Applicability of Stateful PCE

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draft-zhang-pce-stateful-pce-app-03.txt

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Agenda

- Document goals

- Summary of changes

- Next steps

Document goals

- Goals
  - Describe how a stateful PCE can be used to solve specific problems
  - Describe how a stateful PCE can be deployed
- Non-goals
  - No new extensions
  - No requirements
  - No implementation guidelines, pros/cons discussions on implementation options

Summary of changes

- Merged applicability section of draft-ietf-pce-stateful-pce into this draft and added new authors: Ed. Crabbe (Google), Ina Minei (Juniper), Jan Medved (Cisco), Robert Varga (Pantheon Technologies LLC)
  - ✓ Xian Zhang and Ina Minei as editors

- Reached a consensus to focus the draft on:
  - ✓ Providing general considerations on stateful PCE deployments
  - ✓ Applicability of stateful PCE through a rich set of use cases (covering both MPLS-TE and GMPLS)

Summary of changes

General considerations:

- Brief explanation of:
    - ✓Multi-PCE deployment
    - ✓LSP state synchronization
    - ✓PCE survivability
- Issues raised up in Version 02 are considered useful but left out

Summary of changes

Use Cases:

- Optimization of LSP placement
  - ✓Throughput Max. and Bin Packing
  - ✓Deadlock
  - ✓Minimum Perturbation
  - ✓Predictability

[Note]: Currently also available in draft-ietf-pce-stateful-pce, will be moved after this draft becomes a WG document.

- Smart Bandwidth Adjustment
- Bandwidth Scheduling

Summary of changes

Use Cases(cont.):

- Recovery
    - ✓Protection
    - ✓Restoration
    - ✓SRLG Diversity
- Maintenance of Virtual Network Topology
- LSP Re-optimization
- Resource Defragmentation
- Impairment-Aware Routing and Wavelength Assignment

Next steps

- Welcome feedback on this document

- WG Adoption?