Single TLV Style for DCBX

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January 19, 2010

Objective

- Define a single general philosophy for TLV design that includes:
  - A mechanism to advertise your current capabilities and status (consistent with current LLDP use cases)
  - A mechanism to advertise that you are willing to change your current configuration
  - A mechanism to recommend to your neighbor a new configuration
  - A method to avoid configuration flap

DCBX in LLDP TLV Concept

W = Willing to Change my status

R = Recommendation present

Description

- Typically bridges will NOT set the W bit, but certainly may
- If you are willing and you receive a recommendation, you take it
- If you are willing, but don’t receive a recommendation you do nothing (i.e. keep your same status)
- If you are both willing and recommending we need a mechanism to avoid changing recommendations to avoid flap (this is the messy part)
- May consider variable length TLV to save space if R bit is set to 0 (e.g. no need to send recommend field)