Major accomplishments this past winter set the groundwork for ATIS’ second-quarter initiatives—and demonstrate why ATIS is where the ICT industry comes together to address its leading challenges. Take, for example, the release of the PSTN Transition Focus Group Assessment and Recommendations, the only comprehensive industry resource on one of our industry’s most significant issues: the network’s evolution to internet protocol.

Also this winter, the ATIS Cloud Services Forum completed a major milestone in its full-scale testing of interoperability and interconnection of video solutions in the cloud—the most comprehensive testing done to date within the industry. Many new standards also were published this winter. And the Technology and Operations Council continues its work on the development of a solution to bring Open Real-time Communications APIs to application developers.

The ATIS agenda for spring is full—and the work already has started. In April, ATIS invites you to attend the 2013 ATIS Annual Meeting of the Committees (AMOC), being held April 22-26, in Minneapolis. Aside from being the event where all ATIS’ committees meet, this year’s gathering also is a celebration of the tenth anniversary of AMOC and ATIS’ 30th anniversary as an organization. Join us to celebrate your accomplishments—and ATIS’ record in creating the technology solutions helping to define the industry’s future.

Sincerely,

Susan M. Miller
President & CEO

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Welcome to New Members

- AK Stamping
- Alpha Technologies
- Bright House Networks
- Cablcon
- CenturyLink
- Emerson Energy Systems
- NAB
- New Jersey Office of Homeland Security & Preparedness
- NextGen Global Technologies
- NextNav
- UDP, Inc.
Technology Development

The work of ATIS' Technology and Operations (TOPS) Council has continued on a fast track to assess the market's disruptive influences, identify priorities and develop solutions to address members' business needs. Year-end analysis of TOPS 2012 activities shows that this work is being completed more efficiently than ever. Five priorities completed the cycle of landscape team to focus group. And the average 2012 cycle time has been improved. It has been taking an average of only six to eight weeks for landscape assessment teams to complete their work, and four to six months for focus groups. Here we update you on current landscape teams and focus group initiatives on device solutions, cloud services and network evolution—as well as several initiatives that touch every aspect of the ecosystem.

Device Solutions

Mobile Device Integrity. Launched in December 2012, the Mobile Device Integrity Landscape Team (MDI-LT) is assessing and accelerating the hardware solutions needed to enable "bring your own device" environments in enterprises, while securing devices and information owners from external threats. In its work, the MDI-LT will advance recommendations set forth by the Mobile Device Integrity Panel of the Enduring Security Framework Operations Group, a joint initiative of the U.S. Department of Defense and the Department of Homeland Security. The goal is to address the need to increase enterprise trust in consumer mobile devices through strengthening the hardware roots of trust. The Landscape Team's next steps are to complete its assessment of the MDI environment, continue collaboration with the National Institute of Standards and Technology to enhance MDI guidelines, target the most critical vulnerabilities to accelerate solutions, and provide industry leadership by developing recommendations for hardware and software standards. Another of the TOPS Council's fast-track initiatives, this work is targeted for completion at end of Q1 2013.

Unifying Client Architecture. The Unifying Client Architecture Focus Group (UCA-FG) is assessing solutions that will reliably deliver content to any device by leveraging core network services. To advance this objective, most recently, the UCA-FG has developed and tested software for end-user devices that enables basic call control utilizing service provider IMS signaling capabilities. The launch of ORCA is progressing this initiative—a solution for bringing Open Real-time Communications provider IMS signaling capabilities to any device by leveraging core network services. To advance this work, the MDI-LT will advance recommendations set forth by the Mobile Device Integrity Panel of the Enduring Security Framework Operations Group, a joint initiative of the U.S. Department of Defense and the Department of Homeland Security. The goal is to address the need to increase enterprise trust in consumer mobile devices through strengthening the hardware roots of trust. The Landscape Team’s next steps are to complete its assessment of the MDI environment, continue collaboration with the National Institute of Standards and Technology to enhance MDI guidelines, target the most critical vulnerabilities to accelerate solutions, and provide industry leadership by developing recommendations for hardware and software standards. Another of the TOPS Council’s fast-track initiatives, this work is targeted for completion at end of Q1 2013.

Cloud Solutions

While much of ATIS’s work addressing cloud technologies takes place in the Cloud Services Forum, recent TOPS Council initiatives also target this multi-layered topic.

