

SYSTEM ADMINISTRATION
SOFTWARE CHANGE ADMINISTRATION AND NOTIFICATION SYSTEM
OPERATIONS SUPPORT SYSTEMS

CONTENTS	PAGE	1. GENERAL
1. GENERAL	1	1.01 The Software Change Administration and Notification System (SCANS) is a time-shared, computer-based support system designed to operate with Electronic Switching System (ESS) Stored Program Control Systems (SPCS) for the purpose of distributing and administering Broadcast Warnings.
2. SYSTEM FEATURES	1	1.02 Whenever this section is reissued, the reason for reissue will be listed in this paragraph.
3. PROCEDURE FOR IMPLEMENTATION	2	1.03 The title for each figure includes a number in parentheses which identifies the paragraph in which the figure is referenced.
4. ADMINISTRATION	2	1.04 The generic programs for these systems are provided on a standardized basis by Bell Telephone Laboratories. Required changes and improvements are issued via Broadcast Warning Messages (BWMs) from Bell Telephone Laboratories to the Western Electric Product Engineering Control Center (PECC) for input into the SCANS computer.
BULLETINS	2	
LAST BROADCAST WARNING MESSAGE ISSUED	2	
SUMMARY REPORTS	2	
STATUS REPORTS	2	
TAPEOUTS	3	
5. OVERWRITES	3	
6. RESPONSIBILITIES	3	
7. SUPPORT SYSTEMS	4	2. SYSTEM FEATURES
8. OPERATING COST	4	2.01 The Software Change Administration and Notification System provides the following user features:
9. TROUBLE FLOW	4	(a) Urgent bulletins and information messages relating to Broadcast Warnings or other pertinent maintenance data.
		(b) Complete hardcopies of Broadcast Warnings including overwrites and symbolic code.
		(c) Electronic Switching System machine-readable overwrites in the form of paper or magnetic tape.
Figures		
1. SCANS Hierarchy Worksheet	9	
2. SCANS Billing Structure Worksheet	10	
3. SCANS Users Log	11	

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SECTION 190-306-010

- (d) Tape verification allowing the user to transmit the data received back to the SCANS computer for a match of the data base.
- (e) Summary reports of Broadcast Warning Messages by system sequence numbers, dates, generic issue and miscellaneous reference.
- (f) Status reports of Broadcast Warning Messages that have been completed or are scheduled for completion on an office-by-office basis.

3. PROCEDURE FOR IMPLEMENTATION

3.01 Initially, a SCANS coordinator should be established within the operating telephone company (OTC).

3.02 The coordinator should first establish an appropriate hierarchy of users and offices, (see Fig. 1—SCANS Hierarchy Worksheet). Secondly, it should be determined which users' organizations will be grouped together for billing purposes, (see Fig. 2—SCANS Billing Structure Worksheet).

3.03 Once the hierarchy and billing structure have been established, the coordinator should interface with the OTC Engineering Planning and Analysis System (EPLANS) coordinator to prepare and submit requisitions. One OTC supply requisition must be submitted to the Western Electric Service Center for each billing entity.

3.04 During the requisitioning process, the SCANS coordinator should acquire office profile data and coordinate the gathering of Broadcast Warning status data for each office to be served by SCANS. The office profile data are loaded into the SCANS data base in order to determine which Broadcast Warnings apply to the office. The Broadcast Warning status data is a record of which overwrites have been installed, which are due to be installed, and which do not apply. This data should be loaded into the SCANS data base by each user and continually updated as new Broadcast Warnings are issued and installed.

4. ADMINISTRATION

BULLETINS

4.01 All bulletins received after "logging in" are to be reviewed by the Central Office Supervisor responsible for the polling office(s) or area. After

review, the supervisor will determine what action, if any, may be required and initiate all steps for compliance.

4.02 Bulletins are to be filed by number for a minimum of 30 days or until the information is no longer applicable, whichever is the greater period.

LAST BROADCAST WARNING MESSAGE ISSUED

4.03 With each polling, a message will follow the latest bulletin information that will list the last Broadcast Warning Message number to be issued against the user's type system(s). The user should check this number to determine if a more recent message has been loaded into the system since the last polling.

4.04 If the number listed on the most recent polling indicates that more recent Broadcast Warning Message information is in the system, a **sum plus** by number should be requested.

4.05 In those cases where the "sum plus" indicates that it is applicable to the user's generic and issue, a **Print Broadcast Warning Message** and a **Print Tapeout** command should be entered for receipt of a hardcopy plus a machine-readable tape. After tape receipt, the user should verify the tape data back to the computer to assure transmission is correct.

SUMMARY REPORTS

4.06 Summary reports may be requested by system, number, entry date, generic and issue or miscellaneous reference number. The user has the option of requesting a brief one-line description of a Broadcast Warning Message by entering the **print sum** command, or a more detailed description including all miscellaneous reference numbers associated with each listed Broadcast Warning Message by entering the **Print Sum plus** command.

4.07 Summary reports should be filed by system and number until a subsequent issue of generic is applied.

STATUS REPORTS

4.08 The SCANS status report can be updated by the OTC Maintenance Engineer and/or

the Network Maintenance Force. Specifically, the Network Maintenance Force will update Broadcast Warning Message completions and office profile changes or additions. The Maintenance Engineers or designated alternate will update the status file by entering a due date on all applicable Broadcast Warning Messages by office.

