

# **Ex Parte Presentation to the FCC:**

## **Removal of Switch ID Information from Assignment Request Forms**

By:

The Alliance for Telecommunications Industry Solutions'  
(ATIS) Industry Numbering Committee (INC) and the  
Network Routing Resources Information Committee  
(NRRIC) of the ATIS Network Interconnection  
Interoperability Forum (NIIF)

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# Goals of Today's Meeting

- Provide Background on:
  - ATIS INC Issue 322
  - ATIS NIIF/NRRIC Issue 0237
- Explain Industry Concerns Related to the Provision of Switch ID Information in:
  - Part 1, 3 and 4 Forms of the Central Office Code Assignment Guidelines (COCAG)
  - Part 1A of the Thousands-Block Number Pooling Administration Guidelines (TBPAG)
- Discuss Security Concerns over Provision of Switch ID in COCAG/TPBAG Forms
  - FCC NRIC VI Best Practice - Security
- Recommend a Path Forward



# ATIS INC Issue 322 Background

- ATIS INC Issue 322 (Issue 322) recommends removing the switching identification fields from the Central Office Code (NXX) Assignment Request Part 1, 3 and 4 forms and making the appropriate changes in the COCAG to reflect this removal
- Per FCC rules, central office code application requests are processed by North American Numbering Plan Administration (NANPA) based on rate center information
  - The purpose of these forms is to provide NANPA with information necessary to make assignments of NXXs
  - The Months-to-Exhaust and Utilization level criteria for a code assignment are rate center based
  - The switch and tandem identification data for the code are no longer used by NANPA to make the code assignment



# INC Issue 322 Timeline

- Issue 322 was submitted by multiple companies in August 2001
  - Final resolution agreed to on June 2002 but held in abeyance until a NANPA Code Administration System (CAS; now known as NANP Administration System or NAS) software release could be completed
- NANPA submitted Scope Change request to the FCC in April 2002 (after Initial Closure of Issue 322) with a follow-up letter in June 2002 (after Final Closure of Issue 322)
- In February 2004, INC was officially informed via NANPA that the FCC would not approve the NANPA Scope Change
- A March 2004 INC letter to the FCC reiterated the INC consensus, noted that switch information would remain available from other sources, asked the FCC to revisit its denial



# Rationale for Resolution of INC Issue 322

- INC reached consensus for the removal of switch information from the forms for the following reasons:
  - FCC rules mandate assignments at the rate center level, not the switch level
    - Switch ID is an unnecessary artifact
  - Service Providers may move numbers between switches within a rate center to balance resources
    - The original Switch ID is moot
  - State regulators have other ways to obtain Switch ID information (e.g., Telcordia<sup>®</sup> Routing Administration (TRA), CCMI, NECA FCC Tariff No. 4)



# NIIF/NRRIC Issue 0237

- Limiting public access to the location of switching entities that are the foundation of our national telecommunications infrastructure will enhance national security
  - In the interest of homeland security, telecom companies are carefully reviewing information that is available to the general public
    - Removing CLLI Codes from the Assignment Request forms will eliminate the unrestricted flow of sensitive information regarding switch locations
  - Including switch information on the NANPA/NeuStar website (for example COCAG Part 1 and TBPAG Part 1A forms) can jeopardize security
- The Chair of the National Security Telecommunications Advisory Committee (NSTAC) is aware of NRRIC's work on this issue



# NIIF/NRRIC Issue 0237 Timeline

- This issue was introduced in January 2004 to recommend removal of switch information from public access via the NANPA/NeuStar website
- In April 2004, the ATIS NRRIC sent a letter to NARUC explaining why the switch information should be removed from public access
  - This information is available from other, secure sources
  - Security concerns over public availability of this information
- As of May 2005, the NRRIC issue remains open because no response has been received from NARUC



# TBPAG Part 1A Form

- Information on COCAG Part 1 form is similar to the data requested on the TBPAG Part 1A form maintained by the Pooling Administrator in PAS
- ATIS INC introduced Issue 415 to recommend the removal of switch ID information from the TBPAG Part 1A form
  - For the same reasons that INC Issue 322 was introduced
  - Issue 415 was withdrawn pending the outcome of Issue 322
- Switch ID information should also be removed from the TBPAG Part 1A form





# FCC NRIC VI Best Practices - Security

- Removal of switch information is consistent with the best practice developed by the NRIC VI Federal Advisory Committee:
  - **Network Access to Critical Information:** Service Providers, Network Operators, and Equipment Suppliers should carefully control and monitor the networked availability of sensitive security information for critical infrastructure by:
    - Periodic review public and internal website, file storage sites HTTP and FTP sites contents for strategic network information including but not limited to critical site locations, access codes.
    - Documenting sanitizing processes and procedures required before uploading onto public internet or FTP site.
    - Ensuring that all information pertaining to critical infrastructure is restricted to need-to-know and that all transmission of that information is encrypted.
    - Screening, limiting and tracking remote access to internal information resources about critical infrastructure.

