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| IEEE 802.1 REVISION REQUEST 0120                                 |
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DATE:June 24, 2013

NAME: Geoffrey M. Garner

COMPANY/AFFILIATION: Broadcom, Hirschmann, Marvell, Siemens

E-MAIL: gmgarner@alum.mit.edu

REQUESTED REVISION:

    STANDARD: 802.1AS

    CLAUSE NUMBER: 11.2.13.3

    CLAUSE TITLE: State diagram

RATIONALE FOR REVISION:

Email was received from an 802.1AS user that described a scenario where loss of a single Folllow_Up message can lead to Sync receipt timeout. A presentation that describes this in detail will be prepared for the July, 2013 802.1 TSN TG meeting. Essentially, the current MDSyncReceiveSM state machine, of Figure 11-6/802.1AS requires waiting for a Follow_Up message for a time equal to one mean Sync interval. If the next Sync arrives slightly early, before the expiration of this Sync interval, the next Sync will be ignored because the state machine will still be waiting for Follow_Up. If the Sync after that arrives slightly late, it also will be considered lost, and sync receipt timeout will occur.

Note that this item was discussed in the June 19, 2013 TSN call. It was the opinion of those on the call that this behavior was not intended and is not desirable. One possible fix, mentioned in the call, might be to assume that a Follow_Up is effectively lost if the next Sync arrives and Follow_Up has not been received, and to then wait for Follow_Up for the next Sync. In any case, it was decided that the editor should enter this item in the maintenance database, with the intent of addressing it in 802.1ASbt.

PROPOSED REVISION TEXT:

The exact fix is not decided at present, though the fix described above is one

possibility. In any case, the MDSyncReceiveSM state machine will be modified so
that this behavior does not occur.

IMPACT ON EXISTING NETWORKS:

This will improve the performance of existing networks by making it less likely
that loss of only a single Follow_Up could result in Sync receipt timeout. There
will be no impact on interoperability of time-aware systems.


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| 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:0120                       |         |
|             | DATE RECEIVED:04/07/13                    |         |
|             | EDITORIAL/TECHNICAL                       |         |
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|             | BALLOT REQ'D YES/NO                       |         |
|             | Status: R                                 |         |
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