

MSPP PDUs

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Agenda

- **MSPP Application Example**
- **MSPP Signalling Example**
- **MSPP PDUs Requirements**
- **Options for MSPP PDUs**

MSPP = MAC Status Propagation Protocol (P802.1aj/D2.1 clause 24)

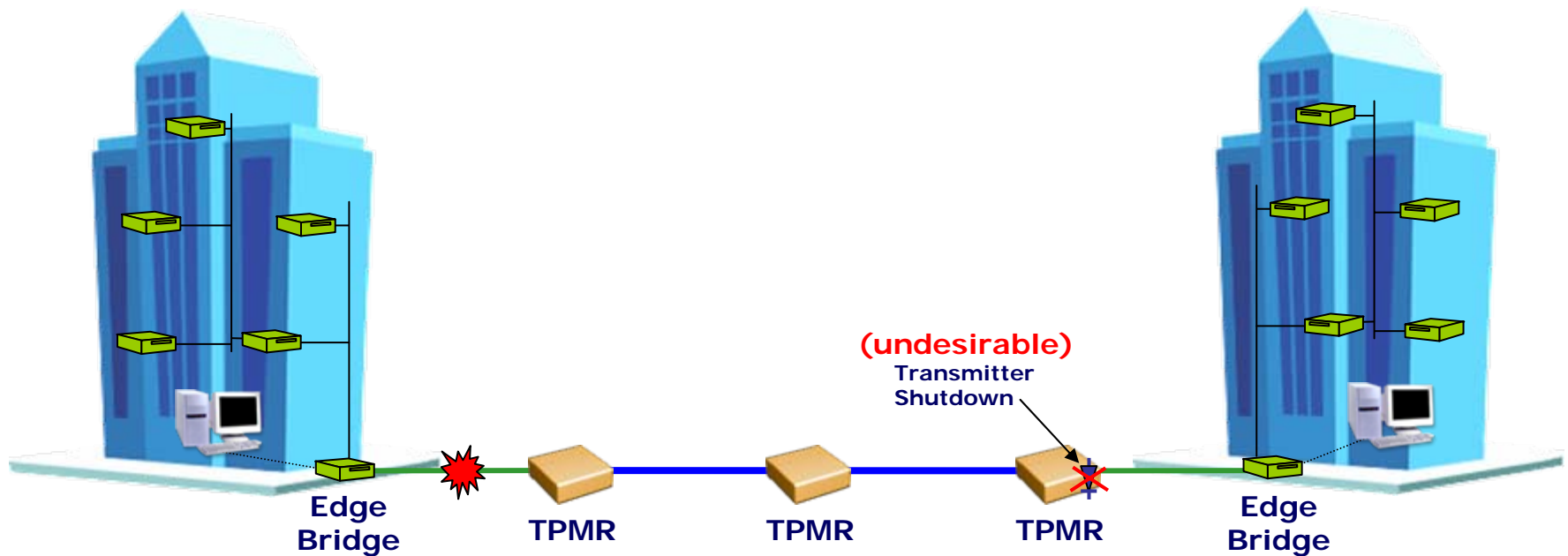
MSPE = MAC Status Propagation Entity (see Reference section)



Two-Port MAC Relay
IEEE P802.1aj



MSPP Application Example



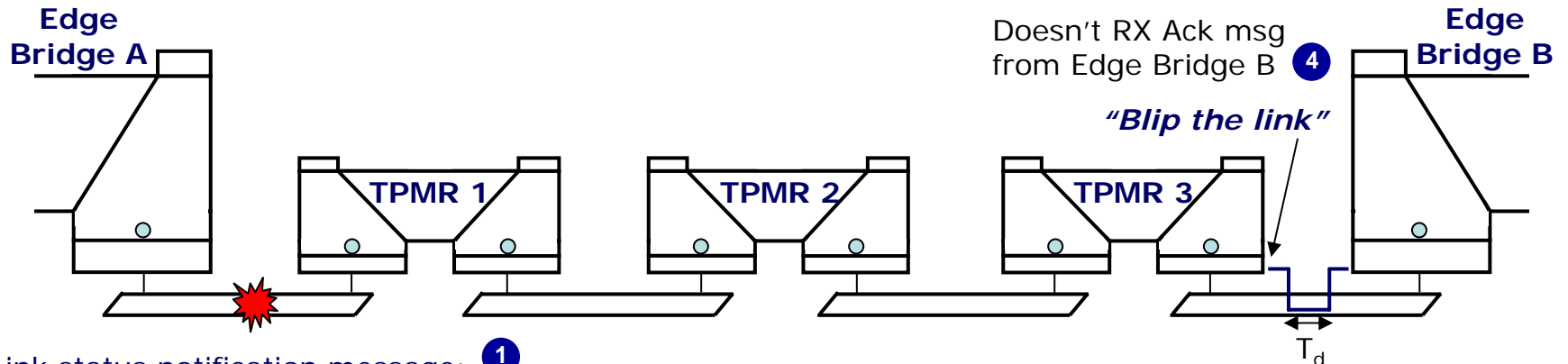
- Private network scenario, TPMR chain for reach
- TPMRs managed via edge Bridges
- TPMR TX Shutdown would block management view
- MSPP fault notification allows management view



