# **Objetivos**

Upon completing this course, the learner will be able to meet these overall objectives:

- Connect to a Cisco ONS 15454 MSTP chassis using Cisco Transport Controller (CTC)
- Identify Node configurations according to card population Provision DWDM circuits using the Cisco Transport Controller (CTC)
- Conduct performance monitoring, alarm verification, and fault isolation
- Provision M12 WSS in linear and M6 SMR nodes in ring topologies
- Configuration options for the any rate muxponder and crossponder
- Perform Raman amplifier initialization
- Isolate optical network issues

# **Pre-requisitos**

The knowledge and skills that a learner should have before attending this course are as follows:

- Basic knowledge of optical transport and protocols
- Basic knowledge of data network principles

### Contenido

- Lesson 1: CTC Operations
- Lesson 2: MSTP Topologies
- Lesson 3: Shelf and Card Installation
- Lesson 4: Fiber jumper installation
- Lesson 5: Linear Configurations
- Lesson 6: Node Turn-Up
- Lesson 7: Optical Channel Network Connection Circuits
- Lesson 8: Transponder and Optical Channel Client Connection Circuits
- Lesson 9: Multishelf
- Lesson 10: MSTP M6 SMR-Based Rings
- Lesson 11: 10-Gigabit Muxponder and Transponder Cards
- Lesson 12: 10-Gigabit with Y-Cable Protection





- Lesson 13: Alternative 10-GB Protection (PSM and OTU-2)
- Lesson 14: Any Rate Muxponder and Crossponder
- Lesson 15: Raman Amplifier
- Lesson 16: 40- and 100-Gigabit Transponder and Muxponder
- Lesson 17: Troubleshooting

## Laboratorio

- Lab 1: System Setup and Login
- Lab 2: Node Turn-Up
- Lab 3: Creating Direct Circuits (OCHNC)
- Lab 4: Creating Transponder Optical Client Circuits (OCHCC)
- Lab 5: Configuring an SMR Ring
- Lab 6: Installing 10-Gbps Transponder Cards with Y-Cable Protection
- Lab 7: Alternate 10-Gigabit Protection (OTU-2 and PSM)
- Lab 8: Any Rate Muxponder and Crossponder Options
- Lab 9: Raman Amplifier
- Lab 10: MSTP Troubleshooting

### Quien debe Asistir

The primary audience for this course is as follows:

- Technical professionals who are responsible for installation, deployment, and maintenance of the Cisco ONS 15454 MSTP network
- Network operations, planners, and designers
- Network operations engineers