4.09 In No. 1 ESS, the issuance of a Broadcast Warning could result in a point issue change. Should this occur, the office profile information must also be changed. This may be done by using the **status change** command. The user will be asked by the computer whether the status file is to be retained or destroyed. If the generic issue is being changed as a result of a Broadcast Warning Message, the status file should be retained. If the generic issue is being changed by Western Electric while installing a new restart or retrofit, the file should be destroyed and then rebuilt reflecting only the new generic status.

4.10 In order to maintain accurate profile data listings, a status profile report should be extracted by the Central Office Maintenance group a minimum of once per quarter. The profile data should be verified and kept on file (by office) for a 6-month period.

4.11 Updating of the status lists with due dates or completion dates should be handled in a timely fashion by both the Maintenance Engineers and Central Office Maintenance personnel. Copies of these lists should be kept on file by office name for a 3-week period.

TAPEOUTS

4.12 All tapes (paper and magnetic) are to be verified back to the computer as soon as possible after receipt. Paper tapes can be verified using the A35ASR Teletypewriter. Magnetic tapes can be verified using the 4210 Magnetic Tape Transport.

4.13 Paper and magnetic tapes as well as the associated hardcopy of tape verification are to be kept on file by system and/or office and Broadcast Warning Message number of the generic for that system and/or office.

5. OVERWRITES

5.01 *The purpose of an overwrite is to alter permanent memory. Because of the sensitivity involved, overwrites should be approached with caution. Erroneous overwrite data can result in office interrupts or more importantly catastrophic office failures.*

5.02 The personnel responsible for overwrite application for a particular office should perform a required overwrite *only* after the Maintenance Engineer or designated alternate has established a due date for that Broadcast Warning Message. This will be shown in the status file listing for that particular Central Office entity. This procedure will ensure that the Broadcast Warning Message applicability has been verified against the office listed by the responsible engineer or designated alternate.

5.03 Prior to the actual overwrite function, the Central Office craft person should log in and check the latest bulletin information to ensure that no changes have been issued to the particular Broadcast Warning Message to be applied.

6. RESPONSIBILITIES

CENTRAL OFFICE MAINTENANCE FORCE

6.01 The Switching Control Center (SCC) and/or local maintenance force will be responsible for the following:

- (a) Polling of the SCANS computer for latest bulletins and Broadcast Warning Messages. It is recommended that this function be conducted a minimum of three times each week.
- (b) Poll the computer a minimum of two times each week for a status listing of Broadcast Warning Messages which are due.
- (c) Install all Broadcast Warning Messages that are shown as due on or before the scheduled date.
- (d) Verify all tapes prior to overwrite installation.
- (e) Update the status file upon completion of an overwrite.

SECTION 190-306-010

- (f) Update the status profile as changes or additions necessitate.
- (g) Immediately notify the Electronic Systems Assistance Center (ESAC) and/or the Maintenance Engineers of all problem areas associated with overwrites or overwrite information.

MAINTENANCE ENGINEER OR DESIGNATED ALTERNATE

6.02 The Maintenance Engineer or Designated Alternate will be responsible for the following:

- (a) Frequent polling of the SCANS computer to monitor bulletins, summaries and Broadcast Warning Messages. It is recommended that this function be performed a minimum of three times each week.
- (b) Verify all Broadcast Warning Messages for applicability by system and office.
- (c) Update the status file a minimum of three times each week by inserting a due date after all applicable Broadcast Warning Messages by office. This due date should be no more than three weeks from the date of Broadcast Warning Message entry into the system.
- (d) Supply the necessary current tapes or information that has been issued subsequent to the Western Electric preparation of tapes for all restarts and retrofits.
- (e) Assist the local maintenance forces as required.

ELECTRONIC SYSTEMS ASSISTANCE CENTER

6.03 The Electronic Systems Assistance Center shall be responsible for the following:

- (a) Monitor all bulletins and Broadcast Warning Messages daily in order to alert the Field Forces of any emergency situation or potential service-affecting situation.
- (b) Assist the local maintenance forces and/or Maintenance Engineers as required.

- (c) Promptly notify all appropriate organizations when a problem Broadcast Warning Message is identified.

7. SUPPORT SYSTEMS

7.01 Broadcast Warning Messages and bulletin information can be obtained as a hardcopy from an A35ASR Teletypewriter, a DATASPEED 40®, or any other data set processing the required capabilities. Punched paper tape may also be received over the A35ASR Teletypewriter while the Model 4210 Magnetic Tape Transport must be used for receiving magnetic tape required for No. 1A ESS and No. 4 ESS.

7.02 Periodic checks should be made to assure that adequate paper and tape are loaded into the machine and also that the form feed is properly set.

8. OPERATING COST

8.01 The billing procedure for SCANS is usage sensitive and command oriented. Units of system output such as status reports, summaries, etc, shall be the basis for establishing operating costs. Other factors such as terminal speed and time-of-day access will affect overall operating costs. It is recommended that consideration be given to the above factors before setting schedules for usage.

8.02 The SCANS Users Log shown in Fig. 3 is provided as an optional form for those entities wishing a record of detailed system usage.

9. TROUBLE FLOW

9.01 Local supervision should review each application problem and initiate the necessary paperwork, ie, abnormal trouble reports, operational trouble reports, and engineering complaints, if appropriate. The general flow for SCANS trouble escalation is as follows:

TROUBLE FLOW CHART









