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VIA EMAIL

Ms. Jessica Potocki (jessica.potocki@HQ.DHS.GOV) Department of Homeland Security

Re: DHS Request for Information – Transferring of Time via Fiber Network Technologies

Dear Ms. Potocki:

The Alliance for Telecommunications Industry Solutions (ATIS), on behalf of its Copper/Optical Access, Synchronization and Transport (COAST) Committee offers its assistance to the Department of Homeland Security (DHS) in meeting the goals of the above-referenced RFI by helping to analyze potential time transfer solutions for public telecommunications network compatibility and practical deployment.

By way of 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. More than 200 companies actively participate in ATIS' 16 industry forums, which develop standards, best practices, and guidelines essential to communications networks' operation and continued evolution.

ATIS COAST develops standards and technical reports related to telecommunications network technology pertaining to network synchronization interfaces and hierarchical structures for U.S. telecommunications networks. Standards development in COAST is driven through the voluntary contributions supplied by member companies. COAST focuses on those functions and characteristics necessary to define and establish the interconnection of signals comprising asynchronous and synchronous network transport. ATIS COAST includes key experts with knowledge of current telecom network architectures (including synchronization), as well as network-network interconnectivity issues. More information on ATIS COAST is attached to this letter.

COAST, and its predecessors OPTXS and T1X1, have been involved with setting North American synchronization network interface requirements and behavior for over 20 years. Because COAST is composed of the major telecom network providers and the major network equipment manufacturers in North America, it is uniquely positioned to help DHS analyze potential time transfer solutions from a network compatibility and interconnectivity point of view. Much of the

committee's work focuses on setting standards for network synchronization and telecom signal interfaces.

North American telecommunications networks are currently critically dependent on GPS-derived timing using stationary antennas to allow precise synchronization of networks operated by different network providers, and adherence to national telecom network synchronization standards. Such GPS-based synchronization allows for proper network operation, including wireless call handoffs and the realization of network-to-network and international error performance objectives. In addition, GPS-based network synchronization is critically important for location-based services, and is required in many North American networks to meet FCC-mandated E911 emergency location services requirements.

As we search for new time transfer methodologies, performance limits, and standards for time transfer across our networks, COAST will play a critical role in helping to set standards and performance limits in this area. ATIS COAST welcomes the opportunity to leverage its member company expertise to help DHS analyze potential fiber-based time transfer solutions that could be used for wide-scale time transfer across existing telecom networks. COAST can use its open, contribution-driven, and consensus-based processes to further the discussion and analysis of the various RFI proposals to help evaluate their efficacy for network deployability. Further, COAST invites DHS to participate, as guests, in discussions on this topic within the committee.

COAST is happy to supply additional details regarding how this collaborative effort could be facilitated.

If there are any questions pertaining to this matter, please do not hesitate to contact the undersigned.

Sincerely,

Thomas Goode General Counsel

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cc: Danielle Richardson (Danielle.Richardson1@HQ.DHS.GOV)
Marc Weiss (mweiss@boulder.nist.gov)

ATTACHMENT: ABOUT COAST

The Copper/Optical Access, Synchronization and Transport (COAST) Committee engages industry expertise to develop and recommend standards and technical reports for home, access and transport network and synchronization technologies over copper and optical mediums. COAST is committed to proactive engagement with national, regional and international standards development organizations and forums that share its scope of work.

COAST SUBCOMMITTEES:

- COAST SYNC (Synchronization) develops and recommends standards and prepares technical reports related to telecommunications network technology pertaining to network synchronization interfaces. The interfaces are between United States Telecommunications Networks, some of which are associated with other Telecommunications Networks. SYNC focuses on those functions and characteristics necessary to define and establish synchronization between networks and also on areas concerned with network phase/time characteristics that require theoretical, analytical and empirical investigations to ensure that standards and reports meet the highest norms of technical integrity and completeness. SYNC also prepares recommendations on related subject matter under consideration in various North American and international standards organizations.
- COAST NAI (Network Access Interfaces) develops and maintains standards and technical reports for systems and associated interfaces, for high-speed bi-directional digital transport via metallic facilities (e.g., xDSL), home networking transceivers (MAC/PHY related), and for access to telecommunications networks through optical and electrical, analog and digital, interfaces. The work of this group focuses on physical layer functionality. COAST-NAI makes recommendations to COAST on related matters before US and international standards organizations.
- COAST OAN (Optical Access Networks) develops and maintains standards, technical
 requirements, and technical reports for systems and associated interfaces for optical
 access to telecommunications networks (e.g., G-PON). The work of this group focuses
 on physical and transmission convergence layer functionality, but also includes higher
 layer functionality such as equipment management, traffic management, and system-level
 issues related to optical access networking equipment. COAST-OAN makes
 recommendations to COAST on matters related to optical access before US and
 international standards organizations.
- COAST OHI (Optical Hierarchical Interfaces) engages industry expertise to develop and recommend standards and technical reports for optical and packet transport network and technologies. COAST-OHI also reviews and prepares input on related subject matter under consideration in various North American and international standards development organizations that share its scope of work.

The organizational members of ATIS COAST voting roster currently include: Actelis Networks; ADTRAN; Alcatel-Lucent; ASSIA; AT&T; Bourns Limited; Broadcom Corporation; Brocade Communications Systems;; CIENA Corporation; Cisco Systems; Cortina Systems; CSI Telecommunications, Inc.; Department of Commerce; Department of Defense; Ericsson; Frequency Electronics; GENBAND; Overture Networks; Huawei Technologies; Ikanos; Metanoia Technologies; NEC America; Nokia Siemens Networks; Oscilloquartz; PMC-Sierra; Stanford University; Symmetricom; Telcordia Technologies; Tellabs Operations; Verizon; Xtera Communications; and Zarlink Semiconductor.

Current observing (non-voting) members include: ECI Telecom; National Communications System; Real Communications; and Rogers Wireless.