



P802.1AXbq Editor's notes

Notes on D0.4

Rev. 1

Norman W. Finn

nfinn@cisco.com

Editor's notes

- The editor's initials (NWF) appear several times in Draft 0.4, where the editor found himself at a loss for what to write. All will be removed in Draft 0.5, but need to be discussed in the following slides.

Portals

- The concept of Portals will be added to Draft 0.5.
- Each DRNI has two Portals.
- A Portal consists of one, two, or three Aggregation Systems.
- (One and two ASs are necessary. Three is an offer by the editor to attempt to solve some problems; if they get too complex, the group can decide to drop back to two.)
- But, is the term, “Portal” the right one? (Don’t answer, yet.)

Nodes or Aggregation Systems?

- The term “Nodes” was fine for preliminary work.
- Going forward, we need to use a terminology consistent with 802.1AX.
- The term for a Node in 802.1AX is, “**Aggregation System**,” but that is both a Portal and a Node, since a Portal has only one Node in .1AX.
- In this context, the present Draft 0.4 is slightly confused over whether “Distributed Aggregation System” refers to a whole Portal or one Aggregation system that is part of a Portal.
- New terminology is needed. (Don’t answer, yet.)

Aggregation Systems and Portals

	Portal	One Node of a Portal	Two connected Portals
802.1AX	Aggregation System		<none>
.1AXbq D0.4	One side of a DRNI	Distributed Aggregation System	DRNI
.1AXbq D0.5	Portal? Distributed Aggregation System? Aggregation System?	Partial Aggregation System? Aggregation System?	DRNI

- One could argue that “Distributed Aggregation System should refer to what we’ve been calling a “Portal”.
- The editor needs the terms that will do the least damage to Clause 5, but Clause 5 will need to change somewhat.

VLANs? Flows? What?

- Our point of reference for separating traffic among the Aggregation Systems in a Portal, or among the Links in a Link Aggregation Group, has been the VLAN.
- But, the traffic separation criterion could be S-VLAN, B-VLAN, I-SID, IP 5-tuple, a URL hash, or most anything else. What is essential for DRNI, especially for signaling purposes, is that:
 1. Any given frame can be classified into exactly one traffic grouping.
 2. That traffic grouping is uniquely identified by an integer.
- We need a term for this traffic grouping to be used in Clause 7. I suggest, “**Flow Group**”.

Gateways 1

- Gateways are **essential** if the Flow Group is a VLAN and the network does MAC address learning.
- Gateways are **essential** if the Flow Group is a customer service and the network does TESI Protection or Segment Protection.
- Gateways are **essential** for any other kind of Flow Group if frame ordering is to be preserved.
- Gateways are **not needed** if, for example, the two networks use 5-tuple Flow Groups, don't care about frame ordering, and have some means for resolving MAC learning issues.
- Therefore **Gateways are optional** (for the administrator, though not the implementer).

Gateways 2

- The term, “Gateway,” typically denotes a function that translates between two protocols, so that endpoints running those different protocols can speak to each other, thinking that they all run the same protocol.
- This is not our use of the term. Perhaps we need a different one.
- I hesitantly offer “**Doorway**,” while inviting better ideas. (“Gate”? “Window”? “Passage”? “Door”? “Transfer Point”?)

Port IDs

- Every Port in LACP must have a Port ID which is unique to the Aggregation System. The pair, {System ID, Port ID}, should be globally unique.
- Any two systems in a network could be administered into the same Portal, while sharing other Portals with other systems.
- It would appear that the System ID of a Portal must be determined by the “master” system, and that master also supplies Port IDs to the “slave” system(s) dynamically.
- The System ID and Port IDs of a “slave” may have to change if the master dies, being selected by the new master.