor type.

The following types of translation can be specified:

- EBCDIC – character representation in EBCDIC
- ASCII – character representation in ASCII
- ASCII_BINARY – numeric representation in ASCII
- EBCDIC_BINARY – numeric representation in EBCDIC

Range information

Minimum	Maximum	Default
		EBCDIC

Activation

Immediate (following a DIRP manual rotation)

Dependencies

Not applicable

Consequences

Any change to the value of this parameter is ignored unless a rotate is performed. There is no automatic rotation upon changes to this parameter so a manual rotate must be performed from the device independent recording package (DIRP) level of the MAP.

Verification

Not applicable

Memory requirements

This parameter value requires 1 word of memory.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

TCM_SYNC_LINES

Parameter name

Time Compressed Multiplex Synchronization Lines

Functional description of parameter TCM_SYNC_LINES

This parameter is required for switching units with the Datapath feature. It specifies the maximum number of Datapath lines that are monitored at one time.

Due to messaging constraints, only 30 Datapath lines (30 is the default value for this parameter) are monitored at any one time.

The process is similar to an audit program, cycling through 30 Datapath lines at a time, monitoring each group for a period of time identified by the office parameter TCM_SYNC_MONITOR_PERIOD in table OFCENG. This continues until all the Datapath lines have been tested, or a TCMMON STOP command has been issued.

Monitoring for Datapath's time compressed multiplex (TCM) synchronization (SYNC) losses can be initiated by the CI command TCMMON at the MAP.

The command, TCMMON START, prompts for the starting line equipment number (LEN) and the ending LEN. The LENs may span over one or more peripheral boundaries, (for example, HOST 1 0 0 0 to HOST 2 1 12 4).

Only 6X71AA and 6X71AB line cards are monitored. Messaging to DPX lines can not be done.

Provisioning rules

Specify, the maximum number of Datapath lines that can be monitored at one time.

It is recommended that the parameter be left at the default value of 30.

Range information

Minimum	Maximum	Default
1	100	30

Activation

Immediate

Dependencies

The number of lines specifed by this parameter are monitored for a period of time identified by the office parameter TCM_SYNC_MONITOR_PERIOD in table OFCENG.

Consequences

The messaging load on the LCM increases as more faulty Datapath lines are monitored. If most Datapath lines are known to be in satisfactory condition, the value of this parameter may be increased.

Verification

Start a TCM monitoring test on the maximum number of Datapath lines. The test should be complete by the time defined for parameter TCM_MONITOR_PERIOD in table OFCENG has expired.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS27.

Copy the existing value of this parameter when doing a dump and restore.

TCM_SYNC_MONITOR_PERIOD

Parameter name

Time Compressed Multiplex Synchronization Monitor Period

Functional description of parameter TCM_SYNC_MONITOR_PERIOD

This parameter is required for switching units with the Datapath feature. It specifies the time duration, in one hour intervals, for the monitoring of each set of Datapath lines.

The Datapath time compressed multiplex (TCM) synchronization (SYNC) losses are counted over this period of time.

The value of this parameter is used by the TCMMON command at the LTPDATA level of the map. The TCMMON command can be deactivated by setting the value of this parameter to zero.

Provisioning rules

Specify the time duration, in one hour intervals, for monitoring each set of Datapath lines.

Range information

Minimum	Maximum	Default
0	100	4

Activation

Immediate

Dependencies

The parameter TCM_SYNC_THRESHOLD in table OFCENG specifies the maximum number of sync losses, allowed during the interval specified by this parameter, on a per line basis.

The parameter TCM_SYNC_LINES in table OFCENG specifies the maximum number of Datapath lines that are monitored at one time.

Consequences

The test must be long enough to catch as many TCM sync problems as are expected.

Verification

Start a TCM monitoring test on a Datapath line. The test should be complete after the time specified by this parameter.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS27.

Copy the existing value of this parameter when doing a dump and restore.

TCM_SYNC_THRESHOLD

Parameter name

Time Compressed Multiplex Synchronization Threshold

Functional description of parameter TCM_SYNC_THRESHOLD

This parameter is required for switching units with the Datapath feature. It specifies the number of Datapath time compressed multiplex (TCM) synchronization (SYNC) losses that are allowed on a per line basis during the period of time defined by parameter TCM_SYNC_MONITOR_PERIOD in table OFCENG.

If the number of losses equals or exceeds this threshold, the line is flagged as a faulty Datapath line.

Provisioning rules

Specify the maximum number of TCM SYNC losses allowed on a per line basis during the period of time defined by parameter TCM_SYNC_MONITOR_PERIOD in table OFCENG.

TCM SYNC losses are not desired, therefore the value of this parameter should be kept low.

Range information

Minimum	Maximum	Default
1	30	3

Activation

Immediate

Dependencies

This parameter specifies the number of Datapath TCM synchronization SYNC losses allowed on a per line basis during the period of time defined by parameter TCM_SYNC_MONITOR_PERIOD in table OFCENG

Consequences

If the number of TCM SYNC losses equals or exceeds the value of this parameter, then it will show up on the log report.

Bad lines should be replaced.

Verification

Deliberately cause number of sync losses equal to or greater than the value of this parameter. Check if report is generated.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS27.

Copy the existing value of this parameter when doing a dump and restore.

TFAN_DEFAULT_REG_LOG

Parameter name

Traffic Seperation Default Register Log

Functional description of parameter TFAN_DEFAULT_REG_LOG

This parameter is required for the Traffic Seperation (TFAN) feature. It is used to enable or disable the Traffic Seperation Measurement System (TSMS) information log, to indicate that data has accumulated in the default OM register.

This parameter has three fields, that are used to control the following three event types used by Traffic Seperation:

- attempt peg
- set-up usage
- connect usage).

For switching units (international) with universal translations, only the attempt peg and connect usage fields are significant. Set-up usage is not accumalated by International.

Provisioning rules

If any of the fields are set to Y (yes), that type of event generates the information log when the default OM register accumulates information.

This report should only be turned on after the TSMS data has been filled in.

For a list of the parameters and tables associated with this feature, see parameter TFAN_ENHANCED_FEATURE in table OFCOPT.

Range information

Minimum	Maximum	Default
		N N N

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

See OM group TFCANA for the operational measurements associated with theis parameter.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

TFAN_IN_MAX_NUMBER

Parameter name
Traffic Separation Measurement System Incoming Maximum Number

Functional description of parameter TFAN_IN_MAX_NUMBER
This parameter is required for switching units with the Traffic Separation Measurement System (TFAN). It is required if the office parameter TFAN_ENHANCED_FEATURE in table OFCOPT is set to Y (yes) and more than 16 source traffic separation numbers (STSN) are required.

This parameter specifies the maximum number of source traffic separation numbers (STSN) that can be assigned to:

- incoming and two way trunk groups in table TRKGRP
- lines in table LINEATTR
- network class of service numbers in table NCOS.

Provisioning rules
The following values can be assigned to this parameter:

- SIZE_15
- SIZE_31
- SIZE_63
- SIZE_127.

The above values provide the following quantities of STSNs:

Table 1
STSNs by parameter value

Value	Number of STSNs	STSN numbering
SIZE_15	16	0 to 15
SIZE_31	32	0 to 31
SIZE_63	64	0 to 63
SIZE_127	128	0 to 127

For switching units without software package NTX085AA or NTX470AA, the value must be left at the default value.

Changing the value of this parameter is not allowed unless package NTX085AA or NTX470AA is present and option TFAN_ENHANCED_FEATURE in table OFCOPT is set to Y (yes).

NTX470AA is equivalent to NTX085AA, but it is to be used in switching units (international) with universal translations.

For a switching unit in the United States with software package NTX085AA and the value of option TFAN_ENHANCED_FEATURE in table OFCOPT is Y (yes), the recommended value is SIZE_63.

No restrictions are placed on the number of Outgoing Traffic Separation Numbers based upon the number of Incoming Traffic Separation numbers (i.e., both incoming and outgoing may use 127).

Range information

Minimum	Maximum	Default
		SIZE_15

Activation

Cold restart

Once this parameter is set and a cold restart done its value may not be decreased. This avoids traps that may occur in table control and call processing if TFAN registers that were deallocated are used.

Dependencies

See parameter TFAN_ENHANCED_FEATURE in table OFCOPT for other parameters and tables that are associated with the TFAN feature.

Consequences

Not applicable

Verification

These registers are under the operational measurement (OM) group name TFCANA and can be queried from the CI level.

Memory requirements

For memory allocation, see parameter TFAN_ENHANCED_FEATURE in table OFCOPT.

Dump and restore rules

For switching units with software package NTX085AA or NTX470AA, copy the existing value of this parameter when doing a dump and restore.

For switching units without software package NTX085AA or NTX470AA, leave the value at the default of SIZE_15.

TFAN_OUT_MAX_NUMBER

Parameter name

Traffic Separation Measurement System Outgoing Maximum Number

Functional description of parameter TFAN_OUT_MAX_NUMBER

This parameter is required for switching units with the Traffic Separation Measurement System (TFAN). It is required if the office option TFAN_ENHANCED_FEATURE in table OFCOPT is set to Y (yes) and more than 16 destination traffic separation numbers (DTSN) are required.

This parameter specifies the maximum number of DTSN that can be assigned to:

- outgoing and two way trunk groups in table TRKGRP
- lines in table LINEATTR
- network class of service numbers in table NCOS
- announcements in table ANNS
- tones in table TONES
- special tones in table STN

Provisioning rules

The following values can be assigned to this parameter:

- SIZE_15
- SIZE_31
- SIZE_63
- SIZE_127.

The above values provide the following quantities of STSNs:

Table 1 STSNs by parameter value		
Value	Number of STSNs	STSN numbering
SIZE_15	16	0 to 15
SIZE_31	32	0 to 31
SIZE_63	64	0 to 63
SIZE_127	127	0 to 127

For switching units without software package NTX085AA or NTX470AA, the value must be left at the default value.

Changing the value of this parameter is not allowed unless package NTX085AA or NTX470AA is present and option TFAN_ENHANCED_FEATURE in table OFCOPT is set to Y (yes).

NTX470AA is equivalent to NTX085AA, but it is to be used in switching units (international) with universal translations.

For a switching unit in the United States with software package NTX085AA and the value of office parameter TFAN_ENHANCED_FEATURE in table OFCOPT set to Y (yes), the recommended value is SIZE_127.

No restrictions are placed on the number of outgoing traffic separation numbers based upon the number of incoming traffic separation numbers (that is, both incoming and outgoing may use 127).

Range information

Minimum	Maximum	Default
		SIZE_15

Activation

Cold restart

Once this parameter is set and a cold restart done its value may not be decreased. This avoids traps that may occur in table control and call processing if TFAN registers that were deallocated are used.

Dependencies

See option TFAN_ENHANCED_FEATURE in table OFCOPT for other parameters and tables that are associated with the TFAN feature.

Consequences

Not applicable

Verification

These registers are under the operational measurement group name TFCANA and can be queried from the CI level.

Memory requirements

For memory allocation see parameter TFAN_ENHANCED_FEATURE, in table OFCOPT.

Dump and restore rules

For switching units with software package NTX085AA or NTX470AA, copy the existing value of this parameter.

For switching units without software package NTX085AA or NTX470AA, leave the value of this parameter at the default of SIZE_15.

TLINK_DELAY

Parameter name

T-link Delay

Functional description of parameter TLINK_DELAY

This parameter is used for activating a timer on all data unit (DU) terminations. The value assigned to the parameter is transmitted to all line group controllers (LCG) or line trunk controllers (LTC) and stored there in global data.

This parameter specifies the delay, in 1-s intervals, before a "start T–link handshaking" message is sent to a DU after it has answered a call. This delay prevents the DU from going into data mode for the 2 seconds specified by the Federal Communications Commission for all data communication devices.

Provisioning rules

This parameter should be set to the time required by the Federal Communication Commission for all data transmission devices to delay (after answer) before going into data mode. This value is currently 2 seconds.

The office parameters TLINK_DELAY, TLINK_DET_TIMEOUT and TLINK_EST_TIMEOUT are all closely related, and certain restrictions have been imposed on their values. Parameter TLINK_DELAY must be at LEAST 2 seconds less than TLINK_DET_TIMEOUT which in turn must be at LEAST 1 second less than TLINK_EST_TIMEOUT.

TLINK_DELAY can be set to 0 (zero) independently of the other two parameters.

