IEEE 802.1 REVISION REQUEST 0086

DATE: 16 Novemver, 2012
NAME: Sung Hyuk Byun
COMPANY/AFFILIATION: ETRI
E-MAIL: shbyun@etri.re.kr

REQUESTED REVISION:
STANDARD: 802.1Qbg-2012
CLAUSE NUMBER: Annex D.2.13 EVB TLV

RATIONALE FOR REVISION:

The explanations of TLV values R(D.2.13.5), RTE(D.2.13.6), RWD(D.2.13.8) and RKA (D.2.13.9) do not clearly specify which value (local or operational value) should be sent by EVB Bridge and EVB station.

And, in D.2.13.8, ROL setting for RWD in EVB Bridge is not described clearly. Only the EVB station action on ROL is specified.

In D.2.13.9, ROL setting for RKA in EVB station is not clearly described, too. Only the EVB Bridge action on ROL is specified.

These could lead many incompatible EVB implementations by different interpretation of the standard.
According to the email discussion in 802.1 mailing list after reporting this issue, it is clear that the original intent is using of local value for all R, RTE, RWD and RKA in transmiting EVB TLV.

ROLs for RWD and RKA seemed to be introduced to notify peer node which proposed value is used in operation by the sending node, remote or local. Thus it might be more useful if both EVB Bridge and EVB station set OLs for RWD and RKA with the flag indicating which value (remote or local) is used at each sending node.

PROPOSED REVISION TEXT:

[In D.2.13.5 R]

Original text : "Both sides use the largest of the two values of R."

Proposed text : "Both sides transmit the local value, and use the largest of the two values of R. "

[In D.2.13.6. RTE]

Original text : "Both sides use the largest of the two values of RTE for this calculation."

Proposed text : "Both sides transmit the local value, and use the largest of the two values of RTE for this calculation."

[In D.2.13.8 ROL and RWD]

Original text :

"The RWD values transmitted by the EVB Bridge and EVB station indicate the exponent value that each device proposes for determining the value of the resourceWaitDelay variable (41.5.5.7). The value of resourceWaitDelay is calculated as

10×2^{RWD} microseconds

Both sides use the largest of the local and remote values of RWD for this calculation; if there is no remote value available, the local (proposed) value is used. The Remote or Local (ROL) flag is used by the EVB station to indicate whether

the remote RWD value is in use (TRUE) or the local value is in use (FALSE)"

Proposed text :

"The RWD value transmitted by the EVB Bridge indicates the exponent value in use by the EVB bridge for determining the value of the resourceWaitDelay variable (41.5.5.7). The value of resourceWaitDelay is calculated as

10×2^{RWD} microseconds

Both sides transmit the local value, and use the largest of the local and remote values of RWD in calulation of resourceWaitDelay or respWaitDelay(41.5.5.9) variable; if there is no remote value available, the local (proposed) value is used. The Remote or Local (ROL) flag indicates whether the remote RWD value is in use (TRUE) or the local value is in use (FALSE) at the sending node."

[In D.2.13.9 ROL and RKA]

Original text :

"Both sides use the largest of the two values of RKA for this calculation; if there is no remote value available, the local value is used. The Remote or Local (ROL) flag is used by the EVB Bridge to indicate whether the remote RKA value is in use (TRUE) or the local value is in use (FALSE). In both cases, the EVB Bridge transmits the exponent value being used for its toutKeepAlive variable.

Proposed text :

"Both sides transmit the local value, and use the largest of the local and remote values of RKA in calculation of reinitKeepAlive or toutKeepAlive variable (41.5.5.13); if there is no remote value available, the local (proposed) value is used. The Remote or Local (ROL) flag indicates whether the remote RKA value is in use (TRUE) or the local value is in use (FALSE) at the sending node."

IMPACT ON EXISTING NETWORKS:

An early EVB implementation might be incompatible with the proposed revision if the implementer understood the meaning of R, RTE, {ROL, RWD} and{ROL, RKA} differently from the original intent of EVB working group. But this clarification is needed to prevent further incompatible EVB implemenations.

Please attach supporting material, if any	
Submit to:- Tony Jeffree, Chair IEEE 802.1	
and copy:- Glenn Parsons, Vice-Chair IEEE 802.1	
E-Mail: stds-802-1-maint-req@ieee.org	
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