



802.1D Compliance and Strict Mode

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.1D Reorder/Dup Requirement



- No reorder or duplication is allowed
- Is relaxed mode compliant with .1D?
 - NO
- Do all nodes have to implement strict behavior?
 - Tony Jeffree has repeatedly told us that RPR requires a mode that allows the user to force .1D compliant behavior on the ring. Users may choose to disable that mode.



Can a box be relaxed and compliant to .1D



- Consider a network of multiple 802 LAN segments connected by bridges
 - Assume 1 of the segments is .17 the rest are not
- If .1D is used for bridging, then a compliant network (or segment) will never duplicate/reorder a packet
- Suppose a node does not support strict traffic
 - Scenarios have been documented where reorder/dup can occur
 - Therefore a station on another LAN segment can see a reorder or dup and the .1D has been violated.



Conclusion

- Per packet strict / relaxed behavior is NOT compliant to .1D
 - Standard must have a mode where the MAC sources only strict packets and insures no reorder to duplications
- Per packet strict/relaxed is useful behavior for real systems and the standard should allow relaxed behavior



Question for Debate



- Do all behaviors of strict mode need to be implemented for compliance?
 - A MAC must never cause a reorder/dup on another box otherwise it would fail a .1D compliance test
- Therefore, the following seem to be required
 - Setting Strict bit on transmission
 - Performing Context Containment (halt transmission and flush)
 - Performing Wrap Operations
- This does not appear to be required
 - Hop Count Consistency Check
 - Receiver can do the check
 - Without this logic a receiver cannot itself be .1D compliant