Range information

Minimum	Maximum	Default
0	5	2

Activation

Change the value of this parameter and busy (BSY) and return to service (RTS) all affected LCG and LTC nodes containing DUs. Until that is done, the change does not take effect.

Dependencies

Parameter TLINK_DELAY must be at LEAST 2 seconds less than TLINK_DET_TIMEOUT in table OFCENG which in turn must be at LEAST 1 second less than TLINK_EST_TIMEOUT in table OFCENG.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS21.

Copy the existing value of this parameter when doing a dump and restore.

TLINK_DET_TIMEOUT

Parameter name

T-link Detect Timeout

Functional description of parameter TLINK_DET_TIMEOUT

This parameter is used to activate a timer on all data units (DU) originations and terminations. The value assigned to this parameter is transmitted to all line group controllers (LCG) or line trunk controllers (LTC) and stored there in global data.

This parameter specifies the length of time, in 1-s intervals, that is waited (after the call is answered) for a message from a DU indicating that the T-link handshake protocol has been detected from the far end. If the timer expires before receiving the message a "drop to data mode" message is sent to the DU.

Provisioning rules

This timeout after 2 to 4 seconds enables high speed data units (HSDU) to communicate with public switched digital service (PSDS) devices without establishing T–Link synchronization.

The default value of 0 (zero) seconds, deactivates the feature.

On activation of the feature, the recommended value is 4 seconds. This value is chosen because it allows sufficient time for a HSDU to detect the T-link handshake from an SL/1 ADM through several SL/1 tandem switches.

Range information

Minimum	Maximum	Default
0	10	0

Activation

Change the value of this parameter and busy (BSY) and return to service (RTS) all affected LCG and LTC nodes containing DUs. Until this is done, the change does not take effect. Then, all LGCs and RCCs will go in service trouble (ISTB). They must be busied and returned to service.

When changing the value of this parameter or parameter TLINK_EST_TIMEOUT from 0 to some nonzero value, the other parameter's value is changed automatically. This is also true when changing from some nonzero value back to 0. For example, if the value of this parameter is changed from 0 to 3, the value of the TLINK_EST_TIMEOUT parameter is changed to 7.

Dependencies

This parameter and parameters TLINK_DELAY and TLINK_EST_TIMEOUT in table OFCENG are all closely related, and therefore certain restrictions have been imposed on their values. The

following assignment rules define the possible range of values under various conditions.

Parameter TLINK_DELAY must be at LEAST 2 seconds less than the value of this parameter which in turn must be at LEAST 1 second less than TLINK_EST_TIMEOUT.

If this parameter or parameter TLINK_EST_TIMEOUT has a value of zero, then the other one MUST ALSO have a value of zero (that is, either both zero or both nonzero).

Consequences

This parameter can not assume a value of 10 (even though the TLINK_DET_EST_TIME type indicates that the range of possible values is from 0 to 10). Remember the value of this parameter must be less than that of TLINK_EST_TIMEOUT.

Verification

Not applicable

Memory requirements

This parameter has no mmeory impact.

Dump and restore rules

This parameter was introduced in BCS21.

Copy the existing value of this parameter when doing a dump and restore.

TLINK_EST_TIMEOUT

Parameter name

T-link Establish Timeout

Functional description of parameter TLINK_EST_TIMEOUT

This parameter activates a timer on all data unit (DU) originations and terminations. The value assigned to this parameter is transmitted to all line group controllers (LCG) or line trunk controllers (LTC) and stored there in global data.

This parameter specifies the length of time to wait (after the timer specified by the TLINK_DET_TIMEOUT office parameter has expired) for a message from a data unit indicating that t–link synchronization has been established with the far end. If the timer expires before receiving the message a "drop to data mode" message is sent to the DU.

This timeout, after 7 seconds, enables high speed data units (HSDU) to communicate with public switched digital service (PSDS) devices without establishing t-link synchronization.

Provisioning rules

The default value of 0 (zero) seconds, deactivates the feature.

On activation of the feature, the recommended value is 7 seconds. This value is chosen because it allows sufficient time for an HSDU to detect the t-link synchronization from an SL/1 ADM through several SL/1 tandem switches.

Range information

Minimum	Maximum	Default
0	10	0

Activation

Change the value of this parameter and busy (BSY) and return to service (RTS) all affected LCG and LTC nodes containing DUs. Until that is done, the change does not take effect.

Dependencies

This parameter and parameters TLINK_DELAY and TLINK_DET_TIMEOUT in table OFCENG are all closely related. Restrictions have been imposed on their values. The following assignment rules define the possible range of values under various conditions.

Parameter TLINK_DELAY must be at least 2 seconds less than TLINK_DET_TIMEOUT which in turn must be at least 1 second less than the value of this parameter.

If this parameter or parameter TLINK_DET_TIMEOUT has a value of zero, the other one must also have a value of zero (that is, either both zero or both nonzero).

When changing the value of either this parameter or TLINK_DET_TIMEOUT from 0 to some nonzero value, the other parameter's value is changed automatically. This is also true when changing from some nonzero value back to 0. For example, if the value of this parameter is changed from 0 to 7, the value of parameter TLINK_DET_TIMEOUT is changed to 3.

Consequences

This parameter can not assume a value of 1 (even though the TLINK_DET_EST_TIME type indicates that the range of possible values is from 0 to 10). Remember that the value of this parameter must be greater than TLINK_DET_TIMEOUT but, also, either both must be zero or both must be nonzero.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS21.

Copy the existing value of this parameter when doing a dump and restore.

TOLL_OFFICE_DELAYED_BILLING

Parameter name

Toll Office Delayed Billing

Functional description of parameter TOLL_OFFICE_DELAYED_BILLING

This parameter is required in a switching unit with the Uniform Call Distribution (UCD) feature. It is provided to satisfy operating company tariffs (AMA records).

The value of this parameter specifies when billing is to commence. An offhook condition is caused to notify the switching unit where billing is to start.

Provisioning rules

When the value of this parameter is set to N (no), billing starts at the time the caller enters the queue.

When the value of this parameter is set to Y (yes), billing does not start until the caller is answered by an idle agent.

If a call is answered by an attendant console (AC) before being extended to the UCD position, an offhook condition is reported back to the switching unit where billing takes place, to start billing regardless of the value of this parameter.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS19.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Traffic Operator Position System 0+ LOCAL

Functional description of parameter TOPS_0PLUS_LOCAL

This parameter specifies the set of calling service classes (coin, hotel, station, or restricted) that are allowed to make 0+ local calls. For example, if the parameter has the value COIN HOTEL, all 0+ local coin calls and 0+ local hotel calls are allowed and all 0+ local station calls and 0+ local restricted billing calls are not allowed and are routed to reorder treatment.

If it is not possible to determine the type of call (for example, Automatic Number Identification (ANI) failure), the call is routed to reorder treatment unless this parameter is set to ALL, in which case the call is allowed to complete.

0+ local calls to be billed to a credit card using the Mechanized Calling Card Service (MCCS) feature or to a third number are handled as any other toll call presented at a DMS-200 TOPS, except that the call is billed at a flat rate charge as for a local call.

Existing Bellcore or NT Automatic Message Accounting (AMA) format is used for 0+ local calls. The Bellcore format of Station Special Calling (call code 15) is used with structure codes of 718 to 723 depending on the type of origination (coin, hotel, etc.).

When a 0+ local call is presented to an operator position, the called number digits are displayed and identified as being dialed as a 0+ local call.

This parameter applies only to trunk-to-TOPS calls in a DMS-200 office. It does not allow 0+ local calls for standard line to TOPS calls (single party line, coin line, or hotel line). These type of calls are routed to a treatment.

Provisioning rules

If this feature is not required, leave the parameter value at the default of NONE.

If this feature is required, set the value to one or more of the following calling service classes, COIN, HOTEL, STATION, RESTRICT or ALL.

For, example if calling service classes COIN and STATION are allowed to make 0+ local calls, set the value to: COIN STATION

Range information

Minimum	Maximum	Default
		NONE

TOPS_0PLUS_LOCAL

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS20.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Traffic Operator Position System Automated Calling Card Service
Automatic Call Gapping

Functional description of parameter TOPS_ACCS_ACG

This parameter is required for a Bell operating company (BOC) Traffic
Operator Position System (TOPS) with the Automatic Call Gapping (ACG)
to Automated Calling Card Service (ACCS) feature.

ACG refers to the control of queries to a service control point (SCP) for an
overload condition.

The ACG message specifies the rate at which the queries for a specific
billing NPA–NXX should be sent to an SCP.

This parameter is used to turn the ACG feature on or off. This parameter
will normally be set to Y indicating that ACG is turned on. However, it can
be set to N if the feature consumes too much real time.

Since this parameter applies to call processing only, the CI command
ACCSVER is not affected by this parameter.

Provisioning rules

Set the value of this parameter to N (no), to turn off the ACG feature.

Leave the value of this parameter at the default value of Y (yes), to activate
the ACG feature.

Range information

Minimum	Maximum	Default
		Y

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Verification that ACG for a particular code is coming from the line
information database (LIDB) by using the CI command ACCSVER. Then,
by using the the CI command OMSHOW, the OM group ACCSCCV or
ACCSBNS can be viewed to see if the operational measurements (OM)
CCVBACGBL or BNSACGBL are pegged.

See OM groups ACCSCCV and ACCSBNS for the OMs associated with this parameter.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduce in BCS26.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Traffic Operator Position System Automated Calling Card Service Automatic Call Gapping Size

Functional description of parameter TOPS_ACCS_ACG_SIZE

This parameter is required for a Bell operating company (BOC) Traffic Operator Position System (TOPS) switching unit with the Automatic Call Gapping (ACG) to Automated Calling Card Service (ACCS) feature.

ACG refers to the control of queries to a service control point (SCP) for an overload condition. The ACG message specifies the rate at which the queries for a specific billing NPA–NXX should be sent to an SCP.

For an SCP overload, the SCP/line information database (LIDB) sends an ACG in the response to a query from the operator services system. During normal operations, when the SCP is not in overload, no ACG is present in the responses. The LIDB returns the first six digits (generally the NPA–NXX) of the service key as the code in the ACG.

If a special billing number is used for calling card queries, the service key is in the form RAO–0/1XX where, RAO is the three-digit revenue accounting office number.

A control list is maintained to keep track of inserting and deleting each six-digit code. The control list for these codes accomodates up to 1024 NPA–NXXs. In order to search a control list of this size a hashing function is used. This requires the use of a target table of a prime number size to randomize the function as much as possible. This minimizes collisions when the NPA–NXX digits are mapped onto the target table.

This parameter allows the BOC to specify one of 3 prime numbers, PRIME1, PRIME2 or PRIME3 for the target table size with PRIME1 being the smallest size and PRIME3 being the largest size for the target table.

The target table should only be increased in size when the maximum number of probes are exceeded due to collisions in hashing.

Provisioning rules

This parameter should be left at the default value.

If operational measurements BNSNOACG or CCVNOAGS are pegged, the maximum number of probes is being exceeded. The value of this parameter should be increased to the next size followed by a cold restart.

Range information

Minimum	Maximum	Default
		PRIME1

TOPS_ACCS_ACG_SIZE

Activation

Cold restart

The following message is displayed when a change is made to this parameter:

```
WARNING: A COLD RESTART MUST BE PERFORMED TO ACTIVATE CHANGES
TO THE VALUE OF THIS PARAMETER.
```

Dependencies

Not applicable

Consequences

For an overload condition, underprovisioning may cause link failure to the LIDB.

Verification

Verification that ACG for a particular code is coming from the LIDB is done by using the CI command ACCSVER. Then, by using the the CI command OMSHOW, the OM group ACCSCCV or ACCSBNS can be viewed to see if the operational measurements CCVBACGBL or BNSACGBL gets pegged.

See operational measurement (OM) groups ACCSCCV and ACCSBNS for the OM's associated with this parameter.

Memory requirements

The number of data store words for the LOOK_UP_TABLE is governed by the value of this parameter. The number of words required by eacg value as follows:

- PRIME1   1031 words
- PRIME2   1901 words
- PRIME2   4093 words

Dump and restore rules

This parameter was introduced in BCS26.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Traffic Operator Position System Automatic Coin Toll Service

Functional description of parameter TOPS_ACTS

This parameter specifies whether the TOPS Automatic Coin Toll Service ACTS feature is active in the office.

