

Multi-chassis PON Protection in MPLS

draft-jiang-pwe3-mc-pon-00

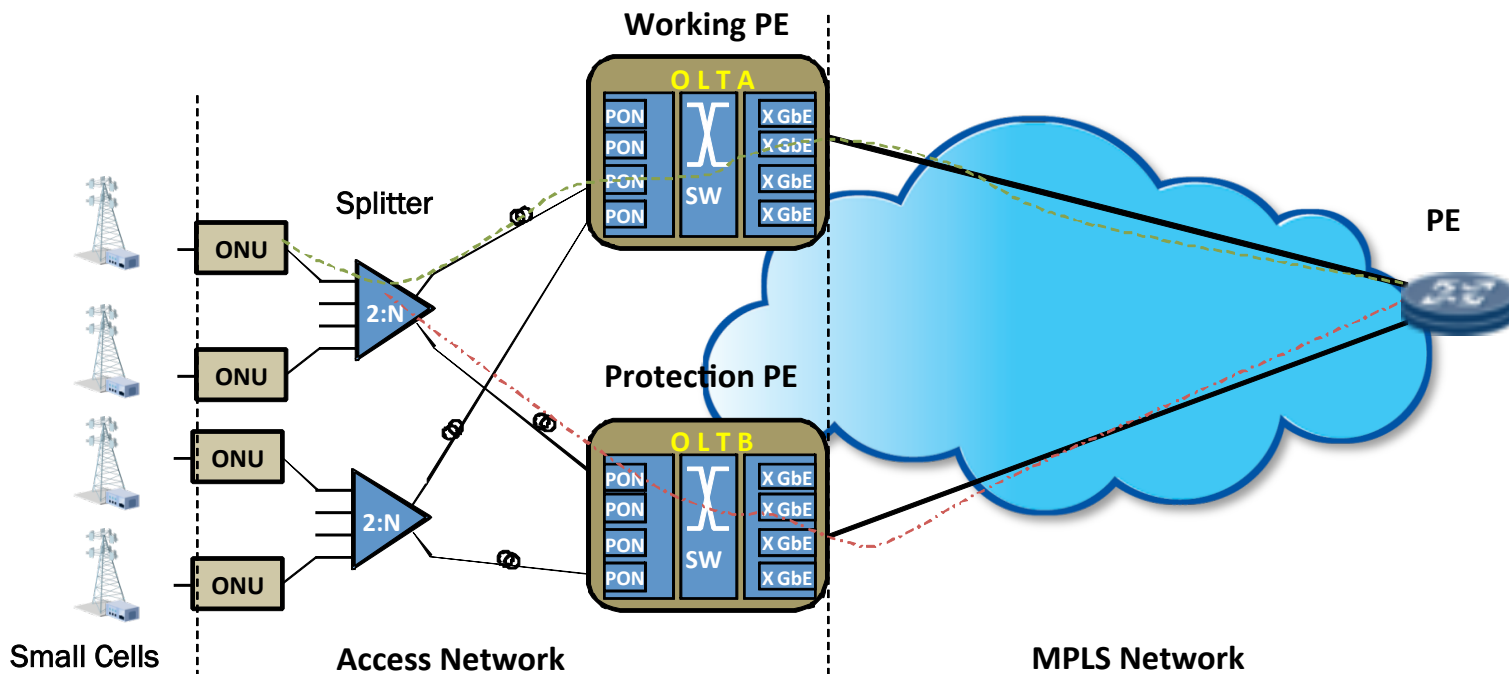
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Backgrounds

- Seamless MPLS
 - MPLS, as a multi-service transport technology, is pushing further and further towards network edges
- MPLS with PON Access
 - More and more PON equipments (OLT and even ONU) are provided with MPLS functionalities
- MPLS + PON, ideal for small cell backhaul
 - Saving chunk fibers
 - High bandwidth
 - And its low TCO

Type B protection scenario

Most faults are found in fiber cuts between splitter and OLT
Services can be restored by type B protection in most cases



