4.8 BWM NUMBER. INF98-0008 Local Number Portability on LDP - IMR 599162

SYSTEM IDENTIFICATION.
5E13.1

BWM TYPE.
INF

PROFILE MATCH.
5E13,(1)02.00

SUBJECT.
Local Number Portability on LDP - IMR 599162

PERSON TO CONTACT.
DATE: 11/05/98
Normal regional support should be attempted before escalation.

KEYWORDS.
CSCANS 50001319810008

SPECIAL INSTRUCTIONS.
NONE

GENERAL INFORMATION.
This announces the upcoming availability of the Local Number Portability on Long Distance Platform (LNP on LDP) Special Feature. This feature is being deployed on the 5ESS Switch in a software update for the 5E13(1) 5ESS Switch Software Release.

This feature's use is RESTRICTED until the purchaser has made the necessary financial arrangements with Lucent Technologies. Information on feature enabling will be provided upon ordering. Please contact your Lucent Technologies Network Systems Account Representative for ordering and pricing information. This feature is a Call Processing secured Special Feature, which is controlled by secured number 303 and is tracked by IMR 599162. The Lucent feature number for LNP on LDP is 99-5E-3837.

LNP on LDP provides the ability to support Number Portability on the Long Distance Platform. The existing Number Portability feature, 99-CP-3169, does not provide for portability support on the 5ESS-2000 Long Distance Switch.

LNP

The existing capability, Local Number Portability (LNP), gives the end-user the ability to move from one switch to another and keep their original Directory Number (DN). There are three types of Local Number Portability. 1) Service portability allows a user to retain their DN after changing services (e.g., POTS to ISDN). 2) Service provider portability allows a user to retain their DN after changing service providers. 3) Geographic portability allows a user to retain their DN after changing physical locations. The initial 5E11 offering, Number Portability-Basic Location Routing Number (LRN), (99-CP-3169), supports all three types of Local Number Portability, with limited geographical portability (portability within the LATA). The LNP trigger operation will be consistent across the toll and local switch. This new feature provides the ability to use the existing LNP capability on the LDP. It is assumed that the user is already familiar
with LDP. It is essential that the service provider understand how to provision LNP in general. See the NP User's Guide 235-190-127, or the NP Roadmap 781-610-300 for more LNP information.

**SFID**

To unlock LNP on LDP (SFID 303) the LNP feature (SFID 174) must first be enabled.

**FEATURE DESCRIPTION**

This feature allows for support of LNP triggers in the LDP. There is a need for LNP triggers to be encountered and honored in the originating toll switch, intermediate toll switch, and the terminating toll switch. This feature allows the end-to-end network provider to select at which point in the network the LNP queries should be performed.

If a toll network is providing LNP queries for proper call delivery to multiple end offices serving overlapping rate centers, then the toll provider may want to provision LNP triggers in the terminating toll switches. If a toll network would like to perform LNP queries as soon as the call is received into the toll network, then LNP triggers can be provisioned on all the toll switches in that toll network using LRN values for call routing within the toll network, and passing off calls to other toll carriers without an LNP query.

If a called DN is ported and the LNP processing is to be done by the LDP network, then this capability is needed by the LDP switch to perform the LNP query, (usually the originating LDP switch connecting to the serving end office).

Without this feature, an LNP query to the LNP database will not be performed by the LDP switch. In this case, calls being routed within the toll network would always be routed to the incumbent exchange; that is, to the exchange that serves as the home exchange for that NPA-NXX.

As with LNP, the dialed number will be sent up in the LNP query, and either the dialed number will be returned (for the non-porte case), or the LRN (for the ported case). If an LRN is returned, the appropriate DAS will be used to analyze the LRN and route to the next switch. The call will be routed following the LNP query using the Location Routing Number (LRN) and the dialed DN will be passed in the ISUP Generic Address Parameter (GAP) and ISUP Forward Call Indicator (FCI) for LNP.

**ENHANCEMENTS**

The enhancements to LNP on the LDP included in this feature will include the following:

1. Allowing LNP triggers to be encountered and honored in the toll network, with all existing TYP CI CALLs supported by LNP, and also "INTER", on the LDP, when the feature is purchased. Line originations with a TYP CI CALL of "INTER" will continue to bypass LNP triggers until geographic porting is fully supported.

