



International Telecommunication Union

Overview of ATIS TMOC's Work Programs

TMOC: Telecom Management and Operations Committee (Formerly TIM1)

H. Kam LAM
Lucent Technologies

The *Telecom Management and Operations Committee* (TMOC) develops operations, administration, maintenance and provisioning standards, and other documentation related to Operations Support System (OSS) and Network Element (NE) functions and interfaces for communications networks - with an emphasis on standards development related to U.S.A. communication networks in coordination with the development of international standards.

TMOC Home Page: <http://www.atis.org/0130/index.asp>



ATIS/TMOC Scope

ITU-T

- Development of standards and other documentation for communications network operations and management areas, such as
 - Configuration Management
 - Performance Management (including in-service transport PM)
 - Fault Management
 - Security Management (including management plane security)
 - Accounting Management
 - Coding/Language Data Representation
 - Common/Underlying Management Functionality/Technology
 - Ancillary Functions (such as network tones and announcements)
- Requires close and coordinated working relationships with other domestic and international SDOs and industry forums



ITU-T

TMOC Members (Subset of ATIS Members)

| | |
|-----------------------------|--------------------------|
| Alcatel USA | NeuStar |
| AT&T | Nortel |
| BellSouth | Qwest Communications |
| Cingular Wireless | Siemens Communications |
| Cisco Systems | Sprint LTD |
| Department of Defense | Sprint Nextel |
| Harris Corporation | Telcordia Technologies |
| Intelsat | Tellabs Operations |
| Lucent Technologies | Tollgrade Communications |
| National Comm. Systems | VeriSign |
| National Exch. Carrier Assn | Verizon Communications |



