RSVP-TE Summary FRR Extensions

draft-mtaillon-rsvpte-summary-frr-00

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Outline

- **Requirements and Scope**
- **Summary**
- **Next Steps**

Requirements and Scope

Requirements:

1. **Fast reroute [RFC4090] is widely deployed in packet RSVP-TE networks today**
2. **In scaled deployments, Point of Local Repair (PLR) and Merge Point (MP) nodes may host ten-of-thousands of LSPs**
3. **In event of failure, the PLR and MP ’s control planes becomes overwhelmed with control plane FRR processing (done per LSP)**
4. **Motivation to allow FRR control plane procedures between PLR and MP to be signaled and processed on groups of LSP**

Scope:

1. **Signaled using RSVP-TE [RFC3209]**
2. **Using RSVP-TE FRR procedures [RFC4090]**

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Summary of RSVP-TE Summary FRR (1)

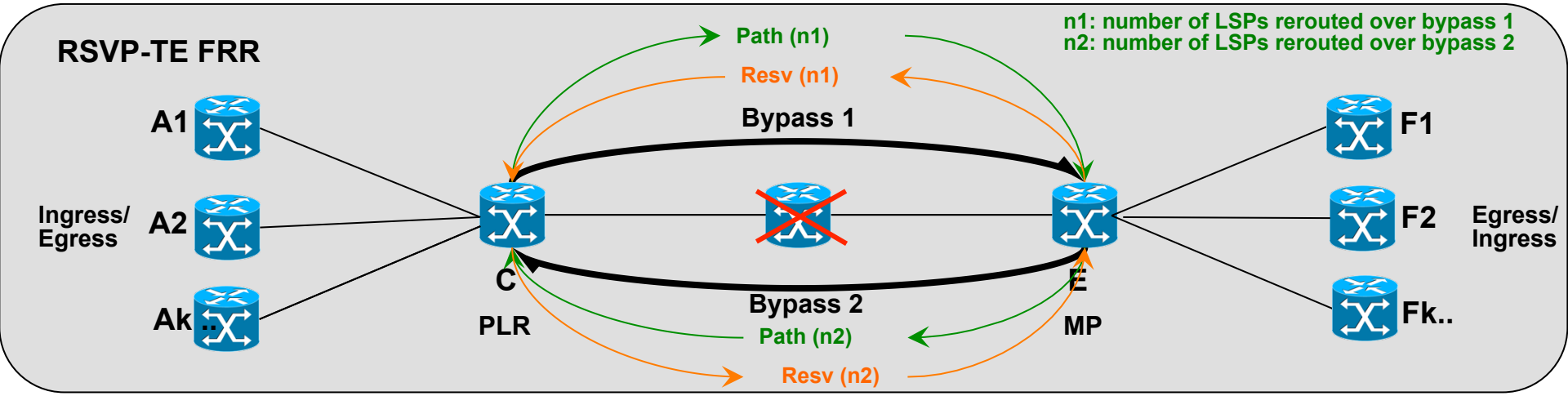
1. PLR creates and manages RSVP-TE Summary FRR LSP groups and shares them with MP via signaling (PATH RRO)
   - New Bypass Assignment Object (added to PATH/RESV RRO)
     - Bypass Group Identifiers
2. MP learns Bypass Group Identifiers, acknowledges via signaling (RESV RRO)
3. PLR receives acknowledgement from MP, handshake complete

Summary of RSVP-TE Summary FRR (2)

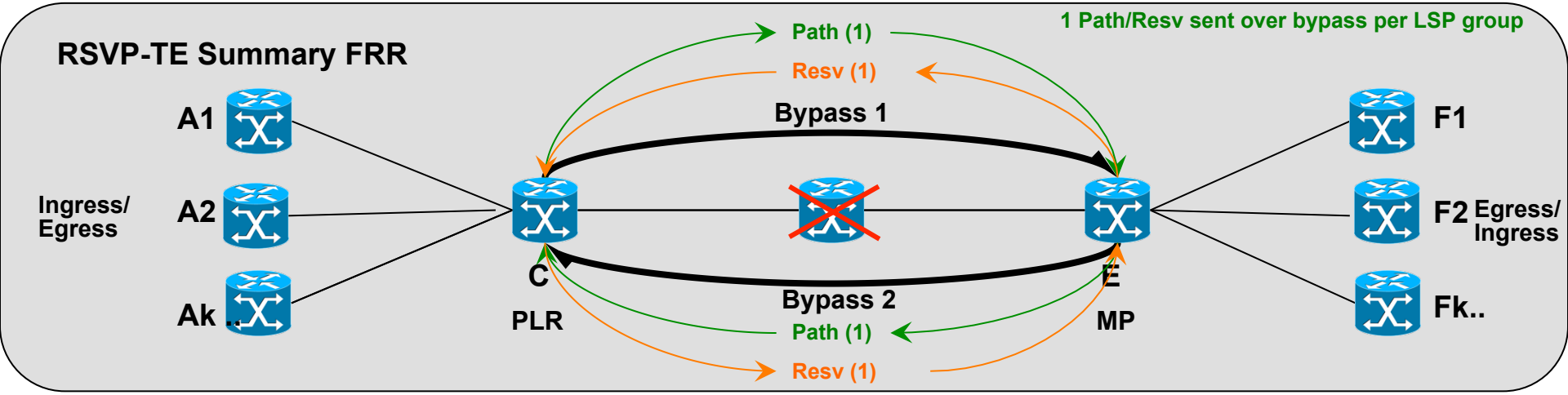
1. After FRR activation, PLR notifies MP with list of affected Bypass Group Identifiers via single PATH message
   - New Bypass Active Object
     - List of affected Bypass Group Identifiers
2. MP processes normal FRR handling for each LSP identified in Bypass Active Object
3. MP copies PATH Bypass Active Object and sends signal RESV message

Summary for Summary FRR (3)

Existing



Proposed



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Next Steps

- **Welcome comments from WG**
- **Request to make this draft a WG document**

Thank You.

Backup diagram

1. Topology before failure