PBB-TE Protection Requirements Summary

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Sources

- > ay-mcguire-linear-121-protsw-0709-v1.pdf (actually 0907)
- ay-roese-APS-protocol-1107-v01.pdf
- > ay-ohta-ps-requirements-0803-v02.pdf (actually 0308)
- ay-thorpe-aps-reqts-0308.pdf
- > ay-Oliva-Protection-Switching-Requirements-0508.ppt

Notes:

The summary captured here does not include requirements that have come in via ballot comments Only incrementally new requirements (chronologically) have been extracted from each presentation to avoid repetition

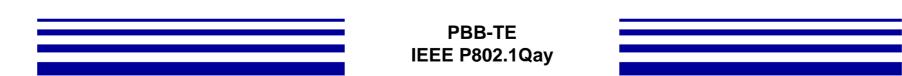
Requirements [mcguire]

- 1. Operating on a per tunnel basis (not per I-SID)
- 2. Protection can be offered or not
- 3. 1:1 protection
- 4. Bidirectional switching
- 5. 100% of impaired working traffic should be protected
- 6. Working, protection entity connectivity should be periodically monitored
- 7. Subsequent to a protection switching event frames should be delivered in-order
- 8. Protection entity is dedicated to the working entity
- 9. No extra traffic on protection entity
- **10.**Both directions of working (protection) should be co-routed for operational simplicity

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Requirements [mcguire] (cont'd)

- 11.Revertive and non-revertive switching should be provided as options
- 12.Lock-out of protection and manual switch commands should be supported
- 13.Unidirectional failure on working path triggers bidirectional switching action



Requirements [roese]

14.Support for Force switch operator request15.An operator request should not cause a prolonged traffic hit (e.g., beyond 50ms)



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Requirements [ohta]

- 16.A mismatch between the bridge/selector positions of the near end and the far end should be detected, and also across an NNI for multi-domain case
- 17.The bridge/selector mismatch should be cleared by a network operator
- **18.**Detect when the near end is set up in revertive mode and the far end is set up in non-revertive mode by mistake
- 19. Prioritized protection between Signal Fail and operator requests should be supported
- 20.Applicability to NNI/multi-domain case can also be a basic requirement
- 21.An operator request should not cause a prolonged traffic hit (e.g., beyond 50ms) for a protected domain across an NNI

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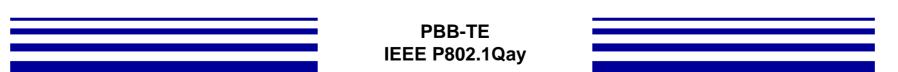
Requirements [Ohta] (cont'd)

- 22.If there is contention between operator commands (MS, FS or LoP) and the local/remote request/defect status, the one with the highest priority should be selected, including across an NNI
 23.The solution used by P802.1Qay should be future proof to allow evolution to multi-domain
- 24.It should be avoided creating/using two (or more) standards to solve one problem



Requirements [thorp]

- 25.Provide fast and reliable delivery of operator requests to both ends of a protected domain
- 26.Avoid requiring NMS/EMS dual-ended support for an operator request
- 27.Support operator requests directly from an NE at one end of a protected domain (an IB-BEB)



Requirements [oliva]

- 28.Post-protection-switching PBB-TE protection bridge configurations must be audited to ensure compatible operation took place at both ends following a switch
- 29.Following detection of a bridge/selector mismatch, an attempt to correct the mismatch must be made by the 802.1 protection switching process.
- **30.**End to end protection switching process communication over TE paths must be straightforward and robust



D3.0 ISSUES (DWM's understanding)

