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## PRESIDENT'S MESSAGE



Welcome to the spring 2015 issue of *ATIS Update*. Our goal is to inform you on the latest ATIS solutions that are enhancing and bringing efficiencies to the ICT industry's technical, operational and business processes.

I'm excited about the ATIS 5G Symposium, which takes place on June 8-9 in Chicago. It brings together some of the leading experts representing ATIS member companies to provide insight into the North American and international opportunities 5G presents. The event will cover the new business opportunities and the transition into what is expected to be a defining revolutionary and evolutionary technology.

The 5G Symposium is just one example of how ATIS looks ahead to develop the solutions our industry needs timed to meet market demands. In this issue of *ATIS Update* you'll also learn about the latest work coming out of our Network Functions Virtualization Forum; our IP-NNI Task Force, a collaborative initiative with the SIP Forum; our Technology and Operations Council; and our Committees. Throughout our dynamic industry landscape, ATIS plays a key role in delivering value. We hope you enjoy learning about this important work.

Sincerely,

President & CEO  
Susan M. Miller

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## FEATURED INITIATIVES

### **NFV Forum. *Defining NFV business requirements.***

In May, the Network Functions Virtualization (NFV) Forum completed and published [eight inter-provider use cases](#). This accomplishment will enable new service provider business models and improve customer services by dynamically combining resources from several providers through virtual means. The use cases address: Virtual Network Operator (VNO); Cooperative, Cloud-based CDN; Roaming; Efficient Home-Routed VoLTE Roaming; Enterprise Voice/Collaboration Arrangements; Enabling Service Function Chains with Third Party VNF and Enabling Third Party VNF Applications. Now that these use cases are complete, ATIS will:

- Analyze architecture and requirements from use cases
- Develop service catalog structure
- Identify required extensions with application to use cases
- Develop tentative service enabler list

The overall goal is to develop technical specifications that will enable NFV services to be supplied and consumed in an open manner between multiple service providers. This will enable systems to become more efficient and effective opening new business models and reducing costs. The Forum's efforts involve close engagement with key industry groups to ensure that emerging NFV platform standards are a suitable platform to support inter-provider use cases.

### **ATIS and SIP Forum IP-NNI Task Force. *Developing a standardized IP-based network-to-network interconnection between service providers.***

In 2014, the [ATIS and SIP Forum IP-NNI Task Force](#) began developing a detailed, protocol-level IP-NNI specification for one service – voice. This April, two major reports to advance this specification were approved. These two documents are (1) IP Interconnection Profile, which describes a reference architecture and specifications for both the protocol and media as it appears “on-the-wire” at interconnect points; and (2) IP Interconnection Routing Report, which documents mechanisms for identifying the

preferred IP interconnection point for a given phone number. ATIS and the SIP Forum are currently discussing Phase 2 of the IP-NNI Task Force.

## TOPS COUNCIL INITIATIVES

### **Testbeds. *Objectively validating critical solutions for the industry.***

In April, the [Testbeds Landscape Team](#) made major recommendations on key areas in which service providers can best collaborate through an industry testbed activity to advance the All-IP transition. The recommendations were contained in a new report marking a major step towards helping the industry overcome challenges in the cost and complexity of establishing a multi-provider testbed. The [Testbeds Landscape Team](#) was convened to identify synergies among proposals for single-purpose testbeds, and to assess the viability of creating a multi-provider, multi-functional testbed to solve some of the industry's leading challenges in the All-IP transition. The first three areas named for collaboration are number acquisition, IP-NNI interconnect routing, and authentication of information, such as caller ID. Access the report at [Testbeds Landscape Team Assessment and Next Steps](#).

### **The ATIS Reference Functional Model. *An at-a-glance view of the network.***

As traditional hardware-based solutions move to software frameworks, integration across network layers becomes increasingly important. The ATIS Reference Functional Model (RFM) provides a visual tool to see how these parts work together. On April 9, ATIS hosted a webinar to explain the RFM, which covers areas such as services, access, interconnection, billing, cybersecurity, devices, and more to provide a holistic view of ATIS' industry engagement. The RFM is currently being updated to be less “IMS-centric” and to reflect emerging industry initiatives, including SDN, NFV and underlying technologies such as data center compute and storage resources. The output is not a deployment/implementation architecture, but instead provides a functional perspective. ATIS has completed an initial update of its RFM and further updates are planned in 2Q2015. Access the [Reference Functional Model Webinar](#) held on April 9, 2015.

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**The Public Safety-Related Applications Task Force (PSRA-TF). Critical industry outreach to advance All-IP emergency services communications.** The migration of public safety communications applications to All-IP is another area in which ATIS is adding value. The [PSRA-TF](#) issued a request for information (RFI) last month seeking input from the manufacturers of public safety communications technologies on their existing IP-compatible solutions. Findings are being accumulated and will go into an information resource to educate the public safety community on available options. Broadly relevant, this work addresses the migration of communications infrastructure related to public-safety. To ensure the greatest response to the RFI, the Task Force is working directly with organizations and manufacturers developing solutions to address circuits for FAA towers and alarms, fire and police, railroad crossings, as well as meter and alarming for power grid, to name a few. It will assess all relevant findings to develop a final report identifying conclusions and recommendations in Q2 2015. It will share its final report with relevant regulatory and industry interest groups.

