

PCE based BIER Procedures and Protocol Extensions

[\[draft-li-pce-based-bier\]](#)

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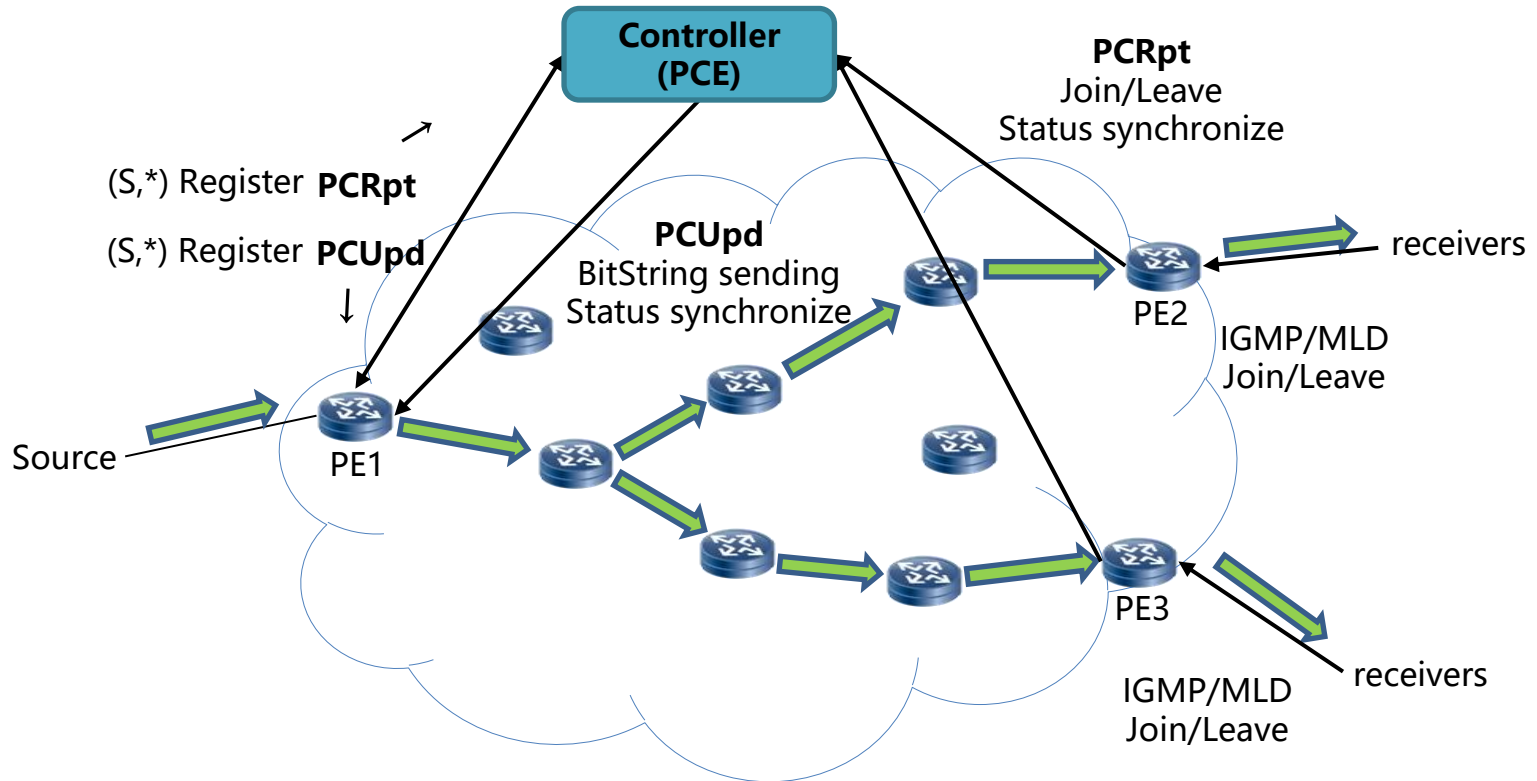
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- Overview of PCE based BIER solution
- Updates
- Further Action

Overview of PCE based BIER solution



Main flow for PCE based BIER multicast

1. PCE receives the registration information from ingress and responds.
2. PCE gets reports about egresses in PCRpt.
3. PCE generates BitString and sends it to ingress via PCUpd.
4. Ingress encapsulate BIER header and forward multicast packets.
5. The number of receivers is regularly synchronized between egress and PCE, and between PCE and ingress, using PCRpt and PCUpd respectively.

