

**Question(s):** 16/13

Geneva, 3-12 February 2004

Ref. : TD 44 Rev. 1 (WP 2/13)**Source:** ITU-T SG 13 (Geneva, 3 - 12 February 2004)**Title:** Requirements for network topology and resource status collection pertaining to the ITU-T draft new Recommendation (Y.123.qos) on a QoS architecture for Ethernet-based access networks

LIAISON STATEMENT**To:** IEEE 802.1**Approval:** Agreed to at SG 13 meeting**For:** Action**Deadline:** June 2004

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We would like to inform you that a draft new Recommendation (Y.123.qos) is under development in ITU-T Q.16/13 and the work is to continue before the next study period through the JRG-NGN. As part of the effort, we have identified a set of requirements for network topology and resource status collection between Ethernet switches. In light of your ongoing work on IEEE 802.1ab, we feel that IEEE 802.1 is in the best position to address our needs. In particular, we have the following concerns about the current version of IEEE 802.1ab in relation to our requirements:

- Only eight types of basic TLV sets are defined; only eight types of information about a device are advertised. This is sufficient for collecting layer-2 topology but not sufficient for collecting layer-2 resource status. For instance, the spanning tree state, the speed and the full/half-duplex state of a port should also be advertised and collected.
- NMS collects the layer-2 connection information from the MIB of each device via SNMP and then weaves together the information to form the physical topology of the whole network. Nevertheless, in Y.123.qos, it is the edge router that needs to collect the link-layer topology and resource status of the whole IP access network. As such, collecting information via the SNMP query and trap is slow and unreliable. The issue could be resolved if IEEE 802.1ab defines topology request and response messages to allow a gateway router to collect directly and accurately layer-2 information of the subnet.

The complete set of requirements is described in Section 8.1 in the attached document. We wish to request your prompt action to address any requirements that the current version of IEEE 802.1ab cannot meet. We look forward to working closely with you on this matter. Thank you.

Attachment: the latest version of [Y.123.qos](#) (TD 2-0024R1)

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