Extensions to the PCEP for Inter-Layer MPLS and GMPLS Traffic Engineering

CCAMP WG, IETF 81th, Quebec City, Canada

draft-ietf-pce-inter-layer-ext-05.txt

E. Oki (oki@ice.uec.ac.jp)

Tomonori Takeda (takeda.tomonori@lab.ntt.co.jp)

J-L Le Roux (jeanlouis.leroux@orange-ftgroup.com)

Adrian Farrel (adrian@olddog.co.uk)

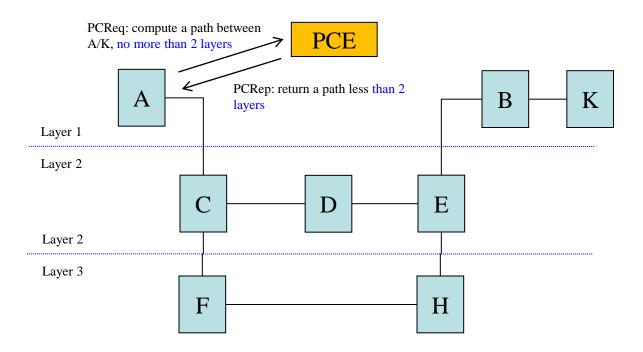
Fatai Zhang (zhangfatai@huawei.com)

Changes from 04.txt

• A new metric type is defined for indicating the constraint of Number of layers to be involved on a path

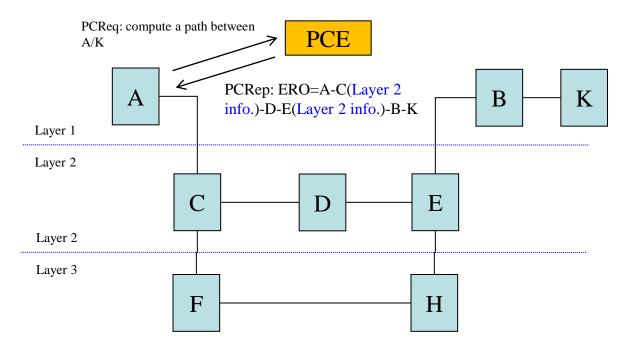
- A new ERO sub-object is defined for specifying the server layer information of the inter-layer path.
 - -PCE needs to be capable of specifying the server layer path information when the server layer path information is required to be returned to the PCC.

New Metric Type



• A new metric type is defined for indicating the constraint of Maximum layers to be involved on a path

New ERO sub-object



- SERVER_LAYER sub-object is defined for specifying the server layer information of the inter-layer path.
- Note: a hybrid nodes may advertise a single TE link with multiple switching capability. So the PCE should be able to specify the server layer information of the path.

Discussion

Q1: ERO sub-object should be referenced to CCAMP document (from Cyril)

- Agree, this has been discussed among authors. We will monitor the progress of CCAMP work and refer to the corresponding document.
- **Q2: Should G-PID be included in REQ-ADAP-CAP?** More specifically, is the G-PID needed to reflect things like transporting Ethernet over OTN, there is several possible mapping represented by G-PID, this might be considered in case of MD-PCE requests for the OTN layer (from Cyril)
 - ➤ I personally think that it should be included.

Discussion

Q3: Should it make INTER-LAYER always optional? And changing the text as follows (from Cyril):

The SWITCH-LAYER object MUST NOT be used on a PCReq unless an INTER-LAYER object is also present on the PCReq message.



The SWITCH-LAYER object MAY be used on a PCReq and an INTER-LAYER object MAY NOT be present on the PCReq message.

When the SWITCH-LAYER layer is present and a INTER-LAYER is not present the PCE MUST process as though inter-layer path computation had been explicitly disallowed and SWITCH-LAYER SHOULD NOT have more than one row with I bit set.

➤ I have no strong opinion on this.

Next Steps

• Monitor the progress of the related work (e.g., CCAMP, PCEP ext for GMPLS)

Continuous Refinement