

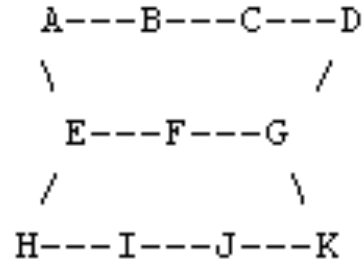
# RSVP-TE Extensions to Notification for Shared Mesh Protection

CCAMP WG, IETF 81th

[draft-he-ccamp-notification-shared-mesh-protection-00](#)

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# Motivation



A Shared Mesh Protection Topology

- **Requirements**
  - R66/67/68/69 [\[RFC5654\]](#)
- **Benefits**
  - Reducing the number of network resources [\[tp-survive\]](#)
- **Solution gaps**
  - The processing of Shared Mesh Restoration was described in [\[RFC4872\]](#), but Shared Mesh Protection was not covered.

# Shared Mesh Protection Planning

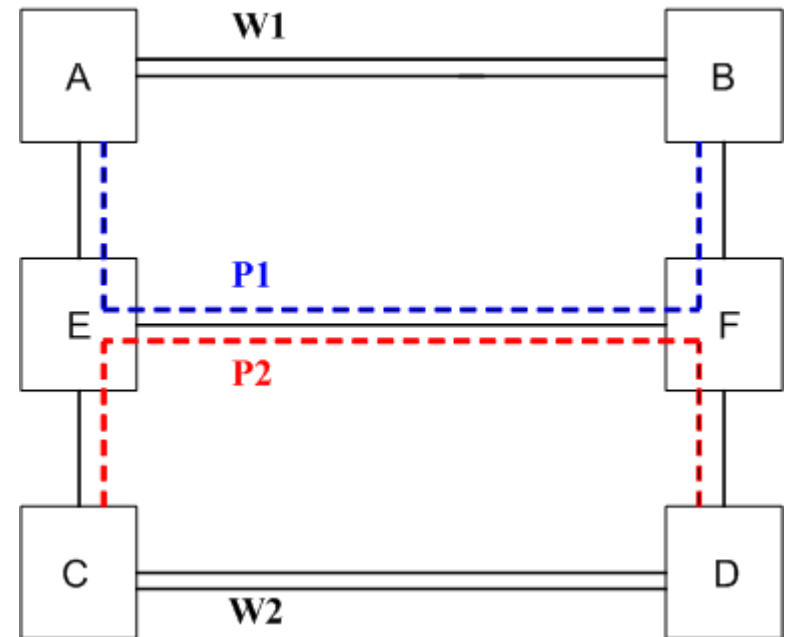
- **Operator plans the Shared Mesh Protection Group (SMPG)**
  - assign a group ID and a virtual address for the shared mesh protection group.

- **Association Object**

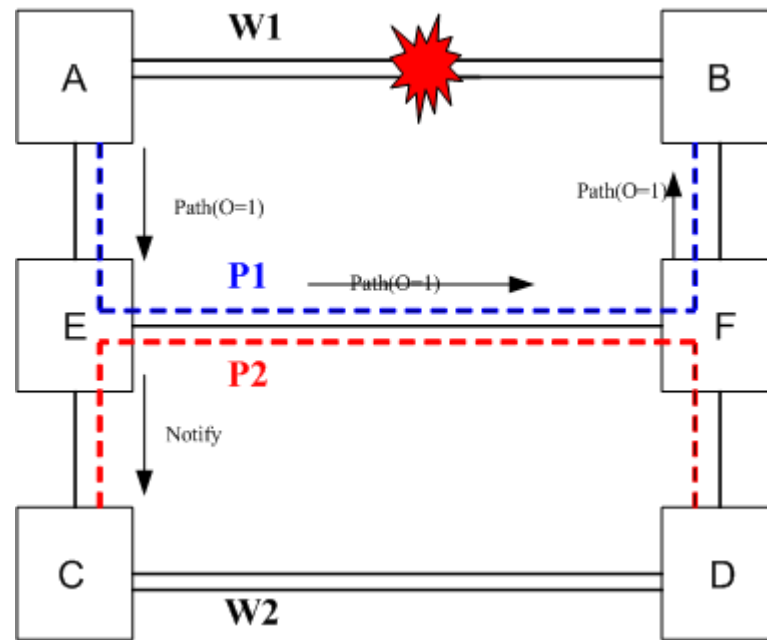
- Association Type: Resource Sharing
- Association Source: SMPG virtual address
- Association ID :SMPG group ID