2. Allowing call originations from LDP LATA trunks to encounter LNP triggers.

3. Providing additional AMA capabilities to allow the LNP AMA to complement the LDP AMA capabilities in support of LNP as well as incorporate the LNP AMA data into the Real Time Call Detail (RTCD) records.

4. Supporting LNP trigger interworking with the LDP features including the ANI Table triggers and LDP carrier table features and triggers, and MINT signaling and routing features.
This feature allows LNP triggers and LNP provisioning to interwork with the LDP's ANI Table and LDP Carrier Table triggers.

Once the feature has been purchased, it may be used to:

1. Set up an LNP TRIG NBR and/or PORTED IN on RC/V 9.3 LDIT (or RC/V 9.9 RDIT or RC/V 9.15 MLDIT), in the trunk DAS of an incoming trunk to an originating, intermediate, or terminating LDP switch. LNP Triggers will now be allowed even when the TYCP CL CALL is "INTER" on these Views.

2. With this feature, LDP calls can encounter LNP triggers when originating on an incoming LATA trunk; and, at an intermediate or terminating toll switch, calls can encounter LNP triggers on incoming TTOLL trunks.

3. When the LRN is analyzed on RC/V 9.3 LDIT (or RC/V 9.9 RDIT or RC/V 9.15 MLDIT), the TYCP CL CALL is now allowed to be "INTER", on the LDP.

4. Assign a (new field) TNSC LRN DAS using RC/V 8.53 LDP Terminating NSC. Prior to this feature, this View already has a DAS field to analyze the dialed digits. The TNSC LRN DAS, if provisioned, will be used rather than the DAS on the View whenever it is an LRN that is being analyzed.

DATA VIEWS MODIFICATIONS

1) The new field, LRN DAS, has been added to RC/V 8.53.

2) RC/V 9.3 (and RC/V 9.9) will now allow an LNP Trigger to be assigned when the TYCP CL CALL is "INTER".
COS/TYPES OF CALLS SUPPORTED

In the context of a LDP environment (trunk originations), the "INTER" call type on a 5ESS LDP switch will receive different AMA and carrier selection treatment than the local (line originations) "INTER" call treatment. In particular, allowing the LNP trigger assignment on the "INTER" call on a 5ESS LDP switch does not inherently mean the called party has ported Inter-LATA. LNP triggers will be supported and provisioned on a call of Type CI Call of "INTER".

The call processing capabilities provided by this feature will only be available if the incoming trunk has specific attributes assigned. In particular, for the specified trunk group Class of Service (COS) on the RC/V 5.1 Trunk Group View, the following assignments are required to allow the LNP capabilities and LNP functionality for Inter-LATA calls from the trunk origination:

<table>
<thead>
<tr>
<th>Incoming Trunk COS</th>
<th>LDP LNP Allowed Only If:</th>
</tr>
</thead>
<tbody>
<tr>
<td>LATA</td>
<td>LDP=Y</td>
</tr>
<tr>
<td>TTOLLCONN</td>
<td>LDP=Y, Or Mint Signaling Enabled</td>
</tr>
<tr>
<td>LDP=Y, Or Mint Signaling Enabled</td>
<td></td>
</tr>
<tr>
<td>IC</td>
<td>LDP=Y</td>
</tr>
<tr>
<td>PF</td>
<td>DAL ACCESS = Y</td>
</tr>
<tr>
<td>EDSL, EDSLHM</td>
<td>VPN ACCESS = Y, Or DAL ACCESS=Y</td>
</tr>
</tbody>
</table>

DIGIT ANALYSIS SELECTOR (DAS)

The LNP triggers will need to be provisioned in the various DASs that are in use for the particular call that should encounter LNP triggers. The initial LNP feature allows the service provider to provision a unique LNP-specific DAS for use when analyzing and routing on LRN values. Allowing for a separate DAS for LRN processing can facilitate the administration of LNP by allowing the LRN routing information to be uniquely provisioned. The LNP specific DAS can be encountered and used:

1) In post query processing following an LNP trigger
2) In an incoming trunk origination being routed on an LRN value
3) In either of the above cases when MINT processing is deriving the DAS

The LNP triggers can be provisioned in the originating LDP switches in the originating DASs used by the LATA trunks. In particular, the LNP triggers can be provisioned in any of the DASs used by the ANI Tables or LDP Carrier Tables or MINT TNSC specified DASs. The ANI Table OHT triggers, if provisioned will take precedence over any LNP triggers encountered during ANI Table or LDP Carrier Table call processing.

