DATE: 26th July, 2005
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REQUESTED REVISION:
STANDARD: IEEE Std. 802.3ah-2004
CLAUSE NUMBER: 64.3.5.6
CLAUSE TITLE: State Diagrams

PROPOSED REVISION TEXT:

Modify state diagram 64-28 "Gate Processing ONU Programming State Diagram" as shown in the attached document.

RATIONALE FOR REVISION:

Variable "grant_number" represents the number of grants packed into a single GATE message. Occasionally, the OLT may issue a GATE message with 0 grants. (Such message is used as a keep-alive message). This state machine has an error in that the ONU checks the value of grant_number only after it already parsed the first grant. In fact, it parses the padding field as if it was a grant.

IMPACT ON EXISTING NETWORKS:

All ONU devices must implement the Gate Processing function as in the attached document in order to function properly. It is most likely that all functioning ONUs have already implemented this change.

Please attach supporting material, if any
Submit to:- Bob Grow, Chair IEEE 802.3
E-Mail: Bob.Grow@intel.com

For official 802.3 use ----------------+
REV REQ NUMBER: 1169
DATE RECEIVED: 26th July, 2005
EDITORIAL/TECHNICAL
ACCEPTED/DENIED
BALLOT REQ'D YES/NO
COMMENTS: 14-May-07 Ver: D2.0 Status: V

For information about this Revision Request see -
http://www.ieee802.org/3/maint/requests/revision_history.html#REQ1169
WAIT FOR GATE

while(!empty(grant_list))
    removeHead(grant_list)

FLUSH

if((start[counter] - localTime < max_future_grant_time) AND
   (start[counter] - localTime < min_processing_time) AND
   (length[counter] > laserOnTime + syncTime + laserOffTime + tailGuard) AND
   (NOT (discovery AND registered)))
    InsertInOrder(grant_list, {DA, start[counter], length[counter], force_report[counter], discovery})

MACI(GATE, start[counter], length[counter], force_report[counter], discovery, status = arrive)

counter = counter + 1

INCOMING GRANT

counter = 0

grant_number = data_rx[48:50]

force_report = data_rx[52:55]

start = data_rx[56:87]

length = data_rx[88:103]

start = data_rx[104:135]

length = data_rx[136:151]

start = data_rx[152:183]

length = data_rx[184:199]

start = data_rx[200:231]

length = data_rx[232:247]

if(discovery = true)
    syncTime = data_rx[104:119]
    [start mpcp_timer, mpcp_timeout]

opcode_rx = GATE

registered = false

opcode_rx = GATE

UCT

CHECK NEXT GRANT

counter < grant_number

counter = grant_number

WAIT FOR GATE

OPCODE = GATE

PROTO = DISCOVER

if(registered = true)
    protocol = DISCOVER

IF (opcode_rx = GATE)
    [start mpcp_timer, mpcp_timeout]