OPT300 (CISCO OPTICAL TECHNOLOGY ADVANCED) 2.0

Objetivo

After taking this course, you should be able to: â¢ Perform the ONS 15454 MSTP node turn-up procedure; â¢ Describe first generation mesh topologies; â¢ Describe the Optical Channel Network Connection (OCHNC) prerequisite requirements for provisioning circuits in an ONS 15454 MSTP network; â¢ Describe the ONS MSTP advanced protocols; â¢ Describe the OCHNC circuit provisioning for Single Module (SM) Reconfigurable Optical Add-Drop Multiplexer (ROADM) rings; â¢ Describe the Any-Rate Muxponder Crossponder (AR MXP/XP) cards; â¢ Describe how the Pseudo Command Line can be used to configure muxponder cards; â¢ Identify the advantages G.709 encapsulation brings to optical transponder cards; â¢ Install and provision the Any Rate cards; â¢ Describe the 100-Gbps and 200-Gbps cards; â¢ Describe the NCS 2000 400-Gbps Xponder line card and how it is configured; â¢ Describe the SM ROADM (SMR)-based configurations; â¢ Describe the 10-Gbps transponder and muxponder cards; â¢ List the 10GE_XP and GE_XP card options; â¢ Describe ingress policing and basic egress queuing strategies, and implement the customer QoS scheme into the ONS 15454 crossponder network; â¢ Identify the principles of Ethernet related to the operation of Cisco optical networking products; â¢ Configure the 10GE_XP/XPE and GE_XP/XPE cards, install Layer 1 circuits, and read the performance counters for Layer 1 Gigabit Ethernet circuits; â¢ Turn up an encrypted network and test to ensure that information being passed is secure; â¢ Add a node to an existing DWDM ring; â¢ Describe problems with interconnecting circuits between rings, the ONS 15454 MSTP 80-channel manual Multiring feature, and hardware components; â¢ Describe the ONS 15454 MSTP Troubleshooting Guide.

PÃºblico Alvo

This course is intended for the following technical professionals who need to use advanced features of fiber optics technology: â¢ System installers â¢ System integrators â¢ System administrators â¢ Network administrators â¢ Solutions designers

PrÃ©-Requisitos

â¢ Cisco Fundamentals of Fiber Optics Technology (FFOT) video training; â¢ Cisco Optical Technology Intermediate (OPT200) course. We also recommend that you have the following knowledge and skills: â¢ Basic knowledge of optical transport and protocols; â¢ Basic knowledge of data network principles.

Carga HorÃiria

32 horas (4 dias).

ConteÃºdo ProgramÃitico

Cisco Transport Planner Design Tool
First-Generation Mesh Topologies
OCHNC in a Mesh Network

Advanced Protocols
Any Rate Muxponder and Crossponders
100-Gbps and 200-Gbps Transponders and Muxponders
Cisco NCS 2000 400-Gbps Xponder Line Card
Cisco 10G Web Security Essentials (WSE) Network Encryption Card
Adding a New Location with Cisco Transport Planner (CTP) and Cisco Transport Controller (CTC)
Crossponders and Layer 1 Networks
Crossponders and Layer 2 Networks
Troubleshooting

Lab outline
Starting the CTP Software and Creating a DWDM network
Creating OCHNC Circuits View Power Levels in the 80-WXC
Any Rate Crossponder card 8:2 Muxponder Lab
200-GbTransponders, 10x10 Cards, and MR Muxponders
400-Gbps Xponder Mux and Optical Transport Network (OTN)
10-Gb Optical Encryption Line Card
Adding a Node to Existing DWDM Ring Network
1-Gb Crossponder Layer 1 Ethernet Network
Gigabit Ethernet and 10-Gigabit Ethernet Enhanced Crossponder Layer 2 Ring Configuration
Performing the Optical Time Domain Reflectometer (OTDR) Test
MSTP Troubleshooting