New TLVs

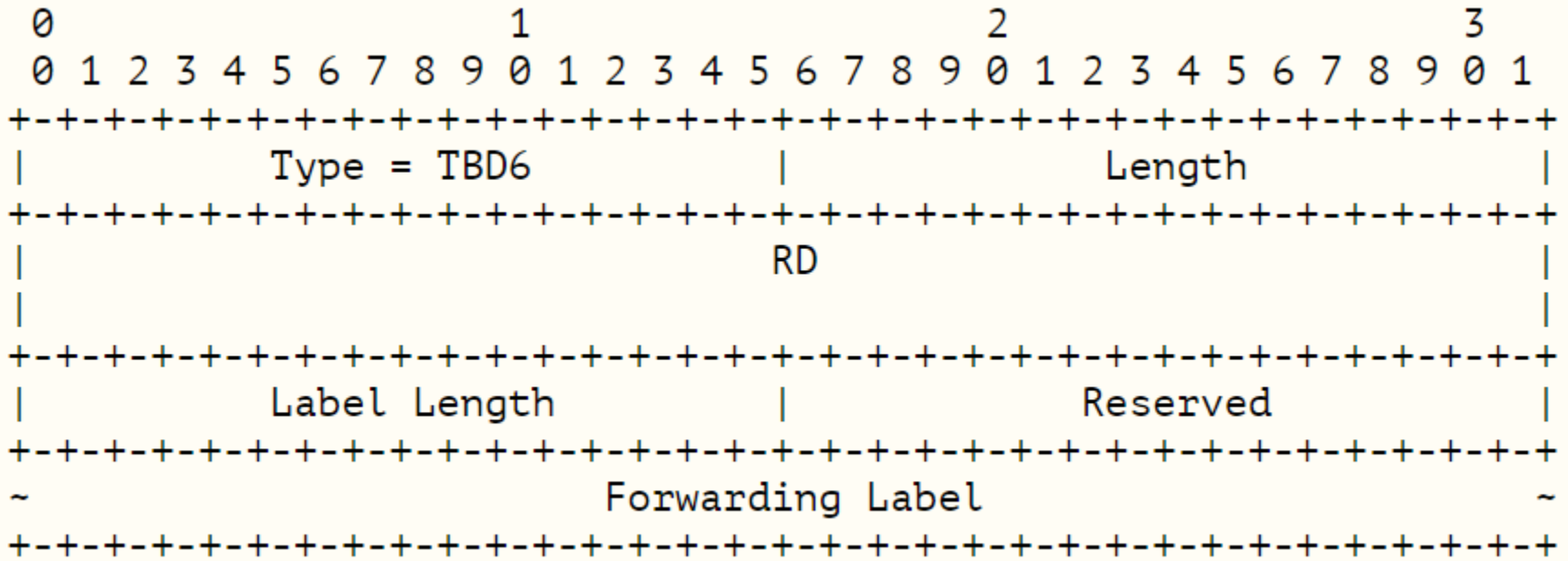


Figure 5: VPN Information TLV Format

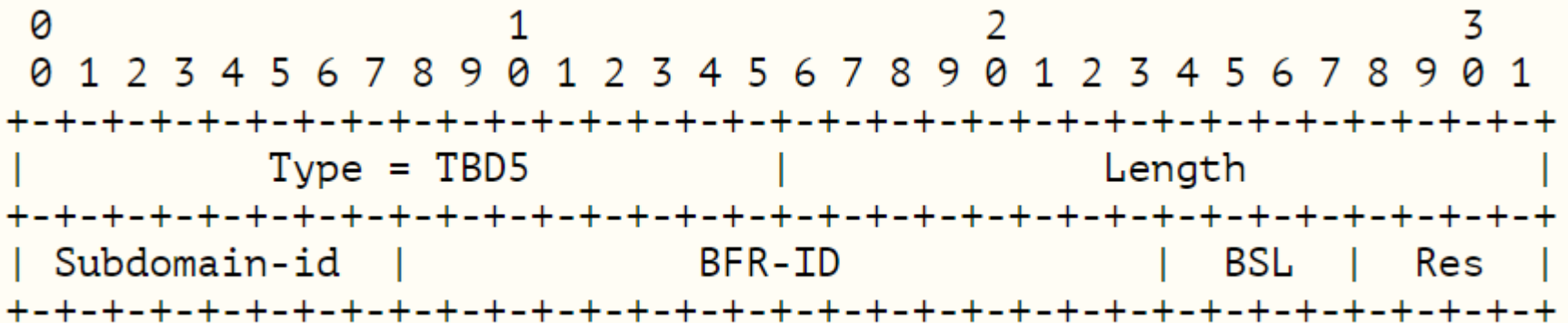


Figure 4: BIER Information TLV Format

Update for Multicast Source Registration Object