In addition to provisioning a DAS for LRN use, some of the LNP specific fields the service provider will provision include the following:

1) LNP triggers in the LDIT, RDIT, and MLDIT Views
2) Home LRN indication in the LDIT, RDIT, and MLDIT Views,
3) The Jurisdiction Information Parameter (JIP) on RC/V 8.1
4) The default LRN Trunk DAS, and LRN signaling option on RC/V 5.1
5) The LNP post query DAS on RC/V 9.35
6) The Connecting Network Access (CNA) billing option on RC/V 5.1

**PROVISIONING**

Provisioning of LNP triggers follows the provisioning of 3/6/10 digit triggers. Provisioning of the LNP TRIG NBR for LNP on LDP may require:

1) Provisioning the LNP triggers in the appropriate origination DASs.
2) Provisioning of the Post Query DASs, for use in routing on LNP values.
3) Provisioning of the Post Query TNSC LRN DASs, for use in routing on LNP values.
4) Provisioning of LRN values in the DASs for properly handling and routing on LRN values.
5) AMA records provisioning - Connecting Network Access Record, is provisioned on a per trunk group basis to record calls from a particular trunk or network. AMA Access recording also provisionable for EDSL origination.
6) Trunk group provisioning - to send or not send the LRN/GAP values on the outgoing trunks, and also to define which DAS the incoming LRN routed calls should use.
7) Provisioning a per-office Jurisdiction Information Parameter (JIP), to be used for calls originating or being redirected from that office. The LNP AMA Access Billing feature, allows for support and provisioning of a per-SM JIP. The JIP is used as an indication of where a call is originating from (or being redirected from).
8) Provisioning of INH DNT on incoming trunk DASs. When the LRN is analyzed, if INH DNT is set to N, the incoming LNP GAP dialed digits are analyzed check for dialed DN triggers.
9) If MINT routing is used, then the appropriate MINT parameters and signaling indicators will need to be provisioned.

**ANI TABLE PRECEDENCE**

In general LNP trigger processing and LNP queries will follow ANI Table or LDP Carrier Table processing; that is, if an incoming call encounters an LNP triggers in the originating DAS, the entries in the LDP derived ANI Table or LDP Carrier Table or II Digits Table are honored first in priority before honoring the LNP triggers. The LNP triggers can be encountered following the ANI Table triggers only if the LNP triggers are provisioned in the post-query DAS used for ANI Table trigger response processing. For ANI Table triggers or LDP Carrier Table triggers, or II Digits Table triggers, these Table triggers are always honored in precedence to the LNP triggers. The other attributes in the ANI or LDP Carrier Tables, or II Digits Tables, will be honored but the Account Code processing for example may actually be performed following the LNP query.

**CARRIERS**

If the incoming LDP LATA trunk call is destined for a carrier (IC) not being served by or belonging to the LDP, any LNP triggers encountered will be bypassed, since the other carrier will do its own LNP processing. Incoming LATA trunk call origination to carriers defined in the LDP Carrier Table (or the LDP Office Carrier) will be considered as belonging to the serving toll switch, and these calls will be able to successfully encounter LNP triggers. In addition, for the LDP "Fixed Carrier" assignments that are provisioned and determined to be used for the call, LNP triggers and LNP assignments will be ignored and the call routed to the Fixed Carrier.

TTOLL MINT Inter-LATA call origination will be able to encounter and honor LNP triggers and assignments regardless of the call's associated carrier value. STINT origination will not support LNP triggers on calls that are Inter-LATA. The STINT origination to Inter-LATA calls will be routed to the carrier and bypass LNP triggers.

A carrier is considered to "belong" to the LDP if the LDP is provisioned to
provide call processing for these carriers; in particular, these carriers
are provisioned in the LDP Carrier Table or provisioned as the LDP Office
Carrier thus indicating that the LDP is the host for that particular carrier
entry. If a carrier is not administered as being hosted by the LDP, then
the call will receive carrier routing by Carrier ID (CID).

BILLING

The AMA capabilities have been upgraded to handle the new AMA modules and
records created for LNP. The LNP AMA Module can be appended to existing
LDP AMA records. The LNP Connecting Network Access (CNA) assignments can
be used to create AMA records (to append LNP modules) for incoming trunk
calls not normally resulting in AMA records (i.e., on incoming TTOLL trunks).

