

MSPP PDUs

David W. Martin
Nortel Networks
v00

IEEE 802.1
July 16-19, 2007
San Francisco

Agenda

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

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

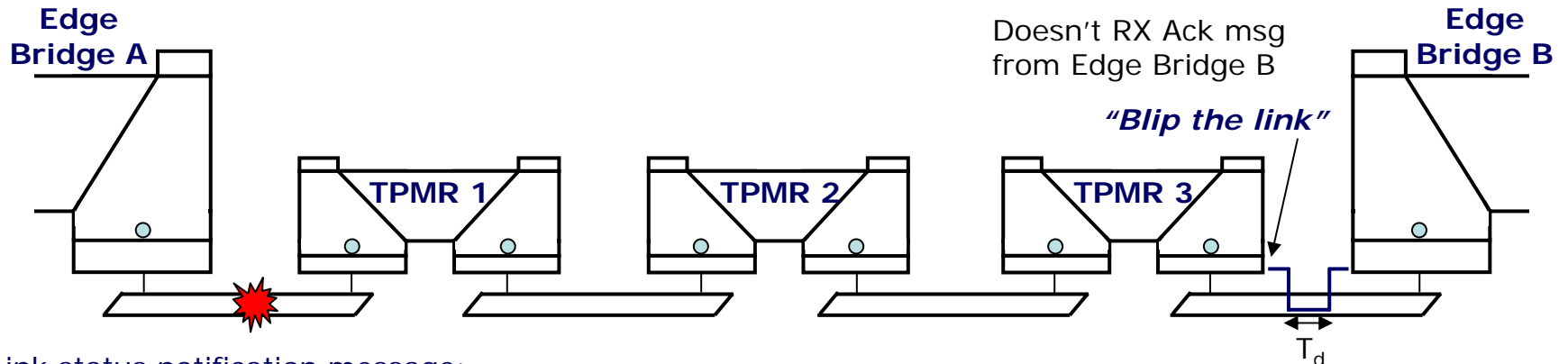
MSPE = MAC Status Propagation Entity (see Reference section)



Two-Port MAC Relay
IEEE P802.1aj



MSPP Signalling Example



Link status notification message:

- Group MAC DA, snoop & forward
- propagates through TPMRs
- stopped by first bridge
- sent at interval T_r

Link status notification message
(Add / Loss)

Ack msg

Ack msg

Acknowledgment message:

- Group MAC DA, terminated each hop
- does not propagate through TPMRs
- single link applicability
- cancels timer T_w at upstream TPMR

Confirm message:

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

Confirm message
(Add / Loss)

MSPP PDUs Requirements

➤ 3 Types of MSPP PDUs:

- Link Status Notification Message
- Acknowledgment Message
- Confirmation Message

➤ Link Status Notification Message

- Source: TPMR MSPE
- 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 (?)



Two-Port MAC Relay
IEEE P802.1aj



MSPP PDU Requirements (cont'd)

➤ Confirmation Message

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



Two-Port MAC Relay
IEEE P802.1aj



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
- TPMR-specific 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



Two-Port MAC Relay
IEEE P802.1aj



REFERENCE

MSPE (P802.1aj/D2.1)

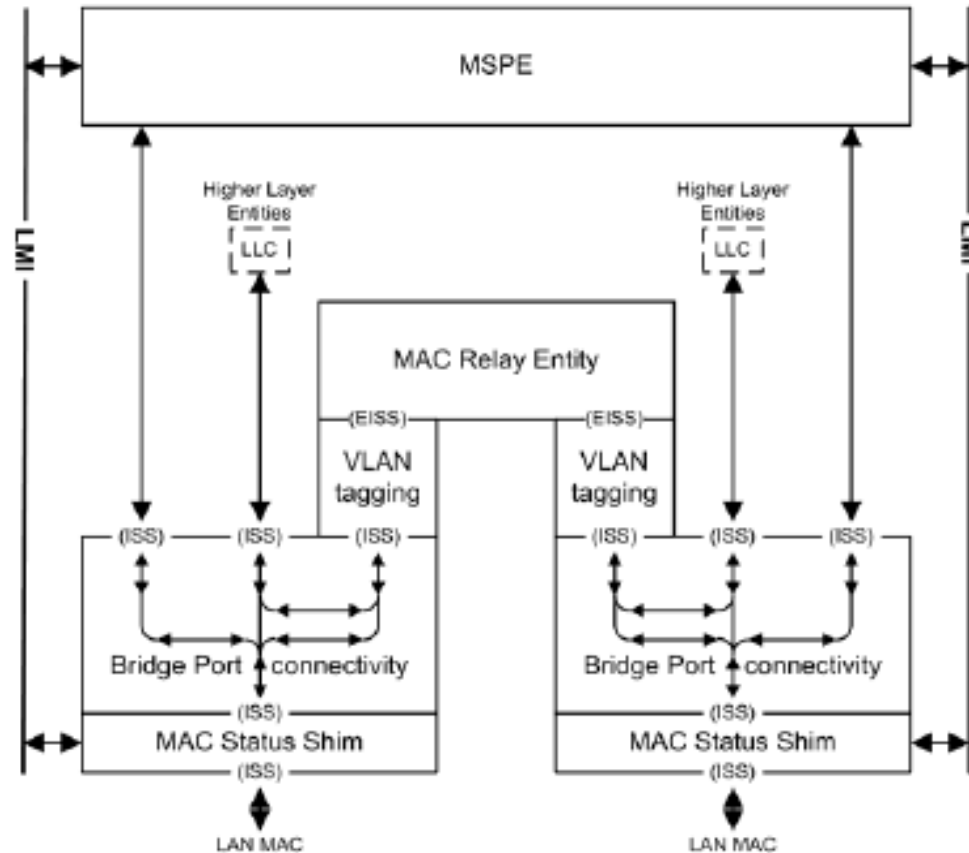


Figure 24-3—MAC status shims and the MAC Status Propagation Entity