

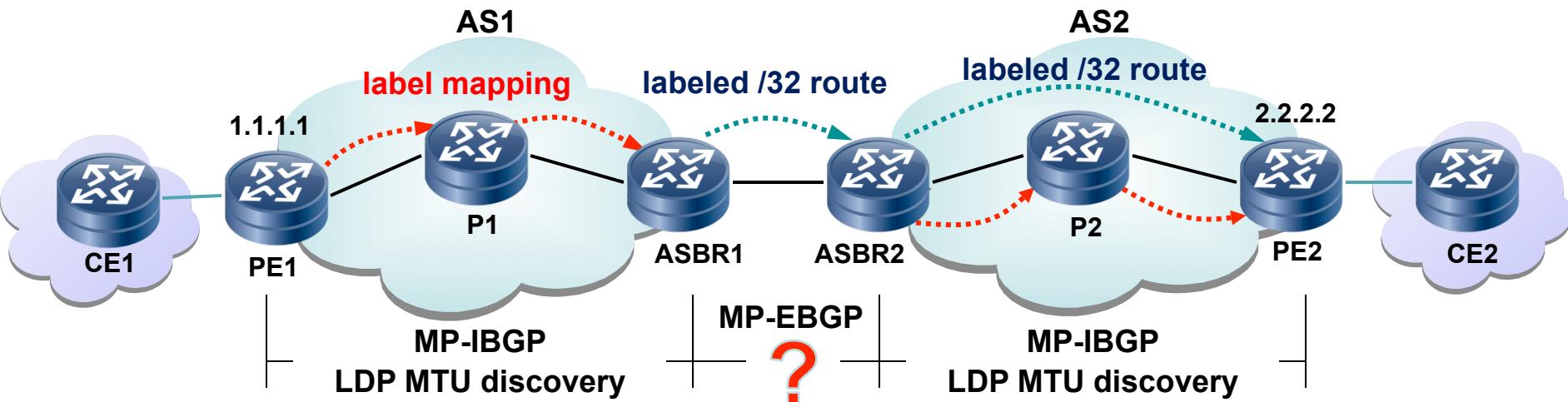
# MTU Extended Community for BGP-4

draft-zeng-idr-bgp-mtu-extension-00

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# Background

- Path MTU Discovery: RFC1191, RFC1981
- LDP MTU Discovery: RFC3988
  - To make path MTU discovery work properly in MPLS network
- There is a gap in MTU discovery in MPLS network
  - An example, Inter-AS IP VPN, Option C



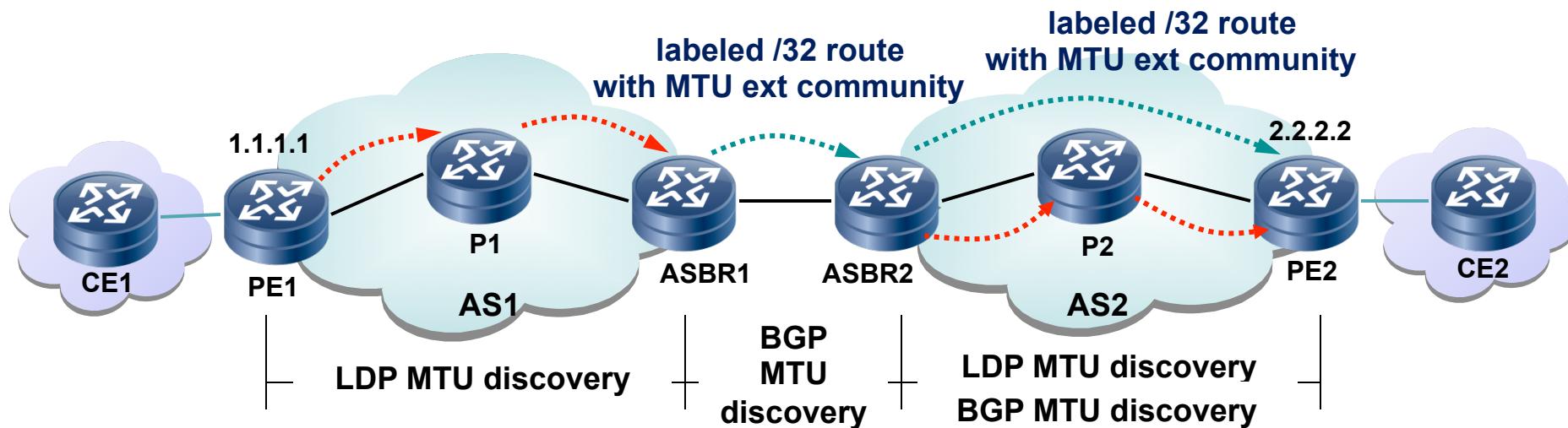
# Solution

- BGP LSP Path MTU:
  - Path MTU of the LSP from a given BGP LSR to a specific prefix
- BGP LSR Link MTU:
  - Minimum MTU between a given BGP LSR and its downstream BGP LSR
- A new BGP extended community
  - MTU extended community

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 0 1
+	+	+	+
MTU extended community	Type	Reserved	
+	+	+	+
Reserved		MTU Value	
+	+	+	+

# Solution (Cont.)

- Signaling procedures



- Avoid unnecessary flapping
  - If the BGP LSP Path MTU decreases, a new update SHOULD be advertised immediately;
  - if the BGP LSP Path MTU increases, the speaker MAY hold down the update.

# Next Steps

- Solicit comments & feedbacks