

# 802.1Qbp – ECMP

## Editor's Notes and Issues

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# Issues Discussed since D0.0

- How to determine **priority** and **drop\_eligible** processing in the Flow Filtering shim for tagged and untagged VLANs.
- How to identify the B-VID for I-SIDs mapped to an ECT Algorithm instead of a B-VID.
- Multicast load spreading (separate presentation on this topic)
- CFM (presentations on this as well)

# Untagged ECMP VLAN

- If frames for an ECMP VLAN are not VLAN tagged, the **priority** and **drop\_eligible** parameters must be set and retrieved from the F-TAG
- How does the Flow Filtering shim know whether or not to do this (i.e., whether the **priority** and **drop\_eligible** parameters received in an indication primitive are valid or not)?
- Proposal: The Flow Filtering shim behavior will be conditioned on whether the port is in the untagged set for the **vlan\_identifier** in the primitive. That is,
  - If the port is in the untagged set for the frame's VID and the VID is controlled by SPB ECMP and the MSDU contains an F-TAG, then the Flow Filtering shim will perform **priority** and **drop\_eligible** processing as specified in 6.9 for tagged frames.
  - Otherwise the **priority** and **drop\_eligible** parameters will be passed transparently and used to set PCP and DEI in the F-TAG.

# Determining B-VID for I-SID mapped to ECT Algorithm

- To support load spreading using multiple ECT tie-breakers in one VLAN (single VID) we have proposed extending the [SPBM Service Identifier and Unicast Address](#) TLV to allow mapping an I-SID to an ECT Algorithm (1-16)
- But there may be multiple B-VIDs using an ECT Algorithm
- How can we determine the B-VID for this case?
- We can already assign I-SIDs to different B-VLANs using different ECT Algorithms
- The only application for I-SID to ECT Algorithm mapping is for an untagged VLAN
- We can therefore assume an I-SID mapped to an ECT Algorithm is mapped to an untagged B-VID (associated with SPBM ECMP)
- If there are more than one of these we can map the I-SID to the one with the lowest B-VID (to provide deterministic behavior)

# Open Questions

- Need to add description of the **dynamic selection process** (where should this be placed?)
- CFM support for ECMP
- Possibly additional material on multicast load spreading
- Do we need to add requirements for ECMP in clause 27.1?
- Do we need an ECMP example in clause 27.18?
- TBD (depending on issue resolution and further study)
  - CFM clauses (18-22)
  - CN clauses (30-33)
  - SRP (35)