P802.1AX-REV/D4.0 SPONSOR BALLOT ONLINE MEETING

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BALLOT STATISTICS

The Sponsor Ballot on P802.1AX-REV/D4.0 has been completed and here are the statistics for the ballot.

P802.1AX Standard for Local and metropolitan area networks–Link Aggregation

Ballot Open Date:	02-Apr-201402-Apr-2014 GMT
Ballot Close Date:	02-May-201402-May-2014 GMT
Type:	Revision
Draft #:	4.0
Comments:	41
Must Be Satisfied Comments:	16

RESPONSE RATE

This ballot has met the 75% returned ballot requirement.
87 eligible people in this ballot group.

65	affirmative votes
2	total negative votes with comments
2	negative votes with new comments
0	negative votes without comments
1	abstention votes: (Lack of time: 1)
68	votes received = 78% returned
	1% abstention

APPROVAL RATE

The 75% affirmation requirement is being met.

65	affirmative votes
2	negative votes with comments
67	votes = 97% affirmative

COMMENT I-24

- During the discussions on comment i-24 of the P802.1AX-REV/D4.0 Sponsor Ballot it became apparent that the current support of a single Gateway bit controlling the operational state the entire Gateway is very limiting and support for an operational Gateway Vector per Gateway in a Portal essential. In order to introduce such a Boolean Vector in the Standard the following changes are suggested

GATEWAY VECTOR

- Introduction of the following definition in Clause 3
  - Gateway Vector: The operational Boolean vector, indexed by Gateway Conversation ID, indicating whether the indexed Gateway Conversation ID is enabled to pass through a Portal System's Gateway (FALSE = blocked). There is one Gateway Vector per Portal System in a Portal.
- Computation of the Gateway Conversation IDs that can pass through each Gateway requires knowledge at each Portal System in a Portal of the operational values of Gateway Vectors on every Gateway in the Portal.

GATEWAY VECTOR DB

- In order to avoid sending a 512 Octet vector for each of the Portal System in every DRCPDU exchange, a Gateway Vector database for every Gateway in a Portal is kept by every Portal System.
- The entries in the databases associates Gateway Vectors with Gateway Sequence numbers, enabling identification of a Gateway Vector in a DRCPDU exchange by its associated Gateway Sequence number. The Gateway Vector database for the Home Portal System should contain at least the two most recent entries. Only when the Gateway Vector changes the new values with its associated Gateway Sequence number would need to be included in a DRCPDU.

DRCPDU UPDATES

- Every Portal System communicates to the other Portal Systems in a Portal. The DRCPDU structure in 9.4.3.2 should be updated with the introduction of three new TLVs
  1. Home Gateway Vector TLV – items ai) to al) in 9.4.3.2
     - Carries the current Home Gateway Sequence number and if newly updated the Home Gateway Vector
  2. Neighbor Gateway Vector TLV – items am) to ao) in 9.4.3.2
     - Carries the current Neighbor Gateway Sequence number
  3. Other Gateway Vector TLV – items ap) to as) in 9.4.3.2
     - Carries the current Other Gateway Sequence number and if newly updated the Other Gateway Vector

OTHER DRCPDU UPDATES

- NOTE 6 needs to be changed to reflect the new limits on the Number of supported Aggregation Ports across a Portal System (225 Aggregation Ports across a 2-Portal System Portal, 94 Aggregation Ports across a 3-Portal System Portal
- Figure 9-12 and associated text has been inserted in order to specify the Length encoding in a DRCPDU TLV (taking 2 additional bits from the Type field in order to address the long length requirements)
- Table 9-8 has been updated in order to include the new TLVs

UPDATES IN FUNCTIONS

recordNeighborState

- The recordNeighborState function in 9.4.11 needs to be modified in order to enable processing of the received Gateway Vector TLVs
- In particular it needs to
  - identify the Neighbor's view on every Gateway Vector in the Portal either by information directly carried by the received DRCPDU (Gateway Vectors) or by inferring from other fields (Gateway Sequence numbers)
  - check if the two neighboring Portal System's share a common view on the Gateway Vectors and initiate further actions if they do not
  - Indicate the need to include or not Gateway Vector fields in the transmitted DRCPUD (HomeGatewayVectorTransmit, OtherGatewayVectorTransmit)

UPDATES IN FUNCTIONS

updateHomeState

- The updateHomeState function in 9.4.11 needs to be modified in order to update the Home Gateway TLV
- The current operational Boolean Gateway Vector along with its associated Gateway Sequence number will stored as a (Home Gateway Sequence, Home Gateway Vector) tuple in the Gateway Vector database for this Portal System.
- If there is any change in the Home Gateway Vector, the Home Gateway Sequence number of the current first entry in the Gateway Vector database for this Portal System (Home Gateway Sequence, Home Gateway Vector) will be increased by one and a new first entry tuple (Home Gateway Sequence +1, New Home Gateway Vector) will be created for the New Home Gateway Vector on top of the current one and HomeGatewayVectorTransmit will be set to TRUE.
- When the Home_Gateway bit is set to FALSE, the New Home Gateway Vector will be set to NULL (a 4096 Boolean Vector that has all its elements set to 0).

CONTROL OF GATEWAY VECTORS

- Introduction of aDrniPortConversationControl (7.4.1.1.18) to choose the profile of operation for the assignments of Gateway Conversation IDs to Portal Systems: based on the attached network control protocol operation (default) or based on the current operational Aggregation Ports to allow matching a gateway to the link carrying a given conversation (in order to minimize traffic on the IPLs)

FURTHER UPDATES

- A number of new variables needs to be introduced, and some existing ones have been modified in 9.4.8, 9.4.9, and 9.4.10 in order to process information carried by the new TLVs and the updates from a Gateway bit to a Gateway Vector
- Other existing functions in 9.4.11 need to be updated in order to reference Gateway Vectors instead of Gateway bits in their operation
- A number of other updates have be done across clause 9 in order to consistently introduce the Gateway Vectors across the clause. All of them are clearly marked with colored text in http://www.ieee802.org/1/files/private/ax-rev-drafts/d4/802-1AX-REV-d4-0a.pdf

COMMENT I-26

- Comment i-26 asks for the introduction of non-revertive mode of operation and settable WTR timers.
- The following changes will need to be implemented

CHANGES TO ADDRESS I-26

1. Changes on the ChangeActorOperDist variable in 6.6.2.2
2. Changes on the updateConversationMask function in 6.6.2.4.
3. Introduction of the WTR_Timer in 6.6.2.5
4. Change on the Update Mask state diagram in Figure 6-34
5. Changes in 7.3.1.1.34 – Introduction of NOTE-3
6. Introduction of the new managed object in 7.3.2.1.18

All the changes are clearly marked with colored text in Clause 6.6 and Clause 7.3.1.1.34 and 7.3.2.1.18 in http://www.ieee802.org/1/files/private/ax-rev-drafts/d4/802-1AX-REV-d4-0a.pdf

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