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February 6, 1996

Mr. William F. Caton  
Acting Secretary  
Federal Communications Commission  
1919 M Street, NW, Room 222  
Washington, D. C. 20554

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FEB - 6 1996

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

Re: Ex Parte Meeting  
CC Docket 95-116 ✓  
RM 8535  
Telephone Number Portability

Dear Mr. Caton:

On, Monday, February 5, 1996, Ms. B. Brady, Ms. K. Weis and I met with Mr. M. Harthun, Mr. J. Karp, Ms. S. McMaster and Ms. J. Su, of the Common Carrier Bureau Policy and Program Planning Division, to discuss AT&T's previously stated positions in the above-referenced proceeding. The attachment was used as the basis of our discussion.

Because of the press of other business, two (2) copies of this Notice are being submitted on the following business day to the Secretary of the FCC in accordance with Section 1.1206(a)(2) of the Commission's Rules.

Sincerely,

*Bruce K. Cox*

Attachment

cc: Mr. M. Harthun  
Mr. J. Karp  
Ms. S. McMaster  
Ms. J. Su

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# AT&T Location Routing Number Solution for Number Portability

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- LRN format: NPA-NXX-XXXX
  - » The LRN is a home NPA-NXX, plus 4 digits.
  - » A unique LRN is assigned to each switch.
- LRN is used in SS7 Called Party Number (CdPN) parameter to route calls to terminating switch
- Existing Generic Address Parameter (GAP) is used to transport the original CdPN digits for use at terminating switch to complete call.

# Glossary

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- **Advanced Intelligent Network (AIN)**
  - » The advanced processing and logic within the network software that provide decision points, called triggers, that enable the query of databases for information to efficiently route and handle all types of calls. AIN is an enhancement over Intelligent Network (IN) capabilities.
- **Called Party Number (CdPN)**
  - » The parameter within the Initial Address Message that contains the telephone number being called.
- **Calling Party Number (CgPN)**
  - » The parameter within the Initial Address Message that contains the telephone number of the calling party and used to provide, e.g., Caller ID.
- **Global Title Translation (GTT)**
  - » In the signaling network, the translation of the 6-digit NPA-NXX of the called party number used to set-up the call path for the telephone call.
- **ISUP (Integrated Services Digital Network User Part) Initial Address Message (IAM)**
  - » Signaling information that contains, for example, the called party number, used to set up the call.

# Glossary (continued)

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- **Local Area Number Portability (LANP) Call Model**
  - » The dual number database solution developed by US Intelco.
  - » LANP used Network Node Address (NNA)
    - The 10-digit number that identifies the end office and terminating line for a subscribers telephone number.
- **North American Numbering Plan (NANP)**
  - » The number administration of telephone numbers in North American according to the 10-digit format which identifies the Numbering Plan Area or area code (the 3 digit NPA), exchange (the 3-digit NXX), and line number (4-digit XXXX).
- **Ported Number**
  - » A telephone number of an end user who has changed service providers but has retained the same telephone number.
- **Remote Call Forwarding (RCF)**
  - » The interim switch-based arrangement used to provide limited number portability by forwarding the call from the end office where the NXX is originally assigned to the end office of the customer's current carrier.

