



PFC Defense Mode Proposal

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PFC Defense Overview

- **As currently proposed, a mis-match in PFC enablement effective results in PFC being disabled**

Frames may continue to flow with “best effort” service

- **In certain cases, it may be desirable to prevent traffic flow in this case**

e.g. Such a mismatch could result in the FCoE LKA mechanism detecting a good link but unreliable performance may result

- **In other cases, the current mode of operation is desirable**

e.g. iSCSI

- **Therefore, the operation of an optional PFC Defense mode is proposed**

Utilizes the DCBX Framework Symmetric Parameter Passing with the Defense Mode Option

Proposed Priority-based flow Control TLV

TLV Type =127	TLV Info String Len=6	802.1 OUI 00-80-C2	802.1 Subtype = 11	W	Re- served	PFC Cap	PFC Enable	RDY
7 bits	9 bits	3 octets	1 octet	1 bit	4 bits	3 bits	1 Octet	1 Octet

- Provides negotiation and information of PFC enabled / disabled per priority
- PFC Cap indicates the device's limitation of how many traffic classes may simultaneously support PFC (not negotiated).
- Utilizes Symmetric Parameter Passing *with* the defense option
 - Utilizes qualified willing:
 - Local port is willing if W=1 and the number of remote priorities with PFC enabled is less than or equal to PFCap.
- PFC enable has 8 bits (one per priority)
 - A one indicates PFC is enabled on the priority
 - A zero indicates that PFC is disabled on the priority
 - Local policy in each end of the link decides whether to use the priority if the configuration does not match
- RDY has 8 bits (one per priority)
 - If the optional defense mode is administratively disabled for a given priority, its RDY bit is forced to 1.
 - If the optional defense mode is administratively enabled for a given priority, its RDY bit is set in accordance with the Symmetric Parameter Passing Defense Mode Option state machine
 - 1: indicates defenses are off for the priority
 - 0: indicates defenses are on for the priority

PFC Defense Operation

- **When PFC Defenses are enabled for a given priority, the port shall:**
 - Discard all received frames on that priority except for:**
 - Bridge PDUs
 - LLDP PDUs
- **The DCBX framework enables a port to know that the remote side defenses are enabled**
 - And therefore the futility of frame transmission**

Thank You!