802.1Qcj D1.1 Status
Commenting Statistics

- 7 Approved
- 3 Disapproved
- 28 Abstained
- 38 total voted

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Status

• Use of PBB terms – BSI vs. I-SID, and VLAN/VID vs. C-VLAN/S-VLAN constancy being added.

• Last 2 drafts have had no changes to technical content.

• Current comments revolve around updating the state machine and the nomenclature of different elements (VID/ISID, VLAN/BSI).

• D1.1 contains, 1st draft state machine, optimized HMAC and updated AA nomenclature (AAS, AAF, & AAB)
  • D1.2 will update State Machine draft diagrams significantly, see slides 8 & 9
Comment Summary

- State Machine Comments
  - 1,9,10,11,22,23,24,25,42,54,57,58,62 Total:13
- BSI vs. I-SID plus VID/VLAN, C-VID/S-VID usage inconsistencies
  - 26*,36,37,38*,43,55,56 Total:7
- LLDP mgmt VID use in LLDP vs Q (optional)
  - 44,45 Total:2
- Auto Attach ‘Function’ vs ‘Protocol’
  - 26*,27,28,34,35,38*,42,49,52,59 Total:10
- MIB comments
  - 50,51 Total:2
- Editorial notes
  - 2,3,4,5,6,7,8,12,13,14,15,16,17,18,21,29,20,31,32,33,39,40,41,46,47,48,53,59,60,64 Total:30
Auto Attach terms – D1.1

• State Machine diagram in D1.0 was reflective of LLDP Tx and Rx diagrams for consistency.

• Auto Attach Function vs. Auto Attach Protocol
  • Auto Attach resides above LLDP (802.1AB protocol) functionally as a function to automate connecting VIDs to PBBN services.

• PBBN Backbone Service Instance (BSI) vs. I-SID
  • Need consensus on consistent term.

• VID/VLAN and C-VLAN/S-VLAN contexts
  • Auto Attach define support of Bridged LAN and Bridged VLAN.
Auto Attach (other) – D1.1

• Management VID (#44 & #45)
  • Reference required for LLDP Vendor Specific TLV support of Mgmt VID
• System ID in AA System TLV and LAG/MLAG
  • Need to accommodate PBB virtual BMAC for Auto Attach BEBs upstream from Auto Attach Device (IE: Link Agg to one or two PBB BEBs).
  • Auto Attach defines AA Device communication to ONE AA BEB
State Machine

- Redesign prepared for next draft.
- AA State Machine should follow LLDP diagrams as implementers will see AA as a side function using LLDP TLVs.
Init

aaState = NotRunning
SystemType = AAD
vlanIsidList = None
remoteSystem = None
lastAssociationState = Invalid

SetSystemAdvertisement
localAlgorithmID = autoAttachPortAlgorithmId
localAuthStatus = autoAttachPortAuthStatus
localAuthKey = autoAttachPortAuthKey
localSystemID = SystemID
localState = autoAttachPortState
aaState = Running

SetAssignmentAdvertisements
localVlanIsidList = vlanIsidList

SendAssignmentRequest
InitiateAssignmentRequest

WaitRemoteAssignment
validateRemoteAssignmentTlv
localAlgorithmID = remoteAlgorithmID
localDigest = remoteDigest

ValidateRemoteAssociation
validateRemoteAssociation
lastAssociationState = Valid
remoteSystemType = localSystemType || remoteState != localState ||
If LAG/MLAG, all ports NOT same AlgorithmID ||
If MLAG, all ports NOT same MAC

CleanUpRemoteAssociation
If lastAssociation == Valid
CleanUpRemoteAssociation
vlanIsidList,remoteSystem
lastAssociationState = Invalid
remoteSystem = None

1 Indicates interface point to LLDP

Draft AAD State Machine
Init

aaState = NotRunning
SystemType = AAB
vlanIsidList = None
remoteSystem = None
lastAssociationState = Invalid

SetSystemAdvertisement

localAlgorithmID = AlgorithmID
localSystemID = SystemID
localState = State
aaState = Running

WaitRemoteSystem

validateRemoteSystemTlv (remoteAlgorithmID, remoteDigest, remoteSystemType)

ValidateRemoteAssociation

validateRemoteAssociation (remoteSystemType, remoteState, remoteSystemID, remoteAlgorithmID)
UpdatePortSettings (localState, RemoteState)
lastAssociationState = Valid
Update local database with status for each VLAN/I-SID pair

Assignment TLV

localAlgorithmID == remoteAlgorithmID &&
localDigest == remoteDigest

HandlingRemoteAssignment

HandlingRemoteAssignment (VLAN, ISID, …)
attempt to create VLAN/I-SID plumb and advertise to Fabric on success
Update local database with status for each VLAN/I-SID pair

CleanUpRemoteAssociation

If lastAssociation == Valid
CleanUpRemoteAssociation (vlanIsidList, remoteSystem)
lastAssociationState = Invalid
remoteSystem = None

1 Indicates interface point to LLDP
Plan

• Comment resolution at this meeting.
  • Acceptance of all Editorial comments
  • Acceptance of service vs tag description terms (VLAN vs VID, BSI vs. I-SID)
  • Acceptance of State Machine diagram models

• Working group recirculation ballot for next draft.
End