



Issues to be discussed on P802.1AXbq D0.3

Distributed Resilient Network Interconnect issues

Rev. 1

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References

- This document:
<http://www.ieee802.org/1/files/public/docs2011/bq-nfinn-DRNI-issues-0711-v1.pdf>.
- Current draft of IEEE P8021.AXbq can be found in:
<http://www.ieee802.org/1/files/private/axbq-drafts/>.

Frame Distribution by VLAN ID

- P802.1AXbq D0.3 tries to separate distribution by VLAN ID from DRNI. You can have distribution by VLAN ID without DRNI, and DRNI without dbVID.
- The text in D0.3 says that what the **administrator configures** is a table whose key is a VLAN ID and whose payload is a list of LAG ports in the order of preference for carrying that VLAN ID.
- What the **Frame Distributor uses** to forward frames is a per-Port list of VLAN IDs that can pass through that Port, along with a per-Port Boolean specifying whether to enforce that list on ingress frames.
- The implication, the text of which has not yet been supplied, is that the Frame Distributor uses the preference table and the states of the LAG ports to automatically generate the port-VLAN ID lists.

Frame Distribution by VLAN ID

aAggVlanXXXAdminPort

VLAN ID XXX	best port	next-best port	...
000	A	B	C
001	B	C	A
002	C	A	B
Etc.			
FFF	B	A	C

aAggPortOperVlanList: All ports UP

Port A	Port B	Port C
VLAN ID	VLAN ID	VLAN ID
000	001	002
	FFF	

aAggPortOperVlanList: Port C Failed

Port A	Port B	Port C
VLAN ID	VLAN ID	VLAN ID
000	001	
002	FFF	

Per-VLAN Distribution function performs the mapping

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Port ID and System ID issues

- A {System ID, Port ID} pair must be unique over a network.
- When the DRNI becomes disconnected, the two (or more) pieces of the DRNI must each (if alive) use a different System ID.
- The Port ID cannot change when the System ID changes, or the aggregation will flap.
- This will necessarily lead to a shared Aggregator having one or more AdminSystemIds plus an OperSystemId.
- **Are Port IDs configured independently and checked at run time? Distributed from master? Other?**