Trusted Information Exchange. One of today’s networks’ greatest challenges is how to deploy cloud services that are globally interoperable like the PSTN, support a diverse set of services and maintain a level of trust that encourages broad user adoption. Launched in December 2012, the Trust and Identity Landscape Team is collaborating with the Cloud Services Forum to evolve the requirements and design for building a trusted information exchange—while also framing the business issues that are driving the need for this secure environment. The Landscape Team is assessing trust and identity management models across a range of industries with the goal of developing communications industry service offerings.

As the foundation for its work, this initiative leverages the work of ATIS’ Cloud Services Forum (CSF), which developed the Trusted Information Exchange (TIE) (ATIS-0200008) standard to establish a functional design for a network operator-based federated trust model. Leveraging the TIE specification, the Trust & Identity Landscape Team will focus initially on addressing, directory, identity, including subscriber data management, and the trust framework. The initial phase of this work was completed at the end of 2012.

Network Evolution

Software-Defined Networking. By separating the control plane and the data plane, software-defined networking (SDN) opens the door to network virtualization as well as the potential for greater flexibility and lower costs for deploying and managing networks. SDN not only decouples control and data planes within a network element, it also represents a fundamental shift in how networks will be “software” designed, deployed and managed in the future. ATIS’ Software Defined Networking Landscape Team (SDN-LT) is assessing what is required to develop carrier-grade solutions. Its work addresses some of the key problems SDN presents for operators. These include the fact that SDN protocols (e.g., OpenFlow) are promising, but primarily apply to self-contained networks for data centers—not customer-facing and core transport networks; SDN has yet to be evaluated in the context of a telecommunications service provider landscape; and SDN technologies applied broadly within the telecommunications infrastructure will introduce challenges in the evolution of legacy networks and support systems. The SDN-LT’s preliminary conclusions note that SDN can benefit telecommunications networks in several ways, namely by: reducing expenses (CAPEX and OPEX) for network service providers; providing the ability to develop and deploy new applications; enhancing network agility; and enabling virtual interconnect. The SDN-LT’s landscape assessment is anticipated to be complete by March 31.

Dynamic Network Management. Exponential growth in data traffic, especially delay-sensitive traffic driven by emerging real-time applications, presents network operators with unprecedented traffic management challenges. The Dynamic Network Management Landscape Team (DNM-LT) is assessing industry initiatives to reduce congestion and improve overall network performance to address the challenges facing both wireline and wireless carriers. In its recent landscape assessment, the Team examined designs for dynamic reconfiguration of network resources to satisfy changing demand in real-time, and evaluated two network management techniques: dynamic flow management and dynamic application management. The DNM-LT has observed that new opportunities have been identified for traffic management, security threat detection, and deep packet inspection in existing networks. Specifically, key business benefits for service providers can be found in CAPEX/OPEX reduction and value-added services. Selected findings that have emerged for discussion from the DNM work will be considered for incorporation into the TOPS Council’s Software Defined Networking initiative.

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Cloud Services Forum Conducts Successful Video Solutions Interop Testing

In early February, the Cloud Services Forum (CSF) produced the first results on telepresence interoperability testing. These results marked the conclusion of CSF’s first phase of full-scale testing of interoperability and interconnection of video solutions in the cloud. Testing occurred between AT&T and Verizon, using equipment from Cisco, Polycom and Microsoft-Lync. Although inter-provider interoperability testing has occurred in the past, this is the most comprehensive testing done within the industry to date. CSF will be expanding on both the results and the next phases of testing.

Earlier this winter, the CSF also developed a key resource, the Cloud Services Lifecycle Checklist, (ATIS-0200009) to offer service providers comprehensive guidance for integrating cloud lifecycle functions. The Checklist builds on the CSF’s significant body of work including its service enabler characterization specification. It is another major standard created by the CSF through an agile standards development process that is developing a comprehensive cloud delivery framework for service providers to construct and manage inter-provider services such as telepresence and content delivery. Learn more about other recently developed CSF standards in the following section.

For more information on the Cloud Services Forum, contact Yvonne Reigle, Director, Program Management Office, at yreigle@atis.org.

