802.1Qbp – ECMP
Editor's Notes and Issues

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What Seems Clear

- Unicast traffic ECMP load spreading
  - Flow ID calculated at edge and placed in frame (new tag format)
  - No need for standard edge hash function
  - Forwarding based on standard hash f(Flow ID, System ID) used to select from ECMP port map
- TTL to mitigate loops due to transient state or bugs
- OAM to test ECMP forwarding

Issues to Resolve

- Frame format (new tag)
  - See bp-mackcrane-tag-format-0511.ppt
  - Untagged option (i.e., no VID in tag)
- Standard forwarding hash function
- Method for selection from ECMP port list (how forwarding hash is used in next hop selection)
- Multicast load spreading
- OAM requirements
  - MEP per Flow ID or MEP cycling through Flow IDs?
  - Proactive or On Demand or both?

Clauses that need work for 802.1Qbp

- 1, 3, 4, 5: Overview, Definitions, Abbreviations, Conformance
- 6. Support of the MAC Service
  - Add primitive parameters
  - Add shim functionality related to new parameters (new tag format)
- 8. Principles of bridge operation
  - Modifications to FDB and forwarding process
- 9. Tagged frame format
- 12. Management
- 17. MIB
- 27. Shortest Path Bridging (SPB)
- 28. ISIS-SPB Link State Protocol
- Annex A. PICS
- TBD (depending on issue resolution and further study)
  - CFM clauses (18-22)
  - CN clauses (30-33)
  - SRP (35)