ATIS Today



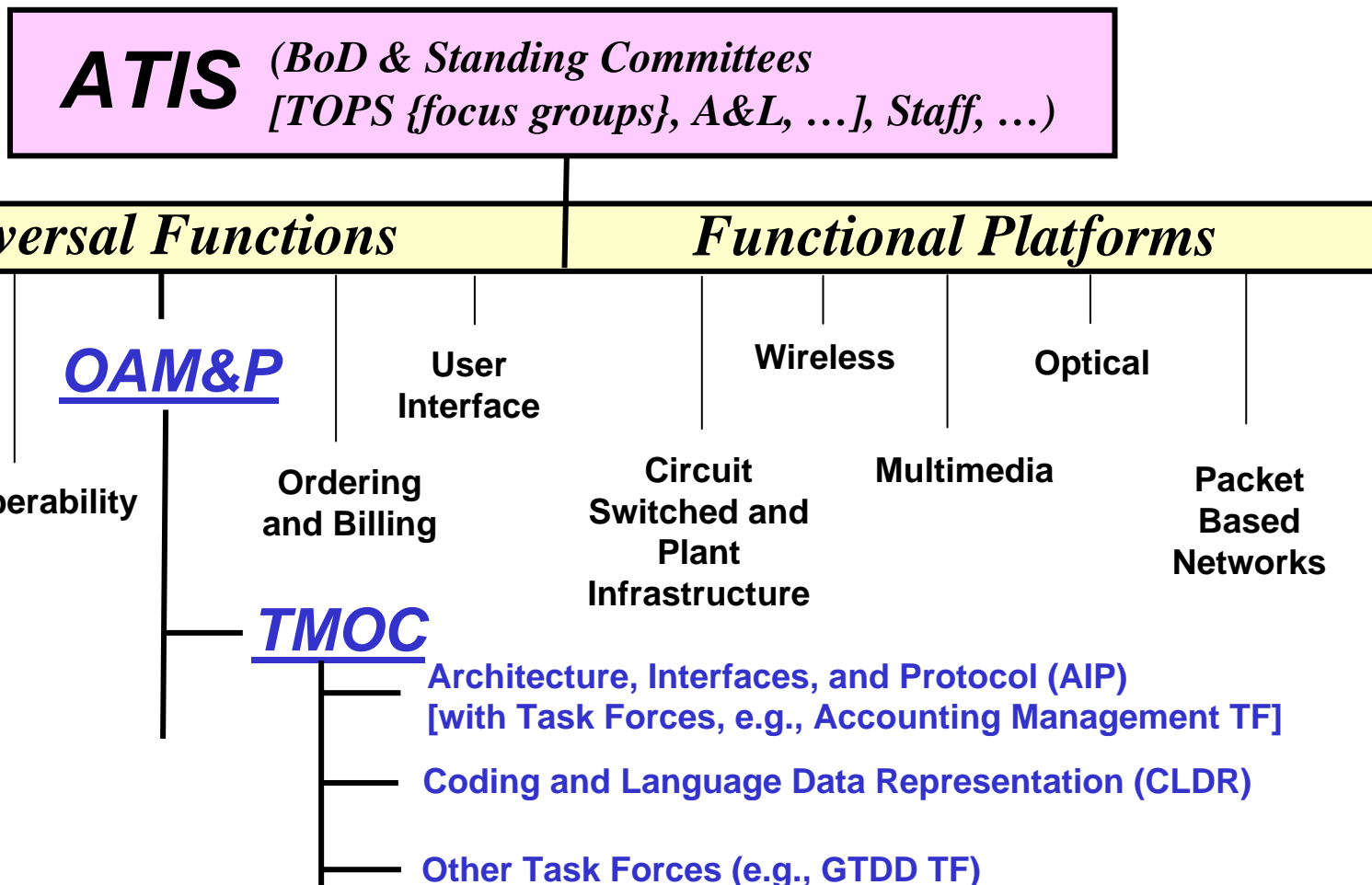
TMOC

www.atis.org

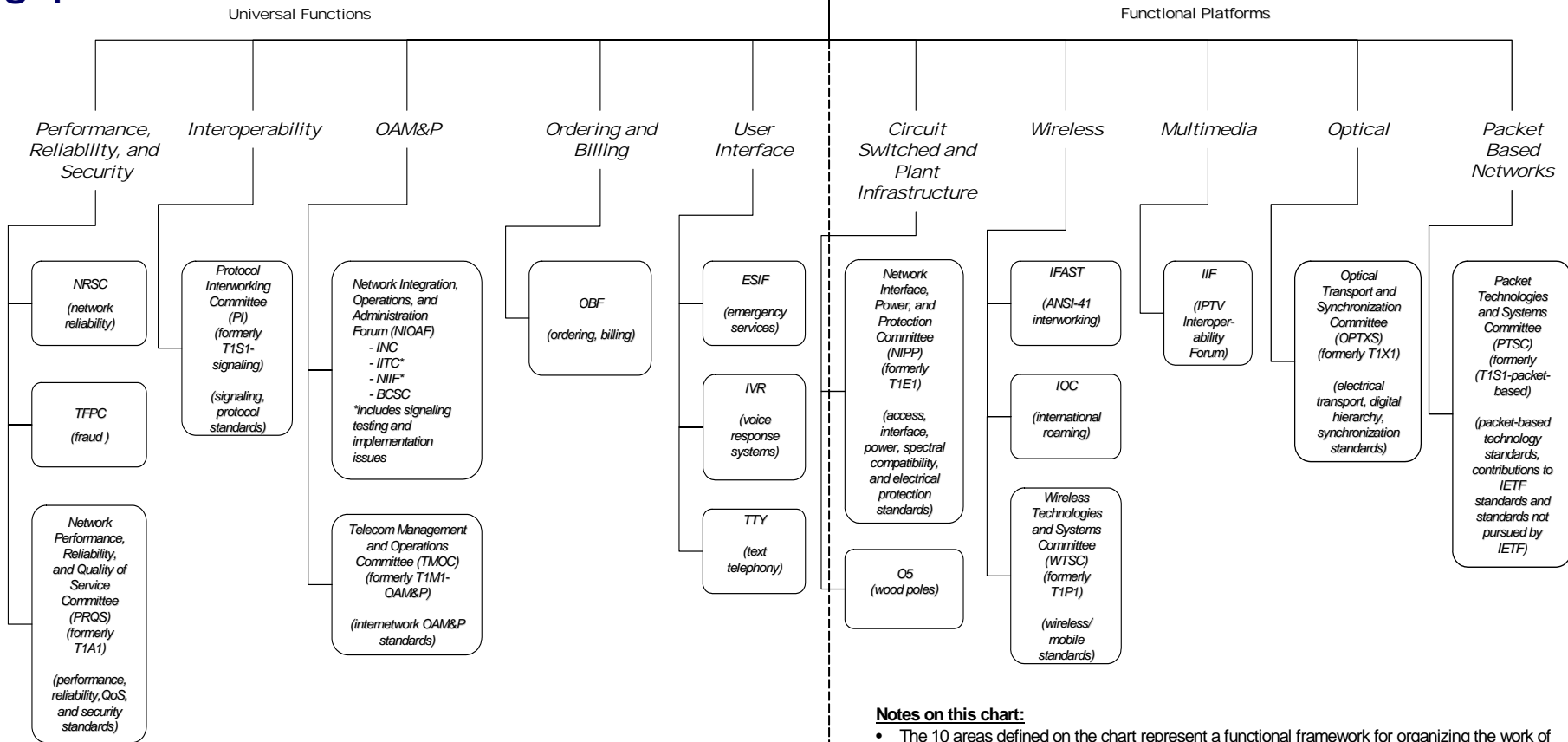
ITU-T

- Technical planning and standards development organization of communications and Information Technologies companies.
 - 24 standards making committees and incubators covering broad spectrum of industry needs.
 - 6 focus groups defining detailed work plans on the following priorities: Next Generation Networks, Network Security, Voice Over IP, Data Interchange, Wide Area Ethernet and Mobile Wireless Services.
- Committed to rapidly developing and promoting technical and operations standards for the communications and related information technologies industry worldwide.
- ATIS' member companies and committee participants represent a wide cross section of the global communications industry.
 - 300+ member companies.
- On the international front: organizational partner of 3GPP, Global Standards Collaboration (GSC).
- Leading contributor to ITU via the U.S. State Department (and ITU-R sector member).
- US Telecom Premier Partner, providing technical programming for large trade show, TelecomNEXT.

TMOC Org Chart (in ATIS Org Chart*)



*For complete ATIS Org Chart, see ATIS Operating Procedures: <http://www.atis.org/atisop.pdf>



Notes on this chart:

- The 10 areas defined on the chart represent a functional framework for organizing the work of ATIS and for marketing it externally. They are not actual committees or individuals with administrative or oversight responsibilities.
- The remaining layers of the chart identify where the existing ATIS committees fall in the functional structure.
- PEG (Protection Engineers Group) is not included on this chart as it meets only once annually for an information exchange meeting, rather than for developing technical standards.
- It is intended that the structure presented on this chart will be dynamic and will grow and change over time as work flows through ATIS.



- **Common OAM&P Functionality and Technology**
 - *Provides for industry efficiencies from common frameworks and models (e.g., Management Plane Security, ...)*
- **Inter-Administration OAM&P**
 - *Provides for interoperability and intercommunication between service providers (e.g., OSS Interconnection, Common Coding/Language, ...)*
- **Network Technology Specific OAM&P**
