

# MPLS ECMP Issues

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# RFC6790

- RFC6790 is soft on how ECMP is carried out when the ELI is present:
  - If a transit LSR recognizes the ELI, it MAY choose to load balance solely on the following label (the EL);
- The implication is that an LSR that recognises the EL cannot be assumed to base its ECMP decision solely on the EL.
- This impacts
  - draft-ietf-pals-ethernet-cw-00
  - Synonymous Labels.
- Propose to bring a small draft to IETF 101 tightening up the RFC6790 text.

# DPI based ECMP

- Lots of vendors do ECMP based pkt inspection of MPLS IP Payload
- Some implementations detect 0x0 after an MPLS label stack and assume that the MPLS payload is PW CW + Ethernet carrying MPLS, and do PI based ECMP.
- They do not always get it right, disorder PW packets and cause trouble and expense to operators trying to figure this out.
- Problem surfaced in PW, but the wider issues arising from this type of ECMP and any recommendation needs to be documented in MPLS WG as it is a P-router problem.
- Propose to bring a draft to next IETF.