ICCP extensions for PON

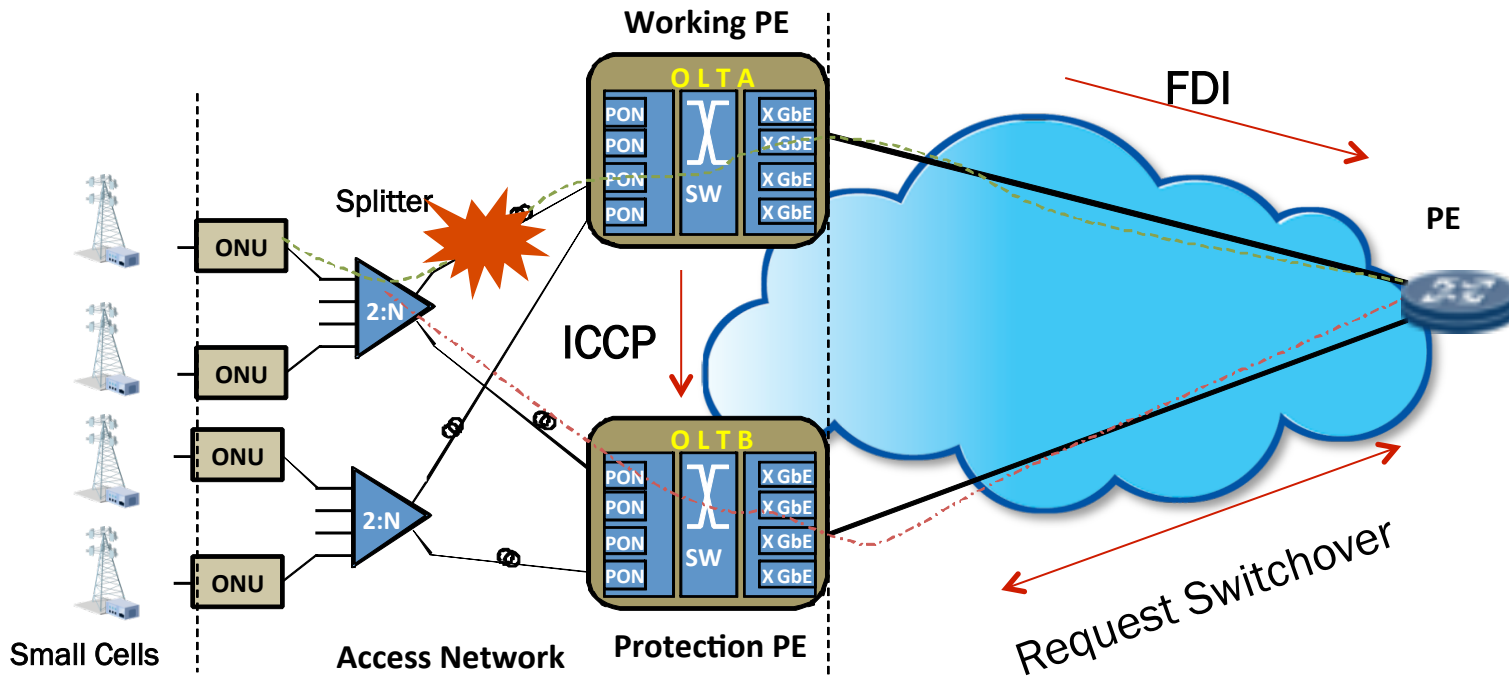
- Some PON application TLVs are needed
 - PON Connect TLV
 - PON Disconnect TLV

