

# 2547 egress PE Fast Failure Protection

draft-minto-2547-egress-node-fast-protection-00

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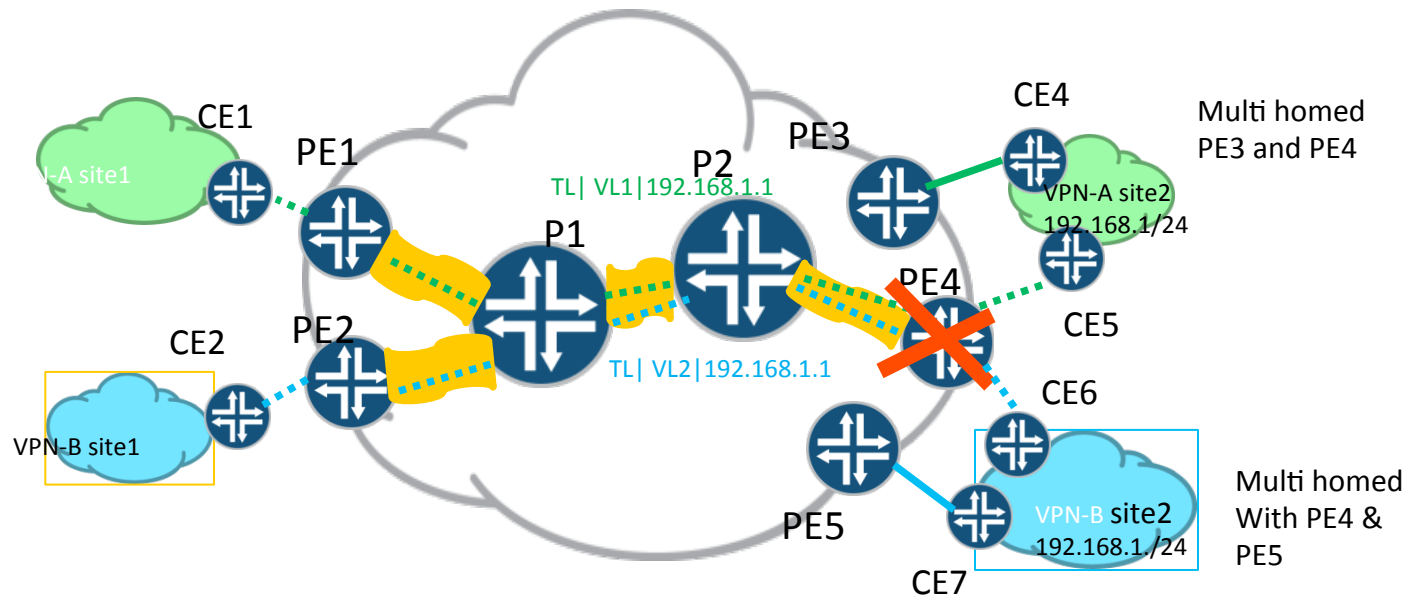
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# Problem statement.

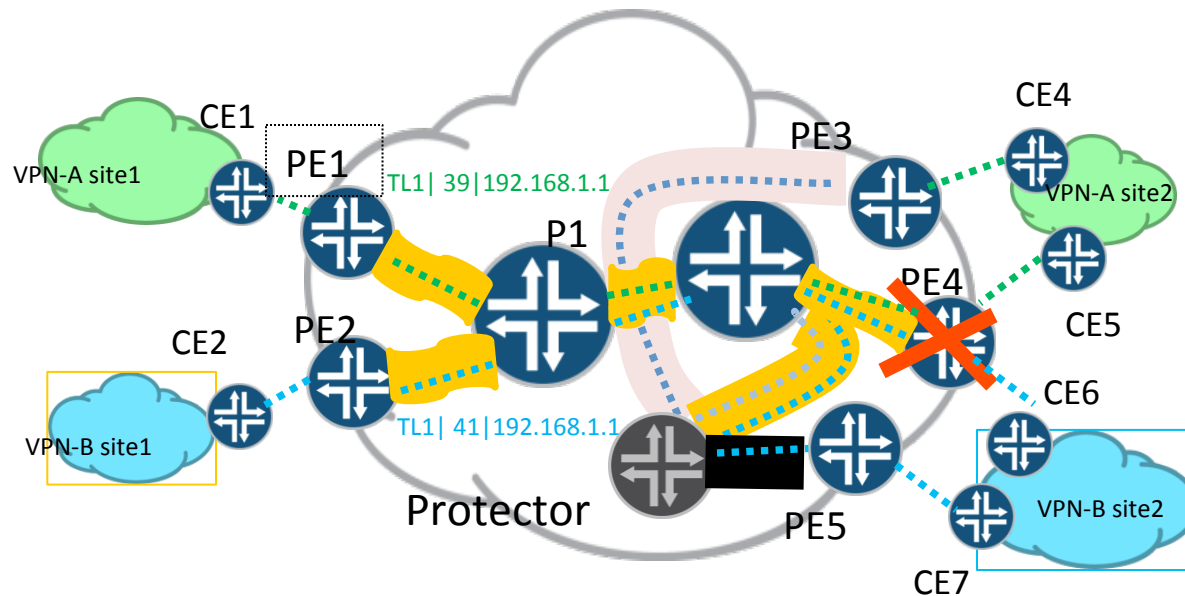
- MPLS provides fast service restoration for link and node failure except egress node failure.
- This draft propose rfc 2547 service restoration when egress node goes down.
- This proposal could be extended other mpls based service.

# Problem statement.



- In the above topology Even though service offered by other PE it cant be restored transport LSP goes down with failed egress PE.
- Assume P router redirect traffic to other service router. Service router cant do anything as the label does signify anything.

# Proposed solution.



- A new role protector, can be played by any node participates in service routing. With protector, P router sends traffic to protector when PE goes down (P router unaware service labels) and protector re-route traffic to VPN sites or other service PE.

# Solution Details- Traffic reroute.

- The service transport LSP will be terminated in context-identifier instead of egress PE loopback address.
- The context-identifier is an IP address identify the service point. The context-identifier is shared between protector and the primary(which required protection). This sharing helps P router to reroute traffic to protector when egress node down.

# Solution Details- Service mirroring.

- Context-identifier advertise by protector in IGP and a real label advertised for the bypass-LSP (LFA/MPLS FRR ) in Label protocols (So real label identify forwarding context.). Context label identify the forwarding context (context-table) in protector.
- This context table is populated by label in service routes advertised by egress PE that required protections. The context table identify backup FIB table and lookup in that table give us the backup egress PE nexthop /or nexthop.
- The backup FIB is populated by backup PE routes for protected egress PE.

# What next.

- This can be extended to other mpls services.
- Questions and comments?