Overview of ITU-T Working Party 1/4

Leen Mak

Manager, Standards and Industry Relations

Lucent Technologies

Chair, ITU-T WP 1/4

ITU-T Workshop "Telecommunication Management and Operations Support Systems"
Beijing, China, 22-23 May 2006

ITU-T

WP 1/4 Work Areas

- ITU-T Working Party 1/4 is responsible for
  - Designations for interconnections among network operators (Q.2/4)
  - Transport network and service operations procedures for performance and fault management (Q.3/4)
  - Test and measurement techniques and instrumentation (Q.4/4 and Q.5/4)
- Working environment
  - Small groups of highly specialised experts

ITU-T

Question 2/4 (1)

- Designations for interconnections among network operators
  - Required in day-to-day operation
  - Formally inter-operator, but may also be used on intra-operator interfaces
  - Was based on intuitive approach, now increasing use of formal methods for analysis and design

Question 2/4 (2)

- Recent accomplishments:
  - M.1400, Designations for interconnections among operators' networks
  - M.1401, Formalization of interconnection designations
- Current work:
  - Maintenance of M.1400 and M.1401, and Implemeters Guide
  - Q.2/4 cooperates with Q.9/4 on M.neutral and M.gtdd

ITU-T

Question 3/4 (1)

- Transport network and service operations procedures for performance and fault management
  - For PDH, SDH, ATM, OTN, and IP
  - Providing Error Performance Objectives and Limits (based on Network Performance Recommendations like G.821, G.829, Y.1541)
  - Providing measurement methods and procedures

Question 3/4 (2)

ITU-T

- Recent accomplishments:
  - M.2301, Performance objectives and procedures for provisioning and maintenance of IP-based networks
  - M.2401, Error performance limits and procedures for BIS and maintenance of an optical transport network
- Current work:
  - Maintenance of M.2301 and M.2401
  - New: Framework for the end-to-end QoS measurement and supervision for leased circuit services

ITU-T

Question 4/4 (1)

- Test and measurement techniques and instrumentation for use on telecommunications systems and their constituent parts
  - Mainly error performance measurement equipment
  - For SDH, ATM, OTN, IP

Question 4/4 (2)

ITU-T

- Recent accomplishments:
  - O.201, Q-factor test equipment to estimate the transmission performance of optical channels
  - O.211, Test and measurement equipment to perform tests at the IP layer
- Current work:
  - O.otn, Equipment to assess error performance on OTN interfaces

ITU-T

Question 5/4 (1)

- Jitter and wander test and measurement techniques and instrumentation for use on telecommunications systems and their constituent parts
  - Measurement equipment for timing related parameters
  - For PDH, SDH, OTN

Question 5/4 (2)

ITU-T

- Recent accomplishments
  - O.172, Jitter and wander measuring equipment for digital systems which are based on the synchronous digital hierarchy (SDH)
  - O.173, Jitter measuring equipment for digital systems which are based on the Optical Transport Network (OTN)
- Current work:
  - Maintenance of O.173