

Known implementations are to sample Tx and Rx B-B credit counters at an interval and increment a counter when the sample indicates zero credit. To accommodate this choice, the following resolution is proposed to **4.3.49.5.10 Port Congestion descriptor**

For simplicity of naming, and to eliminate the use of “or” in field names;

Rename **Tx Zero Credit Count** to **Tx Credit Transition to Zero Count**;

Rename **Rx Zero Credit Count** to **Rx Credit Transition to Zero Count**;

Rename **Tx Delay Count** to **Tx Zero Credit Count**, rename **Rx Delay Count** to **Rx Zero Credit Count**, and rename **Delay Interval** to **Credit Interval** with the following definitions:

#### **Tx Zero Credit Count**

If Counter Validity Mask bit 31 (i.e. Credit Sampled) is set to 1, this count contains the number of times that transmit buffer-to-buffer Credit is zero when sampled. Sampling is performed at the rate indicated by the **Credit Interval** field.

If Counter Validity Mask bit 31 is set to 0, this count contains the number of times that transmit buffer-to-buffer Credit has remained at zero for an entire Interval indicated by the **Credit Interval** field.

Validity of this counter is indicated with bit 2 and bit 4 in the Counter Validity Mask.

#### **Rx Zero Credit Count**

If Counter Validity Mask bit 31 (i.e. Credit Sampled) is set to 1, this count contains the number of times that receive buffer-to-buffer Credit is zero when sampled. Sampling is performed at the rate indicated by the **Credit Interval** field.

If Counter Validity Mask bit 31 is set to 0, this count contains the number of times that the receive buffer-to-buffer Credit has remained at zero for an entire Interval indicated by the **Credit Interval** field.

Validity of this counter is indicated with bit 3 and bit 4 in the Counter Validity Mask.

#### **Credit Interval**

The Credit Interval represents the time interval associated with the Tx Zero Credit Count and Rx Zero Credit Count fields. Validity of this field is indicated with bit 4 in the Counter Validity Mask. A value of zero (0) for this counter with an accompanying validity bit shall indicate that the interval is unknown.

If Counter Validity Mask bit 31 (i.e. Credit Sampled) is set to 1, this field contains the approximate sample rate, in milliseconds, at which the Rx Credit or Tx Credit counters are sampled.

If Counter Validity Mask bit 31 is set to 0, this field contains the value, in nanoseconds, that the Rx Credit counter or Tx Credit counter remains at zero before counting. The upper limit for this value is ED\_TOV.

#### Related updates:

In Table 170, adjust the names according to the proposed names above:

Word 3: **Tx Zero Credit Count** becomes **Tx Credit Transition to Zero Count**

Word 4: **Rx Zero Credit Count** becomes **Rx Credit Transition to Zero Count**

Word 5: **Tx Delay Count** becomes **Tx Zero Credit Count**

Word 6: **Rx Delay Count** becomes **Rx Zero Credit Count**

Word 7: **Delay Interval** becomes **Credit Interval**

In Table 171, adjust the names according to the proposed names above:

Bit 4: **Delay Interval Validity Bit** becomes **Credit Interval Validity Bit**

Bit 3: **Rx Delay Count Validity Bit** becomes **Rx Zero Credit Count Validity Bit**

Bit 2: **Tx Delay Count Validity Bit** becomes **Tx Zero Credit Count Validity Bit**

Bit 2: **Rx Zero Credit Count Validity Bit** becomes **Rx Credit Transition to Zero Count Validity Bit**

Bit 0: **Tx Zero Credit Count Validity Bit** becomes **Tx Credit Transition to Zero Count Validity Bit**

And, Add bit 31 definition:

<b>31</b>	<p><b>Credit Sampled</b></p> <p>0b – Credit counters for Tx Zero Credit Count and Tx Credit Count fields are not sampled</p> <p>1b - Credit counters for Tx Zero Credit Count and Tx Credit Count fields are sampled</p>
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