

GPON-Alarms

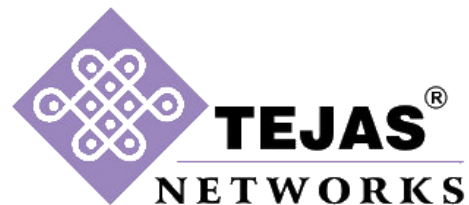


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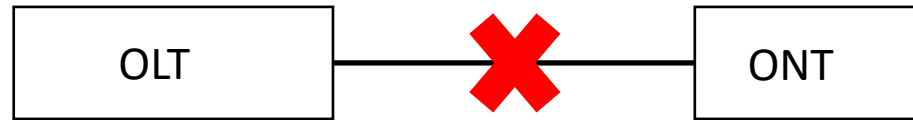


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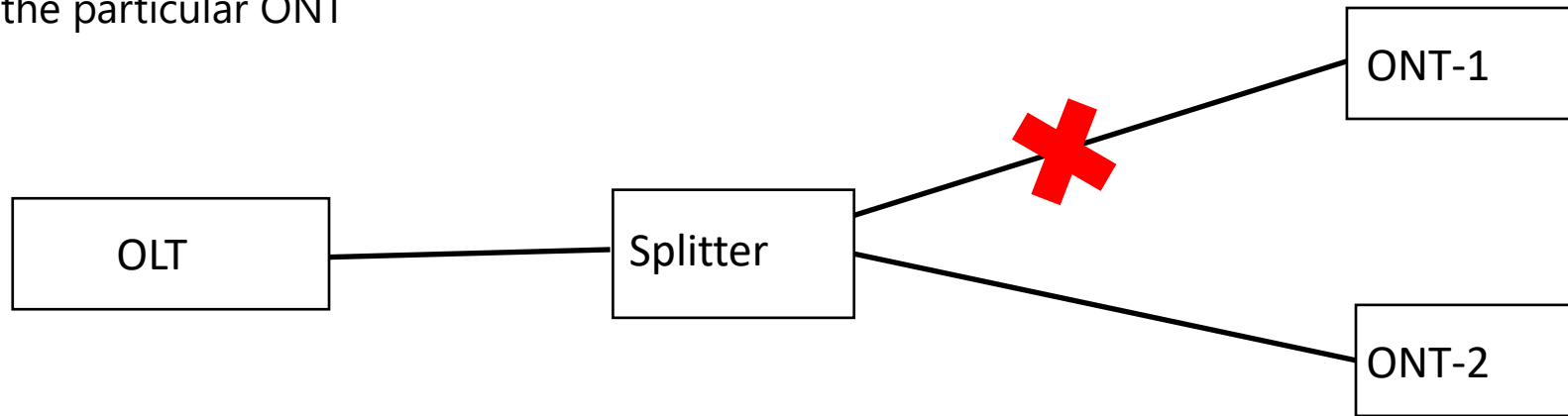
GPON Alarms



- Loss of Signal –ONT directly connected to PON port is disconnected/ rebooted then the alarm is shown on the PON port



- Loss of Signal Indication – ONT connected via splitter is disconnected/ rebooted then the alarm is shown on the PON port for the particular ONT



Alarms



- Loss of Frame Indication - When 4 consecutive invalid delimiters from ONUi are received.
- DG Indication (Receive Dying Gasp of ONU) – When ONT input DC power fails below 11.4 volts
- Signal Degrade Indication
- Signal Fail Indication
- SUF (Start up Failure) Indication - The ranging of ONUi has failed n times ($n = 2$)
- DF Indication (Deactivate Failure of ONU)- The ONU doesnot react correctly after three Deactivate_ONUID or Three Disable_serial_number message
- LAN Los of Signal –
 - ONT Eth port in bridge mode – When connection is created & cable is removed
 - ONT Eth port in IP mode – When cable is removed

CCU Alarms



- CCU alarms :
 - Solar Input Fail – When solar input to CCU is down
 - Mains Input Missing – When Mains input to CCU is down
 - GPSU Serial Port Disconnected- When cable between CCU & ONT is disconnected
 - Battery low – When battery connected to CCU falls below certain threshold
 - Battery Test on