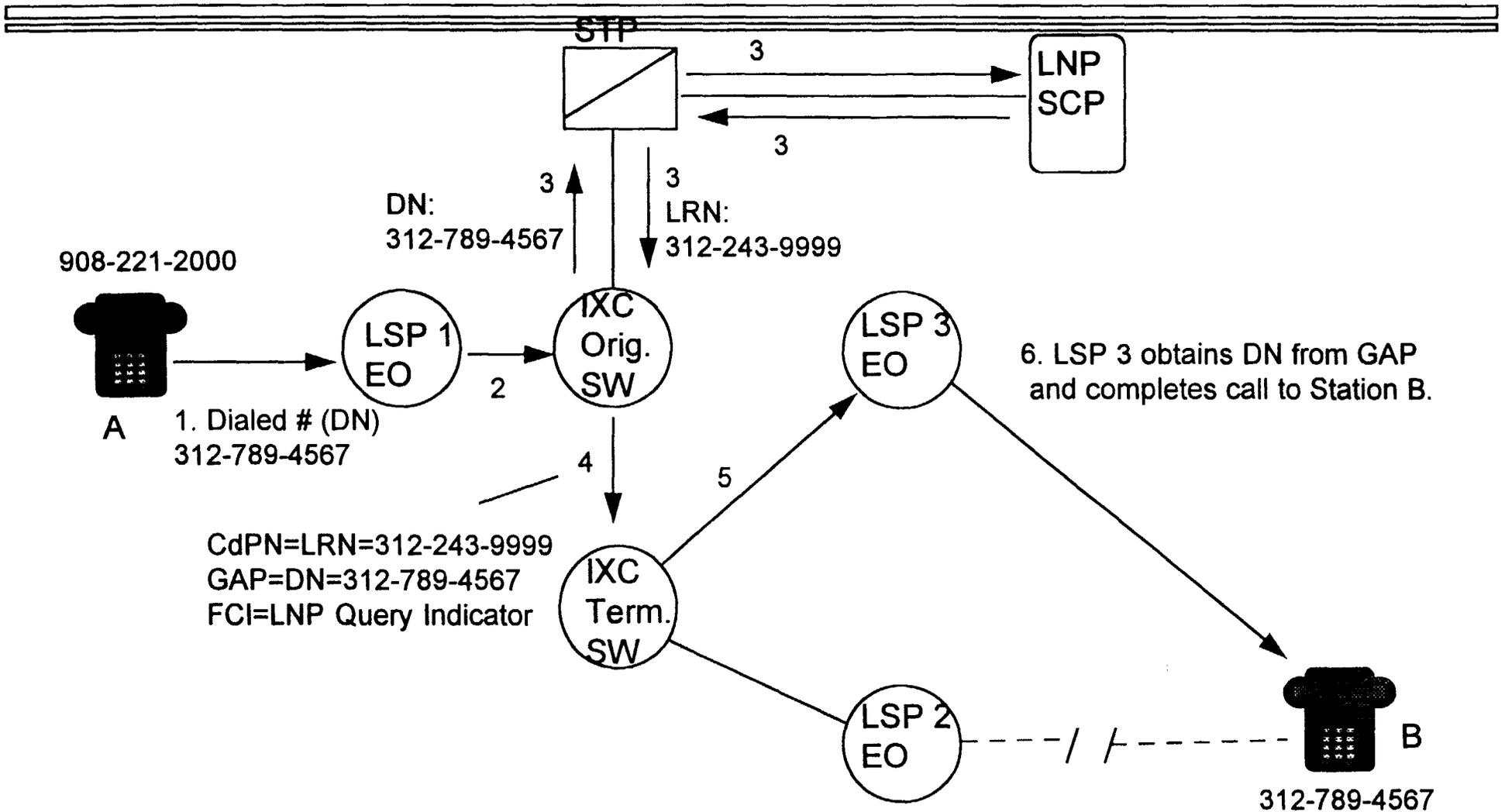
# Glossary (continued)

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- **Service Control Point (SCP)**
  - » In the signaling network, the database that contains information needed to complete a call to a ported number. With regard to number portability, the routing database that will contain the LRN for each ported number.
- **Service Management System (SMS)**
  - » The system that provides carriers with the information needed to associate ported telephone numbers with the end office in which they terminate.
- **Service Switching Point (SSP)**
  - » In the signaling network, an end office or tandem switch with software that enables the switch to launch queries to databases.
- **Signaling Transfer Point (STP)**
  - » A node (packet switch) in the signaling network for routing signaling messages.
- **True Local Number Portability**
  - » The ability of a customer to change local service providers and retain the same telephone number and meet several requirements including not relying on the network of the local exchange provider where the NXX is originally assigned, the delivery of CLASS features, and no degradation of call quality.

