May 21, 2014

Via Email
Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re:  Ex Parte Presentation
GN Docket No. 13-5, WC Docket No. 12-353

Dear Ms. Dortch:

On May 19, 2014, representatives from the Alliance for Telecommunications Industry Solutions (ATIS) and the SIP Forum met with representatives of the Wireline Competition Bureau to discuss the joint ATIS-SIP Forum work to develop a detailed specification related to IP network-to-network interconnection (NNI). The written presentation discussed during the meeting is attached hereto.

In attendance at this meeting were the following representatives from the Bureau: Matt DelNero, Deputy Bureau Chief; Jean Ann Collins, Attorney, Competition Policy Division; Kalpak Gude, Division Chief, Pricing Policy Division; Heather Hendrickson, Attorney Advisor, Competition Policy Division; Richard Hovey, Technologist, Competition Policy Division; Melissa Droller Kirkel, Attorney, Competition Policy Division; Alec MacDonell, Telecommunications Systems Specialist, Industry Analysis and Technology Division; and Tim Stelzig, Deputy Division Chief, Competition Policy Division.

The ATIS and SIP Forum representatives in attendance were: Susan Miller, ATIS President and CEO; Richard Shockey, Chairman of the Board of Directors of the SIP Forum; Andrew White, ATIS Vice President of Technology and Standards; and Thomas Goode, ATIS General Counsel.

A copy of this letter is being submitted on the record of the above-referenced dockets. If there are any questions, please contact the undersigned.

Sincerely,

Thomas Goode
ATIS General Counsel
Enabling the All-IP Transition

May 19, 2014
The IP-NNI Initiative

In December 2013, the Alliance for Telecommunications Industry Solutions (ATIS) and the SIP Forum launched a joint task force to develop a detailed specification of IP-NNI (Network-to-Network Interface) for all North American Service Providers.

- ATIS is a global standards development organization that develops technical and operations standards for information, entertainment, and communications technologies.
- ATIS’ Packet Technology and Systems Committee (PTSC) develops standards and technical reports related to services, architectures, and signaling, including IP Interconnection.
- The SIP Forum advances the adoption of products and services based on the Session Initiation Protocol (SIP), and maintains and serves a global community of commercial SIP-based service and technology providers.
It started with one service.

Standard User Interface + Common Platform = Global Communications

- Uniform addressing plan
- Single, automated user interface
- Attach anywhere, call anybody
- On demand, scalable
Then it got more complicated.

- Available services have evolved from the PSTN.
  - Text, Video, and Multimedia
  - Available in Silos
- Interoperable services are limited to voice and text.
- Technologies such as Rich Communications Services (RCS) promise interoperable evolution.
- Work is required to gain consensus on implementation.
  - Web
  - Wireline
  - Wireless

Business agreement is required on interconnection and interoperability.
ATIS Program for Transition to All-IP

Executive Leadership and Engagement
- ATIS Board of Directors
- Technology and Operations Council

Architecture and Services
- Wireless, Fixed, and Cable Architecture and Interconnection
- Emergency Services including Multimedia and SMS
- Lawful Intercept
- Communications APIs

Information Infrastructure
- Telephone Numbering Evolution
- SMS/800 Number Administration and Evolution
- Inter-provider Ordering and Billing
- Inventory Management

Operational Excellence
- Next Generation Interconnection and Interoperability
- Network Reliability in conjunction with FCC Network Outage Reporting System
- Synchronization
### SIP Forum Program

#### Task Force
- ATIS/SIP Forum IP-NNI Joint Task Force (100+ current participants)

#### Task Groups
- Fax-over-IP [FoIP] Task Group
- SIPconnect Task Group
- SIPconnect Interoperability Certification [SC-IT] Task Group
- SIP Over IPv6 [IPv6] Task Group
- User Agent Configuration [UA-Config] Task Group
- Video Relay Services [VRS] Task Group (created specifically at the request of the FCC CTO)
- WebRTC Task Group

