802.1aj
Two-Port MAC Relay
Editor's report

John Messenger, May 2009

v01

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Changes in 802.1aj/D3.2

- Many small changes in response to ballot resolution.
- Mandatory SNMP-over-Ethernet removed.
- CFM level-0 MIP issue partially resolved.
  - A further change is needed here to make this mandatory.
- 6.21 “Support of the ISS using signalled priority” added.
- Editorial changes only to address tables 8-1, 8-2 and 8-3.
- 23.1.1 added to give guidance on placement of MAC Status Shim relative to CFM functions.
- 23.x added in an editor’s note to explicitly define the MAC Status Shim.

Changes in 802.1aj/D3.2 /contd...

- Main editorial changes
  - The capitalization of “Port” where not used as part of a more-specific term has been made more consistent with the majority of 802.1Q and 802.1D. Further changes for better consistency between the 802.1Q amendments may be required in a future 802.1Q/802.1D merge.
  - The term “relay” when used alone (as a noun), and not as part of MAC Relay, has been changed to “Bridge” or “TPMR” where appropriate.
- PICS changes
  - Redrafted to show added and changed lines in PICS tables only, instead of reproducing whole tables, in accordance with ballot resolution.

Management using SNMP-over-Ethernet

- Mandatory support for one specific management method, over one externally accessible port, was one of the original ideas.
- Draft 3.2 removes mandatory support of SNMP-over-Ethernet as decided in comment resolution on Draft 3.1.
- Management over at least one of the externally-accessible ports remains mandatory.
- Need to resolve how to meet this requirement in order to provide interoperable management.
  - See ballot comments.

CFM: level 0 MIP

- Each port must by default be configured with a level 0 MIP.
  - This allows out-of-the-box detection of the TPMR.
  - This requirement is insufficiently specified in the draft.
- There was concern that this would prevent protection of the physical links from the TPMR using level 0 MEPs.
  - We received an MEF liaison on this topic.
- However the level 0 MIP can be removed by management just as any bridge can have its CFM configuration changed.
- Draft 3.2 has been clarified to point this out in a note.

EISS, ISS and multiple traffic classes

- A TPMR wants to use the priority value in the C-tag of a frame to determine which traffic class the frame belongs to, but to be unaware of the VLAN ID.
  - Comment resolution on Draft 3.1 considered how this could be best achieved.
- Draft 3.2 addresses this using new subclause 6.21 “Support of the ISS with signalled priority”
  - Priority and drop-eligibility are determined from the outermost C- or S-tag using the existing methods from 802.1Q and 802.1ad
  - Frames are not modified on transmission
  - TPMR remains VID-unaware.
  - Text may be unclear as to required conformance to this.

Ballotting

- PAR granted December 2004
  - Initial draft 0.0 May 2005
  - Draft 1.0 July 2005
  - Draft 1.1 August 2005
  - Draft 1.2 November 2005
  - Draft 1.3 May 2006
  - Draft 1.4 June 2006
  - Draft 2.0 January 2007
  - Draft 2.1 May 2007
  - Draft 2.2 October 2007 (Working group ballot)
  - Draft 3.1 September 2008 (WG recirculation ballot)
  - Draft 3.2 May 2009 (WG recirculation ballot)
- 802.1aj Draft 3.2 issued May 2009
  - All D3.1 comments addressed except a few very late comments.

D3.2 WG recirculation ballot results

- Ballot pool comprised those eligible to vote on D2.2
  - Results include D2.2, D3.1 votes and D3.2 vote changes
- 25 responses received on the D3.2 recirculation ballot
- 91 Voters – of which 78 have responded (86%)
  - 29 Approve 83%
  - 6 Disapprove 17%
  - 43 Abstain 55%
- Ballot passed!

D3.2 WG recirculation ballot results

- Disapprove voter breakdown:
  - 3 have responded to D3.2 with new comments
  - 1 has not responded
  - 2 have changed to Yes with comments
  - 1 new No voter
  - 1 is deceased
    - This vote must remain and be explained to the 802 executive committee
- 48 Comments
  - 21 TR
  - 5 T
  - 11 ER
  - 11 E
  - 0 G

Main ballot comment items

- VLAN-awareness
- Modifying frames; priority regeneration
- Management using SNMP over UDP over IPv4
- TPMR MIB module – should it be optional?
- FSM modifications in clause 23
- MAC Status Shim
- Clause 6.10: PIP
- Missing conformance statements in PICS and Clause 5

VLAN-awareness

- Should we widen the scope to allow VLAN-awareness as this is what the MEF wants for the NID?
- Comments
  - Stephen Haddock: #39

Priority regeneration; frame modification

- Does the TPMR support priority regeneration? Frames should not be modified when passing through the TPMR.
- Comments
  - Panagiotis Saltsidis: #22, #17, #34
  - Stephen Haddock: #38
  - Jessy Rouyer: #44

Management using SNMP/UDP/IPv4

- The TPMR should support mandatory management using SNMP over UDP over IPv4 as recommended by IETF.
- Comments
  - John Messenger: #1
  - Jessy Rouyer: #41

TPMR MIB module – mandatory?

- Panos wants the TPMR MIB module to be made optional. The editor doesn't agree!
- Comments
  - Panagiotis Saltsidis: #13, #36, #37

FSM modifications in Clause 23

- Initial value of timer linkNotifyWhen should be associated with the linkNotifyRetry value of the **same** port, not the other port.
- Comments
  - Panagiotis Saltsidis: #29

MAC Status Shim

- Should the MAC Status Shim be defined more closely as proposed?
- Comments
  - John Messenger: #3
  - Mick Seaman: #8
  - Panagiotis Saltsidis: #26
  - Jessy Rouyer: #47

Clause 6.10: Support of ISS by PIP

- Was it really intended to replace the content of 6.10?
- Comments
  - Jessy Rouyer: #43

Missing conformance statements

- Various conformance statements are missing in clause 5 and the PICS.
- Comments
  - Panagiotis Saltsidis: #11, #33, #35

Plan

- Do comment resolution for D3.2 at this meeting
- Generate 802.1aj/D3.3 following this meeting, incorporating
  - Changes agreed this week
- Submit this for WG recirculation ballot.
- Comment resolution at the July plenary.
- Hope to go to sponsor ballot following that meeting.

Thank You

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