PCEP Extensions for Remote-initiated LSP Usage

draft-ali-pce-remote-initiated-lsp-usage-00.txt

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Outline

- **Problem Statement and Scope**

- **Requirements**

- **Solution**

- **Next Steps**

Problem Statement and Scope

- **PCE-initiated MPLS or GMPLS LSP Setup in a Stateful PCE Model.**

- **When an active stateful PCE is used for managing remote-initiated LSP, the PCC may not be aware of the intended usage of the LSP.**
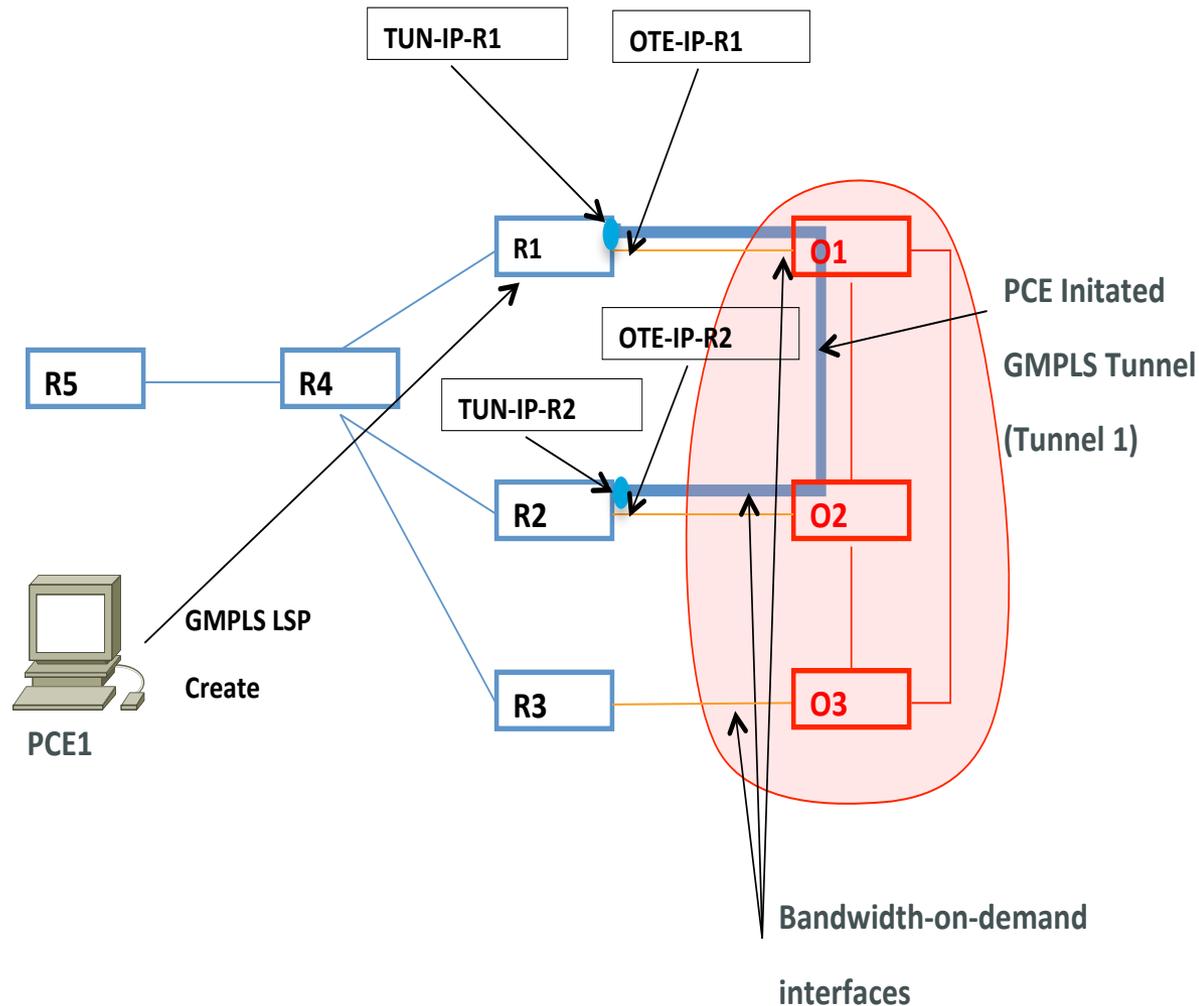
Requirement (Same as in RFC6107)

- **Requirements are same as in RFC6107 (Procedures for Dynamically Signaled Hierarchical LSPs).**

- **RFC6107 has the requirement for communicating the following information from Ingress to the Egress node:**

  - ➤ **How the network should make use of the new LSP.**

  - ➤ **Whether the LSP is an ordinary LSP or an H-LSP.**

  - ➤ **In which IGP instances the LSP should be advertised as a link.**

  - ➤ **Whether the link should form part of a bundle (and if so, which bundle).**

  - ➤ **How the link end points should be identified when advertised.**

- **Same requirements exists when a remote entity is initiating LSP at PCC.**

Solution (Same as in RFC6107)

- **[RFC6107] defines LSP_TUNNEL_INTERFACE_ID Object for communicating LSP usage from the ingress node to the egress node.**

- **This document extends the PCInitiate Message to include LSP_TUNNEL_INTERFACE_ID object for communicating LSP usage to PCC.**

Communicating LSP usage to Egress node

- **PCE does not need to send PCInitiate message to egress node to communicate LSP usage information.**

- **Instead PCC uses RSVP-TE signaling mechanism specified in [RFC6107] to send the LSP usage to Egress node.**

TUN-IP-R1 OTE-IP-R1

R1 O1

R5 R4

OTE-IP-R2

TUN-IP-R2

R2 O2

GMPLS LSP

Create

R3 O3

PCE1

PCE Initated GMPLS Tunnel (Tunnel 1)

Bandwidth-on-demand interfaces

Next Steps

- **We would like to make this draft a WG Document.**

Thank You.