



# 802.17b Work Items

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# Disclaimer

- This document is not expected to be complete initially
- The goal is to have all of work items / decisions points on 802.17b complete by the end of the week
  - Determine if consensus already exists
  - Assign work to be done for the next session



# SAS Capabilities





# SDB



- SDB entries
  - Ring Station Identifier, (easy to justify)
  - *Flood scope left, Flood scope right*
    - *Very media specific, harder to justify in dot1 and so could be placed in ringlet selection or one of the sublayers of the bridge*
  - *Does not include RingletID since the selection algorithm is not part of SAS*
- SDB operations
  - Are there any aside from existing 802.1D/Q
  - Do we need to support all existing 802.1D/Q
    - *VID filtering does not have to be specified in SAS but can be implemented to limit the size of the SDB*



# RPR Protection

- Current view is that protection events may cause SAS FDB flush
  - *If reachability has been altered then we want to flush the SDB*
    - *A minimum requirement is to flush the entire SDB*
    - *Implementations may prune intelligently and remove just the entries associated with stations that have left the ring*
  - *An external event (such as a Spanning Tree TCN) can cause the SAS SDB (or portions of it) to be flushed*
- Intelligent pruning based on idea that relearning will restore the database, but with some stations on different ringlets
  - Difficult on a split linecard as each linecard is likely to learn  $\frac{1}{2}$  the database

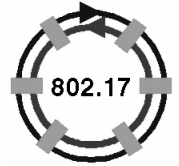


# RPR Protection

- *Protection in and of itself is orthogonal to the SAS SDB, it is the changes in ringlet selection (driven by protection events) that could cause behavioral changes.*
- Wrapping Systems
  - Don't do context containment for strict on fail
  - Do context containment on opposite ringlet for strict on heal
  - If there is no change to behavior, no need to flush SDB?
    - Non optimal behavior, but correct
- Steering Systems
  - Do context containment for strict on fail and heal
  - Need to flush SDB (or do intelligent prune) since there will be changes to behavior



# Ringlet Selection and Flooding



- *SAS should specify the additional rules required by the ringlet selection algorithm for a given conversation*
  - *Strict: ringlet selection for directed transmissions must be the same as ringlet selection for flooded transmissions at all times unless a ring traffic flush is performed. Note that on protection events strict traffic is flushed by context containment*
  - *Relaxed: ringlet selection for directed transmission must be the same as ringlet selection for flooded transmissions except as part of a protection event. During normal operation, changes must be accompanied by a traffic flush*
  - *Permissive: ringlet selection for directed transmission does not have to be the same as ringlet selection for flooded transmissions.*



# Multicast Scoping

- Is it as simple as entries for flood-left and flood-right?
- Other protocols to determine multicast group membership
  - IGMP snooping
  - i.e. things bridges do already
- Do we describe topology table searches for determining scope?



# Spanning Tree Events

- Should spanning tree events cause flushing of the SDBs?
  - Yes in the context of moving SAS to bridge
- Decision:
  - *Whack entire SDB on TCN/state change*
  - *Optimization whack a portion of SDB on TCN/state change based on MSTI*
  - *Use a service primitive to achieve the whack*
- DecisionToMake:



# Model for Host on SAS

- Should the model for a host running SAS be that of a host on top of a pseudo bridge?
  - *For a VLAN unaware host, the model is the existing protocol stack and the SAS function is available through the normal MAC service interface*
  - *For a VLAN aware host, consult norm to determine if there is an official model*
    - *Just have to make sure that any control primitives we define can be called by any client*



# Work for next meeting(s)

- Encoding decision (Mar),
- Requirements list review
- Compatibility with .17 (4 address usage)
- Can the MAC provide both SAS and non-SAS on a frame by frame basis (Feb)
- Proposed Document Structure (Feb)
  - Section / sub-section changes
    - New clause altogether
    - Adjust old clauses
    - combo
- Layering Model (Feb)
- Interactions with security
- Answers from Norm