PCEP extensions for GMPLS

PCE WG, IETF 80,

draft-ietf-pce-gmpls-pcep-extensions-02

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Differences from 01.txt

- Alignement with draft-ietf-pce-vendor-constraints
- Clarification on Labels
- Clarification on GENERALIZED-LOAD-BALANCING

Labels clarification

In order to match the signaling options, the PCC/PCE should be able

- To provide explicit label(s) constraint : this is mapped to LABEL/LABEL_SET in the PCReq/PCRep
- To provide optional label(s) constraint : this is mapped to SUGGESTED_LABEL_SET in the PCReq/PCRep

Some of those constraint may come from hardware limitations, for instance the range of a tunable laser, the VLAN ID mapping capabilities or PBB-TE labels.

GENERALIZED-LOAD-BALANCING

LOAD-BALANCING allows the PCE to balance the requested traffic on n different paths with minimum Min bandwidth

A PCC should be able to request this for all traffic specification

→ SDH/G709 Tspec indicates the NVC : it could be used

→ Other Tspec (e.g. Ethernet) do not provide a nvc field

In order to allow PCC to specify such request the GENERALIZED-LOAD-BALANCING object is introduced.

The object use the same fields, with the same semantic as LOAD-BALANCING but allow to specify all Tspec types defined in GENERALIZED-BANDWIDTH

Next Steps

- Make the extensions “lighter” to implement : do not require support for all the features
- Collaboration with inter-layer-ext (expired)

Questions?