 - PON Configuration TLV
 - System ID
 - System Priority
 - Port ID

 - PON State TLV
 - Local PON port state
 - Remote PON port state

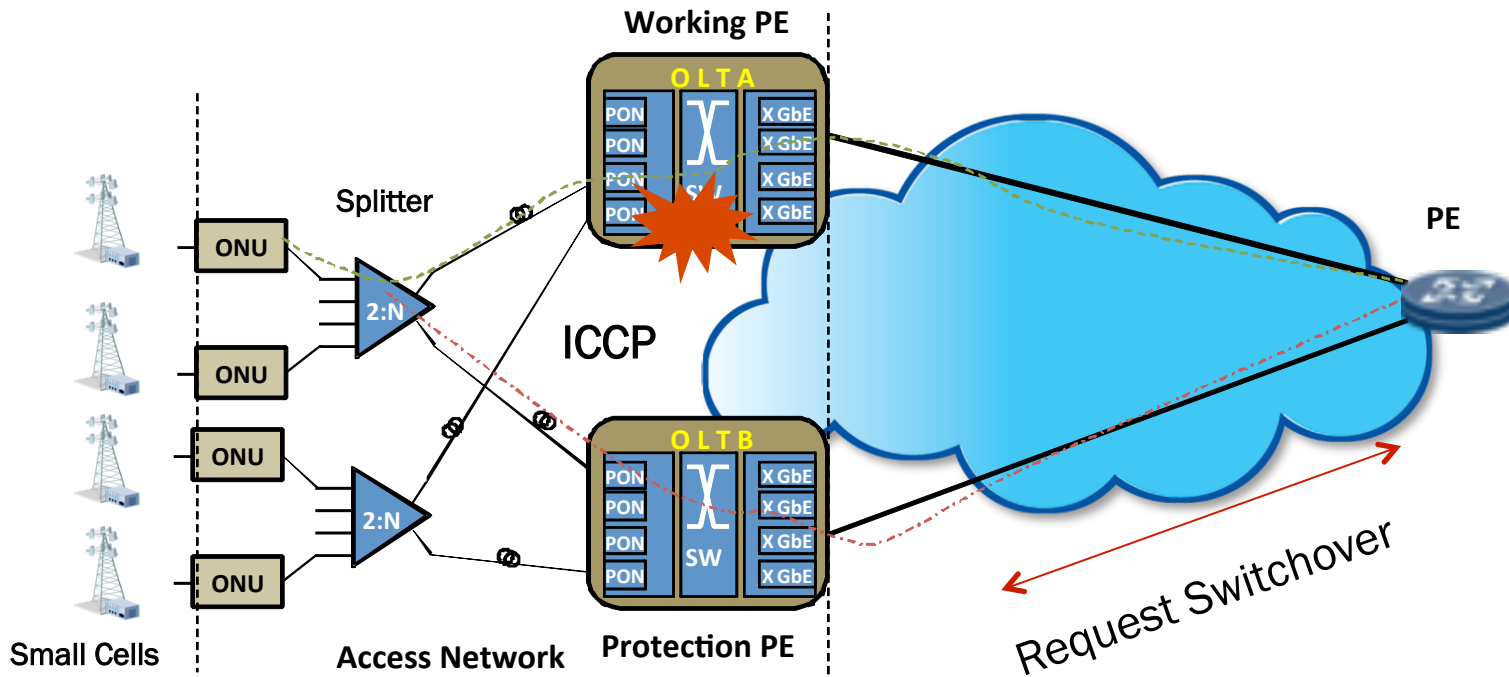
Protection Procedures

Faults in trunk fiber between working splitter and working OLT



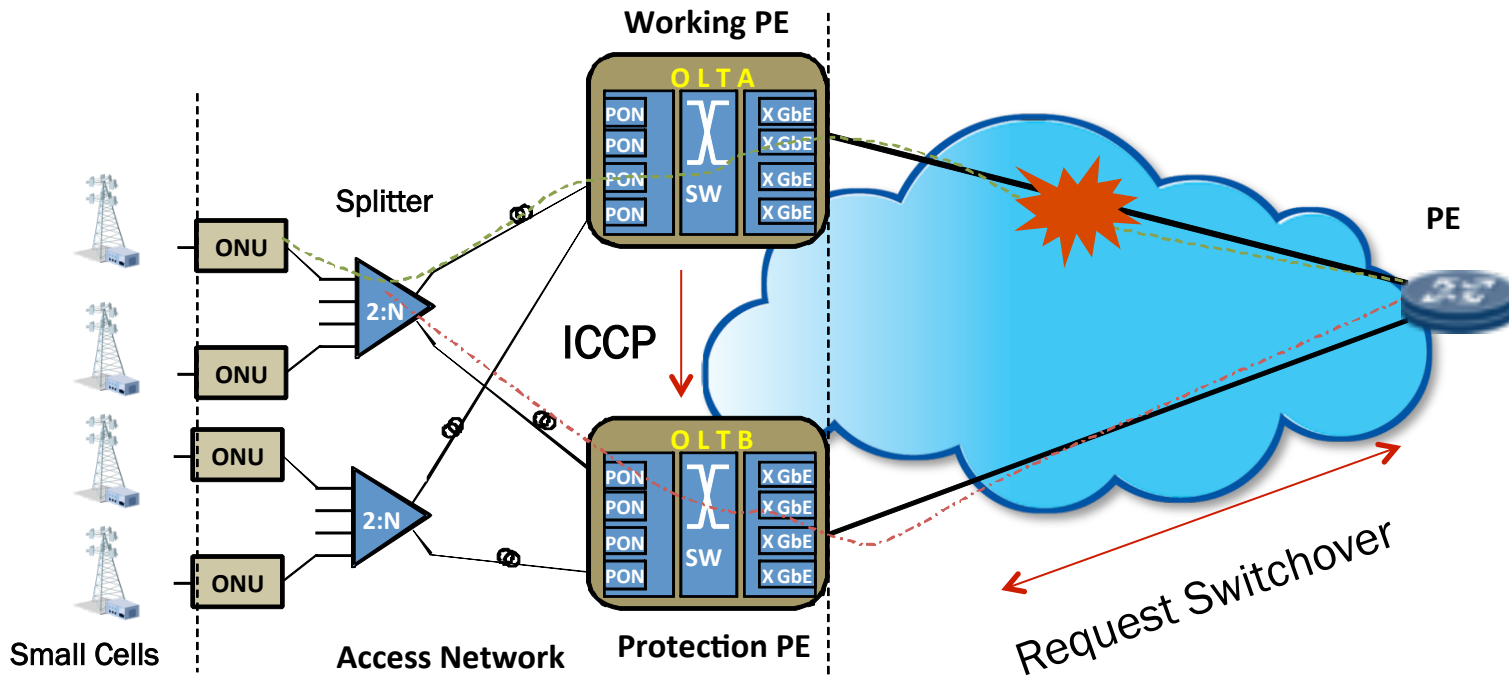
Protection Procedures

Faults in a working OLT



Protection Procedures

Faults in the working PW between a working OLT and a remote PE



Next Step

- Is ICCP for PON protection a good choice in MPLS?
- More inputs and comments from WG are greatly appreciated

Thank You