Two-Port MAC Relay
IEEE P802.1aj



MSPP Signalling Example



Link status notification message:

- propagates through TPMRs
- snoop & forward
- stopped by first bridge
- sent at interval T_r

Link status notification message
(Add / Loss)

Ack msg

Acknowledgment message:

- terminated each hop
- do not propagate through TPMRs
- single link applicability
- cancels timer T_w at upstream TPMR

Ack msg

Confirm message
(Add / Loss)

Confirm message:

- to source of Link status notification msg
- propagates through TPMRs
- cancels timer T_r at source of Link notif. msg
- sent when timer T_w expires & link is blipped

- MAC_Operational (ISS status parameter)

MSPP PDUs Requirements

- **3 Types of MSPP PDUs:**
 - **Link Status Notification Message**
 - **Acknowledgment Message**
 - **Confirmation Message**
- **Link Status Notification Message**
 - **Source: MSPE on TPMR or 802.1D,Q bridge**
 - **Destination: MSPEs on downstream TPMRs/first 802.1D,Q bridge**
 - **Extent: same as reserved address 01-80-C2-00-00-03 (?)**
- **Acknowledgment Message**
 - **Source: MSPE on TPMR or 802.1D,Q bridge**
 - **Destination: MSPE on upstream adjacent TPMR**
 - **Extent: same as reserved address 01-80-C2-00-00-0E (?)**



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MSPP PDU Requirements (cont'd)

➤ Confirmation Message

- **Source:** MSPE on TPMR or 802.1D,Q bridge
- **Destination:** MSPE on source of Link Status Notification
- **Extent:** variable



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Options For MSPP PDUs

➤ PDUs based on Reserved Addresses for DAs:

- 01-80-C2-00-00-03 address w/MSPE Type, sub-type for Link Status Notification Message
- 01-80-C2-00-00-0E address w/MSPE Type, sub-type for Acknowledgment Message
- Target Mgmt address w/MSPE Type, sub-type for Confirmation Message

➤ Leverage CFM OAMPDUs

- Use level 0 MEP-MEP for Acknowledgment Message
- Not as obvious how to pick level, start/stop extent for Link Status Notification Message or Confirmation Message



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REFERENCE

MSPE (P802.1aj/D2.1)

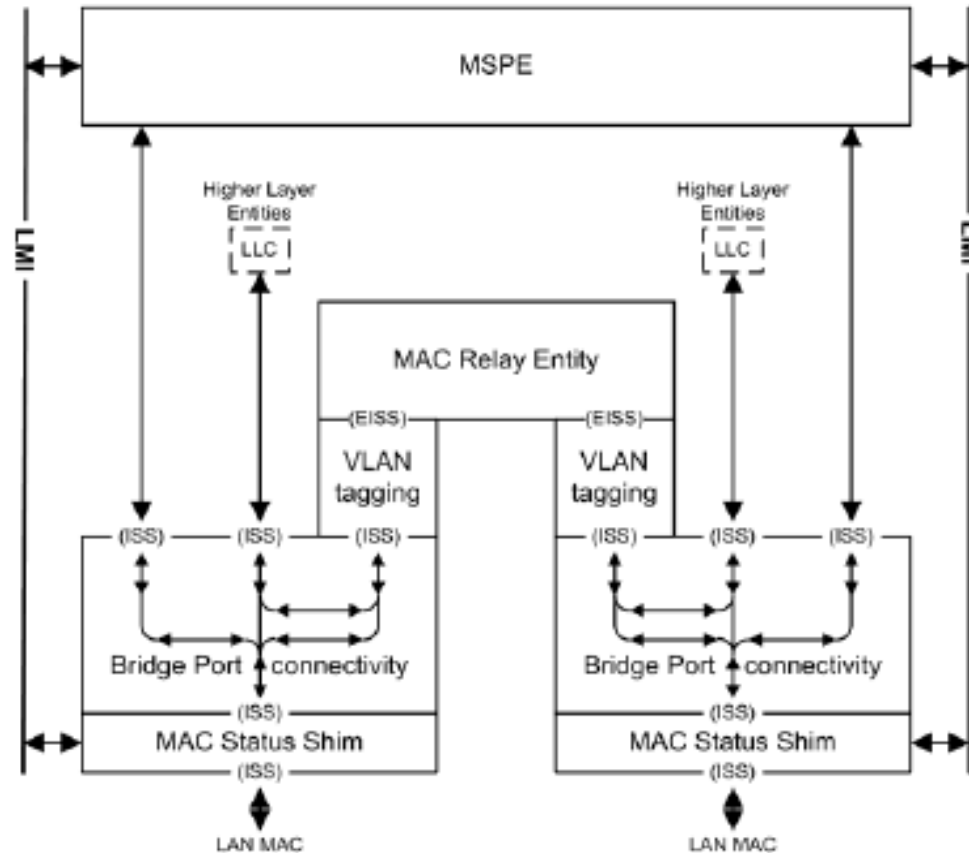


Figure 24-3—MAC status shims and the MAC Status Propagation Entity

MAC_Operational