Recent Standards and Solutions

A wide range of standards was developed this winter at ATIS, with more than 30 published already in 2013. We highlight a few here. Learn about all of ATIS’ recently published standards, including the Dynamic Spectrum Management Technical Report, Issue 2 (ATIS-0900007), in the ATIS Document Center. ATIS’ cybersecurity approach remains directly aligned with recent recommendations evolving from the National Institute of Standards and Technology (NIST), the National Infrastructure Coordination Center (NICC), Department of Homeland Security (DHS), National Academy of Sciences (NAS), National Research Council (NRC), Federal Communications Commission (FCC), and others.

Providing A More Accurate Picture From Customer Impact Outages

This winter, ATIS issued Network Reliability Steering Committee (NRSC) Bulletin No. 2012-001, Wireless Outages, December 2012, an analysis of wireless outages in the telecom industry. In its work, the NRSC Wireless Outage Study Subteam observed a significant downward trend in the number of outage reports beginning in November 2011. It also determined, however, that the duration of outages appears to be increasing. The Subteam found that 65 percent of the outage reports were “sympathy” reports (e.g., outages reported by one or more companies that occurred as the result of problems in another company’s network) and that the leading cause of those outages was cable damage. In analyzing keywords mentioned in the non-sympathy reports, the Subteam identified the causal label “planned” or “maintenance,” indicating that they likely occurred during a maintenance window scheduled to minimize subscriber impact. Therefore, in the bulletin ATIS recommends that the FCC consider revising its rules (47 C.F.R. Part 4) on outage reporting requirements associated with planned activity during designated maintenance windows to provide a more accurate depiction of an outage’s actual customer impact. NRSC Bulletin No. 2012-001 also identifies specific best practices to help ensure that outage durations are kept to a minimum.

For more information, contact ATIS Manager, Global Standards Development, Jackie Voss at jvoss@atis.org.
CDN Interconnection Use Cases And Requirements In A Multi-Party Federation Environment

ATIS Standard ATIS-0200003, produced by the Cloud Services Forum and published in June 2011, provided initial use cases and requirements for Content Distribution Network (CDN) Interconnection between two CDN providers via Cache-based Unicast delivery method. ATIS Standard ATIS-0200004, developed use cases and requirements for content distribution via Multicast-based delivery. The new ATIS Standard, ATIS-0200010, builds on these use cases and requirements for an environment involving multiple CDN providers joining together to form a CDN Federation.

More information can be found on the ATIS website at www.atis.org.

Driving Innovations in Emergency Communications

ATIS And TIA Collaborate On A Nationwide Text-To-9-1-1 Solution

Ensuring public safety depends upon a reliable, nationwide, standardized solution supporting text-to-9-1-1. Various cities and states across the U.S. are already adopting multiple vendor-specific solutions for texting to 9-1-1. If this continued, texting to 9-1-1 would turn into a regional service with little or no interoperability. To address this problem, ATIS and TIA are collaborating to develop the near-term text-to-9-1-1 solution. This work will provide the standards that, upon implementation, will provide short message service (SMS) subscribers the ability to send an SMS text message to 9-1-1. On December 6, 2012, AT&T, Sprint Nextel, T-Mobile USA and Verizon, all active participants in the joint ATIS/TIA effort, advised the Federal Communications Commission that “[t]ext-to-9-1-1 service would be made available by May 15, 2014.” With the completion of the joint standard targeted for publication in Q1 2013, service providers will be well positioned to have a standards-based solution ready to meet their target deadline.

ATIS Provides Test Bed Plan For Evaluating Location Accuracy For Indoor E9-1-1 Calls

Testing was completed in December 2012, using ATIS standards and methodologies associated with indoor location accuracy performance of wireless E9-1-1 calls. The goal of this test bed, which is based in large part upon documents developed by ATIS’ Emergency Services Interconnection Forum (ESIF), was to evaluate existing E9-1-1 location technologies to help the FCC better understand the level of location accuracy that might be achievable in the future. The evaluation is intended to help develop a path forward for new solutions to assist first responders in identifying, in a timely manner, the location of an E9-1-1 caller whose call originated from inside a building. Testing took place in a variety of building types and locations, including dense urban, urban, suburban and rural areas. The results will yield critical data to the FCC’s Communications Security, Reliability and Interoperability Council (CSRIC) II Working Group 3, which it can use to make recommendations to the FCC by a target of March 2013. The testing effort is another example of how ATIS plays a critical role in advancing emergency services into the next generation with collaborative public safety, service provider and vendor participation—from supporting public safety requirements in LTE networks to sending SMS messages to 9-1-1.

