

OAM Capability Discovery

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Sep. 2002 EFM@New Orleans

Proposal

- ✍ “OAM Capability Discovery(CD) Protocol” should needs.
 - Define **four CD state** for OAM capability discovery
 - INITIATE
 - REPORT
 - COMPLETE
 - SYNC
 - Define **CD status PDUs** for OAM capability discovery
 - INITIATE status PDU
 - REPORT status PDU
 - COMPLETE status PDU
 - **New Field** to indicate Local/Far_End state and each status PDUs
 - Define **CD Procedures with discovery_timer**

Capability Discovery state

SYNC(00)

- Receiving COMPLETE status PDUs

INITIATE(01)

- Reset or Restart

REPORT(10)

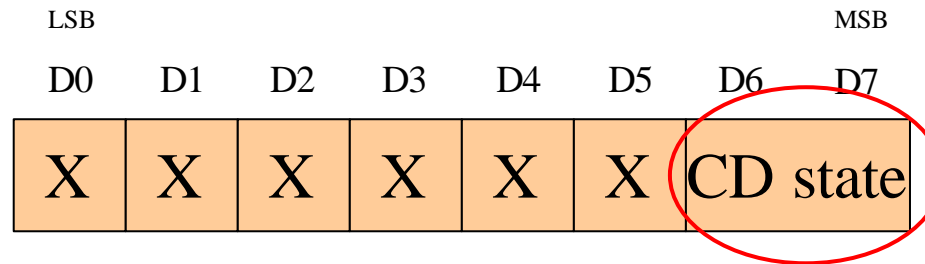
- Receiving INITATE status PDUs
- Transmission REPORT status PDUs
- Decision processing to determine OAM enabling
 - IF OK, change state to COMPLETE(11), ELSE change state to INITIATE(01)

COMPLETE(11)

- Relation with Decision processing result
- When the result of decision processing is OK

Capability Discovery state

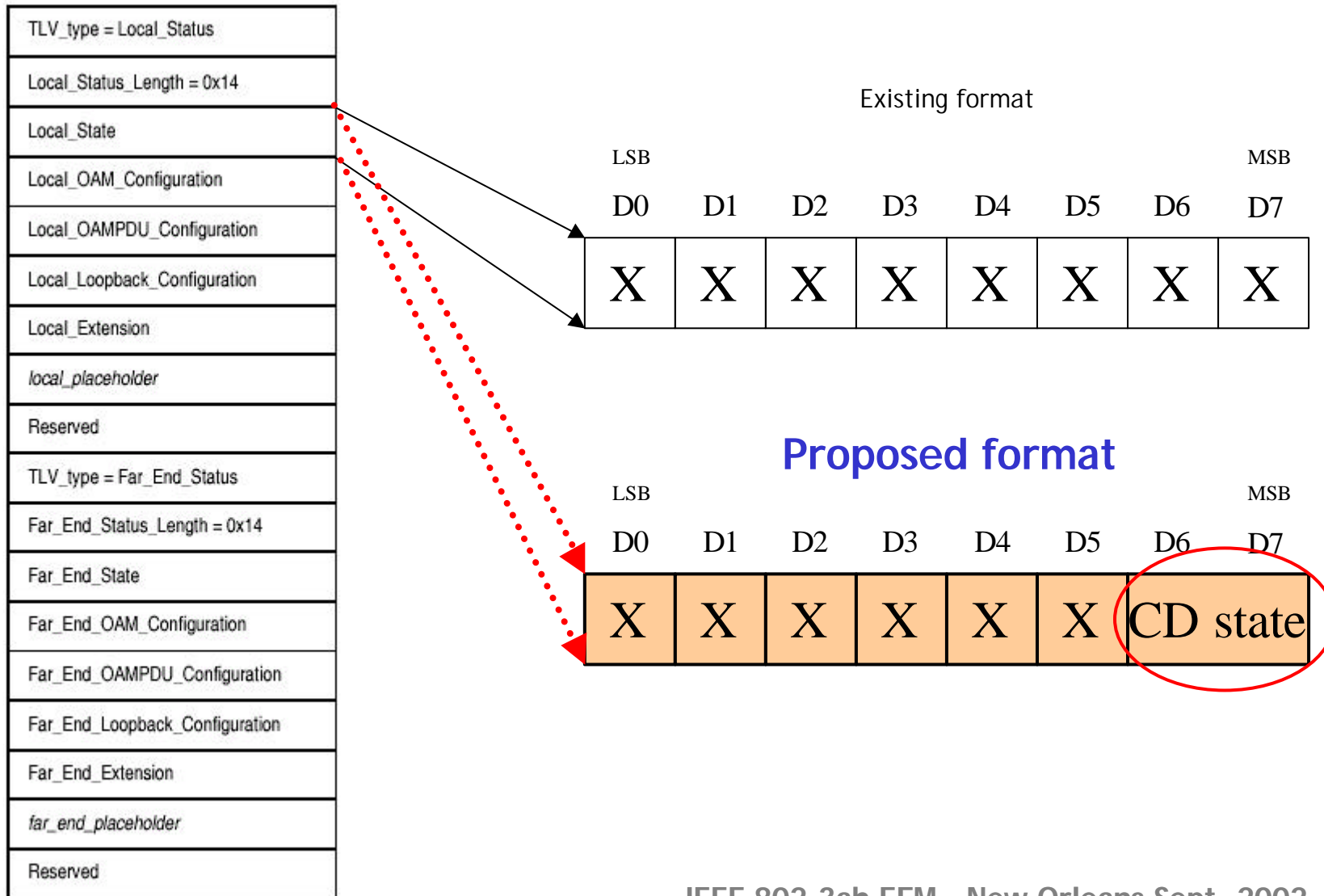
- ✍ Define new field at Local/Far_End_State field of OAM status PDU[0x00]