- **Protection Object**

- Unchanged

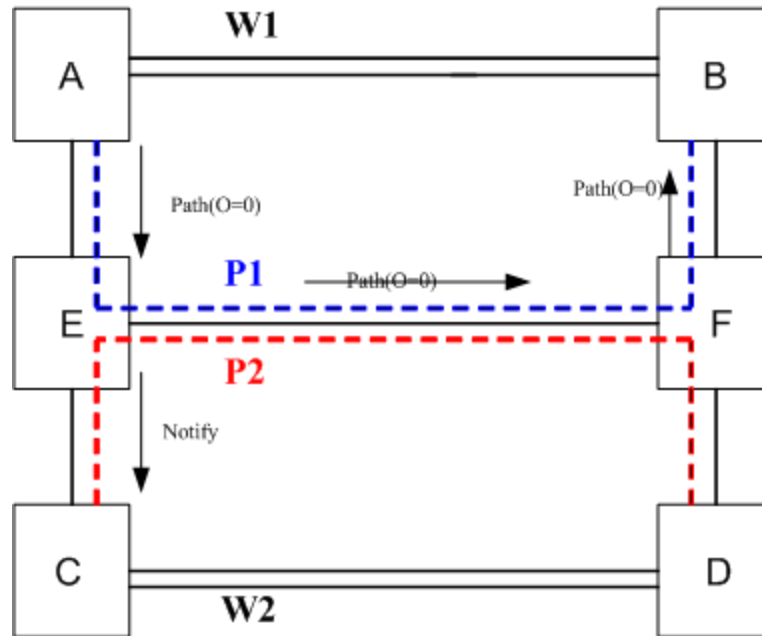


# Protection Switching Notification



1. Node A/B switch the traffic from working path to protection
  - Data plane Switching [[linear-protection](#)]
  - Control Plane Switching [[section-7 of RFC4872](#)]
2. Node E send notify message to node C with error "notify error/resource occupied by the high priority" or "notify error/resource occupied by the low priority"
3. Node C MAY reroute or lock the protecting LSP.

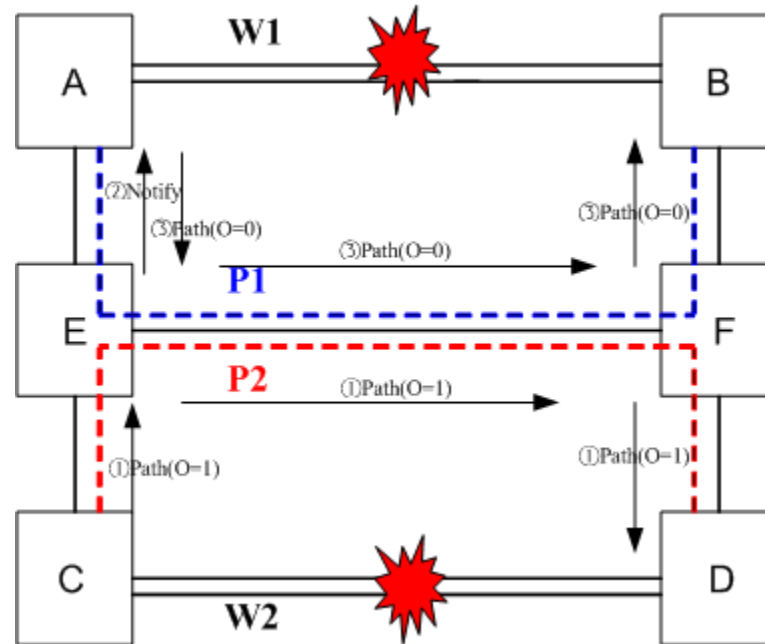
# Reversion



## ● When the fault of the working LSP disappears:

1. Node A switches the traffic to W1 and refreshes the Path message
2. Upon receiving the Path message with the O bit clear, node E will send notify message with new error code/sub-code "notify error/resource available" to node C
3. Node C May unlock the protection path

# Resource Preemption



- **A failure occurs on W2 while W1 is still in failure state**
  - if P2's priority is lower; the node C will not switch the traffic
  - if P2's priority is higher; the above figure indicates the signaling procedure

# Next Steps

- Update RFC4872?
- Comments/Feedback?