REAL TIME CALL DETAIL (RTCD)

The new Real Time Call Detail (RTCD) feature, 99-5E-3784 and 99-5E-4387,
must be activated and provisioned to provide necessary interworking between
LNP on LDP and RTCD. The SFID is 245. RTCD has been expanded to
accommodate the LNP call data through the deployment of a new RTCD record
type, including LNP required AMA parameters. This feature will introduce
additional data to the RTCD feature and the RTCD data server and data
manager will need to be able to accommodate the additional LNP call data.
For more information, please see the Info SU for RTCD.

ASSERTS

When an LNP trigger is encountered and the LNP trigger is also defined
(via RC/V 9.35) as an VPN trigger (VPN = Y), an assert will be generated
indicating incompatibility.

The LNP on LDP feature allows a TYP CI CALL of "INTER" for LNP calls. An
existing modified assert will fire and the call will fail if this feature
is purchased and the TYP CI CALL is neither "INTER", or a flavor of
Intra-LATA. The assert has been modified to indicate that "INTER" is
allowed whenever LNP on LDP in purchased, in addition to the existing
Intra-LATA YP CI CALLs which are already allowed with LNP.

MEASUREMENTS

The measurements provided in support of LNP on the local 5ESS Switch will be
available on the LDP.

NETWORK MANAGEMENT

Existing Network Management (NM) controls are supported for LNP on LDP.

SCENARIOS

For the call flows that follow, the interactions with the LDP ANI Table
triggers are highlighted. In the context of these scenarios, the
"LDP ANI Table trigger" can be encountered when provisioned on an incoming
LATA trunk, and when there is a trigger provisioned in the LDP Carrier
Tables or the ANI Tables used for the call. The table used for the call is
determined from a match of the incoming call's ANI and/or CIC entries
provisioned on the LDP. There is a match when one of the following occurs:

1. incoming ANI matches a provisioned ANI Table entry, or
2. the incoming call's CIC matches a value in the LDP Carrier Table, or
3. the incoming call's CIC matches the LDP Office Carrier value.

The following call scenarios represent the most typical call scenarios.
In all the scenarios, there are no non-LNP DNTs provisioned. If DNTs are
present, then in every case, the DNT is honored and the LNP trigger is
Scenario 1: Incoming LDP call encounters an LNP trigger at the Originating LDP Switch. No ANI Table triggers or LDP Carrier Table triggers are encountered.

For this scenario it is assumed that a call comes into the 5ESS LDP switch and LNP triggers are provisioned at the Originating LDP switch and the Serving exchange is not in the toll network.

Calling Party (ANI) = 708-224-1111
Dialed DN = 708-713-2222
Destination LRN = 312-979-0000

1) An incoming call originating on a LATA trunk is received with ANI = 708-224-1111 and dialed DN = 708-713-2222 and LDP=1 on the incoming trunk. Call processing finds a carrier match in the LDP Carrier Tables.

2) The Originating LDP switch performs digit analysis on the dialed digits to determine how to route the call. The switch determines that the dialed DN is in a portable NXX (708-713) because an LNP trigger is encountered. There are no DNTs encountered (or ANI Table, or LDP Carrier Table triggers encountered), and the called party does not reside on the switch. And that carrier matches a carrier value provisioned in the LDP Carrier Table (RC/V 8.52).

3) The switch sends an LNP query to the LNP database based on the dialed digits to the LNP SCP.

4) The LNP SCP sends a response containing the LRN of the Serving Exchange (312-979-0000). The LRN is used to route the call to the correct serving exchange. LRN routing is the basis of the LNP architecture.

5) The Originating LDP switch receives the LNP SCP response and analyzes the data. The LRN is translated in a Post Query DAS associated with the trigger number and an ISUP route out of the switch is determined.

(Use of the post-Query DAS associated with the trigger number is based on the Multiple Rate Center Enhancements feature, (99-SE-3192 and 99-SE-3428), SFD 190, and also assumes that the MINT associated TNSC parameters are not returned from the LNP query. There are a number of different post-query DAS possibilities. This scenario uses the Post Query DAS associated with the trigger number.)

The LRN is stored in the CoPN parameter and the dialed digits are stored in the GAP parameter of the ISUP IAM message. The ISUP FCI Translated Called Number Indicator is set to indicate that an LNP query has been done (set to "translated number"). If no ISUP trunks are available, then the call is routed on the Dialed DN (708-713-2222), and the LRN and ISUP FCI are not passed to the outgoing trunk.

