Accounting for multiple CUCs and CNCs (and their capabilities and quantities) in YANG module ieee802-dot1dj-tsn-config-uni
Motivation

Requirements
- Multivendor interoperability
- Converged network, plug & produce
- Multiple CUCs

How does ieee802-dot1dj-tns-config-uni YANG module account for multiple CUCs
Motivation

Requirements

• Multivendor interoperability
• Converged network, plug & produce
• Multiple CNCs in a chassis

How does ieee802-dot1dj-tns-config-uni YANG module account for multiple CNCs
Requirements

• Multivendor interoperability
• Converged network, plug & produce
• Description of capabilities and quantities of CNCs and CUCs

How does ieee802-dot1dj-tns-config-uni YANG module account for capabilities and quantities of CNCs and CUCs
Agenda

1. Support of multiple CUCs in the YANG module
2. Support of multiple CNCs in the YANG module
3. Support of capabilities and quantities of CNCs and CUCs in the YANG module
Adding support to **multiple CUCs** in the YANG module ieee802-dot1dj-tsn-config-uni
Motivation

How to accommodate streams requested/managed by CUC2?

Graphical representation of stream-list extracted from 802.1Qdj YANG module
Expected (most common) relationship between CUCs and streams

• A CUC requests a stream
• Future requests related to this stream (e.g. add/ remove Listener) done by the same CUC
Proposed YANG Module extension for multiple CUCs

Expected (most common) relationship between CUCs and streams
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In this case, stream-list under a CUC branch facilitates
- NACM
- Stream management per CUC

For use cases in which multiple CUCs access same stream, same structure can be used

Reminder: StreamID & StreamDA managed by CNC (see dj-coelho-yang-module-0122-v02.pdf)
Adding support to multiple CNCs in the YANG moduleieee802-dot1dj-tsn-config-uni
Motivation

One management entity per chassis
Possibly multiple CNCs (Config Domains) per chassis

Extracted from IEC/IEEE 60802 d1-3
One device
- One management entity
- Multiple CNC instances
Proposed YANG Module extension for multiple CNCs
Proposed YANG Module extension for multiple CNCs
Adding support to CNC and CUC capabilities & quantities in the YANG module ieee802-dot1dj-tsn-config-uni
Motivation

Needed

- Means to specify relevant capabilities and quantities supported by
  - Management entity, e.g.
    - Num CNCs, NumStreams, NumDevices
  - CNC, e.g.
    - NumStreams, NumDevices, NumCUCs, StreamClasses
  - CUCs, e.g.
    - NumStreams, NumDevices
- Available in a machine readable format

Qdj YANG module is the natural choice to store this information

- Domain manager
YANG Containers: Proposed extension for CNC & CUC capabilities & quantities
Further questions?
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