

Stateful PCE Extensions for Data Plane Switchover and Balancing

draft-tanaka-pce-stateful-pce-data-ctrl-02

Mar, 2014

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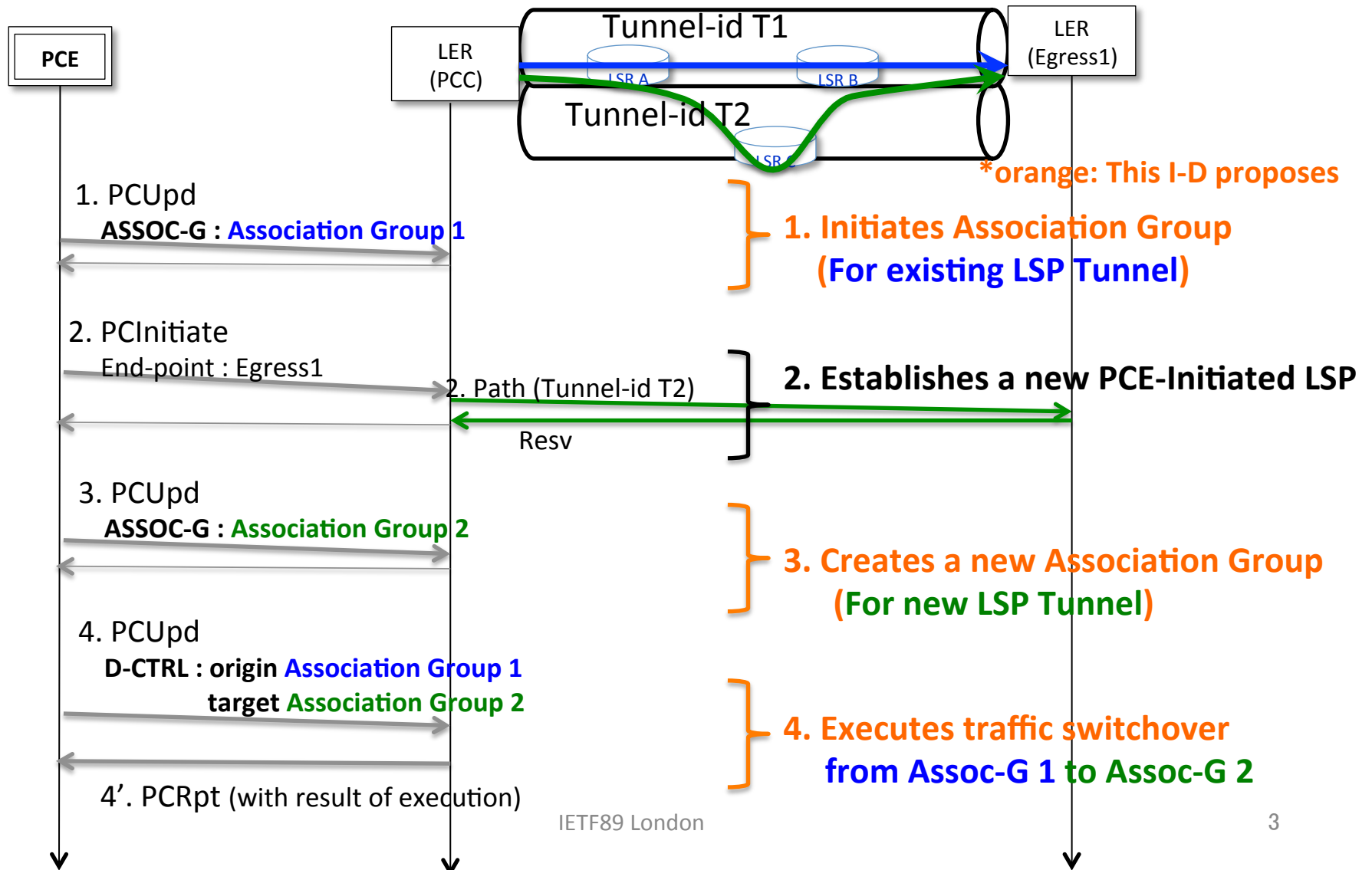
Dhruv Dhody