# LRN IXC Call Flow



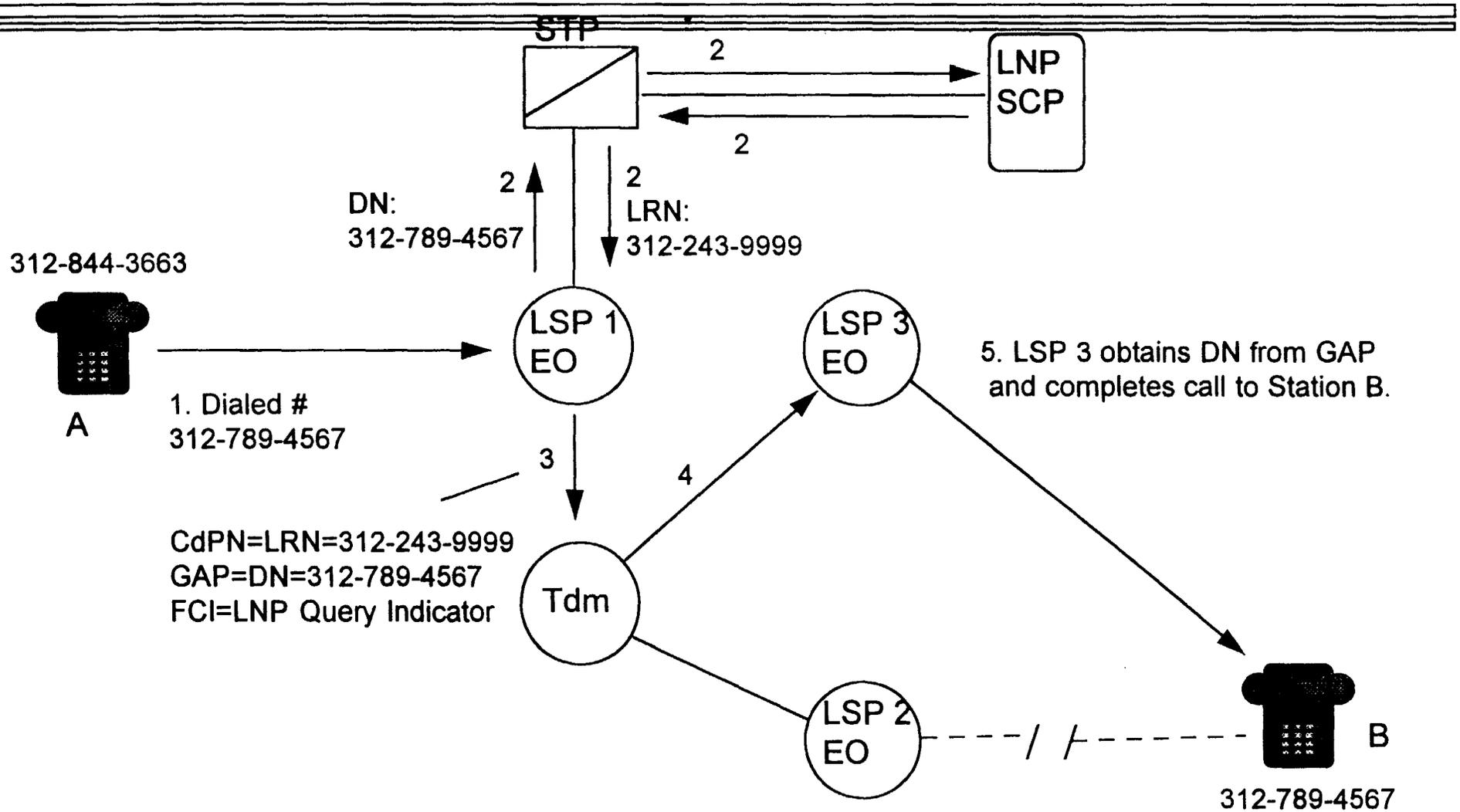
# Key to IXC Call Flow

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- 1. Station A dials 312-789-4567 to call Station B. Station B has ported its number from LSP 2 to LSP 3.
- 2. LSP 1 hands off to IXC.
- 3. IXC does dip based on 312-789 being a portable NPA-NXX. Since number is ported, LNP SCP returns LRN (312-243-9999). IXC populates FCI to indicate dip was done.
- 4. Originating IXC switch routes call to terminating IXC switch. LRN is populated in CdPN ISUP IAM parameter, dialed number in GAP, and FCI LNP Query Indicator is sent.
- 5. Terminating IXC switch determines routing path to LSP 3 based on first six digits of LRN (312-243).
- 6. LSP 3 EO obtains dialed number from the GAP and completes call to station B.

