DCBX Goals

- Discover DCB capabilities of peer
- Identify configuration problems
  - Exchange relevant configuration of DCB features with peer
  - Defend as appropriate (e.g. disable the DCB feature)
  - Notification of issues
- Provide for “negotiation” of DCB features
  - One peer can take obtain its DCB configuration from the other
Baseline DCBX

• Many individuals contributed to the Baseline DCBX proposal


• Based on LLDP
  – Link based protocol
  – Higher level management systems used to ensure consistent end-to-end configuration

• Provides a framework for exchanging and negotiating DCB feature configuration
DCBX Management Features

**Advertise**
- Allows local independent configuration of feature
- Or, configuration in conjunction with peer

**Willing**
- A Willing peer can get its configuration from a Not Willing peer

**Enable**
- Indicates to peer whether feature has been administratively enabled/disabled (e.g. instead of silently not advertising)

**These per-DCB feature objects provide:**
- a consistent management interface for each feature
- information to management systems about peer – possibly across management domains (server vs. network)
- flexibility in management and configuration of features - again, possibly across management domains
Function of SeqNo/AckNo

Principles of the initial DCBX design included:
- Each peer exchanges Desired Configuration
- Each peer (when advertising) computes the same Operational Configuration

Function of SeqNo/AckNo:
- Don’t act on old information
  - Only process peer PDUs that indicate most recent advertisement was received by peer
- Don’t advertise a new Desired Configuration until previous one was ACKed

LLDP Fast Transmit on TLV change:
- Improves reliability and chances for a timely convergence of DCBX
- But, does not replace the function of SeqNo/AckNo
Thanks!