PCEP Extensions for LSP scheduling with stateful PCE

draft-zhuang-pce-stateful-pce-lsp-scheduling-05

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Resolve comments in IETF 93

- **Motivation, requirements and use cases**
  - Stated and discussed in draft-ietf-teas-scheduled-resources-02
  - Get consensus on the problem and the architectural conclusion is that scheduling state should be held centrally at the point of use and not in the network devices.

- **How the PCC “schedule” will be synchronized between PCEs other PCCs**
  - PCE is asked to synchronize the scheduled LSP with other PCEs by using PCReq/PCUpd message.

- **Address overlap with the Temporal LSP proposal**
  - Merged to a single solution document.
Updates in revision -05

• Merge with draft-chen-pce-tts:
  - Incorporate content from draft-chen-pce-tts

• Add Periodical LSP scheduling as a special case of LSP scheduling
  - A new flag (PD-LSP-CAPABILITY bit) in STATEFUL-PCE-CAPABILITY TLV to indicate its support of Periodical LSP scheduling
  - A new SCHED-PD-LSP-ATTRIBUTE TLV to express attributes for periodical scheduled LSP.
  - Add graceful period and elastic time interval for scheduling

• Add a new section for “Scheduled LSP Updates”

• Editorial changes.

• Generate -05 version.
PCEP extension for LSP scheduling

Service Requester (PCC)

PCReq/PCRpt msg

PCRep/PCUdp msg

Other PCEs

PCE

PCReq/PCRpt msg

PCRep/PCUdp msg

LSP-DB

TED

Network

LSR

LSR

May be an application, an NMS, an LSR, or any component that qualifies as a Path Computation Client (PCC)

Note: the architecture is from I-D. draft-ietf-teas-scheduled-resources-02
Next Step

• This is PECP extensions for architecture work in TEAS
• There has been interested demonstrated through two I-Ds
• Ready for adoption by the WG
  - What do the chairs recommend?