

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matters of)	
)	
Video Device Competition)	MB Docket No. 10-91
)	
Implementation of Section 304 of the Telecommunications Act of 1996)	
)	
Commercial Availability of Navigation Devices)	CS Docket No. 97-80
)	
Compatibility Between Cable Systems and Consumer Electronics Equipment)	PP Docket No. 00-67
)	

**COMMENTS OF THE ALLIANCE FOR TELECOMMUNICATIONS INDUSTRY
SOLUTIONS**

The Alliance for Telecommunications Industry Solutions (ATIS) submits these comments in response to the Federal Communications Commission’s (Commission) *Notice of Inquiry (NOI)* released on April 21, 2010, in the above-referenced dockets.¹ The comments reflect input from and highlight the work of the ATIS IPTV Interoperability Forum (IIF) and ATIS Incubator Solutions Program #6 – IP-based Downloadable Security Incubator (AISP.6-IDSI or Incubator), ATIS is filing these comments to make the Commission aware of its substantial work program on internet protocol television (IPTV), particularly the work of the AISP.6-ISDI in developing downloadable security solutions for IPTV that enables interoperable security solutions and is consistent with the objectives set forth by the Commission in its *First Report and Order* in CS Docket No. 97-80.

¹ *In the Matter of Video Device Competition*, MB. Docket No. 10-91, *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, CS Docket No. 97-80, *Compatibility Between Cable Systems and Consumer Electronics Equipment*, PP Docket No 00-67, *Notice of Inquiry*, FCC-10-60 (rel. April 21, 2010).

I. Background

ATIS is a global standards development and technical planning organization that leads, develops and promotes worldwide technical and operations standards for information, entertainment and communications technologies. ATIS' membership is diverse, including all stakeholders from the Information and Communication Technology (ICT) industry – wireline and wireless service providers, equipment manufacturers, competitive local exchange carriers, data local exchange carriers, providers of commercial mobile radio services, broadband providers, software developers, consumer electronics companies, digital rights management companies, and internet service providers.

Nearly 600 industry subject matter experts from more than 250 ICT companies work collaboratively in ATIS' 18 open industry committees, which focus on a broad range of priorities for the ICT industry, including network architectures and platforms, the ordering and billing of services, E9-1-1, cyber security, the reliability and interoperability of current and next generation technologies, the seamless delivery of converged wireline and wireless services such as IPTV over multimedia platforms, and the networks of the future.

The ATIS IIF is recognized globally as the leading developer of requirements, standards and specifications for IPTV, including the delivery of Internet-sourced content via an IPTV (i.e., managed) service. Since its establishment, the ATIS IIF has measurably advanced the development of IPTV specifications and standards. Participants from across the IPTV ecosystem participate in IIF's five (5) committees: (1) Architecture; (2) IPTV Security Solutions; (3) Testing and Interoperability; (4) Metadata and Transaction Delivery, and (5) Quality of Service Metrics.

The AISP.6-IDS, one of ATIS' Incubators,² is comprised of telecommunications industry professionals involved in various aspects of the IPTV market. AISP.6-IDS was established in March 2009 for the specific purpose of furthering the work of the ATIS Incubator Solutions Program #5 – IPTV Separable Security Incubator (AISP.5-ISSI), which had recommended the development of a targeted solution for downloadable security. Given the continued growth of IPTV services in the retail market and ATIS' leading role in creating IPTV standards, the AISP.5-ISSI projected that a downloadable security solution would benefit the industry and the consumers by enabling interoperable security solutions in an efficient manner. AISP.6-IDS advances that work and plans to share the technical solutions developed with appropriate standards organizations to further standardization in the IPTV area.

II. Discussion

In the *NOI*, the Commission seeks comment on steps it can take to foster competition and increase consumer choice in the retail market for smart, set top-video devices that are compatible with all multichannel video programming distributor (MVPD) services.³ Additionally, the Commission introduces its "AllVid" concept as a possible solution to eliminate barriers to entry in the retail market for smart video devices that are compatible with all MVPD services.⁴

As a leading developer of technical standards relating to the delivery of converged services and specifically IPTV, ATIS appreciates the opportunity to offer comments in this proceeding. ATIS agrees with the Commission that there is a need for technical solutions that would promote innovation in the set top box market, increase consumer choice and ultimately effectuate the intent of Congress as set forth in Section 629 of the Communications Act of 1934,

² ATIS Incubators provide a "fast-track" process for addressing critical technical and operational issues that require focused attention within a short timescale.

³ *NOI* at ¶1.

