
IEEE 802.1 REVISION REQUEST 0091

DATE: 26 December, 2012
NAME: Sung Hyuk Byun
COMPANY/AFFILIATION: ETRI
E-MAIL: shbyun@etri.re.kr

REQUESTED REVISION:
STANDARD: 802.1Qbg-2012
CLAUSE NUMBER: 41.5.5
CLAUSE TITLE: VDP state machine variables and parameters

RATIONALE FOR REVISION:

1) In 41.5.5.9, respWaitDelay is defined as follows:

$$\text{respWaitDelay} = 1.5 \times (2^{\text{urpVdpResourceWaitDelay}} + (2 \times \text{ecp0perMaxTries} + 1) \times 2^{\text{ecp0perAckTimerInit}})$$

and the default value of respWaitDelay is stated as about 11.6s.

But, the ecp0perAckTimerInit is the operational value of ackTimerInit (D.2.13.6) which is defined as $10 \times 2^{\text{RTE}}$

microsec, so it cannot be an exponent value. Actually, no system variable is defined for operational RTE.

The original intent of the respWaitDelay definition seems to be as follows:

$$\text{respWaitDelay} = 1.5 \times (\text{resourceWaitDelay} + (2 \times \text{ecp0perMaxTries} + 1) \times \text{ecp0perAckTimerInit})$$

And, resourceWaitDelay = $10 \times 2^{\text{urpVdpResourceWaitDelay}}$ (D.2.13.8), not $2^{\text{urpVdpResourceWaitDelay}}$

The above corrected definition of respWaitDelay yields the default value of 17.4s, not 11.6s in original text.

Another one is that respWaitDelay is only used at EVB station, but the original text states that this is used by both station and Bridge.

2) Same mistakes exist at 41.5.5.13 toutKeepAlive definition

toutKeepAlive is defined as

$$\text{toutKeepAlive} = 1.5 \times (2^{\text{sbpVdp0perReinitKeepAlive}} + (2 \times \text{ecp0perMaxTries} + 1) \times \text{ecp0perAckTimerInit})$$

but, the original intent of the toutKeepAlive definition seems to be as follows:

$$\text{toutKeepAlive} = 1.5 \times (\text{reinitKeepAlive} + (2 \times \text{ecp0perMaxTries} + 1) \times \text{ecp0perAckTimerInit})$$

And, $reinitKeepAlive = 10 \times 2^{sbpVdpOperReinitKeepAlive}$ (D.2.13.9), not $2^{sbpVdpOperReinitKeepAlive}$.

This corrected definition of `toutKeepAlive` yields the default values of 17.4s, not 11.6s in original text.

The `toutKeepAlive` variable is only used at EVB Bridge, but the original text states that this is used by both station and Bridge.

PROPOSED REVISION TEXT:

1) In 41.5.5.9,

REPLACE the definition equation of `respWaitDelay`,

$$respWaitDelay = 1.5 \times (2^{urpVdpResourceWaitDelay} + (2 \times ecpOperMaxTries + 1) \times 2^{ecpOperAckTimerInit})$$

with the following equation:

$$respWaitDelay = 1.5 \times (10 \times 2^{urpVdpResourceWaitDelay} + (2 \times ecpOperMaxTries + 1) \times ecpOperAckTimerInit)$$

CHANGE the following original text :

"The default value used by the station and Bridge is about 11.6 s. The default value for `urpVdpResourceWaitDelay` is an exponent of 20 representing a timer interval of about 10.5 s and for `ecpOperAckTimerInit` is an exponent of 14 representing a timer interval of about 164ms."

with

"The default value of `respWaitDelay` used by the station is about 17.4 s. The default value for

`urpVdpResourceWaitDelay` is an exponent of 20 representing a timer interval of about 10.5 s and default value of

`ecpOperAckTimerInit` is about 164 ms with the default value of RTE, 14."

2) In 41.5.5.13,

maint_0091.txt

REPLACE the definition equation of toutKeepAlive,

$$toutKeepAlive = 1.5 \times (2^{sbpVdpOpeReini tKeepAlive} + (2 \times ecpOpeMaxTries + 1) \times 2^{ecpOpeAckTimerInit})$$

with the following equation:

$$toutKeepAlive = 1.5 \times (10 \times 2^{sbpVdpOpeReini tKeepAlive} + (2 \times ecpOpeMaxTries + 1) \times ecpOpeAckTimerInit)$$

CHANGE the following original text :

"The default value used by the station and Bridge is about 11.6 s. The default for sbpVdpOpeReini tKeepAlive is an exponent of 20 representing a timer interval of about 10.5 s and for ecpOpeAckTimerInit is an exponent of 14 representing a timer interval of about 164 ms."

with

"The default value used by the Bridge is about 17.4 s. The default for sbpVdpOpeReini tKeepAlive is an exponent of 20 representing a timer interval of about 10.5 s and default value of ecpOpeAckTimerInit is about 164 ms with the default value of RTE, 14."

IMPACT ON EXISTING NETWORKS:

The respWaitDelay and toutKeepAlive are wrongly defined, so any EVB implementator can't know how to calculate the variables without this corrections.

```

+-----+
| 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 |
|
| +----- For official 802.1 use -----+ |
| | REV REQ NUMBER: 0091 |
| | DATE RECEIVED: 01/09/2013 |
| | EDITORIAL/TECHNICAL |
| | ACCEPTED/DENIED |
| | BALLOT REQ'D YES/NO |
| | Status: R |
| |
| +-----+ |
+-----+

```