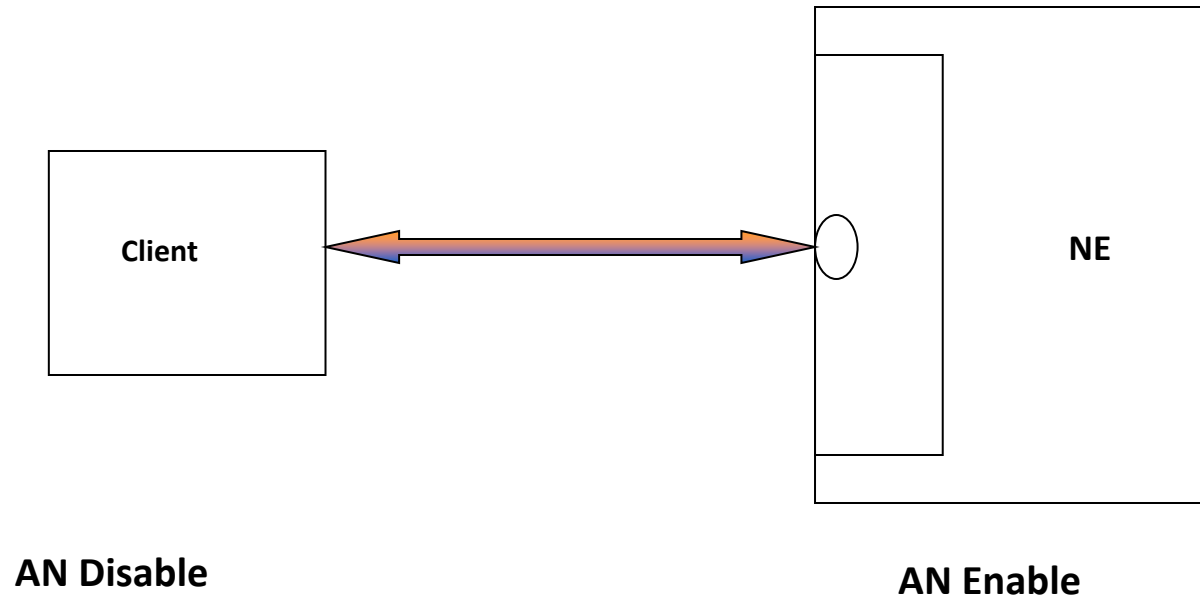


Ethernet Alarms

Auto Negotiation Failed



- Autonegotiation failed alarm is raised when a port on which autonegotiation is enabled detects that the link partner is not autonegotiation enabled.



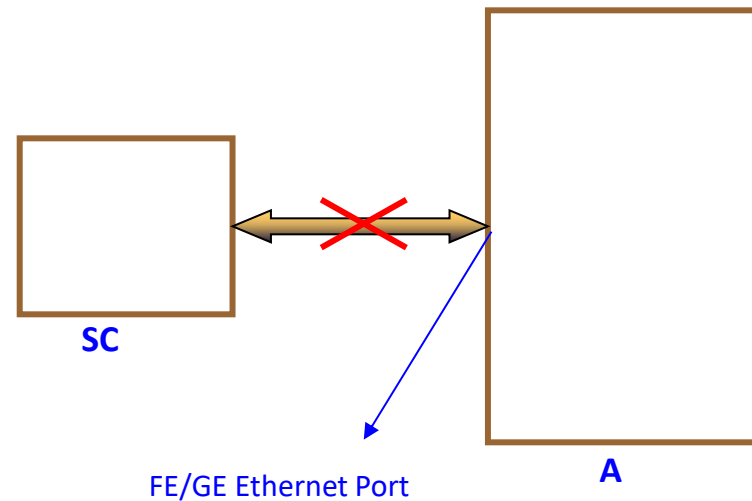
Auto Negotiation Failed

The NE, then locks to the previous mode of operation.

Link Down on ETH



- Ethernet link down alarm is raised when the link is physically down.
- For Tx media, link down is declared when the link pulses are not detected by the receiver
- For Rx media, link down is declared when there is loss of signal on the receiver.
- This alarm occurs generally due to cable not being connected or a cable/fiber cut.



