

# FCoE Device Type Indication

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# Overview

- Background
- Motivation
- FCoE device types
- Possible solutions
- Additional thoughts

# Background

- An earlier version of this presentation was made to IEEE 802.1
- IEEE 802.1 decided that the presentation should be made to T11
  - T11 could choose to address the problem by defining an Organizationally Specific TLV
- This presentation has been updated to reflect that option

# Motivation

- FC-BB-5 recommends that bridges perform FIP snooping to improve security in FCoE deployments using ACLs
- This function must only be performed by bridges immediately adjacent to an ENode or FCF
  - Otherwise, a change in path would result in traffic being discarded
- Without a way to auto-detect connectivity to an ENode or FCF, this must be manually configured
- LLDP can easily provide the information needed for auto-detection

# FCoE Device Types

- ENode – End system
  - FCF – Fibre Channel Forwarder
  - FDF – FCoE Data Forwarder
  - FSB – FIP-snooping Bridge
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- ENode, FCF, FSB are defined in FC-BB-5
  - FDF is defined in FC-BB-6 (work in progress)

# Possible Solutions

- System Capabilities TLV in LLDP
- New TLV in DCBX
- Organizationally Specific TLV by T11

# System Capabilities TLV

- Add an additional capability for each device
  - There are 5 unused capability bits, but can be extended
  - See Table 8-4 in IEEE 802.1AB-2009
- “Station Only” is already defined and can be used for Enode
- Would need to define FCF, FDF, and FSB
- This TLV is an optionally TLV and is not commonly sent by existing implementations
  - Could have T11 recommend that it be sent by FCoE devices
- Updates IEEE 802.1AB

# New TLV in DCBX

- Provide a new informational TLV in DCBX to indicate FCoE device type
- DCBX is widely implemented by FCoE devices
- Updates IEEE 802.1Q



# Organizationally Specific TLV by T11

- T11 defines an Organizationally Specific TLV using their OUI
- T11 could potentially add other information it deems useful to such a TLV
- No updates to IEEE 802.1 standards

**THANK YOU**