HSTR Flow Control

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November 1997

Flow Control Requirement - 1

- 100 Mbit/s Ethernet experiencing severe problems with LAN flow control.
  - + Optional (some have it, some don't)
  - + How to control is not specified, thus product dependent as to how flow is controlled.
- 100 Mbit/s HSTR must investigate:
  - + Requirement upon Transmit function:
    - – Method of holding-off non-MAC frame transmission
    - – Ethernet specified time interval function

Flow Control Requirement - 2

Example SMAC specification (based on previous DTR work removed before approval):

- FR_FLOW_CONTROL with SV containing method of determining Transmit-hold function.
- New flag: FSFCH
  - + FSFCH = 0: allow non-MAC frame transmission
  - + FSFCH = 1: prevent non-MAC frame transmission
- New timer, TSFCH

  Timer set to amount of time for Transmit-hold
- Timer and Flag operation

  After receiving Flow Control MAC frame, SMAC uses or calculates time interval for TSFCH and sets FSFCH=1. Expiration of TSFC sets FSFCH=0.
- Interaction of multiple Flow Control MAC frames
  - + If new time value < than current time, no change
  - + If new time value > than current time, adopt new time interval.

Flow Control Requirement - 3

- Still to be investigated:
  - + Where and how flow control function is controlled.
  - + Algorithms for flow control
- Need presentations from group at the January meeting.