Huawei

Introduction

- Motivation
 - Switchover traffic from one MPLS-TE Tunnel to another
 - Load-balancing across several MPLS-TE Tunnels
 - Police traffic based on signaling bandwidth
- A PCE is expected to control those operations in a centralized manner.
- Current PCEP messages do not support handling of data plane on both PCE-Initiated LSPs and PCE-updated LSPs.
- This I-D proposes a simple solution using only PCEP messages with some extensions for data traffic switchover/load-balancing then policing.

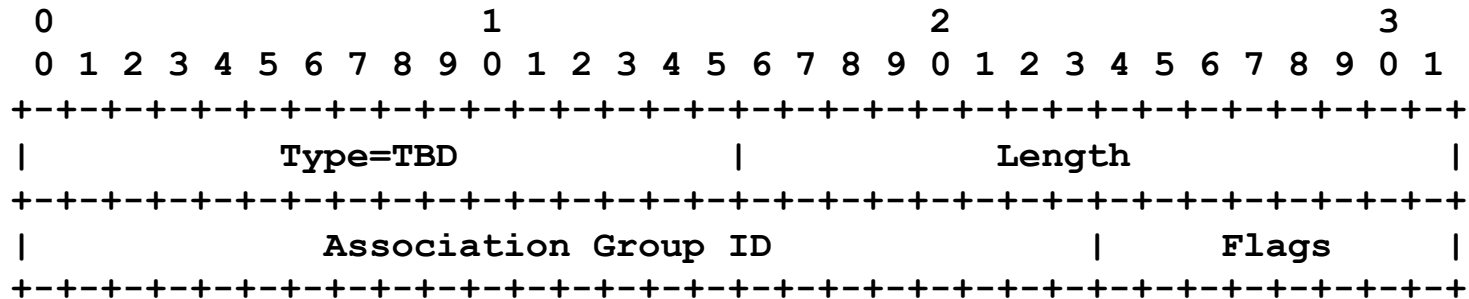
Basic Procedure (Switchover from T1 to T2)



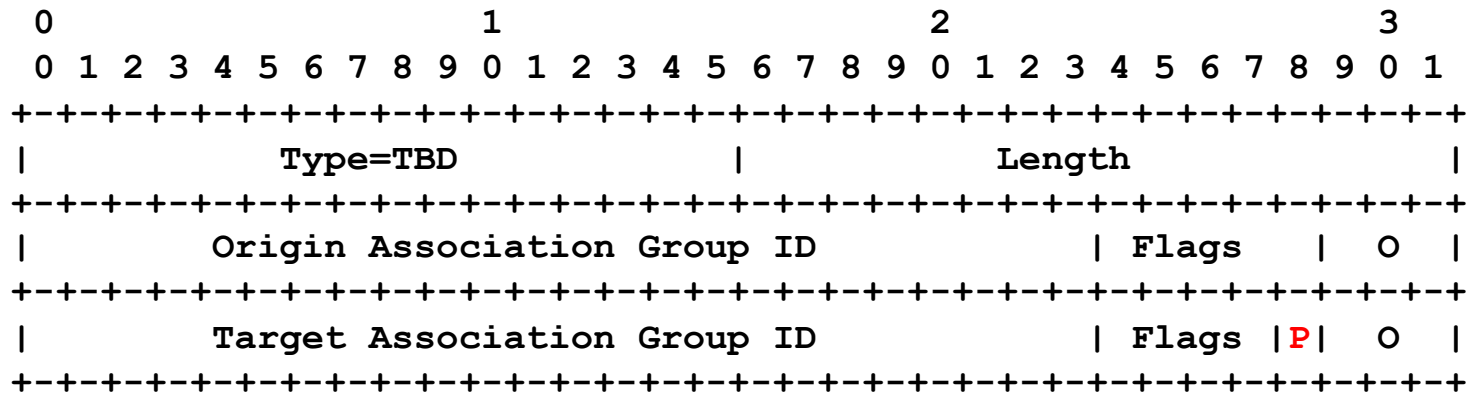
Changes from -01

- Added LSP-DATASWITCHOVER-BALANCE-CAPABILITY Flag in Open message.
- Added a load-balancing operation example
- Added policing options in switchover/load-balancing
- Changed Association Group ID length from 2 to 3 octets.