With the exception of the initial period, coin collects are done at the beginning of an overtime period after a customer has deposited coins to pay for a previous overtime period. This speeds up automatic ringback on ACTS coin calls and allows the use of the combined coin collect operator released coin signal which is supported by the expanded inband coin signaling method.

The points of a call when a coins are collected are dependant upon the value of this parameter.

Provisioning rules

If the value of this parameter is set to Y (yes), coin collects are done:

- at the end of the initial period (INP)
- at the beginning of each subsequent CRP after a customer has deposited money for a previous CRP
- at the end of the call when the customer has been recalled to an operator or ACTS to collect overtime charges

If the value of this parameter is set to N (no), coin collectsare done:

- At the end of the CIRP.
- At the beginning of each subsequent CRP after a customer has deposited money for a previous CRP.
- At the end of the call when the customer has been recalled to an operator to collect overtime charges.

CIRP defines the amount of time from the beginning of the coin call until the first recall to a TOPS operator or to ACTS.

INP defines the period that the customer initially pays for (CIRP > = INP). CIRP can equal the initial period. Quite often, coin customers pay for an initial period which is less than the coin initial recall period. For example, a a customer may pay for an initial period of 1 minute and be recalled to an operator at 3 minutes at which point the customer owes for 2 minutes of conversation.

CRP is the amount of time after being recalled to an operator at the CIRP that conversation is permitted before being recalled to an operator or to ACTS. Unlike the INP, the customer pays for each CRP at the end of the period.

TOPS_ACTS

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS18.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Traffic Operator Position System Automatic Calling Card Service Manual Validation

Functional description of parameter TOPS_ACCS_MANUAL_VALIDATION

This parameter is required in a switching unit with the Traffic Operator Position System (TOPS) and either the Telecom Canada Automatic Calling Card Service (ACCS) feature or the United States Exchange Alternate Billing Service (EABS) feature.

This parameter determines whether all customer-dialed ACCS calls using calling card numbers (CCN) that require inward validation are brought to an operator for validation or only those from private stations.

Provisioning rules

If this parameter is set to the default value of ALL, each customer-dialed ACCS call using CCNs that require inward validation is brought to an operator for inward validation.

When validation must be performed manually for alternately billed TOPS calls, this parameter determines whether these calls should route to a TOPS position for validation to occur.

If this parameter is set to the value PUBLIC, only customer-dialed ACCS calls from a public phone using CCNs requiring inward validation are brought to an operator for inward validation.

Range information

Minimum	Maximum	Default
		ALL

Activation

Immediate

Dependencies

The following parameters are also associated with this feature.
- ACCS_QUERY_TIMEOUT in table OFCENG
- ACCSDB_RESPONSE_DELAY in table OFCENG
- MCCS_SEQ_CALL_LIM in table OFCVAR
- TOPS_ACCS_CCV_QUERY_BLK in table OFCENG
- TOPS_MCCS_CCV in table OFCVAR
- TOPS_MCCS_BNS in table OFCVAR

Input is also required for tables C7LOCSSN, C7GTTYPE and C7GTT.

Consequences

        Not applicable

Verification

        See OM Group ACCSCCV for the operational measurements associated with this parameter.

        See the *Operation Measurements Reference Manual*, 297-1001-814 for a description of OM Group ACCSCCV.

Memory requirements

        This parameter has no memory impact.

Dump and restore rules

        Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Traffic Operator Position System ASST Positions

Functional description of parameter TOPS_ASST_POS

The value of this parameter is equal to the number of Traffic Operator Position System assistance and incharge positions.

Provisioning rules

The recommended value is three times the value of office parameter TOPS_NUM_TRAFFIC_OFFICES in table OFCENG.

Note that, if any assistance position is being used for monitoring, it cannot handle assistance calls at the same time.

Range information

Minimum	Maximum	Default
0	126	0

Activation

Remove positions from service by entering BSY; BSY INB from the TTP level of the MAP, delete all entries from table TOPSPOS, change the value of this parameter, re-datafill table TOPSPOS, then return the positions to service (BSY; RTS from the TTP level of the MAP).

Dependencies

The value of this parameter should increase if the value of office parameter TOPS_NUM_TRAFFIC_OFFICES increases.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

19 words of memory are required for each TOPS assistance position.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

TOPS_BRAND_DISPLAY

Parameter name

Traffic Operator Position System Brand Display

Functional description of parameter TOPS_BRAND_DISPLAY

This parameter is associated with the TOPS Branding feature where certain TOPS calls receive a recorded announcement before being connected to the TOPS operator (referred to as branding).

The parameter specifies whether the indication the operator receives is associated with a branded or an unbranded call.

Provisioning rules

This parameter can have the following 2 values :

- DISPLAY_WHEN_BRANDED
- DISPLAY_WHEN_NOT_BRANDED

If the majority of calls in an office are branded, set the parameter value to DISPLAY_WHEN_NOT_BRANDED.

If branding is in effect for certain trunk groups or for automated systems only, the parameter should remain at the default of DISPLAY_WHEN_BRANDED.

Range information

Minimum	Maximum	Default
		DISPLAY_WHEN_BRANDED

Activation

Immediate.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Traffic Operator Position System Brand Inwards

Functional description of parameter TOPS_BRAND_INWARDS

This parameter is associated with the TOPS Branding feature where certain TOPS calls receive a recorded announcement before being connected to the TOPS operator (referred to as branding).

The parameter determines whether inward operator calls receive a branding announcement prior to connection to an operator.

Provisioning rules

Setting the parameter to Y(yes) allows a branding announcement to be played prior to call connection to an operator.

Setting the value of this parameter to N (no) does not allow inward operator calls to receive a branding announcement.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable

Consequences

Setting the value of this parameter to N does not allow inward operator calls to receive a branding announcement.

Setting the parameter to Y indicates that every inward operator call receives a branding announcement prior to being connected to an operator.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

TOPS_BRAND_OFFICE

Parameter name

Traffic Operator Position System Brand Office

Functional description of parameter TOPS_BRAND_OFFICE

This parameter is associated with the TOPS Branding feature where certain TOPS calls receive a recorded announcement before being connected to the TOPS operator (referred to as Branding).

This parameter (in conjunction with table BRANDOPT) determines which types of operator and automated operator calls are to receive a branding announcement prior to being handled by an operator.

If the set of inputs does not include the operator system for which the call is destined, table BRANDOPT indicates which incoming trunk groups receive a branding announcement and for which type of operator calls.

Provisioning rules

Set the office parameter to a value of NONE to allow the branding feature on a trunk group basis by datafill in table BRANDOPT.

Otherwise, datafill a set of types from the following range:

- OPERATOR
- MCCS
- ACTS
- AABS
- ALL
- NONE

If the parameter includes a particular operator system type in its set, all operator calls of that type receive a branding announcement prior to being connected to that operator system.

If this parameter is set to NONE, or does not include a particular operator system type, only calls arriving on trunk groups datafilled in table BRANDOPT and being handled by operator systems included on that trunk group receive a branding announcement.

Range information

Minimum	Maximum	Default
		NONE

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

TOPS_CALLS_WAITING_Q_SIZE

Parameter name

Tops Calls Waiting Queue Size

Functional description of parameter TOPS_CALLS_WAITING_Q_SIZE

This parameter is required in a switch equipped with feature package NTX030BA (TOPS ACD Features) or NTX030CC (TOPS Call Processing Features).

This parameter specifies the maximum number of calls that can reside in the call waiting queue waiting for an operator to become idle.

Provisioning rules

Set this parameter to a value equal to the maximum number of calls that can reside in the call waiting queue waiting for an operator to become idle. Note that the actual maximum value for this parameter is limited to the number of TOPS positions that are supported within the office.

Range information

Minimum	Maximum	Default
0	32767 (theoretically)	0

Activation

Cold restart

Dependencies

The actual maximum value for this parameter is limited to the number of TOPS positions that are supported within the office.

Consequences

Not applicable

Verification

Not applicable   .

Memory requirements

Each call waiting requires 5 words of memory.

Dump and restore rules

Copy the existing value of this parameter when performing dump and restore procedures.

Parameter name

Traffic Operator Position System Equal Access InterLATA Non-operator Automatic Message Accounting

Functional description of parameter TOPS_EA_INTERLATA_NONOPR_AMA

This parameter specifies whether Automatic Message Accounting (AMA) records are produced for interLATA calls that are not processed by a TOPS operator.

If AMA records of call code 251, structure code 734, are needed for 1+ Centralized AMA (CAMA) interLATA calls, leave the value of this parameter at the default of Y (yes) and define a LATA for each TOPS trunk in table TOPEATRK that carries this traffic. The CAMABILL field in table TOPEACAR must be set to N (no).

When the value of this parameter is left at the default value of Y (yes) and CAMABILL field in table TOPEACAR is set to Y, 1+ CAMA interLATA calls produce an 006 call code with an 047XX structure code appendage. If TOPS Interlata Carrier Service (TICS) is present (software package NTX714AA), 047XX is produced when field OPSERV in table TOPECAR is set to SERV.

If the value of this parameter is set to N (no) and field CAMABILL in table TOPEACAR is also set to N (no), no billing records are produced for 1+ CAMA interLATA calls.

Range information

Minimum	Maximum	Default
		Y

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS16.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Traffic Operator Position System Equal Access Office

Functional description of parameter TOPS_EQUAL_ACCESS_OFFICE

This parameter (in conjunction with field LATA in table TOPEATRK) activates TOPS Equal Access for each TOPS trunk group.

Provisioning rules

If the parameter is set to Y (yes), TOPS equal access features are activated based on the datafill of the LATA field.

For calls on a TOPS trunk group, LATA screening determines (based on the called digits) whether the telco completes the call (intraLATA) or a carrier completes the call (interLATA). If the LATA field of table TOPEATRK is set to NILLATA (the default), domestic calls are considered intraLATA.

Both international and domestic calls use the LATA field to determine whether equal access is active on the TOPS trunk group. If the LATA field is set to NILLATA, domestic and international calls are all handled as operatin company-completable. Note that an operator may still transfer these calls to a carrier if desired.

When a DMS-200 TOPS office first uses TOPS EA, the LATA field may be used to turn on TOPS EA on a trunk group basis for testing purposes or for a more gradual transition to equal access handling.

If the parameter is set to N, the switching unit does not execute any TOPS equal access software.

Range information

Minimum	Maximum	Default
		N

Activation

Cold restart

Dependencies

Before changing the value of this parameter from the default value to Y, the tables defined in *Software Package to Data Cross Reference*, 297-1001-456 for software package NTX187AA must be datafilled.

If these tables are not datafilled, certain features, (for example, overseas calls) do not function correctly. Set the parameter back to Y and perform a cold restart if any type of restart has been done since the parameter was deactivated.

TOPS_EQUAL_ACCESS_OFFICE

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.,

Dump and restore rules

This parameter was introduced in BCS27.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Traffic Operator Position System Expanded Operator Number

Functional description of parameter TOPS_EXPANDED_OPRNUM

This parameter controls the nil operator identifier (ID) value recorded on Automatic Message Accounting (AMA). It allows the operating company to set the nil operator identification value recorded on AMA to 3101 or 9999.

Provisioning rules

This parameter, when set to N (no), implies that the operating company is not using expanded operator numbers and that the value 3101 is recorded on AMA for the nil operator ID.

This parameter, when set to Y (yes), allows the operating company to use the expanded range of operator numbers provided by feature BR21462. The value 9999 is recorded on AMA for the nil operator ID.

Refer to feature BR21462 – Increase OPR ID range for information relating to the current range of operator numbers.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

This parameter effects the office parameter TOPS_MAX_OPERATOR_NUM. When TOPS_EXPANDED_OPRNUM is set to N, TOPS_MAX_OPREATOR_NUM is limited to the range 0 to 3099 of operator numbers. If an attempt is made to set it above 3099 and TOPS_EXPANDED_OPRNUM is set to N, the following error message is displayed and the update is rejected:

```
CANNOT INCREASE ABOVE 3099 UNLESS TOPS_EXPANDED_OPRNUM IS SET
TO Y.
```

When TOPS_EXPANDED_OPRNUM is set to Y, TOPS_MAX_OPERATOR_NUM can be set to any value in the expanded range (that is, 0 to 9997). When TOPS_MAX_OPERATOR_NUM is set to a value greater than 3099, TOPS_EXPANDED_OPRNUM cannot be changed to N.