Link Down on VCG



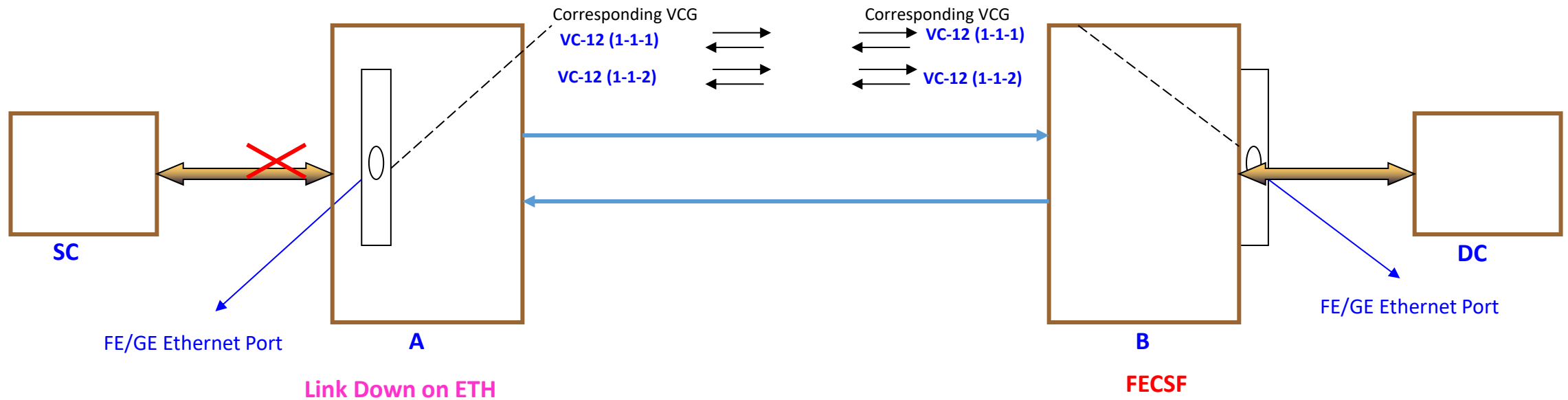
- Link Down on VCG alarm is raised for any traffic affecting VCG side problem
- For Tx media, link down is declared when the link pulses are not detected by the receiver
- For Rx media, link down is declared when there is loss of signal on the receiver.
- This alarm occurs generally due to
 - Deletion of a member VC (in case of Non-LCAS mode)
 - Deletion of all the channels provisioned on a VCG either in the transmit or receive direction due to a fault (in case of LCAS mode)

FECSSF (Far End Client Signal Failure)



- Any Far End Client side problem is indicated by FECSSF

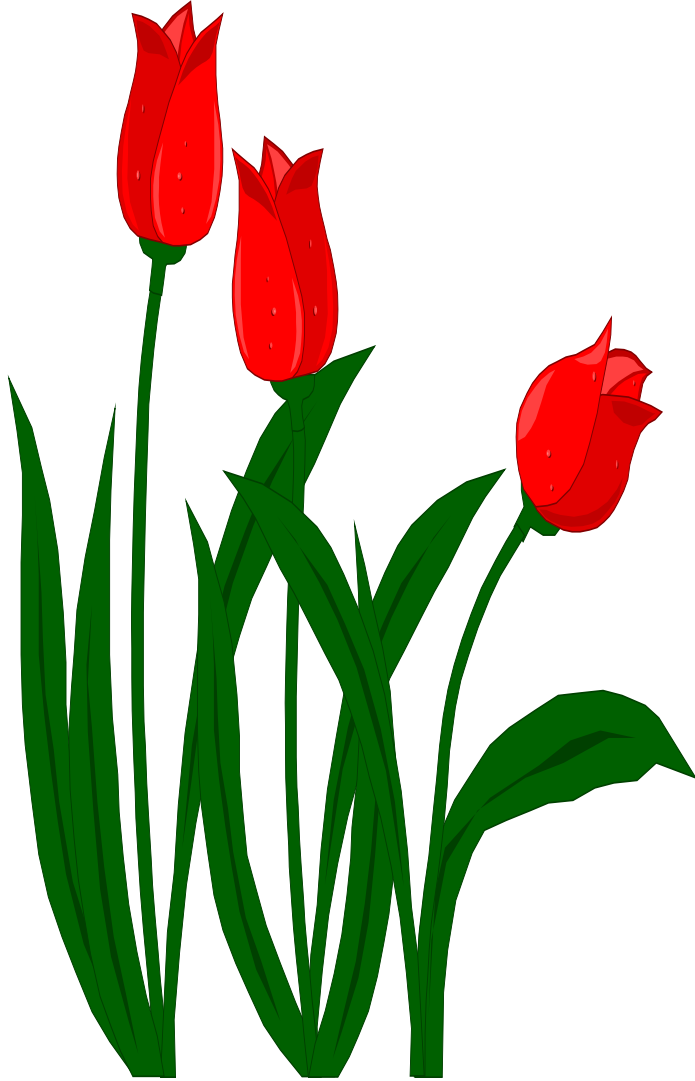
Root cause: Loose connectivity of ETH cable at A



ACRONYMS



- GPON- Gigabit Passive Optical Network
- ONT- Optical Network Terminal
- OLT- Optical Line Terminal
- ELINE- Ethernet Virtual Private Line (EVPL)
- ELAN- Ethernet Virtual Private LAN (EVP-LAN)
- UNI- User Network Interface
- NNI- Network Node Interface
- CCU- Charge Control Unit
- AN- Auto Negotiation
- VCG- Virtual Concatenation Group
- VC- Virtual Container
- FECSF- Far End Client Signal Failure



Thank You...