**Intelligent Programmatic Peering. Delivering innovations to help operators manage network congestion and provide better customer service.** Starting very recently, ATIS' work in this area is focused on intelligent management of the peering relationships between providers. The work assumes that peering could use more "intelligent" mechanisms to select an interconnect point to provide operators with tools to control the impact of cyber attacks, such as DDoS attacks. Possible mechanisms to be explored include SDN-based peering and SDN-like network controller.

**iPaaS (Integrated Platform as a Service). Enabling integration in the cloud.** The rapid growth of multimedia, IP-based content consumption brings with it a need to expand on existing silos of application-level broadcast, or what is commonly referred to in IT as "publish and subscribe." ATIS has completed work on a white paper examining several options to expand on existing publish and subscribe mechanisms to additional access types (e.g., WiFi devices, wired systems) and topics (e.g., traffic alerts, non-emergency messages).

The use cases detailed in the paper also consider the ability of the iPaaS architecture to enable cloud-to-cloud and other inter-provider or inter-enterprise integration. The goal of these examples is to define opportunities to reduce integration complexity, and expand access to information. The white paper, [iPaas Business Applications](#) (ATIS-1-0000048) provides a high-level architecture that illustrates iPaaS functionality such as analytics, management, message handling, and protocol mapping.

## STANDARDS AND SOLUTIONS

### EMERGENCY SERVICES

**Priority Services. New solutions based on a solid foundation of past ATIS work.** The Packet Technologies and Systems Committee (PTSC) continues to advance national security and emergency preparedness in support of priority services. Most recently it finalized and published:

- [Emergency Telecommunications Service \(ETS\) Evolved Packet Core \(EPC\) Network Element Requirements](#). (ATIS-1000065.2015), which specifies ETS requirements for an evolved packet system consisting of the Evolved Universal Mobile Telecommunications System Terrestrial Radio Access Network and the EPC for support of NGN GETS Voice, Video, Guaranteed Bit Rate Data, and Data Transport.
- [LTE Access Class 14 for National Security and Emergency Preparedness \(NS/EP\) Communications](#). (ATIS-1000061.2015), which provides operational guidance regarding the assignment and use of the 3GPP LTE specifications for Access Class Barring to support National Security and Emergency Preparedness Next Generation Network Priority Services.

**Wireless Emergency Alert Enhancements. Refining our emergency alert capabilities.** The Wireless Technologies and Systems Committee (WTSC) recently

initiated several new projects critical to advancing wireless emergency alert capabilities. The [last issue of ATIS Update](#) reported on two new wireless emergency alert (WEA) initiatives. These will deliver improvements enabling a device to display a simple map which shows the threat area and recipient's location in relation to the alert area for imminent threat alerts, and display a photo such as that of a suspect, missing child, or abductor for Amber Alerts.

Most recently in this area, WTSC is involved in a [Feasibility Study for LTE Wireless Emergency Alerts \(WEA\) Message Length](#). In this work, WTSC is performing a feasibility study of the proposed maximum length of displayable characters in an LTE WEA (formerly known as the Commercial Mobile Alert System (CMAS) message. This work will assess the feasibility of whether or not the character limit can be modified so that a WEA message processed by a participating CMS provider can be extended to a maximum length of 280 displayable characters of text on capable 4G LTE based commercial mobile systems. The initiative is also in support of the FCC's Communications Security, Reliability & Interoperability Council (CSRIC).

WTSC's efforts are also being leveraged to make contributions to public warning system (PWS) initiatives in both Canada and Mexico:

- **Canada.** Mobile operators in Canada are creating a WEA service very similar to the United States' WEA service and consistent with 3GPP PWS, and called the wireless public alerting service (WPAS). WPAS will have unique requirements, including the need to display both the English and French language versions of the alert messages. ATIS is supporting needed Canadian-specific requirements, identifying changes needed to existing (published) CMAS standards, identifying changes needed to ongoing (unpublished) CMAS standards, and creating new Canadian-specific standards as needed, including implementation guidelines.
- **Mexico:** WTSC is also starting work on standards to support a PWS for Mexico. This solution will

be based on the existing U.S. CMAS architecture and standards and the 3GPP PWS specifications. The standards developed will include a mobile device behavior specification. Three classes of alerts will be assumed to create the equivalent of the U.S. Presidential Alert, Imminent Threat Alerts, and Amber Alerts.

- **Comments filed for 9-1-1 Governance and Accountability. Toward greater 9-1-1 service resiliency.** In March, ATIS submitted comments on behalf of its Network Reliability Steering Committee (NRSC) in response to the Federal Communication Commission's Notice of Proposed Rulemaking (NPRM) seeking input on proposals to enhance the resiliency of 911 service. In sharing the Commission's view regarding the importance of reliable nationwide 911 services, ATIS suggested modifications to the proposed rules to increase their efficacy and workability and reduce unnecessary burdens. Learn about them [here](#).