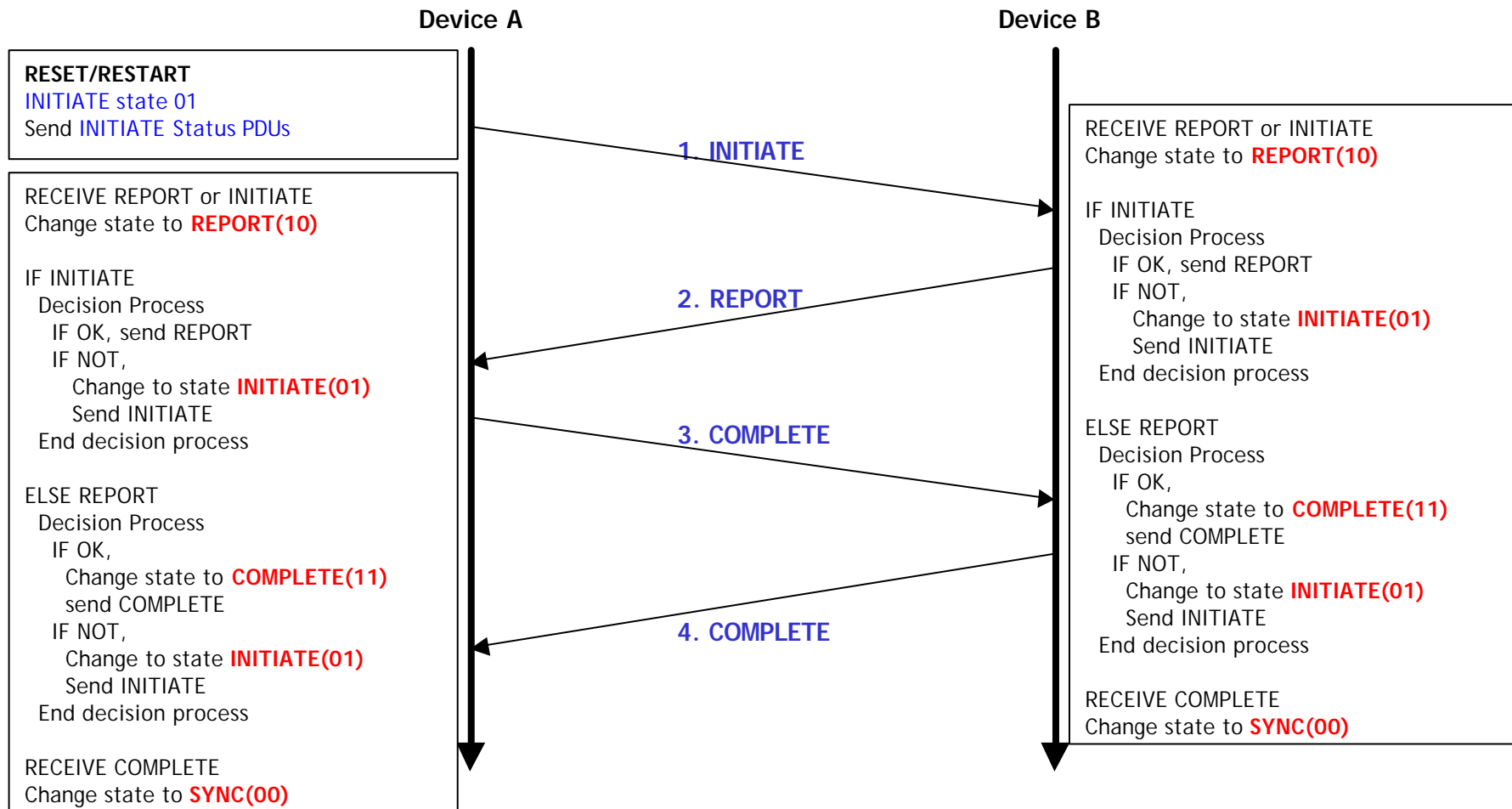
- Capability Discovery state(CD state)(2 bits)