Consequences

Not applicable.

TOPS_EXPANDED_OPRNUM

Verification

Not applicable

Memory requirements

Each unit requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS33.

Copy the existing value of this parameter when doing a dump and restore.

.

Parameter name

Traffic Operator Position System Generate Multiple Automatic Message Accounting Set

Functional description of parameter TOPS_GEN_AMA_SET

This parameter is required for a swiching unit with the Traffic Operator Position System (TOPS) feature and allows operators to generate multiple Automatic Message Accounting (AMA) billing records when performing multiple call attempts or multiple operator functions for a customer.

There are situations where the use of the GEN AMA function may result in inaccurate billing information. For example, online rating is only provided for Call Completion services, and not for services such as Busy Line Verify (BLV). Attempts to rate BLVs on coin or hotel calls produce unpredictable results. The AMA record produced may not be able to be processed by downstream billing.

In order to provide an operating company with the ability to avoid these situations, this offffice parameter is provided to enable or disable the GEN AMA function. It specifies the types of calls (station, coin, hotel, or restricted) for which the operator is able to generate AMA records. Any combination of these call types, or none (the default), may be specified.

Since only situations involving Toll and Assistance (TA) calls present the problems indicated, this parameter applies only to producing AMA for TA type calls. In other words, a TOPS Multiple Purpose position (TOPS-MP) operator handling a TA call and keying SVCS (DA or TA) is able to produce an AMA record based upon the value of this parameter. A Directory Assistance (DA) call at a TOPS-MP position produces a DA AMA record when the operator keys SVCS (DA or TA), and is not affected by the value of this parameter.

A TOPS-IV operator can only handle TA traffic and is always impacted by this office parameter.

This parameter can be used to inhibit the use of this feature in an Operator Centralization (OC) environment. In this case, a host switch that has the GEN AMA feature is able to inhibit use of GEN AMA until all of the remote switches had been upgraded with the package and are able to handle the GEN AMA key function.

TOPS_GEN_AMA_SET

Provisioning rules

If the GEN AMA feature is required, specify the types of calls from the following list for which the operator is able to generate AMA records:

- STATION (station)
- COIN (coin)
- HOTEL (hotel)
- RESTRCTD (restricted)
- ALL (all)

If the GEN AMA feature is not required, leave the value of this parameter at the default of NONE.

Range information

Minimum	Maximum	Default
		NONE

Activation

Immediate

Dependencies

Not applicable

Consequences

An improperly set value for this parameter could either disallow GEN AMA for valid billable calls or allow GEN AMA in situations where on-line rating is not provided and produce AMA with unknown results and consequences for downstream billing.

Verification

Set the value of this parameter to NONE and verify that the GEN AMA key function is inhibited for all call types.

Set the value of parameter successively to STATION, COIN, RESTRCTD and HOTEL and verify that the GEN AMA key function is available for only those types of calls.

Set the value of parameter to ALL and verify that the GEN AMA function is available to all calls. Set the parameter to various combinations of values and verify GEN AMA function is available only to those call types specified.

See operational measurement (OM) group TOPSKFAM for the OMs associated with this parameter.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS26.

Copy the existing value of this parameter when doing a dump and restore.

TOPS_MAX_OPERATOR_NUM

Parameter name

Traffic Operator Position System Maximum Operator Number

Functional description of parameter TOPS_MAX_OPERATOR_NUM

This parameter is required for all switching units that are equipped with TOPS. It specifies the maximum number of operators that can log into a TOPS operator position.

Provisioning rules

Set this this parameter to a value equal to the highest operator number that is assigned in the system.

Range information

Minimum	Maximum	Default
0	9997	450

Activation

Activation is immediate. Note that store for tables OPRDAT and OPRCMPLX is dynamically allocated during the next update to the respective table.

Dependencies

To datafill an operator number that is greater than the pre-BCS32 range (0 - 3099) in a HOST switch, all of the remotes must be upgraded to BCS32 or greater in field BCSLEVEL of table OCGRP. A new error message is generated if this qualification is not met:

```
CANNOT INCREASE ABOVE 3099 UNTIL ALL REMOTES ARE UPGRADED TO
BCS32 OR GREATER IN TABLE OCGRP.
```

TOPS_MAX_OPERATOR_NUM cannot be set to a value of less than the maximum in either table OPRDAT or table OPRCMPLX. If an attempt is made to do so, one or both of the following error messages is generated:

```
CANNOT DECREASE BELOW MAXIMUM OPRNUM IN TABLE OPRDAT.

CANNOT DECREASE BELOW MAXIMUM OPRNUM IN TABLE OPRCMPLX.
```

Consequences

Without an operator number an operator cannot log into an operator position.

Verification

OPRNUMS in either Table OPRDAT or Table OPRCMPLX must be datafillable up to and including the value of the parameter.

Memory requirements

Each operator number requires 6 words of memory (that is, if the highest operator number is 499, the number of words required is determined by the calculation 500 x 6).

For information on operator numbers, see the TOPS Customer Data Schema 297-2271-451.

Dump and restore rules

Copy the existing value of this parameter when performing dump and restore procedures.

TOPS_MAX_ORIG_RATE_CENTER

Parameter name

Traffic Operator Position System Maximum Number Of Originating Rate Centers

Functional description of parameter TOPS_MAX_ORIG_RATE_CENTER

This parameter specifies the maximum number of originating rate centres required for point–to-point rate step method.

Provisioning rules

Specify the maximum number of originating rate centres required for point–to-point rate step method.

Range information

Minimum	Maximum	Default
0	255	0

Activation

All data must be deleted from tables PTP and TPTI and then reinserted after the parameter change. No restart is required.

Dependencies

This parameter along with TOPS_MAX_TERM_RATE_CENTER defines the length of tables PTP and PTPI

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Traffic Operator Position System Maximum Number of Terminating Rate Centers

Functional description of parameter TOPS_MAX_TERM_RATE_CENTER

This parameter specifies the maximum number of terminating rate centres required for point-to-point rate step method.

Provisioning rules

Specify the maximum number of terminating rate centres required for point-to-point rate step method.

Range information

Minimum	Maximum	Default
0	255	0

Activation

All data must be deleted from tables PTP and PTPI and then be reinserted after the parameter change. No restart is required.

Dependencies

The value of this parameter changes if the number of terminating rate centres change.

This parameter, along with TOPS_MAX_ORIG_RATE_CENTER, defines the length of tables PTP and PTPI

The maximum value for TOPS_MAX_ORIG_RATE_CENTER x TOPS_MAX_TERM_RATE_CENTER is 32767.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

The amount of memory required is determined using the following formula:

$$m = 2 \times (\, orig \times term)$$

where

m   is the amount of memory required
orig   is the value of TOPS_MAX_ORIG_RATE_CENTER
term   is the value of TOPS_MAX_TERM_RATE_CENTER

TOPS_MAX_TERM_RATE_CENTER

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Traffic Operator Position System Mechanized Force Administration
Database System Period

Functional description of parameter TOPS_MFADS_PERIOD

This parameter allows the Mechanized Force Administration Data System
(MFADS) to extract the Traffic Operator Position System (TOPS) Force
Management (FM) statistics at intervals of 15 min or 30 min. The 15 min
report is added to provide the operating companies with greater resolution of
the TOPS FM statistics.

Provisioning rules

To obtain the operational measurements every 15 minutes, the external
MFADS mini-computer must be modified to poll every 15 minutes.

Since the updating of statistics with new values may lag slightly behind the
15 min marks (by a few seconds), it is important that polling does not occur
exactly at the 15 min marks.

If polling is required every 30 minutes, leave the value of this parameter at
the default value of MFADS_30_MIN.

If polling is required every 15 min, set the value of this parameter to
MFADS_15_MIN.

Range information

Minimum	Maximum	Default
		MFADS_30_MIN

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

TOPS_MFADS_PERIOD

Dump and restore rules

This parameter was introduced in BCS20.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Traffic Operator Position System Night Alarm On Position Busy

Functional description of parameter TOPS_NIGHT_ALARM_ON_POS_BUSY

This parameter is required for a switching unit with the International Traffic Operator Position System (ITOPS) or the Traffic Operator Position System (TOPS). It allows the telephone administration to select what office condition should trigger the night alarm.

If the parameter is set to N, the alarm is triggered when there are no occupied positions of the correct transfer type to handle an incoming call to the system. Note that the alarm is sounded when an incoming call does indeed arrive to the system and is queued for an operator.

If the parameter is set to Y, the alarm is sounded when a call is presented to the system, but there are no available operators of the correct transfer type to handle the call.

Provisioning rules

Set the value of this parameter to Y, if the night alarm is to sound when there are no available operators of the correct transfer type to handle an incoming call to the system.

Leave the parameter at the default value of N, if the night alarm is to sound when there are no occupied positions of the correct transfer type to handle an incoming call to the system.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Verify when the night alarm is sounded.

Memory requirements

This parameter has no memory impact.

TOPS_NIGHT_ALARM_ON_POS_BUSY

Dump and restore rules

This parameter was introduced in BCS26.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Traffic Operator Position System Number of Centralized Automatic
Message Accouting Recording Units

Functional description of parameter TOPS_NUM_CAMA_RU

This parameter specifies the quantity of centralized automatic message
accouting (CAMA) traffic operator position system (TOPS) recording units
required. The value represents the maximum number of CAMA/TOPS
recording units available for CAMA and direct distance dialing (DDD) calls
on TOPS trunks.

TOPS CAMA recording units are used for call processing on TOPS trunks.

Provisioning rules

The following is the recommended formula for this parameter, for all
switching units excluding Bell Canada:

Quantity =   0.25 X (number of TOPS trunk group members)
    + (% of CAMA calls X number of TOPS trunk group
    members)
    + (% of InterLATA calls X number of TOPS trunk
    group members)

OR

Quantity =   1.1   X (number of TOPS trunk group members
    + number of RONI trunk group members)

The following is the recommended formula for this parameter, for Bell
Canada switching units.

Quantity =   1.2 X (.75 X number of TOPS and OOC trunk group
    members + number of Inc RONI (TOPS) trunk
    members + 2 X number of TOPS positions
    + number of OOC positions)

Range information

Minimum	Maximum	Default
0	32767	100

Activation

Increase – immediate
Decrease – cold restart

Dependencies

At the time of an extension to the switching unit, the value of this parameter
must be recalculated.

TOPS_NUM_CAMA_RU

Consequences

If no CAMA TOPS recording units are available, no call processing occurs on TOPS trunks.

Verification

To verify that sufficient recording units have been allocated, use CI command OMSHOW EXT ACTIVE 13 and read the following:

```
        EXTSEIZ        EXTOVFL        EXTHI        EXTSEIZ2
        EXTHI2
13 CAMATOPS_RU
        100
            0              0              0               0
            0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Measurements EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

See the *Operation Measurements Reference Manual,* 297-1001-814 for a description of OM group EXT.

Memory requirements

92 words of memory are required for each recording unit.

Add one word of store to CTRU_FORMAT_AREA. This affects the total data store, based on the values of TOPS_NUM_CAMA_RU and TOPS_NUM_RU.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Traffic Operator Position System Number of Operator Centralization Extension Blocks

Functional description of parameter TOPS_NUM_OC_EXT

This parameter specifies the number of TOPS Operator Centralization (OC) blocks that are allocated for the host office. A TOPS OC extension block is required for each call at the host.

Provisioning rules

Determine the value of this parameter by using the following formula:

$$TOPS\_NUM\_OC\_EXT = CQELEMS + (2 \times NUMAGNTS)$$

Note that CQELEMS and NUMAGNTS are datafilled fields in table QAPLNDEF. See the *TOPS Customer Data Schema*, 297-2271-451 for a description of table QAPLNDEF.

Range information

Minimum	Maximum	Default
0	32767	100

Activation

Increase – immediate
Decrease – cold restart

Dependencies

Not applicable.

Consequences

If this parameter is underprovisioned, OC calls fail.

If this parameter is overprovisioned, data store is wasted.

Verification

To verify that sufficient recording units have been allocated, use CI command OMSHOW EXT ACTIVE 112 and read the following entry:

```
        EXTSEIZ       EXTOVFL       EXTHI       EXTSEIZ2
        EXTHI2
112 TOPS_OC_EXT_BLK
     0
        0             0             0           0
     0
```

Any nonzero value in EXTOVFL indicates underprovisioning.

Measurements EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

Memory requirements

Each unit requires 23 bytes of memory.

Dump and restore rules

This parameter was introduced in BCS34.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Traffic Operator Position System Number of Recording Units

Functional description of parameter TOPS_NUM_RU

This parameter specifies the quantity of Traffic Operator Position System (TOPS) recording units required.

The value represents the maximum number of calls going to TOPS positions. One TOPS recording unit is required throughout the duration of each TOPS handled call.

Provisioning rules

The following formula is recommended for a stand–alone TOPS or a TOPS host operator centralization switching unit, excluding Bell Canada:

Quantity =		((% of MCCS calls + % of ACTS calls + % of CAMA calls + % of 0+ and 0– calls)
	X	(number of TOPS trunk group members))
	+	(TOPS positions + TOPS waiting Q size)

The following formula is recommended for a TOPS remote operator centralization switching unit, excluding Bell Canada:

Quantity =		(number of incoming + % of ACTS calls + % of CAMA calls + % of 0+ and 0– calls)
	X	(Number of TOPS trunk group members))
	+	(3 X number of voice links)

The following formula is recommended for a Bell Canada switching unit:

Quantity =		(number of TOPS incoming trunks X 0.75)
	+	(number of TOPS POSITIONS X 2)
	+	(number of Voice Links X 3)

The value must not exceed the number of TOPS trunk group members.

Range information

Minimum	Maximum	Default
0	32767	100

Activation

Increase – immediate
Decrease – cold restart

Dependencies

At the time of an extension to the switching unit, the value of this parameter must be recalculated.

Consequences

If there are no CAMA TOPS recording units available, there is no call processing on TOPS trunks.

Verification

To verify that sufficient recording units have been allocated, use CI command OMSHOW EXT ACTIVE 6 and read the following entry:

```
        EXTSEIZ        EXTOVFL        EXTHI        EXTSEIZ2
        EXTHI2
6 TOPSRU
        100
                0              0              0              0
                0
```

Measurements EXTHI and EXTHI2 record the maximum number of extension blocks in simultaneous use during the current transfer period.

See the *Operational Measurements Reference Manual*, 297-1001-814 for a description of OM group EXT.

Any nonzero value in EXTOVFL indicates underprovisioning.

Memory requirements

Each TOPS recording unit requires 136 words of memory.

Add 1 word to CTRU_FORMAT_AREA. This affects the total data store based on the values of parameters TOPS_NUM_CAMA_RU and TOPS_NUM_RU.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Traffic Operator Position System Number of Study Registers

Functional description of parameter TOPS_NUM_STUDY_REG

Study registers are used during training to check if an operator is handling all call types equally well.

Provisioning rules

The recommended value is ten percent of the number of TOPS positions.

When there are no study registers available the traffic manager cannot assign a study register to an operator

Range information

Minimum	Maximum	Default
0	900	0

Activation

Cold restart

Dependencies

The value of this parameter must increase if the number of TOPS positions increase.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

34 words of memory are required for each register.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

TOPS_NUM_TRAFFIC_OFFICES

Parameter name

Traffic Operator Position System Number of Traffic Offices

Functional description of parameter TOPS_NUM_TRAFFIC_OFFICES

This parameter is required for a switching unit equipped with the Traffic Operator Position System (TOPS). It specifies the number of traffic offices required for the engineering interval.

All operators on duty constitute one single team for call distribution. TOPS aids the management of a large team by allowing the operators to be formed into smaller administrative groups that are called traffic offices.

For the team numbers assigned to the TOPS positions, see field TEAM in table TOPSPOS.

For the team numbers assigned to the Traffic Administration Data System (TADS) teletype printer (TTY), see field TRAFOFC for the entries with subfield DEVSEL equal to TADS in table TOPSDEV.

If this feature is not provided, leave the value of this parameter at the default of 0.

Provisioning rules

Set the value of this parameter to be equal to the highest team number that is required for the engineering interval. The actual maximum value is limited to the highest team number specified in tables TOPSPOS and TOPSDEV (see *Common Customer Data Schema* 297-1001-451) and office parameter AOSS_NUM_TRAFFIC_OFFICES.

The force manager cathode ray tube (CRT) display is capable of displaying only 15 teams at one time for TOPS IV and 30 teams for MP TOPS. Changing the value of this parameter impacts the format of the data sent to MFADS, QMFADS, QFADS, and FADS. Data is output for each traffic office provisioned by this office parameter, regardless of whether there are positions assigned to all of the teams

Range information

Minimum	Maximum	Default
1	30	0 (feature not active)

Activation

1 Change the value of the parameter, at the MAP level.

2 Remove all positions and devices from service by invoking the commands BSY and INB.

3 Delete all entries from tables TOPSDEV or TOPSPOS or both.

4 Do a cold restart.

5   Add the entries to tables TOPSDEV or TOPSPOS or both.

6   Do a second cold restart.

7   Return all positions or devices or both to service by invoking the commands BSY and RTS at the TTP level of the MAP.

Dependencies

At extension time, the value of this parameter must increase if the number or the highest traffic office number increases.

When the value of this parameter is changed a check is done to determine if any tuple in table TOPSPOS has a TEAM value greater than the value of this parameter. If table TOPSPOS contains any tuple with the TEAM field value greater than the proposed new parameter value, the change attempt is rejected.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

The amount of memory required is given by the following formula:

(615 x highest team number) + 615.

Dump and restore rules

Copy the existing value of this parameter when performing dump and restore procedures.

If the value of this parameter must be changed during the dump and restore process, it must be done prior to the restore of any of the TOPS tables to avoid the lengthy parameter activation sequence.

Parameter history

BCS36   dump and restore information added

TOPS_NUMBER_OF_MEMO_PADS

Parameter name

Traffic Operator Position System Number of Memo Pads

Functional description of parameter TOPS_NUMBER_OF_MEMO_PADS

This parameter is required in a switching unit with universal translations (international) and the International Traffic Operator Position System (ITOPS) feature. It specifies the number of memo pads required for the switching unit.

Note that one memo pad is always used by the delay call database. Therefore, one extra memo pad should always be allocated.

A memo pad is a piece of store in which the operator can input 64 characters of information associated with a call. If more that 64 characters are entered, the display wraps around and overwrites the first characters entered.

The MEMO key is used by the operator to enter the 64 characters of text information associated with a call. This information is usually a note to the next operator handling the call concerning additional information needed which is not provided in regular operator keying sequences.

Provisioning rules

The parameter value shall be equal to the maximum number of memo pads that are required at any one point of time + 1.

Range information

Minimum	Maximum	Default
1	900	1

Activation

Cold restart

Dependencies

The value of this parameter must increase if the number of TOPS positions increases.

Consequences

If the value of this parameter is overprovisioned, some extra data store is allocated.

If the value of this parameter is underprovisioned, memo blocks are not available for operator use.

Memory requirements

Each unit requires 34 words of memory.

Dump and restore rules

This parameter was introduced in BCS25.

Copy the existing value of this parameter when doing a dump and restore.

TOPS_OC_REMOTE_BVC

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS15.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Traffic Operator Position System Operator Centralization Remote Billing
Validation Center

Functional description of parameter TOPS_OC_REMOTE_BVC

This parameter specifies the host that is used when a billing validation center
(BVC) query is sent over operator centralization OC data links.

Provisioning Rules

The provisioning of this parameter depends on the presence or absence of
Feature NC0152.

If feature NC0152 is not applied to the switch, the following rules apply:

Remote Switch

If the value of this parameter is set to Y (yes), the BVC query is sent over
the OC data links to the host specified in table OCHOST.

If the value of this parameter is set to N (no), the switch is presumed to have
a Common Channel Interoffice Signaling (CCIS) connection and the BVC is
queried directly.

Host Switch

The switch is presumed to have a CCIS connection and the BVC is queried
directly, regardless of the value of this parameter.

If feature NC0152 is present in the switch, the following rules apply:

Remote Switch

If the value of this parameter is set to Y, the BVC query is sent over the OC
data links to the host specified in one of the following ways:

- If table OCPARMS has a value for tuple BVC_HOST, that host is used
  for BVC queries (the operating company must provision links to this
  BVC host).
- If a tuple exists in table OCHOSTQ (for this call queue type), the host
  specified in that tuple is used for BVC queries.
- Otherwise, the host specified in table OCHOST is used.

If the value of this parameter is set to N, the switch is presumed to have a
CCIS connection and the BVC is queried directly.

Host Switch

The switch is presumed to have a CCIS connection and the BVC is queried
directly.

TOPS_OCCUPANCY_CALC_METHOD

Consequences

Not applicable

Verification

Observe output of TOPS FADS/TADS/SADS reports, specifically the AOP, BDH and %OCC fields.

Memory requirements

This parameter value requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS31.

For switches with software loads previous or greater than BCS31, this parameter will be set to REAL_TIME_PEG by default. No dump and restore action is necessary.

Parameter name

Traffic Operator Position System Occupancy Calculation Method

Functional description of parameter TOPS_OCCUPANCY_CALC_METHOD

This parameter provides the operating company with a choice of the method for occupany calculation employed in a particular TOPS configuration when producing average occupied position (AOP), board hour (BDH) and percent occupancy (%OCC) statistics for ouput in Force Administration Data System (FADS), Traffic Administration Data System (TADS) and System Administration Data System (SADS) reports and summaries.

This parameter is present only in TOPS switches where FADS, TADS, or SADS reports may be produced in TOPS stand–alone and operator centralization host switches.

Provisioning rules

Set the value of this parameter to a value of TEN_SECOND_SCAN to obtain scan-based AOP, BDH, and %OCC statistics in the FADS, TADS, or SADS reports,

Set the value of this parameter to REAL_TIME_PEG to obtain real-time peg-based AOP, BDH and %OCC statistics. REAL_TIME_PEG is the default.

If this parameter is changed in the middle of a report output, all AOP, BDH and %OCC values output, subsequent to the change, are calculated according to the new value of the parameter.

The REAL_TIME_PEG mode is the recommended mode. For small configurations, where transfer queues are not in use, TEN_SECOND_SCAN mode may be selected to eliminate the effect of skewing across report period boundaries on AOP and %OCC calculations for small teams.

REAL_TIME_PEG produces statistical reports that best account for operator occupancy in multi-queue TOPS environments.

Range information

Minimum	Maximum	Default
		REAL_TIME_PEG

Activation

Immediate

Dependencies

Not applicable

TOPS_PASSWORD_ENABLE

Provisioning rules

Set the value of this parameter to Y (yes), to activate the TOPS password feature.

Note: This parameter may be set to Y in offices with MPX positions (NTXJ67AA), however the MPX positions do not support the operator password.

If this parameter is set to Y in an office with both TOPS MP and MPX positions, the MP operators are required to login with a password while the MPX operators are not.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable

Consequences

If this parameter is set incorrectly, operators are not allowed to log in.

Verification

Operators may not log in unless KP NAME + TOPS + ST is entered.

Memory requirements

Regardless of the value of this parameter, the number of words required is equal to 4 multiplied by the the value of parameter TOPS_MAX_OPERATOR_NUM in table OFCENG.

Dump and restore rules

This parameter was introduced in BCS26.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Traffic Operator Position System Password Enable

Functional description of parameter TOPS_PASSWORD_ENABLE

This parameter is required for a switching unit with the Traffic Operator Position System (TOPS). It specifies whether an operators password system is provided to enhance TOPS security.

For a switching unit without the operators password system any Operator is capable of logging on to a TOPS position using any datafilled operator number as long as that number is not currently in use.

Since any operator can use any datafilled number, tracking operator fraud by the operator number usage is ineffective.

For a switching unit with the operators password system an operator password must be associated with each operator number and only one operator is to know the password for a given number. Therefore, when an operator number appears on an AMA record in a switching unit, there is no mistake as to the identity of the operator who handled the call.

When the value of the parameter is changed to Y, all passwords, operator and administrative, are set to a default of TOPS.

Initially all operators can log on with the system wide default password of TOPS. Once logged on they should change their passwords immediately.

Passwords return to the default value after BCS insertions so operators and administrators must re-enter their passwords.

A valid password (operator or administrative) is four to seven characters in length containing numeric (0 to 9) or alphabetic (a to z) characters only. Any password containing special characters or spaces is not accepted by the system.

Operators may change their own passwords any time that they are already logged in with no calls at the position and in a POS BSY state (this may be immediately after log on, or upon keying the MAKE BSY key).

Effective BCS30, when this parameter is set to Y, SA (Service Assistants) and IC (In-charge) positions must also enter a password.

operating company's traffic patterns. When parameter TOPS_PEG_MODE changes, AWTS may require changes in datafill for these tables.

If the current AWT of a queue type is 24 s, and the AWT is reduced to 21 s, table changes will not be required because the change occurs within the original 5-s interval. However, if AWT is reduced to 19 s, table changes must be evaluated again.

Consequences

Not applicable

Verification

The subscriber can verify the setting of this parameter by viewing FADS/TADS/SADS reports. If this parameter is set to IPS, position seizures are displayed under the column heading IPS

If this parameter is set to PS, the position seizure column heading will indicate PS. The values IPS and PS are the only values.

The operational measurement (OM) for this office parameter is TOPSPSZ. There are no extensions.

Memory requirements

Each unit requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS31.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36   method of activation changed

Parameter name

Traffic Operator Position System Peg Mode

Functional description of parameter TOPS_PEG_MODE

This parameter controls the extension of enhanced MFADS Position Seizure (PS) measurement to Traffic Operator Position System (TOPS) queue thresholding, TOPS TADS/FADS/SADS reports, and the current MFADS interface.

Provisioning rules

If this parameter is set to IPS, the PS measurements for this feature are used only for enhanced MFADS reports. TOPS features noted here are not impacted by this feature and continue to be based on current IPS measurements.

If this parameter is set to PS, enhanced MFADS PS measurements replace the IPS measurements currently used in queue thresholding, operating company reports, and the MFADS interface.

Note: This parameter is available only when this feature is installed. In OC configurations, this feature is only installed at the host. Remotes do not have access to this parameter.

Range information

Minimum	Maximum	Default
		IPS

Activation

Force Management (FM) measurements reflecting changes in this parameter begin in the 15-min FM period following a parameter change. The MFADS-type reports, however, are not be based on these new measurements until the second 15-min period after a parameter change. The parameter value, which is set when this feature is not activated, is IPS.

Note: The second 15-min period may have up to a 30-min delay.

When this parameter is changed, FM reports, regardless of the time period, reflect a mixture of IPS and Position Seizure (PS) pegging procedures. To avoid ambiguous reports, this parameter should only be changed immediately preceding the start of day (as defined in OFCVAR parameter TOPS_START_OF_DAY).

Dependencies

Changes in this parameter change the AWTS used in queue thresholding. The datafill of queue threshold tables QTTIDX and QT0–QT5 is determined by anticipated AWTS, at 5-s intervals. These AWTS are specific to an

TOPS_SDB_CCV_QUERY_BLK

Parameter name

Traffic Operator Position System Service Database Calling Card Validation Query Block

Functional description of parameter TOPS_SDB_CCV_QUERY_BLK

This parameter is required for a Traffic Operator Position System (TOPS) switching unit with Telecom Canada Automated Calling Card Service (ACCS).

Switches with BellCore ACCS use table ACCSERR to perform the function of this parameter.

This parameter determines whether the call is blocked when a Service Database (SDB) query of a Calling Card Validation (CCV) call returns an error.

Provisioning rules

If this parameter is set to the value of Y (yes), a CCV call that has failed is blocked and routed to announcement.

If this parameter is set to the value of N (no), a CCV call that has failed is allowed to go through without validation.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter value requires 1 word of memory.

Parameter name

Traffic Operator Position System Queue Management System Maximum
Number of Active Call Queues

Functional description of parameter
TOPS_QMS_MAX_ACTIVE_CALL_QUEUES

This parameter specifies the maximum number of queues that can be
datafilled in table TQCQINFO. This controls the number of separate queues
that can be used in a Queue Management System (QMS) office.

Provisioning rules

Specify the maximum number of queues that can be datafilled in table
TQCQINFO.

This parameter value can only be increased.

Range information

Minimum	Maximum	Default
0	255	0

Activation

Immediate

Dependencies

Table TQCQINFO can not have more tuples than the value specified by this
parameter.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

There is no memory impact associated with this parameter.

Dump and restore rules

This parameter was introduced in BCS34.

Copy the existing value of this parameter when doing a dump and restore.

TOPS_STATSPAC_PERIOD

Parameter name

Traffic Operator Position System STATSPAC Period

Functional description of parameter TOPS_STATSPAC_PERIOD

This parameter is associated with the STATSPAC feature which provides Operator Force Management statistics by dumping data associated with each operator to a downstream processor (the STATSPAC device).

Every time the DMS receives a two digit polling id from the STATSPAC device, it responds by sending a record of activity for each operator logged on during a previous time period.

This parameter specifies the data accumulation time period.

Provisioning rules

Specify whether STATSPAC will use a 15 or a 30 minute data accumulation period.

In offices with a 300 baud STATSPAC device, set the value of this parameter to 30 if more than 140 operators will be logged in over a 15 minute period (or if there are more than 140 TOPS positions in table TOPSPOS).

In offices with a 1200 baud STATSPAC device, set the value of this parameter to 30 if more than 405 operators will be logged in over a 15 minute period (or if there are more than 405 TOPS positions in table TOPSPOS).

Range information

Minimum	Maximum	Default
15	30	15

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Prior to BCS34, this parameter was named
TOPS_ACCS_CCV_QUERY_BLK. When performing dump and restore
from BCS33 or lower to BCS34 or higher, a reformat procedure
(TOPS_CCV_QUERY_BLK_RFMT) deletes the office parameter in offices
that use BellCore ACCS and renames it in offices that use Telecom Canada
ACCS.

Copy the existing value of this parameter when doing dump and restore from
software release BCS34 to software release BCS34 or higher.

TOPS_THRESHOLD

Parameter name

Traffic Operator Position System Threshold

Functional description of parameter TOPS_THRESHOLD

The value of this parameter is the percentage of three-way conference trunks dedicated for Traffic Operator Position System (TOPS) operation.

This does not include three-way conference trunks used by AOSS operations or Service Analysis.

Provisioning rules

Calculate the percentage of 3WC circuits required to support TOPS calls over the engineering interval.

Refer to the three-port provisioning rules in the *DMS-100 Family Provisioning* guide, 297-1001-450 (Conference Circuit Provisioning and Miscellaneous TOPS equipment) before setting the value of this parameter.

Range information

Minimum	Maximum	Default
0	100	0

Activation

Immediate

Dependencies

When adding the TOPS feature to an existing switching unit this parameter should be left at the default value of 0 (zero).

With this parameter is set to a value greater than 0, adding the TOPS feature to an existing local/toll switching unit could cause local calls that require a three port conference trunk to be routed to NOSC treatment.

Consequences

The specified percentage of three-port conference trunks is dedicated to TOPS only. The remaining percentage of three port conference trunks are available for all other uses including AOSS operations.

When TOPS_THRESHOLD is set to 100, only TOPS calls have access to the office's three-port conference trunks. No other call processing applications using three-port conference trunks succeed.

If the value of parameter is set too low, a TOPS call that requires a three-port conference trunk is placed in a queue when no three-port conference trunks are available.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

TOPS_TRANSFER_TYPES

Parameter name

Traffic Operator Position System Transfer Types

Functional description of parameter TOPS_TRANSFER_TYPES

This parameter is required for a switching unit with the Traffic Operator
Position System (TOPS). It specifies the types of transfer required for the
switching unit.

TOPS provides for two transfer service classifications referred to as transfer
1 (XFR1) and transfer 2 (XFR2). Calls not requiring transfer capabilities are
referred to as non-transfer (NON_XFR) or general (GEN).

TOPS queueing facilities include separate queues for directory assistance
(DA). In addition, it provides mechanisms for calls to be classified as
requiring DA service and it allows positions and operators to be designated
as having DA capability.

The DA queueing feature provides the vehicle for assuring that calls that
require directory assistance are only connected to positions and operators
