



Overview of ITU-T SG4 Work on Network Management

Wang Zhi-li
BUPT

ITU-T Study Group 4 Question 10 Rapporteur

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Outline



- SG4 scope
- SG4 working parties
- SG4 recent accomplishment
- SG4 current work items
- SG4 next step



1. SG4 scope

- Responsibilities:
 - Studies related to the management of telecommunication services, networks, and equipment, including support for next generation networks (NGN) and the application and evolution of the telecommunication management network (TMN) framework.
 - Other telecommunication management studies relating to designations, transport-related operations procedures, and test and measurement techniques and instrumentation.
- Lead Study Group on Telecommunication Management in ITU-T

2. SG4 Working Parties (1)



- WP 1/4: Designations, performance, and test equipment
 - Q2: Designations for interconnections among network operators
 - Q3: Transport network and service operations procedures for performance and fault management
 - Q4: Test and measurement techniques and instrumentation for use on telecommunications systems and their constituent parts
 - Q5: Jitter and wander test and measurement techniques and instrumentation for use on telecommunications systems and their constituent parts

2. SG4 Working Parties (2)



- WP 2/4: Telecommunication management capabilities
 - Q6: Management principles and architecture
 - Q7: Requirements for business to business and customer to business management interfaces
 - Q8: Framework for the management of Next Generation Networks including the convergence of voice, data and multimedia for wire-line and wireless
 - Q12: Telecommunications management and OAM project

2. SG4 Working Parties (3)



- WP 3/4: Telecommunication management information models and protocols
 - Q9: Management interface methodology and infrastructure management information models
 - Q10: Application specific information models
 - Q11: Protocols and Securities for Management

3. SG4 recent work achieved (1)



• 3.1 Recent Accomplishments

- Designations and information exchange: M.1400 series specs.
- Framework for end-to-end QoS measurement and supervision for leased-circuit services: O.220
- Jitter and wander measuring equipment for digital systems which are based on the SDH: O.172
- Requirements for QoS/SLA management over the TMN X-interface for IP-based services : M.3341
- Guidelines for the definition of SLA representation Template: M.3342
- Requirements for NGN Appointment Management across B2B and C2B interface : M.3344
- Principles for the Management of NGN: M.3060

3. SG4 recent work achieved (2)



- TMN Interface Specification Methodology: M.3020
- CORBA-based management framework
 - X.780 series : Guidelines for defining CORBA MO
 - fine grain (0), coarse grain(1), service grain(2)
 - Q.816 series : CORBA-based management services
- BPON management: Q.834 series:
- Ethernet related management:
 - Q.838.1(EPON): Ethernet Passive Optical Network
 - Q.840.1(EoT) : Ethernet over Transport
- SDH-DLC management interface: Q.837 series.
- Security for the management plane: M.3016 series
 - Overview(0), Security Requirements(1), Security Services(2), Security Mechanism(3), Profile proforma(4)
- Security Management Systems Requirements:M.3410

3. SG4 recent work achieved (3)



- 3.2 Joint work with other SDOs
 - With TM Forum:
 - eTOM Framework M.3050 series:
 - MTNM information model: M.3170
 - SID model, M.3190, as a supplement to M.3100
 - With MEF:
 - Ethernet related interface harmonization (Q.840.1)
 - With 3GPP SA5
 - Harmonization of management interface specification methodology: M.3020 (ongoing)



4. SG4 current work items

- M.1400 series improvements
- Global Telecom Data Dictionary
- O.172, O.173 improvements
- Principles for Self-Service Management (M.ssm)
- Generic network information model - protocol neutral (connection-oriented, connectionless) (M.3160)
- Common Management Services – protocol neutral
- Work together with other SDOs and Forums:
 - Specification Methodology harmonization with 3GPP.
 - NGN Account Management with 3GPP
 - ASON management harmonization with TMForum.
 - EoT management harmonization with TMF
 - IPTV Management, with ATIS TMOC



5. SG4 Next step (1)

- NGN network and service management
- IPTV management
- Home Network Management
- XML-based management interface
- Security management supporting service
- XML-based management protocol profile



5. SG4 Next step (2)

- New Questions to be added in SG4
 - Service Provider/Network Operator requirements and priorities for telecommunication management
 - Network and service operations and maintenance procedures
 - Common measurement techniques and results collections for use on NGN telecommunications systems and their constituent parts



5. SG4 Next step (3)

- **Strategic Work Areas under consideration**
 - Agile service management
 - Management support for customer centric services
 - Support NGN business models
 - Management of Service and Transport Resources
 - Management of Home networking
 - Build on the IT Industry/Telecom management linkage
 - Technology watch for NGN Management
 - Centre of Excellence for NGN Management



Thank you!