

Course Name: Digital Cross Connect Systems

Course Overview:

This course will serve to introduce the technician to the world of Digital Cross-Connect Systems. The student will understand the advantage of utilizing a DCS for bandwidth management and a remote testing tool. Special attention will be given to the Tellabs DCS systems with hands-on time focused around operation, configuration and maintenance.

Course Length: 3 Day

Who should attend?

- Central Office Technicians
- Transport Engineers
- Field Service Technicians
- NOC Test Engineers
- NOC Managers
- Installers

You will learn:

- Understand the basic concepts of remotely testing DS1, DS3 and SONET signals through a DCS
- Identify basic network equipment and explain its role in the network
- Explain the principles behind the use of a DCS and its importance in the network
- Understand the role a DCS plays in bandwidth management
- Identify the main subsystems used in a DCS and the functions of each
- Write and translate Transaction Language 1 (TL1) commands
- Understand vendor specific system architecture relating Tellabs DCS

Prerequisites: Basic understanding of Transport Technologies and Concepts including T1, T3 and SONET.

DCS equipment must be provided by customer for classroom activities.

Course Fees:

- 3-day course at your location \$9,000 for up to 10 attendees

Customizable Course: Yes

Course Content:

Network Equipment and Fundamentals

- What is a network?
- Why network?
- Network setup and shared networks
- Network Equipment overview
 - CO equipment
 - Transport Equipment
 - CPE Equipment

The Digital Cross-connect Systems

- Where is the DCS
- Why the DCS is used
- Basic Functionality

DCS Subsystems

- Administrative Complex
- Switching Complex
- Port Complex

Cross-Connects

- How Circuits are routed through the DCS
- Setting up a Cross Connect
- Troubleshooting Cross Connects
- Retrieving Cross Connect Information
- Determining Equipment and Facility sides
- Port Numbering

Communicating with the DCS

- DCS Languages
- Basic DCS commands
- GUI Interfaces

Using the DCS for Test Access

- Testing Ports
- TAPs
- TADs
- FADs
- Providing Loopbacks

Concepts of Centralized Testing

- Network Operations Center
- Remote connectivity

- Centralized Network control
- How portables work with centralized test systems – where and when to use
- The importance of loopback testing