# LRN Local Call Flow



# Key to Local Call Flow

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- 1. Station A dials 312-789-4567 to call Station B. Station B has ported its number from LSP 2 to LSP 3.
- 2. LSP 1 does dip based on 312-789 being a portable NPA-NXX. Since number is ported, LNP SCP returns LRN (312-243-9999). LSP 1 populates FCI to indicate dip was done.
- 3. LSP 1 routes call to tandem. LRN is populated in CdPN ISUP IAM parameter, dialed number in GAP, and FCI LNP Query Indicator is sent.
- 4. Tandem routes to LSP 3 based on first six digits of LRN (312-243).
- 5. LSP 3 EO obtains dialed number from the GAP and completes call to station B.

# LRN retains 911/E911 functionality

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- LRN (and portability generally) is a function of call termination, i.e. routing to proper destination. 911/E911 issues generally involve call origination.
- With LRN, ported calling numbers (not network addresses) are sent to correct PSAP for that location. (No change from today.)

# LRN supports CLASS features

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- Transparency to end-user customers is a key attribute. Existing services should not be “broken,” whether called and/or calling number is ported.
- LRN accomplishes this without LANP “workarounds” (which include using a switch-specific NNA; in other words, an LRN).

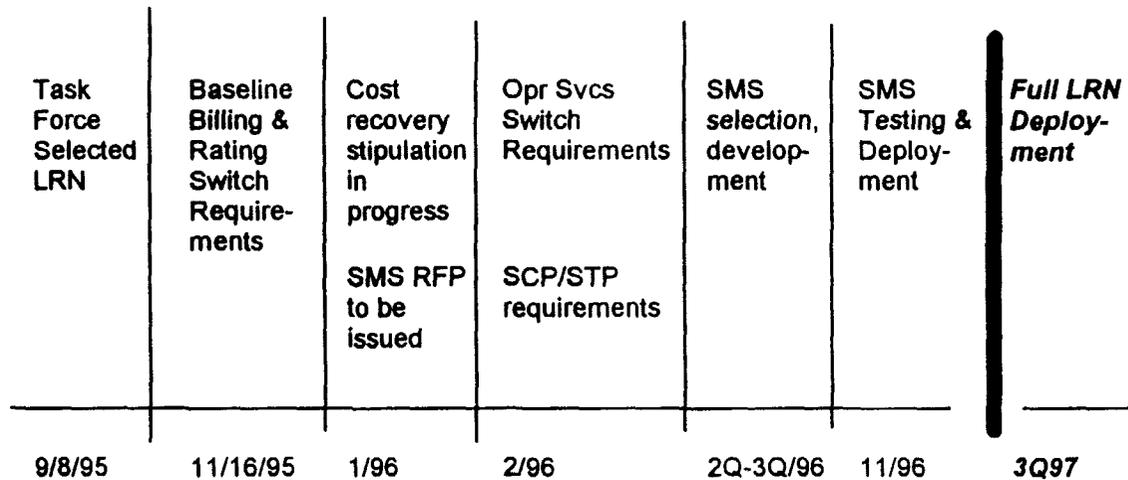
# The Industry Recognizes LRN as the True Choice

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- State workshops selected LRN
  - » IL 9/95
  - » MD 11/95
  - » GA 12/95
  - » CA 12/95
  - » NY 1/96 (Staff recommendation to Commission)
- Previous LANP proponents now support LRN
- Switch development for LRN already underway
  - » Vendor Switch Requirements Completed and Timeframes established for initial deployment and general availability (e.g., Illinois)

# Illinois LRN Schedule



# Issues Going Forward

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- Need for national solution
  - » Use industry's input: LRN is the clear choice
  - » Efficiently use resources, minimize costs
- Competitively neutral cost recovery
  - » SMS
  - » Network hardware, software
- Prompt deployment of service provider portability to promote competition