In the Matter of	)
	)
A National Broadband Plan for Our Future	) GN Docket No. 09-51

COMMENTS OF THE
ALLIANCE FOR TELECOMMUNICATIONS INDUSTRY SOLUTIONS

The Alliance for Telecommunications Industry Solutions (ATIS) hereby submits these comments in response to the Federal Communications Commission's (Commission) *Notice of Inquiry* (*NOI*) released April 8, 2009, in the above referenced docket.[1] ATIS supports the Commission's goal to create a national broadband plan that will extend the reach of broadband services to all Americans. As one of the leading technical and strategic planning standards development organizations for the information and communications technologies (ICT) industries, ATIS and its member companies are developing implementable technical solutions and building many of the elements that support current and future broadband infrastructure, networks, and devices. In establishing rules to promote broadband deployment, ATIS encourages the Commission to consider the technical standards work done by the industry through organizations such as ATIS that provide the underlying building blocks to the operation and interoperation of broadband networks.

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[1]   In the Matter of A National Broadband Plan for Our Future, GN Docket No.09-51, *Notice of Inquiry*, FCC 09-31 (rel. April 8, 2009).

I.   Background

ATIS is a global standards development and technical planning organization that is committed to providing leadership for, and the rapid development and promotion of, worldwide technical and operations standards for information, entertainment, and communications technologies using a pragmatic, flexible, and open approach. ATIS has been serving the evolving needs of the telecommunications industry for over 25 years by prioritizing the industry's most pressing, technical and operational issues, and creating interoperable, implementable end-to-end solutions and standards. These solutions support the rollout of new products and services into the ICT marketplace.

The ATIS membership spans all segments of the ICT industries, including cable, wireline and wireless providers and manufacturers, equipment vendors, software developers, and internet service providers. Industry professionals from more than 250 communications companies actively participate in ATIS' open industry forums. ATIS members include key innovators of broadband technologies and services, and look to ATIS for the development of the technical specifications that will speed the new networks and services to market.

ATIS' industry committees and forums focus on issues ranging from the fundamental elements of communications such as ordering and billing to network security, reliability and interoperability of current and next generation technologies to seamless delivery of converged services such as IPTV over multimedia platforms.

In addition, ATIS' Board of Directors, which is comprised of chief technology officers and the senior-most executives from leading ICT companies, establishes key strategies that affect broadband deployment. The ATIS Board, through its Technology and Operations (TOPS)

Council, has worked on issues that are central to the interconnection of new broadband networks as well as the offering of new services on these networks.

ATIS is the North American organizational partner in the Third Generation Partnership Project (3GPP), a global collaboration of regional Standards Development Organizations (SDOs) targeted at evolving the Global System for Mobile communications (GSM) specifications to 3G and beyond. 3GPP is the originator and developer of the new long term evolution (LTE) wireless technology, which will expand wireless capabilities.

II.   Discussion

ATIS strongly supports the Commission's comment that "the development of equipment and protocol standards is a key element of broadband deployment."[2] Standards development plays a central role in advancing technology from the research and development stage, to production, to product launch and eventually to market. Standards impact virtually all products and services used or traded in the U.S. but are particularly important in the development of end-to-end, interoperable communications systems and services. As explained below, the work already accomplished and currently being performed by the industry in ATIS committees and forums is essential to the deployment of broadband systems.

A.   Interoperability

In the *NOI*, the Commission seeks comment on how best to accomplish ubiquitous broadband availability in order to ensure all Americans have access to the benefits of broadband capabilities.[3] ATIS agrees with the Commission that "new, innovative broadband products and applications – whether provided by wireline, wireless or satellite technology – are fundamentally

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[2] *NOI* at ¶ 50.
[3] *NOI* at ¶ 1.

changing not only the way Americans communicate and work, but also how they are educated

and entertained, and care for themselves and each other."[4] Thus with the rapidly changing nature

of technology, specifically ICT, ATIS believes that global interoperability is a paramount

consideration in the development of a national broadband plan and the accomplishment of the

goals envisioned by additional broadband deployment. Many ATIS committees work to promote

interoperability between existing, evolving and new broadband networks.

ATIS' Packet Technologies and Systems Committee (PTSC), for example, develops

standards, technical specifications and technical reports in support of IP-based services for

evolving packet architectures and applications for enabling signaling protocols, and providing the

user-to-network (UNI) and network-to-network interface (NNI) infrastructure that allows

systems to interoperate and services to be provided to broadband users. In addition, ATIS PTSC

has published and continues to progress security, authentication and Identity Management

standards that facilitate the deployment of IP infrastructure and services in North America.

Additionally, the interoperability of new broadband networks is also the subject of work

by ATIS' Optical Transport and Synchronization Committee (OPTXS), which is investigating

the impact of new services on existing broadband capabilities as well as on new high speed

transport technologies of 100G and above. ATIS OPTXS develops standards that focus on

telecommunications equipment that transports voice, data, and video over copper and fiber and

addresses the synchronization aspects of transport equipment including accurate frequency

generation and distribution.

The ATIS Network Interface Power and Protection (NIPP) Committee is very active in

broadband efforts through developing standards and technical reports on broadband technologies

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[4] *NOI* at ¶ 4.

including digital subscriber line (DSL) and gigabit passive optical network (G-PON) interfaces. These technologies allow broadband services to be carried over metallic and fiber facilities. ATIS NIPP's recent work has resulted in closing gaps in the existing G-PON standards found by the ATIS Optical Access Networks Focus Group, thereby improving interoperability. ATIS NIPP is now focusing on the next generation of International Telecommunication Union – Telecommunication Standardization Sector (ITU-T) PON standards which will increase the bandwidth on fiber-to-the-home customers to the 10 Gbit/s level while maintaining maximum compatibility to existing optical access systems. ATIS NIPP also produced a suite of related technical reports that will boost the bit-rate capacity of VDSL2 transmission by specifying methods for advanced management and coordination of the transmitted signals to minimize the adverse impact of crosstalk between lines. Additionally, ATIS NIPP produced a standard for customer-end DSL signal splitters that helps to assure good performance for both DSL and analog telephone services sharing the same line.

