Application of 802.1Qaw In PBB-TE Environment

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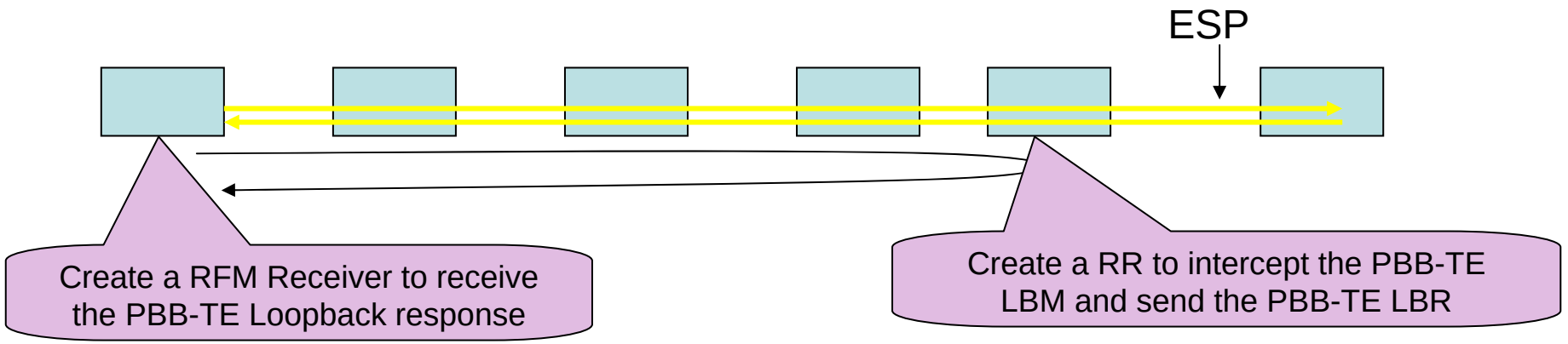
Connectivity Test along in PBB-TE ESP without MIP

- For application scenario where MIPs are not implemented on immediate nodes/bridges:
  - Use the Reflection Responder defined in 802.1Qaw to respond to the proposed PBB-TE LBM
  - Only activate RR during maintenance window.
  - Benefit:
    - During normal condition, avoid the processing burden for all immediate nodes to intercept LBM and compare TLV.
    - Allow external adjunct box to process the LBR

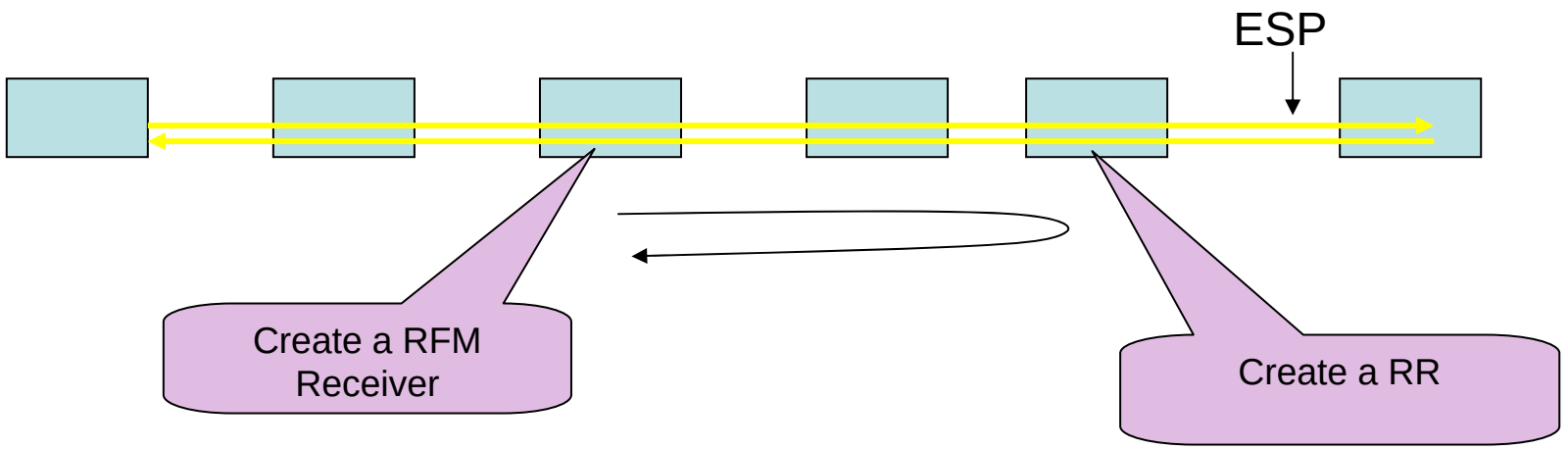
How?

- **Create a Reflection Responder at intermediate bridge interface(s) along PBB-TE ESPs (Let's call it LBM-TE RR).**
  - The MD level of the ESP => MD Level of the Reflection Responder
  - LBR's VID => VID for the Reflection Responder
  - RR target address set to "SOURCE", i.e. the Source_Address field of the filtered frame.
  - "Continue" Option is set OFF.
- **Set RR Filter to filter out the proposed LBM-TE message**
    - E.g. (Source_Address == ESP's SA) & (Destination_Address == ESP's DA) & (VID == ESP's VID) & (TLV1= CFM LBM OpCode) & (TLV2= MIP MAC address)
- **Create a RFM Receiver shim on the ESP's SA which sends the LBM-TE to receive the PBB-TE LBR.**
- **The Loopback RR can be activated during maintenance window.**



Another Application of 802.1Qaw in PBB-TE environment

- By allowing immediate nodes to send a PBB-TE loopback message, connectivity between any intermediate nodes along ESP can be diagnosed.



802.1Qaw can also be used to achieve the Link Trace In PBB-TE Environment

- **Create a Reflection Responder at intermediate bridge interface(s) along PBB-TE ESPs (Let's call it LTM-TE RR).**
  - The MD level of the ESP => MD Level of the Reflection Responder
  - LTR's VID => VID for the Reflection Responder
  - RR target address set to "SOURCE", i.e. the Source_Address field of the filtered frame.
  - "Continue" Option is set ON.
- **Set RR Filter to filter out the proposed LTM-TE message**
  - E.g. (Source_Address == ESP's SA) & (Destination_Address == ESP's DA) & (VID == ESP's VID) & (TLV1= CFM LTM OpCode)
- **Create a RFM Receiver shim on the MEP which send the LTM-TE to receive the PBB-TE LTR.**