



Tellabs® Optical LAN Network Planning & Design

Orderable Part Numbers:

SL40-OPM3836-V (Virtual Classroom)

SL40-OPM3836-C (Public Classroom)

SL40-OPM3836-OS (On-Site Delivery)

Overview

This instructor-led course provides the knowledge and skills needed to plan and design a network for a Tellabs 1100 Optical LAN system. After a brief review of the features and functionality of the Tellabs 1100 Optical LAN Access Solution, technology, architecture and hardware functionality, students will learn how to design a LAN system to provide the data, voice and IP video services and applications supported by the Tellabs 1100 Optical LAN.

This course includes hands-on activities using floor plan examples. It is designed to help students learn the concepts that have been presented and reinforce what they have learned.

Completion of this course can be recognized for 11 Continuing Education Credits (CECs) for BICSI credential holders.

Course Objectives

Upon completion of this course, students will be able to:

- Identify the features and functionality of the Tellabs Optical LAN Access Solution
- Describe the network functionality of the Tellabs Optical LAN Access Solution
- Describe the common equipment associated with the Tellabs Optical LAN Access Solution series of equipment
- Establish a layer one plan based on customer floor plan and drop locations
- Prescribe for the customer the proper number and types of OLT shelves and plug-in units based on customer requirements
- Prescribe for the customer the proper power equipment, racking and grounding needed, based on the OLT and ONT equipment needed
- Establish the EMS requirements and configuration that meet the customer's needs
- Determine the proper service and uplink provisioning that will be needed to meet the customer's needs

Prerequisites

It is highly recommended that students have a basic knowledge of routing and switching technologies and have taken Tellabs Optical LAN sales essentials Web-based tutorials.

Target Audience

This course is designed for network engineers who are or will be responsible for designing and planning networks for the Tellabs 1100 Optical LAN.

Course Outline

1. Layer One Design Considerations

- Procedure Outline
- Determining the Optical LAN Solution
- Fiber Optic Cabling Options
- Optical LAN Link Budgets
- ONT Mounting Options
- Special Design Considerations
- Best Practices for Optical LAN Design
- Determining GPON Fiber Needs
- Remote Powering

2. Equipment Planning

- Lesson 1: OLT Equipment Planning
 - Procedure Outline
 - Determining the Type & Number of OLTs Needed
 - Determining the Number of Plug-In Units Needed
 - Determining the Need for PON Redundancy
- Lesson 2: Power, Grounding and Racking
 - Determining Power Supply To Be Used
 - Communicating Site Requirements for AC Connections, Ventilation & Grounding
 - Communicating Racking Requirements
 - ONT Powering Considerations

3. Provisioning Planning

- Lesson 1: EMS and Management
 - Procedure Outline
 - Determining EMS Server Requirements
 - Software Considerations
 - Establishing the IP Scheme & Ports Needed
- Lesson 2: Provisioning Planning
 - Procedure Outline
 - Dynamic vs. Static Provisioning in the Network
 - Determining the Network Element Configuration
 - Determining the Uplink Configuration for Each OLT
 - Determining Security Requirements for Each Port
 - Determining Port Requirements for Each Service
 - Manual Provisioning Considerations

4. Practical Practice

Class Specifics

- See Quote for Details

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