

IEEE Standards Interpretations for IEEE Std 802.1Q™-2005 IEEE Standard for Local and metropolitan area networks—Virtual Bridged Local Area Networks

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December 2008

Interpretation Request #1

Subject: Request for interpretation of IEEE Std 802.1Q-2005 : Definition of MST Region
IEEE Std 802.1Q-2005 defines an MST Region as follows:

3.87 MST Region: A set of LANs and MST Bridges physically connected via Ports on those MST Bridges, where each LAN's CIST Designated Bridge is an MST Bridge, and each Port is either the Designated Port on one of the LANs or else a non-Designated Port of an MST Bridge that is connected to one of the LANs, whose MCID matches exactly the MCID of the Designated Bridge of that LAN. NOTE—It follows from this definition that the MCID is the same for all LANs and Ports in the Region, and that the set of MST Bridges in the region are interconnected by the LANs. The above definition was augmented in P802.1s/D13 (to include "and each Port is either ...matches exactly the MCID .. of that LAN"). There doesn't appear to be any specific comment in the disposition of comments in P802.1s/D12 for adding to the definition. However, IEEE Std 802.1Q-2005 also specifies an MST Region in 13.9 as follows:

13.8 MST Regions: An MST Region comprises one or more MST Bridges with the same MST Configuration Identifiers, using the same MSTIs, interconnected by and including LANs for which one of those Bridges is the Designated Bridge for the CIST and which have no Bridges attached that cannot receive and transmit RST BPDUs.

These definitions are not the same or equivalent, because the definition in 13.8 includes within an MST Region a LAN whose Designated Bridge is within an MST Region but that may have RST Bridges connected (which don't use an MCID), or indeed may have the

Root Port of a bridge in another region attached. Note that the definition of fromSameRegion() does not help here, since that refers to the bridge that transmitted the received BPDU, not the LAN it was received on, and on any given LAN a Bridge Port can receive BPDUs from bridges in the same region and not in the same region. Figure 13-2 LAN 'N' is an example of such a LAN and is shown within REGION 2 in the figure and is described as such in 13.3.1 (f). Should one assume that the definition 3.87 is wrong, and that the definition in 13.8 should be used? It should be noted in passing that 'MCID' is only ever used in Clause 3 Definitions.

Interpretation Response #1

The 802.1 Working Group met in November, 2008 and agreed to the following as a response to this interpretation request:

"The 13.8 specification of MST Region takes precedence over the 3.87 definition. The latter will be changed in a future amendment or revision of IEEE Std 802.1Q-2005."