## OTHER INITIATIVES

**ASOG Update. Innovations in Inter-provider Ethernet Ordering.** In March, the Ordering and Billing Forum released Version 51 of the Access Service Ordering Guidelines (ASOG), which features new content to support Ethernet ordering. Scheduled for implementation in September 2015, Version 51 includes an update to close the gaps between ASOG and MEF Operator Virtual Connection as well as the External Network-to-Network Interface Service Attributes.

**NRSC Pandemic Checklist. A state-of-the-art update.** The Network Reliability Steering Committee (NRSC) released Version 2 of the NRSC Pandemic Checklist in February. This resource updates an existing set of industry consensus best practices to ensure business continuity of the nation's telecommunications networks in the event of a pandemic outbreak. The guidance includes 51 voluntary collaboratively developed best practices to protect the health of the nation's public networks. Ensuring the Checklist contains the

most current best practices, experts from Alcatel-Lucent, Applied Communication Sciences, AT&T, CenturyLink, Comcast, Cox Communications, CSI Telecommunications, Ericsson, Nokia, Sprint, Time Warner Cable, T-Mobile and Verizon agreed to the updates. [Access the Checklist.](#)

**Rural Call Completion. Ensuring optimal network performance everywhere.** The Next Generation Interconnection Interoperability Forum (NGIIF) has recently published updated versions of its Service Provider Contact Directory and its National LNP Contact Directory. These contact directories assist the communications companies in troubleshooting problems associated with local number portability and rural call completion. For these directories and other information related to Rural Call Completion, visit <http://www.atis.org/NGIIF/ruralcallcompletion.asp>.

## NEWS



### oneM2M

ATIS has been named as the Application Identifier (App-ID) Registry Management Authority for oneM2M, which is the global standards

initiative for M2M Communications and the Internet of Things. ATIS is a founding partner of oneM2M. In its new role, ATIS will oversee the launch of the official oneM2M App-ID Registry to ensure globally unique registered App-IDs are available to application developers and in concert with the existing oneM2M specifications. This management role is significant given the number of applications in areas such as eHealth and telemedicine, industrial automation, home automation and more that new M2M technologies are making possible. These applications could reach into the billions. The App-ID will uniquely identify an M2M application in a given context. The new Registry is targeted for public launch in December 2015.

## 3GPP



In March of this year, 3GPP endorsed a tentative timeline for the standardization of next generation cellular technology, also known as "5G." A New

study item on New Services and Markets Technology Enablers, which goes by the acronym "SMARTER," has been established to address the issues the new network will bring. As the founding North American 3GPP partner, ATIS, and its members, will be involved in this work. Specifically, 3GPP network operators are interested in addressing various existing and emerging markets and services to increase and diversify revenue streams. Standardized mechanisms allowing operators to address these markets in an efficient way will be useful to allow fast deployment. There is also interest among 3GPP network operators on enabling new business models and different operational schemes to maximize the use of the operators' networks. For example, standardized APIs allow third party service providers to access information in the 3GPP operators' networks. The SMARTER study aims to identify the market segments and verticals whose needs 3GPP should focus on meeting, and to develop the use cases and requirements that the 3GPP ecosystem would need to support in the future.

## AMOC 2015 AND THE ATIS AWARDS



The ATIS Annual Meeting of the Committees (AMOC) 2015 took place May 4-8 in Atlanta, Georgia with 200 ATIS member representatives attending. In addition to working meetings, an event highlight each year is the presentation of the ATIS Awards. The 2015 awards recognized 10 technology leaders and industry subject matter experts for their critical contributions to information and communications technology (ICT)

standards and solutions development in support of ATIS' strategic initiatives.

Nine individuals received an ATIS Achievement Award. This award is presented to individuals who provided crucial contributions to the completion of ATIS solutions and standards during the past year. The 2015 recipients are: Dave Bossmin of Ericsson, Peter Sanders of one2many, Mark Peay of Cox Communications, Terri Kramer of Verizon, Martin Dolly of AT&T, Laurent Laporte of Sprint, Robert Sherry of Intrado, Gary Richenaker of iconectiv, and Dyan Adams of Verizon.

The Award for Leadership in Standards Development is given to those ATIS Forum or Committee leaders

whose vision and leadership over the past 12 months resulted in the timely creation of one or more of ATIS' industry solutions. This year, the award went to Jim Ragsdale of Ericsson, Chair of the ATIS Wireless Technologies and Systems Committee's Radio Access Networks Subcommittee, for his leadership and efforts in supporting the globalization of Third Generation Partnership Project (3GPP) solutions.

Join us in appreciation for the work that earned these recipients their ATIS Awards — and for the value it is delivering to our industry.

## Industry Events

**June 9 - 10, 2015**

**Light Reading's Big Telecom Event**

McCormick Place, Chicago, IL



**September 1-3, 2015**

**OSP Expo**

Denver, Colorado



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