SN 3000 – Field Maintenance

Course Number:

201029

Course Description:

This course provides the necessary skills for personnel who are responsible for the field maintenance of the SN 3000 in the network. Through a series of instructor-led discussions and hands-on exercises, the student will learn how to successfully use the Sycamore Command Line Interface (CLI) for initial node configuration, use TL1 to manage, provision, and troubleshoot the switch, and use SilvxSource to manage, provision, and troubleshoot the switch.

Prerequisites:

General knowledge of SONET/SDH, network management, APS 1+1, UPSR, BLSR, and IP technologies.

Duration:

1 Day

Course Topics:

Introduction to Sycamore Optical Networking

- The Intelligent Optical Switched Network
- SN 3000 Optical Access Switch
- SN 3000 Applications
- SN 9000 Intelligent Multiservice Switch
- SN 9000 Applications
- SN 16000 Optical Core Switch
- SN 16000 Applications
- SilvxManager

Hardware Architecture Overview

- SN 3000 Components
- SN 3000 Control Modules
- SN 3000 Line Cards

Switch Architecture Overview

- SN 3000
  - Chassis
  - Data Plane Connectivity
  - Data Plane Functionality
  - Control Plane Connectivity
  - Control Plane Functionality
  - Timing Plane

Hardware Module Overview

- SN 3000
  - SCM
  - SCA
  - AIOM
  - S-192 AIOA
  - Q48/QW48 IOA
  - S48/SW48 IOA
  - Q12/Q12S IOA
  - O3 IOA
  - DGET IOA
  - QGETvc IOA
  - E1M21 IOA
  - E75/E75R/E75X IOM
  - DS3M24 IOA
  - DS324 IOM
  - DS312 IOA

Initial Hardware Setup

- SN 3000
  - Timing Interfaces
  - Ethernet Management Interfaces
  - Console Interfaces
  - Installing Hardware Modules
  - System Power Overview

Sycamore Command Line Interface

- CLI Login

- CLI Top Level
- Utilities Menu
  - Administration
- MIB Menu
  - Mgmt Menu
    - System Menu
      - Interfaces Display
    - IP Menu
      - Switch IP Address
      - Ethernet IP Addresses
      - IP Interface Table
      - IP Route Table
  - Private Menu
    - NodeConfig
- Saving the Config
- Restarting the Node

SilvxSource Access

- Accessing SilvxSource
- Logging Into SilvxSource
- Chassis View
- Object Tree View
- Node Configuration
- SCM Configuration
- IOA Configuration
- Power/Fan Configuration
- Node Users
- SN 3000 Preferences
- Alarm Banner
- Alarm Display
- Event Log
- Port Summary
- Node Inventory
- Viewing Alarms
- Card Resets

Troubleshooting & Diagnostics

- System Diagnostic Capabilities
- Power On Self Test
- SCM – LED Status
- SCA – LED Status
- AIOA – LED Status
- S192-AIOA – LED Status
- Q48/QW48 IOA – LED Status

- S48/SW48 IOA – LED Status
- Q12/Q12S IOA – LED Status
- O3 IOA – LED Status
- DGET IOA – LED Status
- QGETvc IOA – LED Status
- E1M21 IOA – LED Status
- E75/E75R/E75X IOM – LED Status
- DS3M24 IOA – LED Status
- DS324 IOM – LED Status
- DS312 IOA – LED Status
- Timing – Troubleshooting Tips
- Port Loopbacks
- Initiating a Port Loopback
- Event & Alarm Processing
- SONET/SDH Alarm Structure
- Network Failure Scenarios
- Trunk Configuration Settings
- Management Connectivity Issues