that are capable of providing directory services. This involves labeling
positions and operators as having DA capability, marking calls as requiring
DA services, and the addition of separate queueing facilities to segregate DA
calls.

TOPS provides each of these functions to guarantee that calls that require
the services of a transfer operator are only connected to operators and
positions that provide transfer service. A transfer service is one in which
special position facilities or operator talents are required.

This parameter provides a means of enabling the DA service independently
of the transfer services. This parameter is implemented as a set with XFR1,
XFR2 and DA as possible elements. The DA service and one or both
transfer services can be activated by including the service as an element in
the set.

This parameter should not be changed until all of the 3WC circuits are tested and working.

Verification

Not applicable

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

See tables TOPS, XFROPSEL, TOPSPOS and OPRDAT for the type(s) assigned to each operator position, GEN, XFR1, XFR2 or DA.

Call transfer or DA can be activated and deactivated from the TADS or FADS TTY.

Consequences

Not applicable

Verification

See OM groups TOPSPSZ, TOPSQS, and TOPSMISC for the operational measurements associated with this parameter.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when performing dump and restore procedures.

Parameter history

BCS36   activation requirement changed to immediate

Provisioning rules

Assign a value to this parameter as outlined in table 1 below.

Table 1 Provisioning of TOPS_TRANSFER_TYPES	
Value	Transfer types
DA	To activate DA service
XFR1	To activate Transfer 1 service
XFR1 DA	To activate both the DA and transfer 1 services
XFR1 XFR2	To activate both the transfer 1 and transfer 2 services
ALL	To activate the transfer 1 service, transfer 2 service, and DA
NONE	Transfer or DA service is not required

Note: The value DA can only be assigned in switching units that have the Directory Assistance software package.

Range information

Minimum	Maximum	Default
		NONE

Activation

Immediate

To deactivate the transfer or DA type, all instances of the type must be removed from tables TOPS, XFROPSEL, OGTMPKEY and OGTSPKEY before changing the value of the parameter.

Dependencies

XFR2 should not be enabled unless XFR1 is also enabled. If XFR2 is enabled and XFR1 is not, by–XFR data will not be output properly to MFADS if the value of parameter TOPS_MFADS_OUTPUT_XFR_NUMBER is set to N. If other than DA, only one transfer type is desired, it should be XFR1.

to 20, two of the calls are not recalled to an operator and must be manually retrieved.

This parameter is impacted by the ITOPS Booked Call Database Size Increase feature in BCS30 which increased the maximum number of calls allowed to be stored at one time in the ITOPS Booked Call database from 1280 to 5120. The range of this parameter is increased by this feature and an upper limit is enforced on the parameter range. It can only be set to values less than or equal to parameter DB_MAX_SIZE in table OFCENG.

Consequences

Overprovisioning results in wasted memory.

Underprovisioning results in potential route queued calls not being processed due to a lack of resources. The attempt by the ITOPS operator to store a route queued call fails, and the header STORE flashes in this case.

Verification

Verify that the parameter is set by examining table OFCENG. The value displayed indicates that it is set. If the restart failed to allocate the required number of queue elements, this manifests itself in the form of software errors (SWERRS) that occurred during the restart.

Memory requirements

4 words of memory are required for each call queue element.

Dump and restore rules

This parameter was introduced in BCS28.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Total Route Queued Calls

Functional description of parameter TOTAL_ROUTE_QUEUED_CALLS

This parameter is required for a switching unit with the World Systems and International Traffic Operator Position System (ITOPS) features. It determines the number of call queue elements to allocate on restarts. These elements are used to queue themselves to the trunk group. It is required so that a pool of call queue elements can be ready when a route queued call requires them. This saves on real-time processing for route queued calls.

The value of this parameter imposes limits on the number of calls that can be route queued at any given time.

Provisioning rules

The value of this parameter is calculated with the following equation:

$$rqc = (maxrte \times trkgrp)$$

where

rqc   limit of the number of calls that can be route queued at any given time

maxrte is the value of MAX_ROUTE_QUEUED_PER_TRKGRP in table OFCENG

trkgrp is the maximum number of trunk groups being queued on

Leave the value of this parameter at the default value of 0 (zero) to deactivate the feature.

Range information

Minimum	Maximum	Default
0	32767	0

Activation

Cold restart

Dependencies

This parameter is related to the parameter MAX_ROUTE_QUEUED_PER_TRKGRP in table OFCENG.

If this parameter or parameter MAX_ROUTE_QUEUED_PER_TRKGRP in table OFCENG is decreased in such a way that a call can no longer be put in a call queue, the call remains in the database as untimed but not route queued.

For example, if route Z has 22 calls queued on it and the value of parameter MAX_ROUTE_QUEUED_PER_TRKGRP in table OFCENG is decreased

TQMS_MIS_MPC_BUFFS

Memory requirements

This parameter value unit requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS34.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

TOPS Queue Management System Management Information System Multi-Protocol Controller Buffers

Functional description of parameter TQMS_MIS_MPC_BUFFS

This parameter specifies the number of Traffic Operator Position System (TOPS) Queue Management System (QMS) Multi-Protocol Controller (MPC) 8K buffers that are used for the transmission of queue and position event messages to the QMS Management Information System (MIS).

Provisioning rules

Set the value of this parameter to the minimum number of MPC buffers that are required for operation.

The default setting is 2. This value may require an increase depending on the office traffic, service types provided and buffer timeout settings.

It is recommended that the number of buffers be equal to the number of Extended Multi-Protocol Controller (EMPC) links datafilled in table QMSMIS plus one. The maximum number of buffers that can be provisioned is 16. In the case where 16 links are used, set this parameter to a value of 16.

Range information

Minimum	Maximum	Default
2	16	2

Activation

Immediate

When decreasing the value of this parameter, the actual memory deallocation occurs after a subsequent cold or reload restart.

Dependencies

Not applicable.

Consequences

Underprovisioning of this parameter results in lost event messages and causes inaccurate MIS reports. An EXT1 TQMS_MIS_BUFFS alarm is raised.

Overprovisioning of this parameter results in wasted system store.

Verification

Not applicable.

TRIGDIG_NUM_DGLTR_POOLS

Parameter name

Table TRIGDIG Number of Digilator Pools

Functional description of parameter TRIGDIG_NUM_DGLTR_POOLS

This parameter is required in an office with the Advanced Intelligent
Network (AIN) feature. It specifies the number of digilator pools that are
allocated for use by table TRIGDIG. Each digilator pool contains 32768
digit blocks that can be used to contain the data of table TRIGDIG. The
number of digit blocks actually used by the table depends on the distribution
of the digits in the table and on the number of DIGNAMEs in use. A
worst-case estimate implies that up to 4000 10-digit codes could be
datafilled within one pool.

The number of blocks currently used can be determined by using the
BCSMON tool DBLOCKS.

Provisioning rules

Specify the number of digilator pools that are allocated for use by table
TRIGDIG.

Range information

Minimum	Maximum	Default
1	6	1

Activation

Immediate

Dependencies

The maximum number of datafillable tuples in table TRIGDIG increases as
the value of this parameter is increased.

Consequences

Underprovisioning of this parameter value limits the number of tuples that
can be added to table TRIGDIG.

Overprovisioning of this parameter value uses unnecessary data store.

Verification

Verify that the additional pools have been allocated by using the BCSMON
command DBLOCKS.

Memory requirements

Each pool requires 22000 words of protected data store. Each additional
unit allocated uses a digilator pool. There are 80 digilator pools in an office.

Parameter name

Trouble Queue For Electronic Business Sets Line After Misdials

Functional description of parameter TRBQ_EBS_LINE_AFTER_MISDIALS

This parameter provides the operating company with the capability to choose whether electronic business sets (EBS) should be diagnosed in the case of misdials.

Prior to the implementation of this parameter, two or more misdials (that is, an uncompleted number) caused an EBS line to be put in the trouble queue for diagnostics. This makes the set unusable for a short time (minutes).

Provisioning rules

Set this parameter to a value of N (no) to keep EBS lines from being put in the trouble queue for diagnostics after misdials.

Set this parameter to a value of Y (yes) to allow EBS lines to be put in the trouble queue for diagnostics after misdials.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable.

Consequences

Not applicable.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS32.

Copy the existing value of this parameter when doing a dump and restore.

TRK_MEMSEL_AUDIT_TIME

Parameter name

Trunk MEM Selector Audit Time

Functional description of parameter TRK_MEMSEL_AUDIT_TIME

This parameter specifies the time at which the audit of the internal MEM selector is invoked.

Provisioning rules

Set the value of this parameter to the hour of the day at which the audit of the internal MEM selector is to begin. The 24-h clock is used with the default of 0 (zero) indicating a starting time of midnight.

Range information

Minimum	Maximum	Default
0	23	0

Activation

Immediate

Dependencies

The MEM selector is datafilled in field RTESEL in table OFRT and subtable RTEREF of tables HNPACONT, FNPACONT, and FNPASTS.

Consequences

Not applicable

Verification

Set the value of this parameter and verify that the audit of the internal MEM selector table is invoked at that time.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS32.

Copy the existing value of this parameter when doing a dump and restore.

Dump and restore rules

This parameter was introduced in BCS35.

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS36 parameter description added to NTP

Dump and restore rules

This parameter was introduced in BCS34.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Type of Automatic Calling Card Service

Functional description of parameter TYPE_OF_ACCS

This parameter specifies the type of Automatic Calling Card Service (ACCS) that is used in a service switching point (SSP).

Provisioning rules

Set the value of this parameter to TCACCS to use the Telecom Canada standard services database (SDB).

Set the value of this parameter to BCACCS to use the North American line information database (LIDB).

Set the value of this parameter to TAACCS_SCP1 for Australia Telecom offices with SCPI using the SDB format.

Set the value of this parameter to TAACCS_SCP2 for Telecom Australia offices with SCPII using the LIDB format. This enables the SSP transaction capability application part (TCAP) code to be switched from the Telecom Canada/Telecom Australia SCP queries to the Australian LIDB queries.

Range information

Minimum	Maximum	Default
		TCACCS (North America)
		TAACCS _SCP1 (international)

Activation

Immediate

Dependencies

Not applicable

Consequences

Note that patch FPA15 must be present and turned on (using command PATCHEDIT) in order for this parameter to function. If the patch is not turned on, any change in the value of this parameter is not recognized.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS27.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Type of Network

Functional description of parameter TYPE_OF_NETWORK

This parameter specifies the voice law and data type within the Network module of a switch. It is used to determine the voice and data conversions needed across the NT6X44EA timeswitch in XMS-based Peripheral Modules (XPM). It identifies the voice law and data type on the c-side of the timeswitch.

Provisioning rules

The values are as follows:

- INTERNATNL indicates an International switch with an A-law companding network.
- ALAW indicates an International switch with an A-law network.
- NORTH_AMERICAN indicates a North American switch with a Mu-law network.

If other than North American, specify the voice law and data type required for the Network module of the Switch.

Range information

Minimum	Maximum	Default
		NORTH_AMERICAN

Activation

Reload restart on the active CC

Note that all XPMs have their static data updated and their NTX6X44EA timeswitches reconfigured.

Dependencies

Not applicable

Consequences

If the wrong network type is specified, the voice and data conversions set up across the NT6X44EA timeswitch are incorrect.

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

DMS has no way of detecting that this is the cause of a failed call. Complaints from the far end operating company about traffic from the DMS switch or logging the number of unanswered calls on DMS 3J outgoing circuits or customer complaints would reveal this. The value should be verified as calculated above.

Verification

Take a 3J outgoing type 4 trunk datafilled to use cardcode UK3JOG. Under conditions of low traffic record the ABCD signals for a seizure and outpulsing on the 3J.

The time delay from receipt of seizure acknowledgement can be measured. It should approximate the time represented in units of 10 ms and exceed it by a small amount. The delay should never be less than the office parameter indicates.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS30.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

United Kingdom Outpulse Delay

Functional description of parameter UK_OP_DELAY

This parameter is applicable to UK based 3J trunks only. It provides a delay before receiving a seizure acknowledgement from the far end before DP outpulsing can start. This is required for trunks using cardcode UK3JOG with a seize start signal.

The parameter value is the delay in units of 10 ms. On expiry, the far end is assumed ready to receive digits so outpulsing can then start.

Provisioning rules

All operating companies receiving outgoing circuits using cardcode UK3JOG must specify a minimum acceptable delay from seizure acknowledgement. Take the maximum of these delays and add 300 ms. Convert to units of 10 ms by dividing by 10.

The default value is also the recommended value. This is the minimum permissible value representing a delay of 300 ms to start outpulsing. This value should be chosen as it minimizes any outpulsing delay. If the far end is designated by its owning operating company as being unable to receive digits within 300 ms of their acknowledging seizure, the parm should be increased to the value required by them.

Range information

Minimum	Maximum	Default
30	80	30

Activation

The parameter needs to be loaded into the trunk data stored on the PMs supporting the trunks that use it. This only happens if the peripheral is busied (BSY)and returned to service (RTS) (that is, do not use warm SWACT as the old data is copied across), or if the trunks are busied and RTSed. It is suggested that only the 3J trunks concerned might be BSYed and RTSed.

Dependencies

Not applicable

Consequences

An excessive value for the parameter will slow down the seizure and the start of outpulsing. This could increase the call setup time by the amount of the excess.

Too small a value could lead to loss of the first digit outpulsed as the receiving operating company might not be ready to receive the first digit.

UNIQUE_BY_SITE_NUMBERING

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Unique By Site Numbering

Functional description of parameter UNIQUE_BY_SITE_NUMBERING

This parameter is required if the switching unit has one or more remote peripherals. It specifies whether line module numbering is unique to a site or to the whole switching unit.

For example, for a switching unit with two remotes, four lines modules in the host and two and three line modules in the remotes the following applies:

If numbering is unique (parameter value set to Y), the line modules in the host would be numbered, 0, 1, 2, and 3, the numbering of the line modules in the remote with 2 line modules would be 0 and 1 and the numbering of the line modules in the remote with 3 line modules would be 0, 1, and 2.

If numbering is not unique (parameter value set to N), the line modules in the host would be numbered, 0, 1, 2, and 3, the numbering of the line modules in the remote with 2 line modules would be 4 and 5 and the numbering of the line modules in the remote with 3 line modules would be 6, 7, and 8.

Provisioning rules

If set to Y (yes), the line module numbering must be unique to a site, regardless of module type.

If set to N (no), the line module numbering must be unique to the whole switching unit.

Range information

Minimum	Maximum	Default
		Y

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS33.

Copy the existing value of the parameter when doing a dump and restore.

Parameter name

Universal Automatic Message Accounting Billing

Functional description of parameter UNIVERSAL_AMA_BILLING

This parameter indicates whether the billing structures should utilize open numbering schemes, where possible, in the BellCore format Automatic Message Accounting (AMA) subsystem. It is primarily intended to identify offices that are using open number dialing arrangements where North American billing is inadequate.

Provisioning rules

Set the value of this parameter to N, to allow North American billing structures to be used for all base AMA billing.

Set this parameter to Y, to allow open numbering AMA structures to be used wherever possible.

The value of this parameter can be based on the value of office parameter MARKET_OF_OFFICE. When the value of MARKET_OF_OFFICE is set to either UK CENTREX or AUSTRALIA, the value of UNIVERSAL_AMA_BILLING should be set to Y.

This parameter defaults to N. It should only be set to Y for those offices wishing to receive Open Number BellCore Format AMA billing.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter value requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS19.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Use ZEROMPOS For Centralized Automatic Message Accounting

Functional description of parameter USE_ZEROMPOS_FOR_CAMA

This parameter provides alternate routing on calls requiring operator assistance on local automatic message accounting (LAMA) type calls. These calls include operator assisted identification (ONI) line for toll calls, automatic number identification (ANI) failures and direct dial overseas (DDO) failures. When these types of calls occur, the call is routed to a CAMA or TOPS operator by way of an outgoing trunk. The selection of this trunk is controlled by this parameter.

The toll switching unit performs an ONI check based on NXX validity on the basis of incoming trunks.

This parameter allows routing of these calls on different outgoing trunks based on the calling line's NXX. This is accomplished by routing a call by the position indicated in the calling line's entry in the ZEROMPOS field of table LINEATTR.

Provisioning rules

When the value of this parameter is set to N (no), the route is selected from the CAMA entry in the POSITION table.

When the value of this parameter is Y (yes), the route is selected from field ZEROMPOS of the originator's line attribute in table LINEATTR.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

USP_ENABLED

Activation

Immediate

Dependencies

This parameter is included in the package NTX045AA – Usage Sensitive Pricing.

This parameter requires the following features to function properly:

- NTX020AA/NTX020AB – Vertical Services
- NTX020AC (Includes basic call forwarding for POTS lines.)
- NTX159AA – Bellcore LAMA

This feature creates a new line option CUSD. When CUSD is present, on a line, the subscriber cannot use the Call Forwarding Usage Sensitive Pricing feature. The option CUSD is only available when the CFUSP feature is present.

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS23.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Usage Sensitive Pricing Enabled

Functional description of parameter USP_ENABLED

This parameter provides the ability to activate and deactivate Call Forwarding Usage Sensitive Pricing (CFUSP) on a per-switching unit basis.

The CFUSP vertical feature allows any single party Plain Ordinary Telephone Service (POTS) line in a Bellcore (BC) Automatic Message Accounting (AMA) office to activate and use call forwarding without presubscribing or paying a monthly fee for the service. The telephone subscribers can activate call forwarding by dialing the access code 72#, and use the feature whenever desired. They arecharged according to usage of the feature.

If the value of the parameter is set to Y (yes), any eligible single party POTS line in a BC format switching unit can dial the access code 72# and receive the call forwarding option for one activation.

If a subscriber already has flat rate call forwarding and dials the access code 72# intending to acquire CFUSP, the call forwarding option is activated but treated as a flat rate option.

The DMS System generates the necessary AMA records to properly bill the subscriber.

Provisioning rules

If the value of the parameter is set to N (no), any eligible single party POTS line in a BC format switching unit that dials the access code 72# is denied the call forwarding option. The call forwarding option is not denied if the POTS line is already equipped with the call forwarding option.

If the value of the parameter is set to N (no), direct datafilling of a CFUSP option through SERVORD or table CFW is also denied. The craftsperson receives the following message:

