OAM Events

- OAM Event breakout-breakout group met to define Events better
- Goal was to define Events as ***states*** or conditions, rather than as ***transitions***.
- Made slight progress in orienting Events in that direction
  - (despite approximate 0.2% average BA level of participants)
- Made some assumptions in order to orient towards state representation
  - 1: Errored symbols represented as count in TLV format in EN OAMPDU
  - 2: Receiver of EN OAMPDU would determine the severity based on value in TLV
  - 3: Errored-XXX and Severely-errored-XXX are collapsed into one Event, so that #2 can take place
  - 4: Assume the receiving end knows what useful thing to do with the information (though currently undefined)

OAM Events

- In exploring this, we stumbled over a number of issues that we don't have answers for at this moment, and feel the group needs to discuss further.
- Probably need presentation in January that completes the Event definition based on:
  - Group consensus of Event philosophy
  - TLV final definition

Event Issue #1

- **Question: Should the events indicate**

  “we are in a condition where the ‘event’ occurred some time during the last measurement period”,

or should the events indicate

  “the number of occurrences of this event during the last measurement period exceeded a fixed (or adjustable) threshold”?

- **This implies that OAM would need to maintain either fixed thresholds, maintain fixed thresholds for per link-rate (ala David Martin’s spreadsheet), or manage adjustable thresholds.**

Event Issue #2

- **Question: Who is the intended recipient of the OAM Event information? Does the fact that you've had a Severely-Errored-XXX need to be exported (eg. via Clause 30 attribute)?**

Event Issue #3

- **Question: Do the thresholds need to be adjustable (eg. Registers) or can they be fixed (eg. David Martin's spreadsheet)?**

Event Issue #4

- **Question: Which side determines whether Errored-XXX is severe or not? Does the builder/transmitter of the EN OAMPDU differentiate between severe and not severe, or does the receiver of the EN OAMPDU differentiate between the two and ultimately export the information upwards (via some currently undefined means)?**

Event Issue #5

•Question: Where does the conditioning of some events occur? Does the OAM sublayer take the raw information and perform the conditioning, or does the OAM sublayer take conditioned events (where available) from the PHY and use those directly?

OAM Events

- **Errored Symbol Period (#86/87)**
  - **Existing text:**

    Defined threshold and timer. If non-zero and below threshold in timed window, errored.
  - **New Definition:**

    Defined threshold. If above threshold it is errored. The magnitude of value field will indicate whether the errors are "normal" or severe
- **Severely Errored Symbol Period (#86/87)**
  - **Existing text:**

    Defined threshold and timer. If exceed threshold in timed window,severely errored.
  - **New Definition:**

    Defined threshold. If above threshold it is errored. The magnitude of value field will indicate whether the errors are "normal" or severe

OAM Events

- **Errored Frame Period (#86/87)**
  - **Existing text:**
    - **Defined threshold and timer. If non-zero and below threshold in timed window, errored."**
  - **New Definition:**
    - **Defined threshold. If above threshold it is errored. The magnitude of value field will indicate whether the errors are "normal" or severe**
- **Severely Errored Frame Period (#86/87)**
  - **Existing text:**
    - **Defined threshold and timer. If exceed threshold in timed window,severely errored.**
  - **New Definition:**
    - **Defined threshold. If above threshold it is errored. The magnitude of value field will indicate whether the errors are "normal" or severe**

OAM Events

- **Power**
  - **Existing text:**
    - **Tied to MIB variable. Management can set bit in MIB variable indicating power event.**
  - **New Definition:**
    - **Power (supply voltage) has moved outside the normal operating range.**
- **Temperature**
  - **Existing text:**
    - **Temperature Tied to MIB variable. Management can set bit in MIB variables indicating temperature event.**
  - **New Definition:**
    - **Operating temperature has moved outside the normal operating range.**

OAM Events

- **Loop Fault**
  - **Existing text:**
    - **One or more PHY-aggregated loops has failed. The specific loop(s) that have failed will be detected by either:**
    - **a) Variables contained within the Event Notification OAMPDU**
    - **b) Requesting variables after reading the Event Table**
  - **New definition:**
    - **One or more PHY-aggregated loops has failed. The specific loop(s) that have failed will be identified within the Event Notification OAMPDU (need to define scheme for this identification)**

OAM Events

- **Vendor Specific**
  - **Existing text:**
    - **Management adds data to table**
  - **New definition:**
    - **The event notification “TLV” is extensible through vendor specific definitions**