

The Use of MPLS Special Purpose Labels for the Computation of Load Balancing

draft-pignataro-mpls-reserved-labels-lb-01

Carlos Pignataro – cpignata@cisco.com

Loa Andersson – loa@mail01.huawei.com

Kireeti Kompella – kireeti.kompella@gmail.com

IETF 86 - Orlando, FL, USA

Motivation - mpls-reserved-labels-lb

- Clarify the use of MPLS special purpose labels as input for computation of load balancing.
- Conflict between [RFC 4928 / BCP128](#) and [RFC 6790](#) (and S5.1.2 of RFC 5085, and ...?)

RFC 4928 vs. RFC 6790 inconsistency

- RFC 4928 / BCP 128 says:

Any reserved label, no matter where it is located in the stack, may be included in the computation for load balancing.

- RFC 6790 says:

In any case, reserved labels MUST NOT be used as keys for the load-balancing function.

The problem

- RFC 6790 defines “Use of Entropy Labels in MPLS Forwarding” but includes this “MUST NOT” without updating RFC 4928. Consequently:
 - Does an LSR not implementing Entropy Labels need to follow this “MUST NOT”? Or does it apply broadly?
 - Are existing LSRs that include reserved labels for LB suddenly uncompliant?
 - There is no explicit explanation – what is the rationale for this “MUST NOT”, when RFC 6790 does not mention GAL (main reason for the restriction)?

The question – way forward?

- Proposal
 - Documenting the reason for the restriction → OAM
 - Documenting Requirement:
 - Differentiating new vs. existing implementations?
 - MUST NOT? SHOULD NOT? Other?
 - Requiring that implementations document the behavior.
- Other option: do_nothing()? Meaning current specs are OK.

Documents Status

- Looking forward to the WG feedback and discussion, on the questions on the previous slide.
- We request the document becomes an MPLS WG item, the discrepancy needs a solution.

Thank You !

{Carlos; Loa; Kireeti}