

Stateless SRv6 Point-to-Multipoint Path

draft-chen-pim-srv6-p2mp-path-02

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IETF 110

Overview

Thank people below for comments around adoption

- Acee Lindem,
- Jeffrey Zhang,
- ...

Addressed comments in updated version

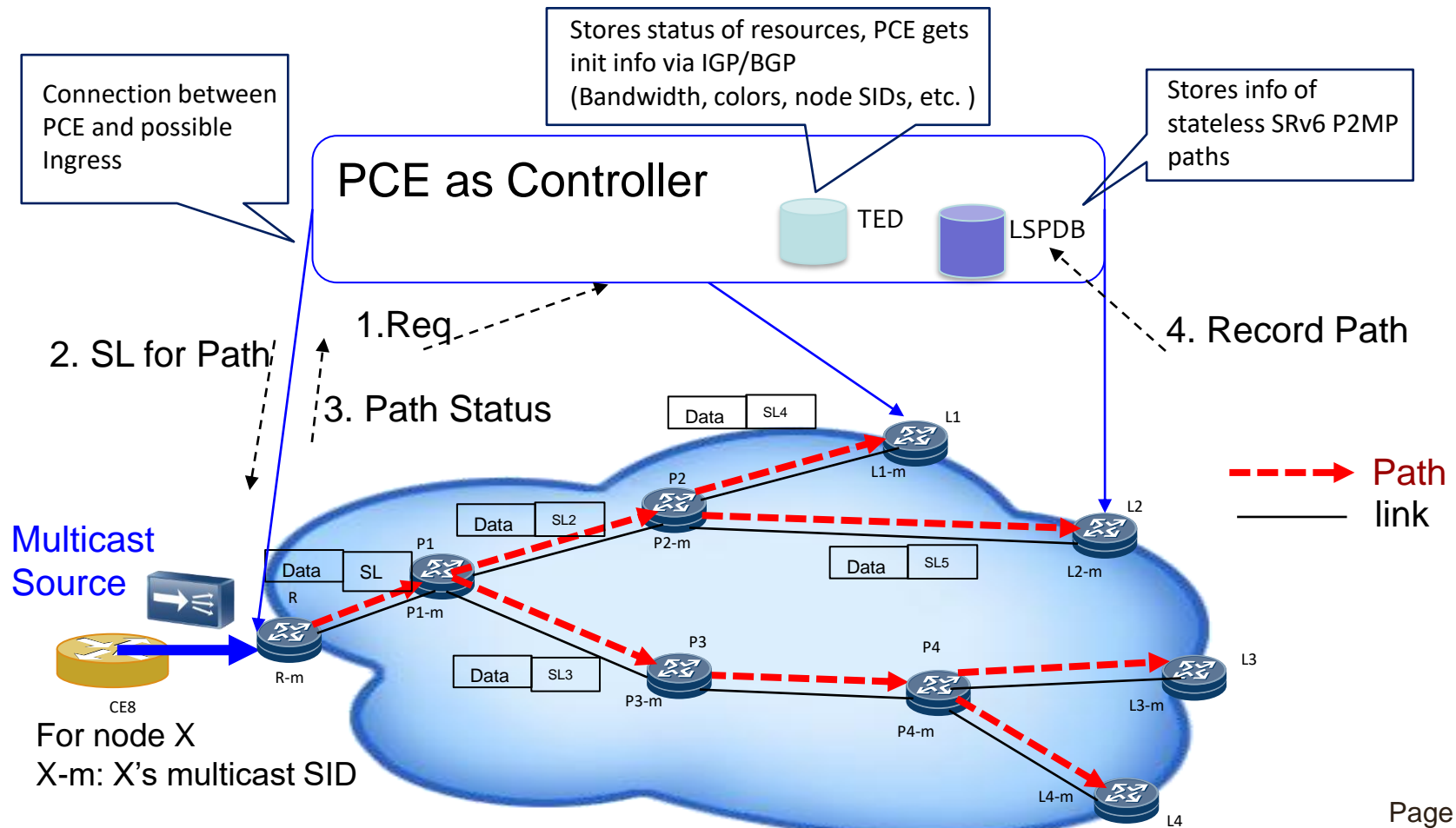
Updates to Previous Version

- Changed status to Experimental
- Added “Stateless SRv6 P2MP Path for Ingress”
- Changed name “SRv6 P2MP” to “Stateless SRv6 P2MP”
 - Added text about split sub-tree for segment list of limit size
 - Added Example IPv6 Header using G-SRv6

Stateless SRv6 P2MP Path for Ingress

Create a stateless SRv6 P2MP path:

1. PCE gets a request from a user/app for a path
2. PCE computes a path, constructs segment list for path, sends list to Ingress
3. Ingress establishes path, sends PCE report on status of path
4. PCE gets report about path, records it



name SRv6 P2MP to Stateless SRv6 P2MP

- SRv6 P2MP path/tree used
in the other solutions with storing some states in core
- Stateless SRv6 P2MP path/tree used
in the solution in this document without state in core

Text about Split sub-tree

Regarding to the finite size of the segment list, a sub-tree can be "split" into multiple sub-trees such that each of the sub-trees can be encoded in the segment list of the finite size.

Example IPv6 Header using G-SRv6

For the example path from R to L1, L2, L3 and L4, ingress R has DA and IPv6 header as follows.

Destination Address (DA):

0										1										2										3									
0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
2001:db9:0:0 (Common Prefix)																																							
P1 ID																				2					7														

IPv6 Header:

0										1										2										3									
0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
Next Header										Hdr Ext Len					Routing Type					Segments Left																			
Last Entry										Flags					Tag																								
P4 ID										2					2																								
L3 ID										0					0																								
L4 ID										0					0																								
Padding																																							
P2 ID										2					2																								
P3 ID										1					3																								
L1 ID										0					0																								
L2 ID										0					0																								

Next

Comments

Discussions