**NRIC Best Practice 7-7-8029**



# Switch ID Information on COCAG/TBPAG Forms is Unnecessary and Burdensome

- The inclusion of the switching entity and homing tandem data is not needed
  - The NAS system only confirms that the entries in both the Switch CLI and Tandem Homing CLI fields are 11 characters, but does not otherwise validate that these entries are valid COMMON LANGUAGE<sup>®</sup> CLI<sup>™</sup> Codes for NXX assignment
  - Requiring this unnecessary data means that code holders must enter a new Part 1 form solely to update NAS for each assigned code undergoing a switch change (or through the PA if the code is pooled) and/or tandem re-home
- Requiring switching entity and homing tandem data on the COCAG Part 1, 3 and 4 and similar data on TBPAG 1A forms causes the industry to maintain synchronous data in more than one database
- Inputting unnecessary data leads to inefficiencies, database discrepancies, and added costs for all involved



# Industry Impacts

- NANPA's records indicate that a total of 6,847 switch or tandem changes were processed by NANPA in the one year period from April 1, 2004, to March 31, 2005
  - This represented over 87% of the total change requests processed by NANPA during that one year period
- Extrapolating that same percentage to the 19,827 total change requests processed by NANPA from January 2003 through March 2005 results in over 17,400 switch and tandem changes being processed by NANPA during that 27-month period
- These switch and tandem changes would not have to be submitted to, or processed by, NANPA if the switch and tandem identification data were removed from the COCAG Part 1, 3 and 4 forms (and by the PA for the TBPAG Part 1A form)



# Industry Impacts (continued)

- Removal of the switch and tandem information from these forms would eliminate all the time, work effort, and expenditures to generate and process these switch and tandem changes
- The time and effort expended to resolve database discrepancies between NAS and Business Integrated Rating/Routing Database System also would be eliminated



# Switch ID Information Is Available Elsewhere

- The switch ID information for a code assignment will continue to be populated in Telcordia's Business Integrated Rating/Routing Database System
- Central office code holders can provide switching entity and tandem homing data, as well as number utilization data at the switch level, for their code assignments if requested to do so by a state or if needed for "safety valve" code requests
- If efficient utilization of numbering resources is the issue, the NRUF Report provides numbering resource utilization data on all central office codes received from NANPA and all thousands-blocks received from the PA



# Switch ID Information Is Available Elsewhere (continued)

- Secure switching entity information data for a code will continue to be available to states through various sources including: Telcordia LERG Routing Guide Special Data Product specifically for regulators, the NECA FCC Tariff No. 4, and the Center for Communications Management Information
  - Telcordia has publicly stated that it would make code assignment data (including switch information) available to states at no charge
- The other sources for this information are not available to the general public (unlike the switch identification data posted on NANPA's web site)



# Conclusion

- In summary, the industry is expending considerable time and effort to provide switch and tandem information on COCAG Part 1, 3 and 4 and TBPAG Part 1A forms that:
  - Is not needed for code assignments
  - Leads to potential industry database discrepancies
  - Makes this sensitive data publicly available
  - Is available to the states and other interested parties from other secure sources



# Recommended Path Forward

- The FCC should allow the switching entity and homing tandem information to be removed from COCAG and TBPAG forms
- The FCC, in cooperation with ATIS INC and NRRIC, should educate states as to:
  - Why the removal of this information is more efficient and less costly for the industry
  - How the removal provides increased security for switch and homing tandem identification data
  - The availability of the switch and tandem identification data from other secure sources





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# About ATIS

The Alliance for Telecommunications Industry Solutions (ATIS) is a US-based body committed to rapidly developing and promoting technical and operations standards for the communications and related information technologies industry worldwide using a pragmatic, flexible and open approach. Industry professionals from more than 350 communications companies actively participate in ATIS' industry committees and incubator solutions programs.

The ATIS Industry Numbering Committee (INC) provides an open forum to address and resolve telecommunications industry-wide issues associated with the planning, administration, allocation, assignment and use of North American Numbering Plan (NANP) numbering resources and related dialing considerations for public telecommunications within the NANP area.

The ATIS Network Interconnection Interoperability Forum (NIIF) provides an open forum to encourage the discussion and resolution, on a voluntary basis, of industry-wide issues associated with telecommunications network interconnection and interoperability which involve network architecture, management, testing and operations and facilitates the exchange of information concerning these topics. The NIIF's Network Routing Resources Information Committee (NRRIC) addresses issues associated with local exchange routing mechanisms, including associated databases.