```
CALL FORWARDING-USP IS UNAVAILABLE.
```

If a subscriber tries to use CFUSP when the feature is disabled, that line is sent to treatment. The treatment for denied lines is selected by the operating company. An announcement that indicates that the subscriber is not permitted that type of service could be provided.

Range information

Minimum	Maximum	Default
		N

VAR_DN

Parameter name

Variable Directory Number Format

Functional description of parameter VAR_DN

This parameter determines the format of the directory number (DN) stored in line data and hunt data.

Provisioning rules

If the value of this parameter is set to N (no), the North American format is used and DNs must be 7 digits long (excluding area code).

If this parameter is set to Y (yes), DNs are stored in a format that allows them to be 2 to 7 digits in length. It is recommended that they not be less than the value of parameter NUMBER_OF_DIGITS_PER_DN in table OFCENG.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS18.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Validate CCITT Luhn Digit

Functional description of parameter VALIDATE_CCITT_LUHN_DIGIT

This parameter specifies whether the luhn (check) digit is ignored in CCITT calling card validation for the International Traffic Operator Position System (ITOPS). It is for use in a special market segment (China).

Provisioning rules

The luhn check digit (LCD) provides local screening of the calling card by a format check. A CCITT calling card number with an invalid LCD is marked as faulty.

Set this parameter to a value of N (no), if the LCD is not required in the CCITT calling card number. Format checking procedures ignore the luhn digit when this parameter is set to N.

If the the LCD is required in the CCITT calling card number, set the value to Y (yes).

Range information

Minimum	Maximum	Default
		Y

Activation

Immediate

Dependencies

Not applicable.

Consequences

Not applicable.

Verification

Not applicable.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS34.

Copy the existing value of this parameter when doing a dump and restore.

VPN_PREFIX_DIGS

Parameter name

Virtual Private Network Prefix Digits

Functional description of parameter VPN_PREFIX_DIGS

This parameter enables the operating company to define a set of digits to be prefixed to ISDN User Part (ISUP) calls terminating in the national network that are identified as Standard Virtual Private Network (SVPN) calls based on the OP bits of the forward call indicators of the initial address message (IAM) being set. These digits are prefixed to the received digits prior to translations.

The use of OP bits of the forward call indicators of ISUP IAM to indicate that a call is a VPN call is not included in CCITT recommendations.

Provisioning rules

This office parameter is capable of holding up to four digits. If no digits are to be prefixed, the office parameter should be left at the default value of $. This indicates that the optional prefix digits are not present.

Range information

Minimum	Maximum	Default
		$ (no prefix digits)

Activation

Immediate

Dependencies

Not applicable

Consequences

If adding the prefix digits to the dialed digits exceeds the maximum number of digits allowed by the DMS-300, the call is failed.

Verification

Not applicable.

Memory requirements

This parameter value requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS34.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

Variable Call Detail Recording Office Format

Functional description of parameter VCDR_OFFICE_FORMAT

This parameter specifies the format for all Variable Call Detail Recording (VCDR) on the switch, except for those that are customer group specific.

Provisioning rules

VCDR billing is assigned on a trunk group basis in table TRKGRP. Customer groups are assigned to trunks in this table as well. Customer group options are defined in table CUSTVCDR.

VCDR_OFFICE_FORMAT has two settings: UCS26, and nil.

If this parameter is set to UCS26, Integrated Business Network (IBN) trunk-to-trunk calls are assigned VCDR billing.

If this parameter is set to the default value of nil, only those trunks that are assigned VCDR billing within customer groups that have a format set in table CUSTVCDR are allowed VCDR billing.

Range information

Minimum	Maximum	Default
		nil

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS32.

Copy the existing value of this parameter when doing a dump and restore.

WAKEUP_REREQUEST_DELAY

Parameter name

Wakeup Rerequest Delay

Functional description of parameter WAKEUP_REREQUEST_DELAY

This parameter is required for a local (international) switching unit with universal translations. It specifies the length of time, in one minute intervals, before a second wake-up call is attempted if the first is abandoned.

The wake–up call can be a casual feature provided to all subscribers. However, if the office parameter CASUAL_FEATURES_OFF in table OFCOPT is set to a value of Y (yes), wake–up call (WUC) becomes a line option that must be assigned through service orders (SERVORD).

Provisioning rules

This parameter allows the subscriber to program a time at which they are to be rung back by a wake-up call announcement. If a wake-up call is not answered, a second attempt is made at a later time (specified by the administration). If the second wake-up call is not answered, a log is generated and no further attempts are made.

If this feature is not required, leave the value at the default of 5.

Range information

Minimum	Maximum	Default
5	10	5

Activation

Immediate

Dependencies

One FTR control block and one FTR data block is required for each wakeup call being generated. This feature affects the value of parameters NO_OF_FTR_CONTROL_BLKS and NO_OF_SMALL_FTR_DATA_BLKS in table OFCENG.

Table FEATCHG requires entries for wake-up call charging. Table ACCODE requires entries for wake-up call subscriber control procedures.

Parameter WAKEUP_RINGING_TMO is also required for the wake-up feature.

Consequences

Not applicable

Verification

Not applicable

Parameter name

Voice Service Node Simulator On

Functional description of parameter VSN_SIMULATOR_ON

This parameter is for Northern Telecom internal use only. It must not be changed by the operating company.

Provisioning rules

Not applicable

Range information

Minimum	Maximum	Default
		No

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable.

Verification

To verify that this parameter is set and working, attempt to gain access to the VSNSIM directory at the CI level of the MAP. If access is permitted, the parameter is working.

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS32.

Copy the existing value of this parameter when doing a dump and restore

WAKEUP_RINGING_TMO

Parameter name

Wakeup Ringing Timeout

Functional description of parameter WAKEUP_RINGING_TMO

This parameter is required for a local switching unit (international) with universal translations and specifies the length of time, in 1-s intervals, that ringing is applied to a subscriber's line during a wake-up call attempt before being abandoned.

If this feature is not required, leave the value at the default.

The wake-up call is a casual feature provided to all subscribers. It allows the subscriber to program a time at which they are to be rung back by a wake-up call announcement. If a wake-up call is not answered, a second attempt is made at a later time (specified by the administration). If the second wake-up call is not answered, a log is generated and no further attempts are made.

Provisioning rules

If other than 60 s, enter the length of time, in 1-s intervals, that ringing is to be applied to a subscriber's line during a wake-up call attempt before being abandoned.

Range information

Minimum	Maximum	Default
60	120	60

Activation

Immediate

Dependencies

One FTR control and one FTR data block is required for each wakeup call being generated. Therefore, this feature affects the value of parameters NO_OF_FTR_CONTROL_BLKS and NO_OF_SMALL_FTR_DATA_BLKS in table OFCENG.

Table FEATCHG requires entries for wake-up call charging. Table CCODE requires entries for wake-up call subscriber control procedures.

Parameter WAKEUP_REREQUEST_DELAY is also required for the wake-up feature.

The value of this parameter should always be less than the value of parameter RNG_TMEOUT_NO_OF_SECS in table OFCENG.

Consequences

Not applicable

Dump and restore rules

This parameter was introduced in BCS24.

Copy the existing value of this parameter when doing a dump and restore.

WUCR_RINGING_TIMEOUT

Parameter name

WUCR_RINGING_TIMEOUT

Functional description of parameter WUCR_RINGING_TIMEOUT

This parameter specifies the length of time that physical ringing is applied to a subscriber's phone during a Wake-up Call Reminder (WUCR).

Provisioning rules

The value of this parameter can be set between 12 s and 54 s.

The value of this parameter must always be less than the ringing timeout value for the office that is identified by the office parameter RNG_TMEOUT_NO_OF_SECS. This restriction is enforced when changing the value of WUCR_RINGING_TIMEOUT, but if the value of RNG_TMEOUT_NO_OF_SECS is subsequently set lower, the ringing behaviour of wake-up calls is unpredicable.

When determining the value of this parameter it should be noted that a line concentrating device (LCD) can only ring a limited number of lines simultaneously. Therefore, keeping the ringing time of a Wake-Up Call to a minimum reduces the possibility of blocked ringing requests at the peripheral.

Range information

Minimum	Maximum	Default
12 (seconds)	54 (seconds)	30 (seconds)

Activation

Immediate

Dependencies

The value of this parameter must always be lower than the LGC ringing timeout value that is controlled by the office parameter RNG_TMEOUT_NO_OF_SECS.

Consequences

Overprovisioning of this parameter results in the increased possibility of blocked ringing requests by the line concentrating module.

Verification

To verify that this parameter is operational, schedule a wake-up call and allow the call to go unanswered. Verify that the length of time of the physical ringing is equal to the value of WUCR_RINGING_TIMEOUT.

Memory requirements

6 bits of memory are required to store this parameter.

Verification

Not applicable

Dump and restore rules

This parameter was introduced in BCS24.

Copy the existing value of this parameter when doing a dump and restore.

ZERO_MINUS_TO_CARRIER

Parameter name

Zero Minus To Carrier

Functional description of parameter ZERO_MINUS_TO_CARRIER

This parameter determines whether 0– dialed calls are routed to the subscriber's chosen primary intraLATA carrier (PIC) or to the local operating company for handling.

This parameter is for use with the LATA equal access system, equal access system and integrated business network applications.

Provisioning rules

If the parameter is set to Y (yes), a lookup in table DNLPIC is done to determine if the calling subscriber has chosen a PIC. If an entry is found in table DNLPIC, the call is routed to the IntraLATA carrier for handling. Otherwise, it is routed to the local operating company.

Set the parameter to N (no) if all 0– traffic are to be routed to the operating company.

Range information

Minimum	Maximum	Default
		N

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

This parameter can be verified by the monitoring of 0– call routing. If the parameter is set to N, all 0– calls should route to the local operating company. If the parameter is set to Y, an IntraLATA PIC has been chosen, and that carrier can handle operator calls. 0– calls should route to the IntraLATA carrier for handling.

Memory requirements

This parameter value requires 1 word of memory.

Dump and restore rules

This parameter was introduced in BCS29.

Copy the existing value of this parameter when doing a dump and restore.

Dump and restore rules

This parameter was introduced in BCS33.

Copy the existing value of the parameter when doing a dump and restore.

TOPS_OC_ENVIRONMENT

Parameter name

Traffic Operator Position System Operator Centralization Environment

Functional description of parameter TOPS_OC_ENVIRONMENT

TOPS Call Processing Features This parameter is required for switching units which are configured for operator centralization.

It specifies whether the switching unit is a host or a remote.

Provisioning rules

Set the value of this parameter to REMOTE in remote switching units and to HOST for host and for regular TOPS switching units.

Range information

Minimum	Maximum	Default
		HOST

Activation

Immediate

The value of this parameter should not be changed after the datafill of OC tables.

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when performing dump and restore procedures.

DMS-100 Family

Office Parameters

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