 - *Provides for interoperability between and among service providers' and suppliers' systems (e.g., Tech Specific [VoIP, IPTV] Accounting Management, ...)*



TMOG Project/Issue View – NGN Common OAM&P Functionality and Tech

ITU-T

| Iss # | Issue Title | Issue Description/Need | Comments |
|-------|--|--|---|
| 56 | Security Management System | Part of TOPS Security Work Plan, Section 3: Overall Security Management System includes: -Security Event Management and Attack Determination and Mitigation; - Configuration Management (including user accounts and passwords); -Credentials Management -Security Verification and Validation; -EMS Interface | In Letter Ballot process |
| 60 | ITU-T Study Group 4 | The development of USSGB/ITU-T USA positions for the ITU-T Study Period from 2005 to 2008. Note that positions may be targetted towards one or more ITU-T SG 4 Questions under study (see T1M1/2003-240 and/or www.itu.int/ITU-T/studygroups/com04/questions.html) | Umbrella Issue for Study Period of ITU-T SG4 |
| 62 | ITU-T NGN Management Focus Group (NGN Subset of Issue 60) | With the emphasis on NGN in ATIS and the industry, there is a need to track and influence the work of the ITU-T NGN Management Focus Group (NGNMFG) which has been established with the objective to provide, through industry-wide collaboration, the management interface capabilities to support NGN management (see the NGNMFG details in TMOG-2005-019). | ITU-T NGN Management Focus Group (NGN Subset of Issue 60) |
| 81 | Inter-Administration Accounting Management | TMOG has been requested by OBF to update ATIS-0300075 and ATIS-0300075.1 and to work with ITU-T to include the Billing/Settlement needs of OBF. See OBF to TMOG Liaisons: TMOG-2006-025 and TMOG-2006-026. | |
| 82 | Trial Use to ANS: ATIS-0300075.1 | ATIS-0300075.1 is currently an ANS for Trial Use. An open work item on ATIS-0300075.1 must be maintained for appropriate management of ATIS-0300075.1 during the trial period (for related contributions, comments, discussions, etc.). [Note, with the recent TMOG/3GPP Harmonization Agreement regarding Accounting Management (see TMOG-2006-022), the ITU-T NGNM Focus Group requested that TMOG/3GPP accelerate a propose draft ITU-T Rec (based on the Harmonization Agreement) for consideration in ITU-T SG4 -- that would reference the TMOG and 3GPP standards.] | |