#### Events
- SIPit, SIPconnect-IT and RTCWeb-it Interop Testing Events
- SIPNOC “SIP Network Operator’s Conference”
IP-NNI Initiative

• Through this initiative, ATIS and the SIP Forum will jointly develop a detailed specification that promotes communications interoperability and addresses key industry challenges.
  • Enhance standards-based IP interconnection.
    • Leverage efficiencies gained by industry standardization.
  • Address differences in how SIP works “on the wire” that have been exposed by deployment experience.
    • Every instance of IP interconnection is a one-off, requiring a detailed engineering analysis and often involving “protocol normalization” between service providers.
  • Agree to methodology to translate E.164 numbers for SIP routing data.
IP-NNI Initiative

- The initiative will allow the industry to continue to support key principles:
  - Universal connectivity to next generation broadband networks and services;
  - The protection of consumers, including safeguards against fraudulent, deceptive and unfair business practices;
  - Uninterrupted, seamless access to public safety, national security, emergency preparedness/response services;
  - Continued network reliability and robustness; and
  - The facilitation of competition and innovation.
Leaders, Membership and Process

• The initiative is co-lead by:
  • Martin Dolly, AT&T
  • Chris Wendt, Comcast
  • John Barnhill, GENBAND

• The initiative is open to members of ATIS and the SIP Forum.

• There is broad industry participation from wireline providers (LECs, cable and broadband), wireless providers, and vendors.

• Work is being completed through face-to-face and virtual meetings with decisions being made via consensus.
What is Network Interconnection?

The ATIS and SIP Forum collaboration focuses on SIP protocol interoperability.
Scope: Protocol

- Define reference architecture with functional entities necessary for IP-based interconnection.

- Provide exact specification for all protocols at the NNI:
  - SIP options that MUST be supported;
  - SIP options that SHOULD be supported;
  - Limit protocol options where necessary for interoperability; and
  - Provide additional detail to resolve ambiguity.

- Specify methods for negotiating protocols, protocol extensions, and exchanging capability information between carriers.
  - Specify consensus methods of formulating SIP protocol messages where multiple options exist in standards.

- Specify the exact presentations of Fully Qualified Domain Names in “From:”, “To:” and “PAI” fields.
Scope: Routing

- Define the architecture for a shared “Thin” Registry(s) of NNI interconnection data.
  - Determine if/how Infrastructure ENUM is used.
- Specify a mechanism for using the shared registry(s) to identify the terminating carrier of record.
- For IP-originated calls, specify the preferred header for Calling Name (CNAM) data, and specify how that data is presented to the terminating proxy (i.e. format, syntax and processing of such data).
  - The expectation is that the signaling of CNAM would not survive interworking to SS7.
Proposed Milestones

Dec 2013: Kick-Off Meeting.
March 2014: Goals and Requirements for NNI Architecture.
Feb 2015: Network-to-Network Interface Profile.
Conclusion

- The complex transition to the All-IP Network can be facilitated through industry collaboration.
- Many standards exist, but companies must agree on an interoperable implementation.
- Through this initiative, ATIS and the SIP Forum are developing detailed specifications that define the protocol implementation.
- ATIS and SIP Forum look forward to working with the Commission to facilitate the transition to an All-IP Network.
Questions

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For more information about ATIS, please visit: www.atis.org
For more information about SIP Forum, please visit: http://www.sipforum.org
ATIS Background

- Founded in 1984
- ATIS develops solutions that include:
  - Standards;
  - Specifications;
  - Requirements;
  - Business use cases;
  - Software toolkits; and
  - Interoperability testing.
- Founding Partner of 3GPP, oneM2M
- Broad membership comprised of service providers, manufacturers, public safety agencies, software companies, etc.
SIP Forum Background

- Founded in 2000
- Non-Profit IP Communications Industry Association
- Membership ranks include:
  - Corporate “Full Members” that pay annual dues and support the work of the Forum
  - Academic Institutions and Research Orgs
  - Individual “Participant” Members (>15K)