6) The call is routed to a Terminating LDP switch based on the LRN (LRN=312-979-0000).

7) The Terminating 5ESS LDP switch receives and processes the contents of the IAM message. Since the ISUP FCI is set, the CoPN is checked for an LRN on this switch. The LRN is analyzed in the trunk's LRN DAS (unless a DAS was determined via the MINT TNSC parameter). The LRN does not belong to this switch so the call is routed using existing ISUP procedures.

(If in the analysis of the LRN, the INH DNT indicator is set to No, then the switch will also analyze the incoming Dialed DN in the received GAP for any dialing plan triggers.)
8) The Terminating 5ESS LDP switch routes the call to the Serving Exchange.

9) The Serving Exchange receives and processes the contents of the IAM message. The LRN is analyzed in the trunk LRN DAS (if provisioned) and the switch replaces the CdPN parameter's contents with the dialed digits stored in the GAP parameter. The switch does digit analysis on the dialed digits from the GAP, using the trunk DAS, or TNSC DAS (MINT), to look for dialed number triggers (assuming the INH DNT indicator is set to No, which indicates call processing should look for dialed number triggers) and then routes the call to the subscriber on the switch (if no other triggers).

10) The Serving Exchange completes the call to the subscriber.

11) An Originating LDP AMA record is generated for the call by the originating exchange (e.g. CC710) with an appended LNP Module (Bellcore AMA Format Module - 720). The LNP module contains the LRN returned from the LNP SCP database and an indication that the module applies to the "terminating party", as well as a LNP query status indication of "no query failure" and LRN source indicator of "LNP Data Base".

12) Both the Originating 5ESS LDP switch and Terminating 5ESS LDP switch will have the ability to generate an AMA module if the incoming call contains an LNP Jurisdiction Information Parameter (JIP). The JIP information reflects the location of the originator.

13) At the Terminating 5ESS LDP switch, an AMA module will be generated to record the incoming LRN value. Within the LNP AMA module, the LRN Source Indicator would be "Incoming signaling", and Query Status Indicator of "No query performed". This LNP module would be appended to any terminating AMA records (Structure code 625, call code 711) that are created.

14) At the Originating LDP switch, an RTCD record will be made, if provisioned, and it will include the AMA information contained in the LNP module generated for the LNP query (and the incoming JIP information if present). In addition, if RTCD is provisioned at the terminating toll switch, the LRN module information reflecting the incoming LRN and the incoming JIP are also included in the RTCD record.

Scenario 2: Terminating LDP call encounters an LNP trigger at the Terminating LDP Switch.

For this scenario it is assumed that a call comes into the toll network and LNP triggers are provisioned at the Terminating LDP switch and the Serving exchange is not in the toll network.

Calling Party (ANI) = 708-224-1111
Dialed DN = 708-713-2222
Destination LRN = 312-979-0000

1) An incoming call originating on a LATA trunk is received with ANI = 708-224-1111 and dialed DN = 708-713-2222. LDP=Y and ANI PROCESS = Y on the LATA trunk, a match is found and a table entry for the call is obtained.

2) The Originating LDP switch performs digit analysis on the dialed digits to determine how to route the call. The Originating LDP switch routes the call to the Terminating LDP switch.

3) With MINT signaling, or if LDP=Y on the incoming TTOLL trunk (STINT), the Terminating LDP switch performs digit analysis on the dialed digits to determine how to route the call. The switch determines that the dialed number is in a portable NPA-NXX (708-713) because an LNP trigger.
is encountered. There are no DNTs encountered, and the called party does not reside on the switch.

4) The switch sends an LNP query to the LNP SCP based on the dialed digits to the LNP SCP.

5) The LNP SCP sends a response containing the LRN of the Serving Exchange (312-979-0000).

6) The Terminating LDP switch receives the LNP SCP response and analyzes the data. The LRN is translated in a Post Query OAS associated with the trigger number and an ISUP route out of the switch is determined.

(Use of the post-Query OAS associated with the trigger number is based on the Multiple Rate Center Enhancements feature, [SFID 190] and also assumes that the MINT associated TNSC parameters are not returned from the LNP query. There are a number of different post-query OAS possibilities. This scenario uses the Post Query OAS associated with the trigger number.)

