DCBX NEXT STEPS

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Goals

• DCBX allows “plug-and-play” for DCB devices
  – Allows to detect legacy vs. enhanced capabilities
  – Allows capability to distribute configuration

• DCBX has the following stated goals
  – Ability to exchange DCB parameters between two endpoints on a link
  – Set local “operational” parameters based on received parameters
  – Detect and if possible resolve conflicting parameters
  – Common protocol for all DCB functionality

• These goals have not changed since original DCBX proposal
What has changed?

• LLDP
  – DCBX proposal was based on prior version of LLDP
  – Prior version of LLDP had no Fast Retransmit mode
    – hence any packet drop can result in large delay in peer receiving a MIB change
  – Current version has improved reliability in LLDP by transitioning to Fast Retransmit mode on each MIB change
Concerns about DCBX

• Some concerns discussed on DCBX calls:
  1. Sequence number and associated retransmissions may not be required.
  2. Why does one need ACK for information from peer.
  3. State machine and TLVs can be minimized/simplified.
  4. Synchronization of enabling of feature.
  5. TX and RX starting simultaneously.
In light of LLDP Changes

- In absence of LLDP change (to Fast Retransmit)
  - DCBX had included retransmission in its state machine to improve reliability

- LLDP is now reliable
  - DCBX could be simplified
  - This may address #1, #2, #3 in previous slide

- Further discussion is required on #4 and #5
Next Steps

• Let’s work on resolving these issues with DCBX
  – Simplify DCBX protocol based on LLDP changes
  – Define how features interoperate