Dependence of IEEE P802.1DC on IEEE P802.1Qcw

Norman Finn Huawei Technologies Co. Ltd dc-finn-dependence-on-Qcw-0920 21` September, 2020 Managed Objects in P802.1DC TSN Quality of Service Provision by Network Systems

- P802.1DC provides conformance statements so that a device that is not an IEEE Std 802.1Q bridge can provide the same QoS capabilities as a bridge.
- The scope of the PAR includes procedures and managed objects (but not protocols).
- The SNMP MIB-based managed objects for QoS features are tied to bridge ports, and are thus not suitable for end systems or nonbridge relay systems.
- So, P802.1DC has no provision for MIB modules.

YANG modules for QoS in P802.1Qcw

- Comment 10 on Draft 1.1 suggested that the editor YANG "groupings" to select appropriate YANG variables from IEEE Std 802.1Q for use in IEEE P802.1DC. The editor promised to try.
- But, there are few such YANG variables. The YANG variables of interest to P802.1DC are being defined in P802.1Qcw.

Proposal

- Make normative references in P802.1DC to IEEE Std 802.1Qcw for the YANG modules.
- Have an optional conformance statements P802.1DC for the relevant parts of IEEE Std 802.1Qcw.

Applying QoS controls to physical vs. logical ports under Link Aggregation

- Suppose I am using strict priority, ETS (WFQ) or CBS shaper. I can apply the parameters of the bridge port to each individual physical port of an aggregation. No problem.
- Suppose I have a critical Stream and want to use Enhancements for Scheduled Traffic to give it priority at certain times. If that Stream uses only physical port 5, then I should apply the schedule to only port 5, and not to the other physical ports in the aggregation. This seems to be a problem.
- Of course, non-bridges (P802.1DC) don't have bridge ports.

lssue

Can the YANG modules in IEEE P802.1Qcw D1.2 be used on physical ports or in non-bridges?

Should they be placed under the bridge port, or more directly under the interface?

