CHAPTER 53

Configuring Ethernet Ring Protection

This chapter describes how to configure Ethernet Ring Protection on the Cisco ME 3800X and ME 3600X switch.

The ITU-T G.8032 Ethernet Ring Protection Switching feature implements protection switching mechanisms for Ethernet layer ring topologies. This feature uses the G.8032 Ethernet Ring Protection (ERP) protocol, defined in ITU-T G.8032, to provide protection for Ethernet traffic in a ring topology, while ensuring that no loops are within the ring at the Ethernet layer. The loops are prevented by blocking traffic on either a predetermined link or a failed link.

Configuration information for Ethernet Ring Protection Switching can be found in ITU-T G.8032 Ethernet Ring Protection Switching section.


Restrictions and Limitations

The following restrictions apply to Cisco ME3600x/ME3800x switch.

- It is not possible to block some encapsulation VLANs and unblock the remaining encapsulation VLANs on a single EVC. Therefore you must block or unblock entire EVCs. When configuring EVCs:
  - EVCs that contain the inclusion-list vlans should not contain any other vlans in the encapsulation list
  - If load-balancing is required an additional EVC should be used.
- G8032 Feature is supported only on EVC. It is not supported on switchport.
- ITU-T G.8032 sub-ring with virtual-channel is not supported.
- ITU-T G.8032 is not supported on Port-channel.
- Support for a maximum of two ERP instance per ring.
- Trunk EFP is not supported
- TCN propagation is only supported from ITU-T G.8032 Minor Ring to ITU-T G.8032 Major Ring. TCN propagation from ITU-T G.8032 to MST or REP is not supported.
- The switch supports a maximum of eight ITU-T G.8032 Rings.
- ITU-T G.8032 Feature with CFM is supported with a CFM interval of 1s.
- VLANs that are used for the R-APS control channel cannot be reused for Data traffic.