Extensions in LSP Object in PCUpd

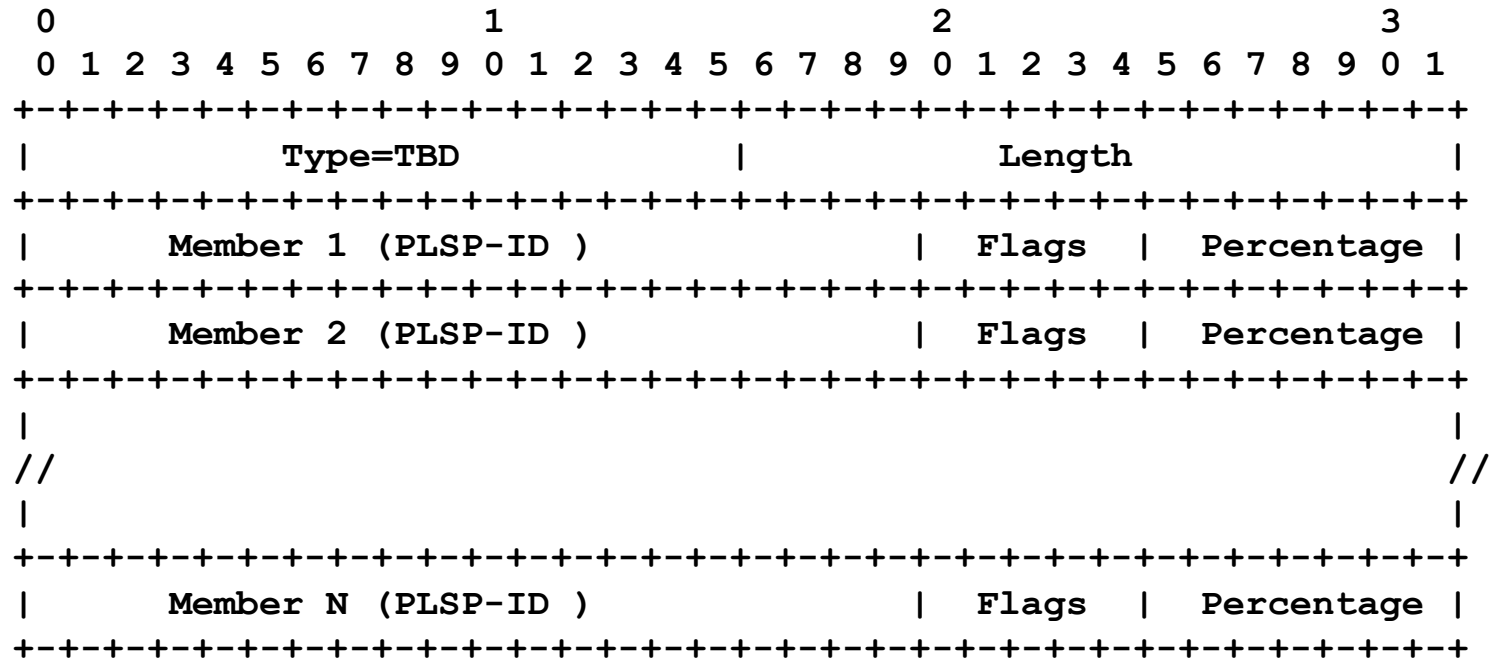


ASSOCIATION-GROUP TLV



DATA-CONTROL TLV

Extensions in LSP Object in PCRpt



DATA-REPORT TLV

Next Steps

- Solicit feedback from WG
- Invite contributors
- incorporate several private feedback