

# OAM Event Procedure

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# Problems with Current Procedure

- Loss of information if retrieval is not done fast enough
- EI Flag does not indicate if there are more events than the previous notification
- Retriever would not know if the entries in event table are already read. Event tables may also be huge.
- No guarantee that event notification PDU sent is received. Hence, there is a possibility that information is lost.

# Proposal

- Based on timestamp in Event Table
  - reference is always made to the last event's timestamp

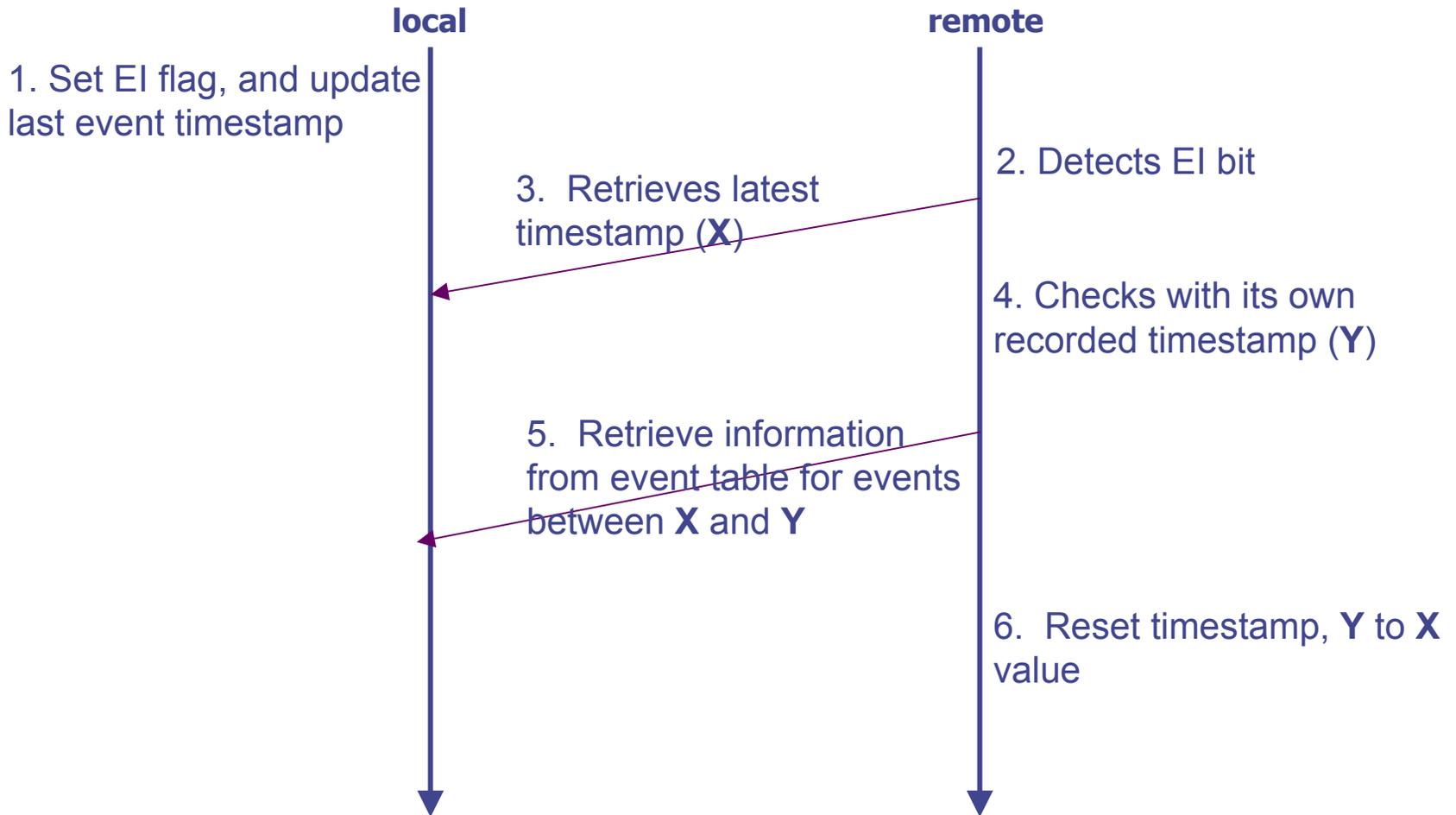
# Operation – Local Event

1. Place an entry in the Event Table
2. Update timestamp for the event, *last\_event\_timestamp*
3. Event Indication flag bit set
4. Optionally, an Event Notification OAMPDU may be sent
5. Not necessary for event self-clear from Event Table
  - *If maximum entries reached in Event Table, the next entry is looped back to first entry in the table*

# Operation – Remote Event

1. Device maintains the timestamp of the previous event it has read from the other device, *recorded\_last\_event*
2. Upon detecting the enabled EI flag, device retrieves *last\_event\_timestamp* from remote device
3. Device retrieves all event data occurred between *recorded\_last\_event* (from its own data) and the *last\_event\_timestamp* (retrieved from remote device) from Event Table
4. Upon completion, remote device updates *recorded\_last\_event* value with new *last\_event\_timestamp* value
5. Queries are repeated as long as EI flag is enabled, and the two values, i.e., *last\_event\_timestamp* and *recorded\_last\_event* are not equal

# Event Procedure



# Timestamp representation

- The timestamp value can be represented in one of the following:
  - As MIB variable
  - As Entity in OAMPDU (4 octets)

# As an entity in OAMPDU (1)

Octets

6	Destination Address= 01-80-c2-00-00-02
6	Source Address
2	Length/Type = 88-09
1	Subtype = OAM
1	Version
2	Flags
1	Code
4	Timestamp
41-1495	Data / Pad
4	FCS

# As an entity in OAMPDU (2)

Octets

6	Destination Address= 01-80-c2-00-00-02
6	Source Address
2	Length/Type = 88-09
1	Subtype = OAM
1	Version
2	Flags
1	Code
4	Timestamp
45-1495	Data / Pad
4	FCS

# Conclusion

- Loss of information can be minimized with the retrieval of events based on timestamp
- Placement of latest event timestamp has to be decided, i.e., mib variable or OAMPDU