The LRN is stored in the CdPN parameter and the dialed digits are stored in the GAP parameter of the ISUP IAM message. The ISUP FCI Translated Called Number Indicator is set to indicate that an LNP query has been done (set to "translated number"). If no ISUP trunks are available, then the call is routed on the Dialed DN (706-713-2222), and the LRN and ISUP FCI are not passed to the outgoing trunk.

7) The Terminating toll switch routes the call to the Serving Exchange based on the LRN (LRN = 312-979-0000).

8) The Serving Exchange receives and processes the contents of the IAM message. The LRN is analyzed in the trunk LRN OAS (if provisioned) and the switch replaces the CdPN parameter's contents with the dialed digits stored in the GAP parameter. The switch does digit analysis on the dialed digits from the GAP, using the trunk DAS, or TNSC DAS (MINT), to look for dialed number triggers (assuming the INH DNT indicator is set to No, which indicates call processing should look for dialed number triggers) and then routes the call to the subscriber on the switch (if no other triggers).

9) The Serving Exchange completes the call to the subscriber.

10) A Terminating LDP switch LDP AMA record is generated for the call by the terminating exchange (e.g. CC711) with an appended LNP Module (Bellcore AMA Format Module - 729). The LNP module contains the LRN returned from the LNP SCP database and an indication that the module applies to the "terminating party", as well as an LNP query status indication of "no query failure".

11) Both the Originating 5ESS LDP switch and Terminating 5ESS LDP switch will have the ability to generate an AMA module if the incoming call contains an LNP Jurisdiction Information Parameter (JIP). The JIP information reflects the location of the originator.

12) At the Originating LDP switch, an RTCD record will be made if provisioned and it will include the incoming JIP information if a JIP is received.

13) At the Terminating LDP switch, an RTCD record will be made if provisioned and it will include the incoming JIP information if a JIP is received. And the RTCD record will include the LNP module information for the LNP query.

Scenario 3: Originating Exchange performs an ANI Table trigger, followed by an LNP trigger.
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For this scenario, there is an ANI Table ORD trigger applicable for the call as well as an LNP trigger assigned in the LDF derived DAS.

Calling Party (ANI) = 708-224-1111
Dialed DN = 708-713-2222
Destination LRN = 312-979-0000

1) An incoming call originating on a LATA trunk is received with ANI = 708-224-1111 and dialed DN = 708-713-2222.

2) The Originating LDF switch performs digit analysis on the dialed digits to determine how to route the call.

An incoming call analyzes the dialed digits using the DAS derived by LDF processing. If an ANI Table trigger is encountered, then the ANI table trigger will be honored. If an LNP trigger is also encountered, it will be ignored.

3) The switch sends an ANI Table trigger query to the "Toll Applications" SCP.

4) The "Toll Applications" SCP sends an Analyze Route back.

5) The Originating LDF switch receives the SCP response and analyzes the received CalledPartyID. An LNP trigger is encountered in the post-Query DAS or MINT TNSC derived DAS.

6) The switch sends an LNP query based on the received CalledPartyID to the LNP SCP.

7) The LNP SCP sends a response containing the LRN of the Serving Exchange (LRN = 312-979-0000).

8) The Originating LDF switch receives the LNP SCP response and analyzes the data. The LRN is translated in a Post Query DAS associated with the trigger number and an ISUP route out of the switch is determined.

   (Use of the post-Query DAS associated with the trigger number is based on the Multiple Rate Center Enhancements feature, and also assumes that the MINT associated TNSC parameters are not returned from the LNP query. There are a number of different post-query DAS possibilities. This scenario uses the Post Query DAS associated with the trigger number.)

   The LRN is stored in the CdPN parameter and the dialed digits are stored in the GAP parameter of the ISUP IAM message. The ISUP FCI Translated Called Number Indicator is set to indicate that an LNP query has been done (set to "translated number"). If no ISUP trunks are available, then the call is routed on the Dialed DN (708-713-2222), and the LRN and ISUP FCI are not passed to the outgoing trunk.

9) The call is routed to a Terminating LDP switch based on the LRN (LRN = 312-979-0000).

10) The Terminating 5ESS LDP switch receives and processes the contents of the IAM message. The ISUP FCI is set, the CdPN is checked for an LRN on this switch. The LRN is analyzed in the trunk's LRN DAS (unless a DAS was determined via the MINT TNSC parameter). The LRN does not belong to this switch so the call is routed using existing ISUP procedures.

