Sequence Recovery: Ambiguous OX-ID Problem

Initiator

- OX_ID 1 OPEN
- OX_ID 1 CLOSE
- TIME PASSES...
- OX_ID 1 OPEN (REUSE)

Target

- OX_ID 1 OPEN
- OX_ID 1 RETAINED FOR RECOVERY

- FCP_CMD 1
- FCP_RSP (1)
- FCP_CMD 2
- REC (2)
- ACC (1)
- SRR (2)
- FCP_RSP (1)
Sequence Recovery: Unambiguous Handle

**Initiator**
- OX_ID 1 OPEN
- OX_ID 1 CLOSE
- TIME PASSES...
- OX_ID 1 OPEN (REUSE)
- OX_ID 1 CLOSE

**Target**
- FCP_CMD 1
- FCP_RSP (1)
- FCP_CMD 2
- REC (2)
- LS_RJT
- OX_ID 1 RETAINED FOR RECOVERY
- WRONG HANDLE
- OX_ID 1 OPEN
An Unambiguous FCP Command Handle
Dave Baldwin, T10/00-260r1

FCP2_Handle is Unambiguous

Expires in seconds, cycles in hours

FCP2_Handle preserves existing implementations

Carried in otherwise unused field

Negotiated at Process Login

FCP2_Handle is Simple / Economical

Single Incrementing Value per Initiator

Single Value per Open OX_ID at Target

Simple Compare at Target to Validate