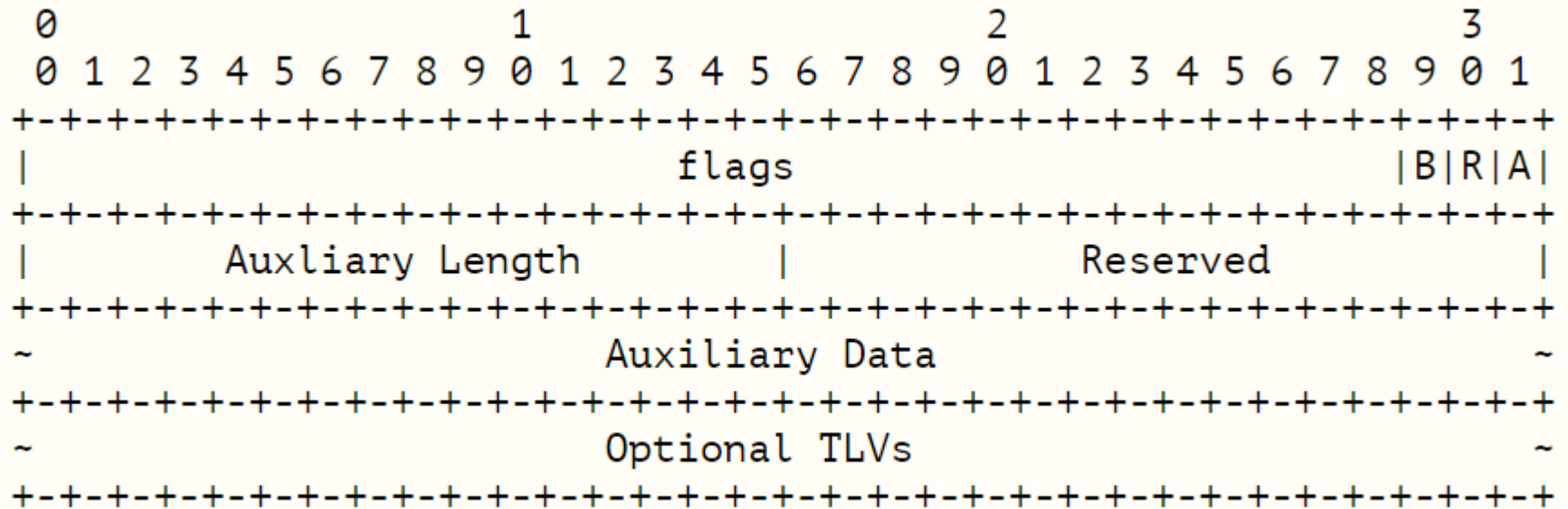


Figure 2: MSR Object Body Format

✓ Can be used in both BIER and non-BIER scenarios

✓ BIER:

Multicast Source Address TLV, VPN Information TLV, BIER Information TLV

✓ Non-BIER:

