
Question(s): 5/13

Seoul, 14 - 25 January 2008

TEMPORARY DOCUMENT

Source: Rapporteur Q.5/13

Title: Revised Q.5/13 description for the next study period

This document contains a revised description of Q.5/13 for continuation in the next study period. After the invitation for review and comments on the Q.5/13 mailing list on 12 November 2007, no comments were received.

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Question 5/13 - OAM and network management for NGN

(Continuation of Question 5/13)

1. Motivation

OAM and network management capabilities are essential for all network technologies when developing a carrier-class network. It is also particularly true when developing an NGN because the NGN is expected to provide a wide variety of services in terms of reliability and performance including highly reliable and high quality services, which require effective network management. Under the responsibility of this Question, Recommendations will be developed to provide the specifications for OAM requirements, OAM mechanisms, and OAM interworking for realizing NGN and other networks. This activity will be conducted in close cooperation with related Study Groups, IETF, IEEE, Metro Ethernet Forum and other standardization bodies as necessary.

The following major Recommendations, in force at the time of approval of this Question, fall under its responsibility:

I.610, Y.1710, Y.1711, Y.1712, Y.1713, Y.1714, Y.1730, Y.1731, Y.1372 and Y.1373.

2. Question

Study items to be considered include, but are not limited to:

- Clarification of requirements and mechanisms of OAM for next generation networks (NGN). This includes study on end-to-end OAM support for packet based ubiquitous networks. The OAM functions provide the capability for defect detection, defect localization, topology management and performance management.
- Clarification of generic OAM principles for connection-oriented circuit-switched, connection-oriented packet-switched and connectionless packet switched networks.
- OAM functions for transport Ethernet-based networks. This includes defect detection, defect localization and performance measurement functions. OAM functions should be able to be applied to both point-to-point and multipoint-to-multipoint networks.
- OAM functions for T-MPLS-based networks. This includes defect detection, defect localization and performance measurement functions. OAM functions should be able to be applied to both point-to-point and point-to-multipoint networks.
- Clarification of generic OAM principles under interworking of different network technologies. This includes network interworking and service interworking scenarios.
- Continue work on the transport Ethernet OAM Recommendation Y.1731 in cooperation with SG15 and IEEE
- Continue work on the T-MPLS OAM Recommendation Y.1373 in cooperation with SG15 and IETF
- We can start work on OAM requirements and mechanisms for PBB-TE in cooperation with SG15 and IEEE.

- What enhancements to existing Recommendations are required to provide energy savings directly or indirectly in Information and Communication Technologies (ICTs) or in other industries? What enhancements to developing or new Recommendations are required to provide such energy savings?

3. Tasks

Tasks include but are not limited to:

- Preparation of Recommendations on OAM requirements and framework for NGN.
- Preparation of Recommendations on OAM mechanisms for NGN.
- Preparation of Recommendations on T-MPLS OAM requirements and mechanisms including defect localization functions and performance management functions.
- Preparation of Recommendation on OAM functions that accommodate interworking of different network technologies.

4. Relationships

Recommendations: I- and Y-series

Questions: Q.2, 3, 7 and 9/13

Study Groups: ITU-T Study Groups 4, 12 and 15

Standardization bodies fora and consortia:

IEEE 802.1 and 802.3 working groups
IETF working groups related to network management and OAM
MEF
IP/MPLS Forum