11) The Terminating 5ESS LDP switch routes the call to the Serving Exchange.

12) The Serving Exchange receives and processes the contents of the IAM message. The LRN is analyzed in the trunk LRN DAS (if provisioned) and the switch replaces the CdPN parameter's contents with the dialed
digits stored in the GAP parameter. The switch does digit analysis on the dialed digits from the GAP, using the trunk DAS, or TNDC DAS (MINT), to look for dialed number triggers (assuming the INH DNT indicator is set to No, which indicates call processing should look for dialed number triggers) and then routes the call to the subscriber on the switch (if no other triggers).

13) The Serving Exchange completes the call to the subscriber.

14) An Originating 5ESS LDP AMA record is generated for the call by the originating exchange (e.g. CC710) with an appended LNP Module (Bellcore AMA Format Module - 720). The LNP module contains the LRN returned from the LNP SCP database and an indication that the module applies to the "terminating party", as well as a LNP query status indication of "no query failure" and LRN source indicator of "LNP Data Base".

15) Both the Originating 5ESS LDP switch and Terminating 5ESS LDP switch will have the ability to generate an AMA module if the incoming call contains an LNP Jurisdiction Information Parameter (JIP). The JIP information reflects the location of the originator.

16) At the Terminating 5ESS LDP switch, an AMA module may be generated to record the incoming LRN value. If so, the LRN Source Indicator would be "Incoming signaling", and Query Status indicator of "No query performed".

17) At the Originating LDP switch, an RTCD record will be made, if provisioned, and it will include the AMA information contained in the LNP module generated for the LNP query. In addition, if RTCD is provisioned at the terminating toll switch, the LRN module information reflecting the incoming LRN and possibly an incoming JIP are also included in the RTCD record.

Scenario 4: Incoming LDP call encounters an LNP trigger at the Originating LDP Switch. No ANI Table triggers or LDP Carrier Table triggers are encountered. The LNP SCP does NOT return an LRN value.

For this scenario it is assumed that a call comes into the 5ESS LDP switch and LNP triggers are provisioned at the Originating LDP switch and the Serving exchange is not in the toll network.

Calling Party (ANI) = 708-224-1111
Dialled DN = 312-979-2222
Destination LRN = 312-979-0000

1) An incoming call originating on a LATA trunk (LDP=Y) is received with ANI = 708-224-1111 and dialled DN = 312-979-2222. A match is found in the LDP Carrier Tables and a Tuple is obtained for the call.

2) The Originating LDP switch performs digit analysis on the dialed digits to determine how to route the call. The switch determines that the dialed DN is in a portable NPA-NXX (708-713) because an LNP trigger is encountered. There are no DNTs encountered and the called party does not reside on the switch.

3) The switch sends an LNP query to the LNP database depending on the dialed digits.

4) The LNP SCP sends a Continue; or equivalent - an Analyze Route message with the same dialed digits.

5) The Originating toll switch receives the LNP SCP response and analyzes the response. Since a Continue is received, the analysis of the incoming dialed DN which was done pre-query is utilized and the call is routed as
if no LNP trigger were encountered.

6) The call routes and completes.

7) An Originating LDP AMA record is generated for the call by the originating exchange (e.g. CC710) with an appended LNP Module (Bellcore AMA Format Module - 720). The LNP module contains the LRN returned from the LNP SCP database and an indication that the module applies to the "terminating party", as well as a LNP query status indication of "no query failure" and LRN source indicator of "LNP Data Base".

8) Both the Originating 5ESS LDP switch and Terminating 5ESS LDP switch will have the ability to generate an AMA module if the incoming call contains an LNP Jurisdiction Information Parameter (JIP). The JIP information reflects the location of the originator.

9) At the Originating LDP switch, an RTCD record will be made, if provisioned, and it will include the AMA information contained in the LNP module generated for the LNP query. In addition, if RTCD is provisioned at the terminating toll switch, the LRN module information reflecting the incoming LRN and possibly an incoming JIP are also included in the RTCD record.

SUMMARY

This feature is available with the 5E13(1) 5ESS Switch Software Release with a Software Update that will be available shortly. This is a Call Processing Special feature.

MNEMONIC CODE.
NONE

HASH SUMS.
NONE

SOFTWARE CHANGE SIZE.
TOTALSIZE 0 0

OVERWRITE DATA.
NONE

END OVERWRITE.

END BWM.