Multicast Source Address TLV, VPN Information TLV

Update for Multicast Receiver Information Object

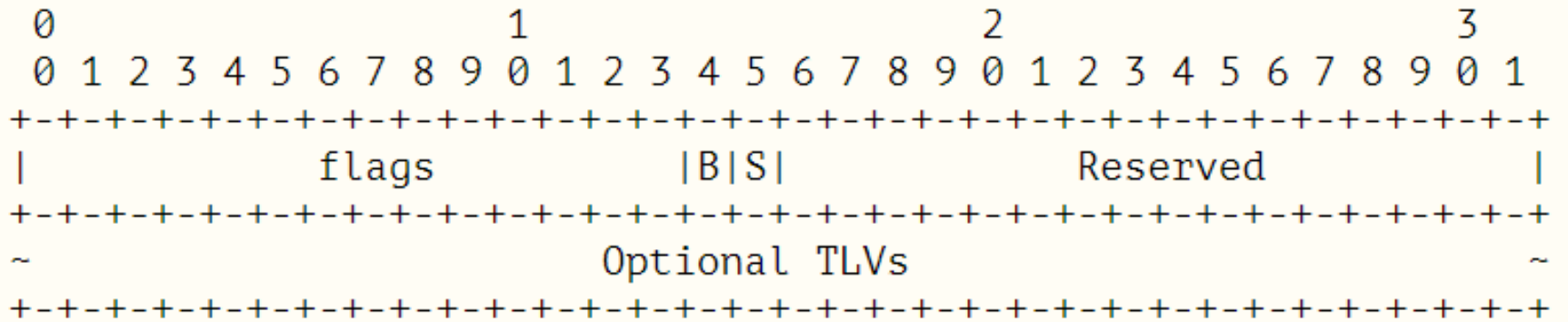


Figure 6: MRI Object Body Format

✓ Can be used in both BIER and non-BIER scenarios

✓ BIER:

Multicast Source Address TLV, Multicast Group Address TLV, VPN Information TLV, BIER Information TLV

✓ Non-BIER:

Multicast Source Address TLV, Multicast Group Address TLV, VPN Information TLV

Update for Forwarding Indication Object

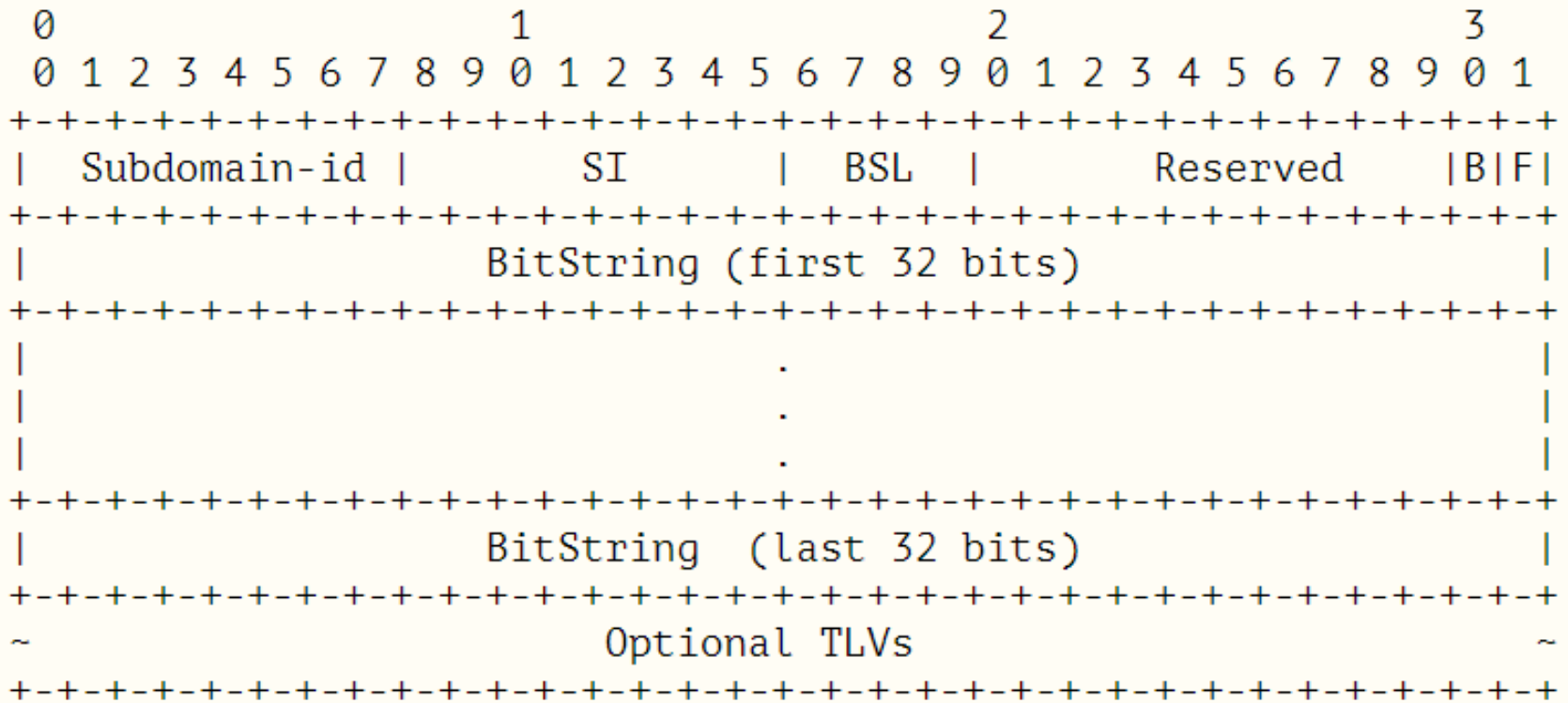


Figure 8: FI Object Body Format

✓ Can be used in BIER scenario:

Multicast Source Address TLV, Multicast Group Address TLV, VPN Information TLV

Update for Multicast Receiver Status Object

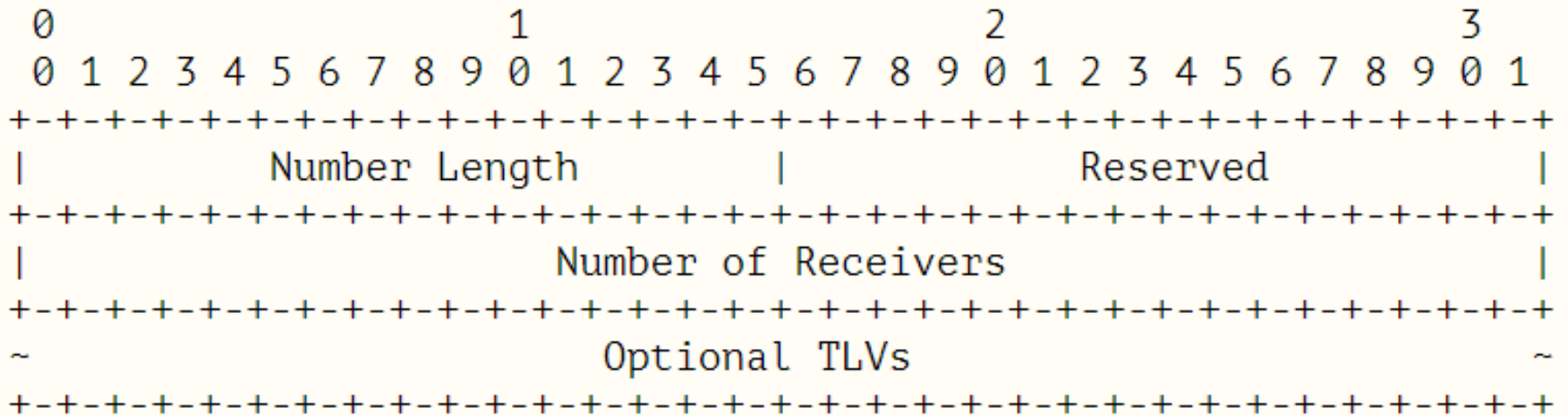


Figure 9: MRS Object Body Format

✓ Can be used in both BIER and non-BIER scenarios

✓ BIER:

Multicast Source Address TLV, Multicast Group Address TLV

✓ Non-BIER:

Multicast Source Address TLV, Multicast Group Address TLV

Next Step

- Comments

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