B. Public Safety

The Commission also seeks comment in the *NOI* on how developments in broadband technologies and broadband-enabled services impact public safety and homeland security and more specifically take into account the advanced commercial wireless broadband technologies, such as LTE and WiMAX.[5] ATIS shares the Commission's view that public safety and security are important considerations in any national broadband deployment plan. ATIS leads industry work on issues such as wireless and wireline lawful interception and next generation 9-1-1 service through its Packet Technologies and Systems Committee (PTSC), Wireless Technologies

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[5] *NOI* at ¶ 75.

and Systems Committee (WTSC), Network Performance, Reliability, and Quality of Service

Committee (PRQC), and Emergency Services Interconnection Forum (ESIF).

ATIS' PTSC Lawful Authorized Electronic Surveillance (LAES) Subcommittee develops

and recommends standards, technical requirements and technical reports related to Lawfully

Authorized Electronic Surveillance (LAES) of packet-mode technologies in a wireline

environment. These standards allow carriers to meet regulatory LAES requirements as well as

CALEA (Communication Assistance for Law Enforcement Act) requirements. ATIS PTSC

developed a LAES standard for Internet Access and Services (IAS Broadband Data), as well as a

service provider job aid to assist in the implementation of IAS.

ATIS' Network Performance, Reliability, and Quality of Service Committee (PRQC)

develops and recommends standards, requirements, and technical reports related to the

performance, reliability, and associated security aspects of communications networks, including

specifically broadband networks, as well as the processing of voice, audio, data, image, and video

signals, and their multimedia integration. ATIS PRQC supports Emergency Telecommunication

Services (ETS) for homeland security and has collaborated with ATIS PTSC in the development

and publication of ETS related standards architecture work.

ATIS' Wireless Technologies and Systems Committee (WTSC) also works on public

safety issues. ATIS WTSC develops standards and technical reports and transposes specifications

related to 2G, 3G, and evolved 3G wireless services and systems, as well as those for Wireless

Wideband Internet Access systems. Specifically, ATIS' WTSC Lawful Intercept (LI)

Subcommittee develops and maintains standards related to lawful intercept within the GSM family

and coordinates activities relevant to U.S., regional, and international standards and specifications

to ensure regulatory and commercial requirements are met.[6]

ATIS' Emergency Services Interconnection Forum's (ESIF) primary focus is to provide a

forum to facilitate the identification and resolution of technical and/or operational issues related to

the interconnection of wireline, wireless, cable, satellite, and Internet services to emergency

service networks. ATIS ESIF actively has been engaged in developing standards and technical

specifications that address end-to-end functionality testing in wireless E9-1-1, alternate call routing

options during a 9-1-1 call when the normal path is unavailable, and location acquisition in

Internet Protocol access networks. Additionally, ATIS ESIF anticipates that the deployment of

broadband services will help facilitate the interoperability between the wireline emergency

services IP networks and the First Responder Radio IP networks.

C. Role of the Commission in Facilitating the Development of Standards

Finally, ATIS notes that the *NOI* seeks comment on the appropriate role of the Commission

in facilitating the development of equipment and protocol standards.[7] ATIS supports the

Commission's continuing participation in, and reliance on, consensus-based industry standards

developed by organizations such as ATIS.

ATIS notes that there is well-established policy that the government should use industry-

developed standards. The National Technology Transfer and Advancement Act of 1995, Public

Law 104-113 (NTTAA), for example, directs federal government agencies to use, wherever

feasible, standards and conformity assessment solutions developed or adopted by private,

voluntary consensus standards bodies in lieu of developing government-unique standards or

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[6] ATIS WTSC, as well as the ATIS 3GPP Individual Members, provides North American input into 3GPP on LTE and other communication technologies, and ATIS believes that any broadband plan should consider the deployment of LTE.

[7] *NOI* at ¶ 50.

regulations. Additionally, the Office of Management and Budget (OMB) Circular A-119, Federal

Participation in the Development and Use of Voluntary Consensus Standards in Conformity

Assessment Activities, encourages the government to work with industry to develop standards and

promotes close interaction and cooperation between the public and private sectors in the

development of standards.

ATIS is pleased to note that several government agencies have participated in its

voluntary consensus-based standards development process. These standards range from security,

lawful intercept, wireless, quality of service, ordering/billing to name only a few. Specifically,

the National Communication System, Department of Defense, Federal Bureau of Investigation,

and Department of Commerce (which includes the National Institute of Standards and

Technology and National Telecommunications and Information Administration) are active

members of ATIS and participate in ATIS standards development activities. The FCC also is an

active participant in ATIS' Network Reliability Steering Committee (NRSC), which provides

guidelines and tools to the communications industry on maintaining a high level of network

reliability in the United States.

III.   Conclusion

ATIS shares the Commission's view that technology intersects with just about every

aspect of daily living and that increasingly individuals take advantage of broadband services for

everyday communications with family and co-workers.[8] Consequently, ATIS believes that the

broadband policy should reflect and give strong consideration to the technical work that has been

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[8] *See NOI* at ¶¶ 1, 4.

performed by the industry thus far. It is important that the broadband deployment plan under

development be consistent with the technical work done by the industry in ATIS.

Respectfully submitted,

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