TMOC Project/Issue View – NGN Inter-Administration OAM&P

ITU-T

| Iss # | Issue Title | Issue Description/Need | Comments |
|-------|---|---|--------------------|
| 14 | ETS Work Items related to ITU-T Study Group 4 (ETS Subset of Issue 60) | The development of ETS related USSGB/ITU-T USA positions for ITU-T (SG4) Question 7/4, Requirements for Business to Business and Customer to Business Management interfaces, and other SG4 Questions as appropriate | Closed in Mar 2006 |
| 63 | Instant resolution of ITU Carrier Codes (ICCs) as NGN identifiers | See ICC Issue Description (TMOC-CLDR-2005-007). A request was presented to ITU-T SG 4 in its February 2005 meeting, proposing that an ad hoc group be formed to develop NGN related revisions to M.1400 for ITU Carrier Codes (ICCs). The request appeared to propose that ICCs be used to identify resources such as providers of NGN IP-enabled networks, network element management systems, and directories. This would considerably extend the scope of ICCs beyond the current ICC definition and management as specified in ITU-T Rec. M.1400. | |
| 73 | Revision of tML Transport Profile Specification | Part of TOPS DI Work Plan, Work Area 1 (evolve the tML Transport Profile): General update of tML Transport Profile Specification including the incorporation of the resolutions to Issue 50 and 51. | |
| 77 | TMOC support for GTDD | Part of TOPS DI Work Plan update; GTDD is assigned to TMOC; see TMOC-2005-085. 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, especially in end-to-end E-business processes. | |



TMOC Project/Issue View – NGN Network Technology Specific OAM&P

ITU-T

| Iss # | Issue Title | Issue Description/Need | Comments |
|-------|--|---|---|
| 12 | T1.202: Future Study Item - IP Focus | T1.202-2004 – Internetwork Operations – Guidelines for Network Management of the Public Telecommunications Networks under Disaster Conditions has been completed and contains an Annex on Future Study Items, e.g., Proposal for version of T1.202 focused on IP Networks. | |
| 57 | VoIP Accounting Management NE/OSS Interface - ANS | There is a need for an American National Standard regarding the accounting interface between VoIP-handling network and service elements and OSS/BSS. For this purpose, VoIP-handling network and service elements could include VoIP gateways, gatekeepers, media gateway controllers, etc. Typical OSS/BSS that may be involved would include mediation systems, billing systems, EMS, etc. See TMOC/IPDR Collaboration Terms of Reference (T1M1/2003-204Rx) | See Issue 82. Built on NGN AccMgt -- ATIS-0300075.1 |
| 58 | VoIP Accounting Management NE/OSS Interface - ITU-T | There is a need for an ITU-T Recommendation regarding the accounting interface between VoIP-handling network and service elements and OSS/BSS. For this purpose, VoIP-handling network and service elements could include VoIP gateways, gatekeepers, media gateway controllers, etc. Typical OSS/BSS that may be involved would include mediation systems, billing systems, EMS, etc. See TMOC/IPDR Collaboration Terms of Reference (T1M1/2003-204Rx) | See Issue 82. Built on NGN AccMgt -- ATIS-0300075.1 |
| 61 | WAE OAM and Network Management | As identified by the ATIS TOPS Wide Area Ethernet (WAE) Work Plan, TMOC should work with MEF to establish common baseline requirements for network management for Ethernet services, and also should be involved in WAE OAM work occurring in the industry (via cross committee coordination and liaison). | |
| 76 | IPTV Accounting Management | IPTV services do not currently have standardized accounting mechanisms. Standard IPTV accounting management can provide for significant efficiencies for all interested parties. Accounting in IPTV could serve a variety of purposes, including revenue management, settlement between value chain partners, marketing analysis, service level measurements, and more. | |



TMOC Project/Issue View Other Work – Outside of NGN

ITU-T

- **Common OAM&P Functionality and Technology**
 - Maintenance of foundation standards, e.g., part of American National Standards (ANS) 5-Year review.
- **Inter-Administration OAM&P**
 - Major work in the area of Coding and Language Data Representation (CLDR), e.g., company codes; Global Telecom Data Dictionary (GTDD); Fault Management OSS Interconnection; Maintenance of standards
- **Network Technology Specific OAM&P**
 - Maintenance of standards, e.g., in-service transport performance management.

- **Common OAM&P Functionality and Technology**
 - *Provides for industry efficiencies from common frameworks and models (e.g., Management Plane Security, ...)*
- **Inter-Administration OAM&P**
 - *Provides for interoperability and intercommunication between service providers (e.g., OSS Interconnection, Common Coding/Language, ...)*
- **Network Technology Specific OAM&P**
 - *Provides for interoperability between and among service providers' and suppliers' systems (e.g., Tech Specific [VoIP, IPTV] Accounting Management, ...)*

Mike Fargano - TMOC Chair
michael.fargano@qwest.com

Ron Roman - TMOC Vice Chair
rroman@telcordia.com

Jean-Paul Emard
Director - ATIS Technical Committee
jpemard@atis.org