For more information contact Steve Barclay, Director of Global Standards Development at sbarclay@atis.org.

Recently Published Documents By The ATIS Wireless Technologies And Systems Committee

The following are additional recently published ATIS emergency services-related documents:

- Joint ATIS/TIA Commerical Mobile Alert System (CMAS) Mobile Device Behavior Specification (J-STD-100.a, Supplement A to J-STD-100)
- Joint ATIS/TIA CMAS Federal Alert Gateway to CMSP Gateway Interface Test Specification (J-STD-102.a, Supplement A to J-STD-102)

ATIS Members Take New Leadership Positions

At ATIS’ November 2 board of directors’ meeting, two new individuals were named to leadership positions; Class C and D board representatives also were announced, as determined by member balloting. Please join ATIS in welcoming these new board representatives. Their contributions will help provide ATIS’ technology vision—and define the path for advancing members’ business priorities.

Stephen Bye, CTO and Senior Vice President of Technology Development & Corporate Strategy with Sprint, was welcomed as first vice chair of the ATIS board of directors, and Nick Adamo, Senior VP, Global Segments & Architecture with Cisco Systems, as board secretary. Bye is known as a technology visionary throughout the industry. His appointment marks the first time Sprint has been represented in an executive leadership position on ATIS’ board. And Nick Adamo has a long tenure on the board, consistently bringing a global strategic and business perspective to advance ATIS’ mission.

The new Class C board representatives are Brenton Greene, President and Chief Executive Officer, Applied Communication Sciences; and Martin Nuss, Vice President, Technology and Strategy and Chief Technical Officer, Vitesse Semiconductor. New Class D representatives are Doug Davis, Chief Technology Officer, HyperCube; and William Szeto, Chief Technical Officer for Terrestrial Network Systems, Xtera Communications.

Upcoming Annual Meeting of Committees to Feature Anniversary Celebrations

The ATIS Annual Meeting of the Committees will be held April 22–26 at the Hyatt Regency in Minneapolis, Minnesota. Beyond being an annual collaborative and networking event, this year’s gathering celebrates AMOC’s 10th anniversary and ATIS’ 30th anniversary as an organization. Special activities are planned to help commemorate the accomplishments of ATIS’ committees and forums.

Visit the AMOC website to learn more and register at www.atis.org/amoc.

Recent Webinar Addresses GPS Vulnerabilities and Implications for Telecom

As reliance on GPS and GNSS increases, electrical power, financial systems, transportation and communication systems are also growing more vulnerable. An ATIS webinar held on February 7 addressed this issue. Because of problems such as jamming and spoofing, which are increasing, managers must plan now for backup systems to GPS time and frequency. And as issues of transferring accurate time through the network gain increasing exposure, alternative time transfer systems are developing. In this webinar, ATIS experts discussed telecom systems’ dependence on GPS and GNSS, and provided insight into the options for backing up these systems using holdover and alternative time transfer techniques. The event featured panelists Martin Nuss, Ph.D., Vice President, Technology and Strategy and Chief Technology Officer, Vitesse Semiconductor; and Todd Humphreys, Assistant Professor, Aerospace Engineering and Engineering Mechanics, University of Texas at Austin. Dr. James Armstrong, Chief Technology Officer, Symmetricom, moderated the discussion.

Download an archived recording of the webinar at www.atis.org/events.

ATIS Produces the Protection Engineering Event of the Year

The ATIS 2013 Protection Engineers Group (PEG), Professionals Educating Professionals Conference, is a key industry event for insight into the leading topics in protection engineering. No other conference offers such a comprehensive array of in-depth, expert presentations. This makes attending the PEG Conference essential for protection engineers looking to expand their professional knowledge. The conference promotes discussion on how basic electrical protection principles are applied to today’s network, and the changes that are needed to meet the challenges of providing voice, data and video services in more decentralized networks.

Visit the PEG website to learn more and register at www.atis.org/peg.
Susan Miller, ATIS President and CEO Meets with China Mobile Delegation

On December 17, 2012, ATIS President and CEO Susan Miller and ATIS staff met with a delegation from China Mobile at ATIS headquarters in Washington to discuss, among other topics, the work of ATIS.

New ATIS.org Site Launches

The atis.org website now has a new look and feel to match the innovative work taking place in ATIS Forums and Committees. Deployed on January 31, the first phase was to deploy and additional updates will follow. Visit www.atis.org today!