⁴ *NOI* at ¶23.

as amended⁵. However, as noted in its comments in response to the Commission's National Broadband Plan (*NBP*) *Public Notice #27*, ATIS believes that the Commission should not impose any regulations or technology mandates on the industry at this time. Instead, ATIS urges the Commission to support and encourage the collaborative work of industry pertaining to IPTV and set top boxes underway in ATIS Committees.⁶

A. Consideration for Alternative Innovative Solutions

In the *NOI*, the Commission invites comments on alternative proposals or solutions that would spur competition for smart video devices that are compatible with all MVPD services.⁷ Emerging consumer trends are towards increased video consumption from a variety of sources (including Internet sources, not just MVPDs), in a variety of locations (not just the home) and on a variety of devices (not just a TV set). "AllVid" addresses only a portion of the scope of industry agreements required to facilitate the realization of these emerging consumer video services. As briefly described above, in March 2009 ATIS launched its AISP.6-IDS with the goal to fast-track the development of detailed specifications that constitute a downloadable solution for the IPTV market.

Currently, the AISP.6-IDS is creating its ATIS IPTV Downloadable Security Specification (ATIS DSS). This specification, which AISP.6-IDS anticipates will be completed by the end of 2010, addresses:

- Detailed architecture, description, diagrams, reference points, flows of the physical secure part (which is a tamper-proof secure processor);
- Recovery of the physical environment in the case of a security breach;
- Personalization of secure parts and hosts;
- Assurance that the replacement of a previously downloaded security client is complete and leaves no residual data;

⁵ 47 U.S.C. § 549 (c).

⁶ See ATIS Comments – NBP Public Notice #27 at 3.

⁷ *NOI* at ¶2.

- Revocation and disablement of the secure download environment if private key information is compromised; and,
- Interaction between the secure part and the download manager to authenticate each other and create a trust between the two entities.

Upon completion, it is anticipated that the ATIS DSS will be sent to the ATIS IIF for its review, processing and publication as an ATIS standard. The published standard will enable IPTV service providers to migrate away from external security devices, while still ensuring the delivery of copy-protected content. The AISP.6-IDSi is unique in that it is simultaneously developing both the downloadable solution's technical specifications, and the business requirements necessary for its commercial implementation.

The solution will enable IPTV service providers to reduce costs, and more easily accommodate downloadable security replacements and upgrades. AISP.6-IDSi is undertaking this effort to provide a renewable, acceptable, extensible and compatible security solution in IPTV Terminal Function (ITF) devices. As the solution will be incorporated in a certified, non-removable component housed in the ITF device, it is expected to reduce overall costs and enable the solution's easy and autonomous upgradeability.

In addition to the AISP.6-IDSi work, more than 25 companies representing a diverse cross section of the ICT industry actively participate in ATIS' IPTV Interoperability Forum's (IIF), which was established in 2005 to enable the interoperability, interconnection, and implementation of IPTV systems/services. The IIF examines the standardized delivery of Internet-sourced content over an IPTV (i.e., managed) network and the development of specifications needed to standardize delivery of Internet-sourced content to consumers over IPTV networks.

The ATIS IIF has significantly advanced the development of IPTV specifications and standards and has produced key requirements and framework documents that serve as the foundation for IPTV standards. The IIF's work focuses on the broad IPTV spectrum, from architecture to metadata to digital rights management. Among the 33 published IIF standards are

- The industry's first set of IPTV architecture requirements that define the scope of IPTV services and the high level requirements that will guide the development of architecture specifications. *IPTV Architecture Requirements* (ATIS-0800002);
- A description of the high level architecture to enable end-to-end systems' implementation and interoperability for supporting network design. *IPTV High Level Architecture* (ATIS-0800007); and
- Technical and operations standards for the provisioning, configuring and monitoring of IPTV devices in the consumer domain and for ensuring the integrity and authenticity of content within the interoperable environment. *Remote Management of Devices in the Consumer Domain for IPTV Services* (ATIS-0800009); *Secure Download and Messaging Interoperability Specification* (ATIS-08000014).
- A default scrambling/descrambling algorithm for MPEG-2 Transport Stream and scrambling algorithm signaling that provides network operators with a maximum choice of IPTV Receiving Device Platforms (ATIS-0800006).

B. Industry Should Take Lead Role in Technological Advancement

ATIS strongly believes that technological innovation of video devices would best be promoted by the Commission's support and encouragement of the continued market-driven standardization of work through open, consensus-based standards organizations such as ATIS.⁸

The imposition of regulatory mandates could have the affect of inhibiting the very technical innovation the Commission seeks to spur with this *NOI*.

Finally, ATIS believes that the December 31, 2012, date established by the Commission for all MVPDs to offer AllVid equipment to their subscribers may not be achievable. ATIS is

⁸ The National Technology Transfer and Advancement Act of 1995, Public Law 104-113 (NTTAA) 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 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.

unaware of any work being done to develop such equipment that would accommodate such an aggressive timeline.

III. Conclusion

ATIS supports, and is engaged in, the development of open, consensus-based solutions that will promote video device competition. ATIS invites the Commission to consider the solutions being developed by the ATIS IIF and AISP.6-IDS1 in the emerging IPTV market. These solutions are expected to address some elements raised in the *NOI* and achieve the goals set by the Commission to enhance video device competition.

Respectfully submitted,

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