RSVP-TE Signaling Procedure for GMPLS Restoration and Resource Sharing- based LSP Setup and Teardown

draft-zhang-ccamp-gmpls-resource-sharing-proc-03

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Update since IETF-90 Toronto

- **Merged draft-zhang-ccamp-gmpls-resource-sharing-proc**

  Describes resource sharing procedures for MBB operations (restoration, reversion and modification)

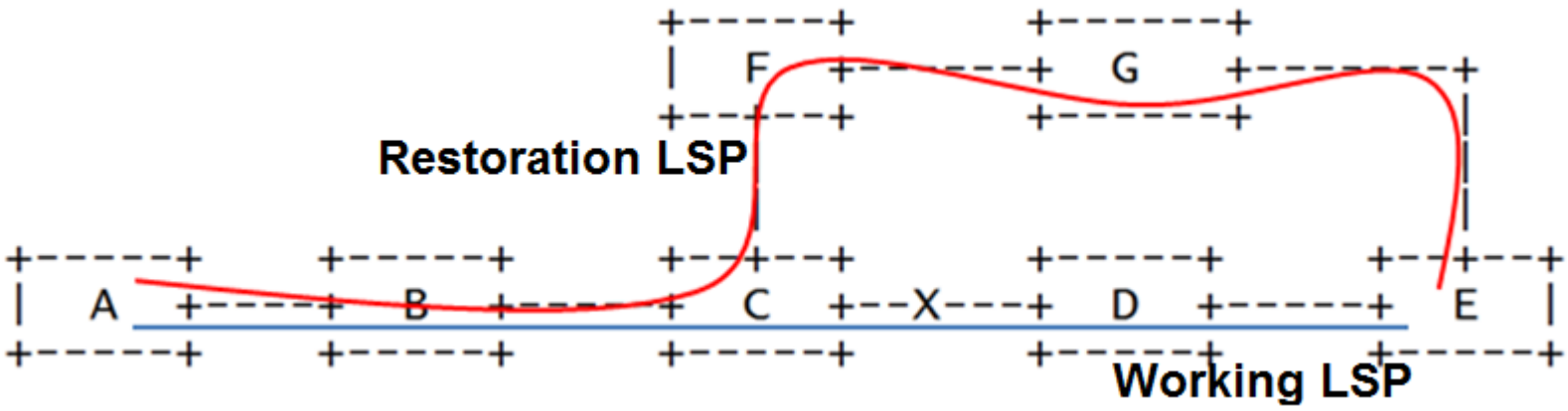
  with draft-gandhi-ccamp-gmpls-restoration-lsp

  Describes signaling procedures for association of restoration LSP with working / protection LSPs

- **Augmented section on LSP reversion**

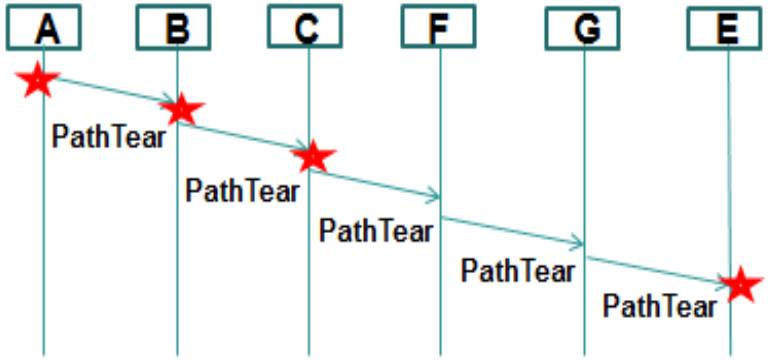
  - **make-while-break reversion: where resources associated with working LSP are reconfigured while removing reservations for restoration LSP**
  - **make-before-break reversion: where resources associated with working LSP are reconfigured before removing restoration LSP**

Make-while-break reversion



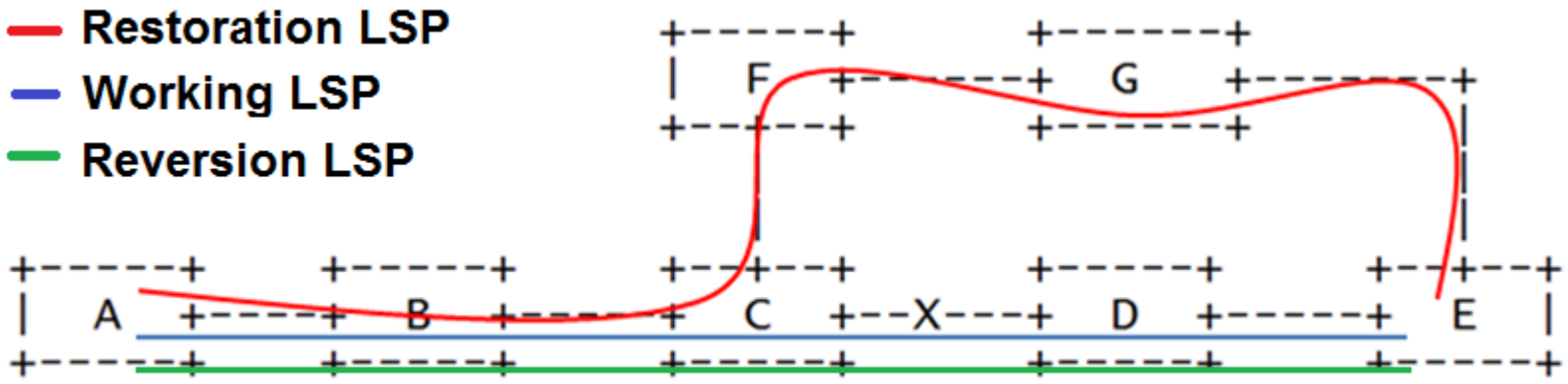
- Resources are shared on nodes A, B, C and E
- Restoration LSP is simply torn down
- Removing restoration LSP reservation triggers working LSP resource reconf.
- Limitations:
  - No rollback if rsrc reconfig fails
  - No completion guarantee (PathTear can be lost)
  - Ingress cannot determine completion time

Restoration LSP teardown:



= Reconfiguration of shared resources

Make-before-break reversion



- Resources are shared on nodes A, B, C, D and E
- Reversion LSP setup follows working LSP path (MBB style)
- Rsrc reconf. on reversion LSP setup
- MBB mechanisms provide:
  - Rollback if rsrc reconfig fails
  - Completion guarantee (Paths and Resvs are refreshed)
  - Ingress knows that data pane is configured when it receives Resv