Encoding bits	State	CD status PDUs
0 0	SYNC	-
0 1	INITIATE	INITIATE status PDUs
1 0	REPORT	REPORT status PDUs
1 1	COMPLETE	COMPLETE status PDUs

Proposed CD status PDUs



CD Procedures

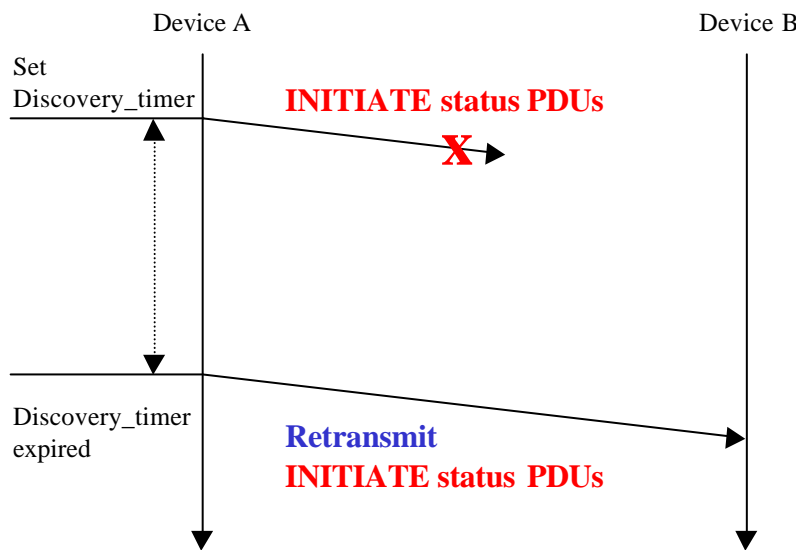


✍ Each status PDUs is sent periodically using **Discovery_timer**

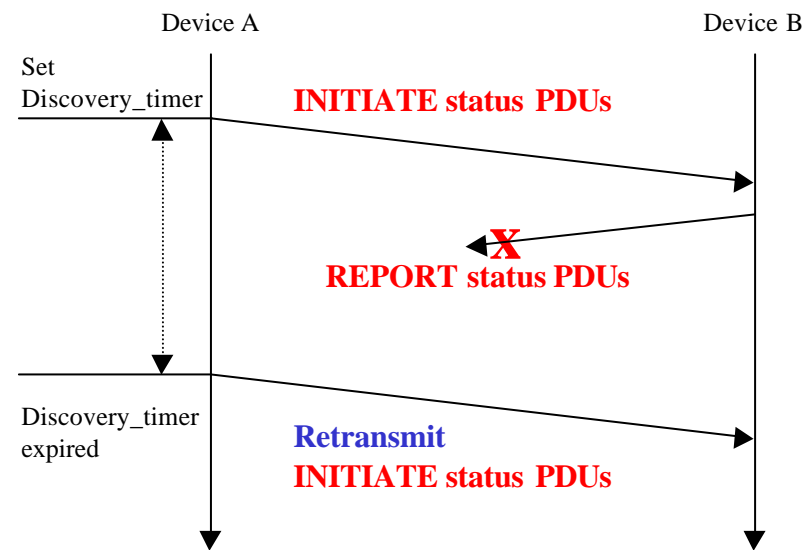
✍ OAM capability Discovery is independent of OAM mode

Discovery_timer

- ✍ This timer controls the reception window in each device.
- Example :An **Device A** sets **Discovery_timer**(**Discovery_time**) as soon as sending "**INITIATE status PDUs**" to **Device B**. "**REPORT status PDUs**" is expected to arrive at **Device A** before **Discovery_timer** is expired. However, an **Device A** decides to retransmit "**INITIATE status PDUs**" if **Discovery_timer** is expired before "**REPORT status PDUs**" arrival.



Example I



Example II

Conclusion

- ✍ “OAM Capability Discovery(CD) Protocol” should needs.
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OPEN ISSUE

- ✍ Additional contents?
- ✍ Periodic duration : `discovery_timer` value
 - It's probably to needs to do simulation work.