atis TECHNOLOGY AND OPERATIONS COUNCIL

Priority Work Plan Summary

Data Interchange

Issue Summary **March 2006**

New technologies, e-business requirements, and the need to quickly roll out new services – such as Voice over IP (VoIP), IPTV, and mobile wireless services – necessitate an investigation of the way information is exchanged electronically to automate key inter-carrier processes, including ordering and billing. Much work has already been done on existing standards and technology to address data interchange for legacy services. The ATIS Technology and Operations (TOPS) Council established a Data Interchange Focus Group (DIFG) to establish an industry standardization work plan designed to address these issues. In creating the work plan, the DIFG identified the following key issues:

- The industry is using multiple network interfaces, protocols, and message formats for data interchange (e.g., CORBA, EDI), increasing cost and operational inefficiencies.
- Data definitions and usage rules are not globally defined for the telecommunications industry. This leads to redundancies and conflicts, making it difficult to integrate new products and services.
- Legacy data interchange solutions and inflexible industry standards inhibit rapid implementation of new services, impeding the evolution to "real time" end-to-end business processes.
- Uniform implementations are inhibited by multiple solutions. Establishing trading partner relationships and adding new services is time consuming and labor intensive.

Work Plan Recommendations

ATIS recommends that new opportunities and challenges be addressed by the industry through the creation of a "Service Neutral" E-business Framework (the "E-Business Framework") for back office processes such as pre-ordering, ordering, management, billing, and settlement between providers. As defined, a "Service Neutral" E-business Framework consists of standardized Processes, Data Models, Protocols, and Implementation Agreements. It focuses on implementable processes and technology, and supports flexibility in services, business models, and regulatory structures. The E-Business Framework should leverage and be synergistic to existing Business-to-Business (B2B) standards (e.g., RosettaNet) and not duplicate efforts in non-telecom B2B efforts (e.g., procurement of office supplies).

The following actions are essential to the creation of the E-Business Framework:

- Adopt and evolve the *Telecom Mark-up Language (tML) Transport Profile* (ATIS Standard TCIF-03-003) as the E-business Framework solution for OSS Interconnection. As outlined in the DIFG work plan, the ATIS Ordering and Billing Forum (OBF), and the ATIS Telecom Management and Operations Committee (TMOC)

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will further develop the details in the E-business framework that selects the gateway technology used to support multiple services and lines of business.

- The initial Work Plan recommended the completion of a Generic Telecom Data Dictionary (GTDD) that defines common data elements and describes their use across multiple record formats and processes. The idea has since been revisited by the Focus Group. Rather than create the GTDD by systematically normalizing all fields in existing documents, the Focus Group's recommended approach is to selectively normalize data – potentially within the TeleManagement Forum (TMF) framework – as identified business drivers emerge for specific services, e.g., IPTV.

- Adopt a consistent data interchange solution that facilitates the evolution of Legacy Systems to "real time" end-to-end business processes. In addition, solutions should be managed and developed using the UMA methodology to propel the industry to the next generation of OSS interconnection standards. As the E-business framework timeframe is finalized, standardized industry migration an retirement plans need to be developed for existing data interchange standards (e.g., EDI, CORBA, CMIP). However, it is not recommended to convert all existing legacy applications unless a strong business need is identified.

- Streamline implementation guide development by providing a single implementation guide at the gateway layer and a Generic Implementation Guide (GIG) at the business layer.

- Investigate ebXML, RosettaNet, and others as appropriate, to automate the creation of B2B relationships (self-service).

Work Plan Status

The DIFG published the Data Interchange Work Plan in 2004. The group reconvened on June 1, 2005 to reassess industry's needs around data interchange in light of the changing marketplace and the Next Generation Network (NGN) work effort, and either validate the DI Work Plan findings, or adjust them accordingly. As a result of this effort, an addendum was approved and released on July 15, 2005 with recommendations that scaled back the initial recommendations for the GTDD and refined the migration to UMA methodology for legacy systems. After careful review, it was determined that the ATIS TOPS NGN Focus Group recommendations do not conflict with the DIFG Work Plan, or necessitate the need to modify the DI Work Plan at this time.

Detailed copies of the ATIS Work Plan for Data Interchange are available to ATIS member companies.

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