

Controlled ID Extension Discussion

draft-ietf-pce-controlled-id-00

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IETF#120, July 2024

Agenda

- **Introduction and Background**
- **Issues Received in the WG Adoption Call**
- **Discussion of Encoding Design**

Introduction and Background

- This document describes a mechanism for a PCC to inform the PCE of the identifier space set for the PCE control via PCEP.
- The identifier could be an MPLS label, a SID, or any other to-be-defined identifier that can be allocated and managed by the PCE.
- Use cases:
 - BINDING SID Allocation
 - PCE-based Central Control
 - SRGB/SRLB
 - GIB/LIB
 - etc.
- Using OPEN MSG to carry the info.
 - Open Object
 - LABEL-CONTROL-SPACE TLV
 - FUNCT-ID-CONTROL-SPACE TLV
- The draft had been adopted as a WG draft, but comments need to be addressed.

Discussion of Encoding Design

- We are facing two main issues
 - Where should the info be encoded? Open MSG seems not inappropriate
 - Format of TLVs may need some discussion. Put all the info into a TLV by adding the type field? Or separate each controlled ID space into specific sub-TLVs.(Personally prefer to separate them)
- Which Message is appropriate is the most important issue. Several Options are proposed.
 - Open Message
 - PCEP-LS LS Object
 - Notification message
 - New PCEP Object in PCRpt message
 - New PCEP Message
 - Combination of Open message and Notification message
- Each option has its Pros and Cons, see the table in the next page.
- A online discussion is recorded: <https://notes.ietf.org/draft-ietf-pce-controlled-id-space?view> welcome to note down your comments.

Comparison of Encoding Design

NO.	Option	Pros	Cons	Notes
1	Open Message	Easy and straightforward	Needs session reset to add a new block Size of open message in case of multiple blocks	Original solution
2	PCEP-LS LS Object	It makes sense to consider controlled ID-Space as Node attributes	Tight coupling with the fate of PCEP-LS and the PCEP speaker must support PCEP-LS to use this feature.	Quan and Dhruv prefer
3	Notification message	Easy to implement and support	Feels like a misuse of notification	Samul prefers
4	New PCEP Object in PCRpt message	Complex???	Feels like a misuse of PCRpt Very confusing RBNF	
5	New PCEP Message	Clean Solution	Use of a new message for an experiment	Samul prefers
6	Combination of Open message and Notification message	Open msg is used for initial report, straightforward. Notification msg is used for modification. Appropriate usage of messages.	Complicated. Need to support it in Open and Notification messages.	Cheng, Samul and Andrew prefer

Next Steps

- **Address the pending issues:**
 - Which message?
 - What format of TLVs
 - ...
- **Seek for more reviewers**