

OPT201

Cisco NCS 2000 Deploying 96-Channel Flex Spectrum

24 horas

Routing & Switching

Cisco

Cisco Continuing Education Credits

24 CE Credits

INTRODUÇÃO

The Cisco NCS2000 Deploying 96-Channel Flex Spectrum (OPT201) v3.0 course shows you how to plan, configure, and control optical networks using the Cisco® Network Convergence System (NCS) 2000 series Flex Spectrum platform.

The course teaches you how to design Flex Spectrum networks with multi-degree Reconfigurable Optical Add-Drop Multiplexer (ROADM) multi-shelf nodes using the Cisco Transport Planner (CTP) software.

You'll learn how to:

- Install the Cisco NCS 2000 series hardware
- Configure an optical network and circuits using the Cisco Transport Controller (CTC) software
- Learn which components and configurations take advantage of and/or are required for the Flex Spectrum 96-channel feature
- Configure optical networks with multidegree ROADM multishelf nodes
- Configure optical networks with colorless, contentionless, omnidirectional, and MPO cross-connect advanced features
- Describe and configure the NCS 2000 400-Gbps Xponder line card

OBJETIVO DO CURSO

After taking this course, you should be able to:

- Describe the hardware and components required and used with the Flex Spectrum feature
- Design optical networks in the Cisco Transport Planner software
- Install the hardware, including multishelf nodes
- Perform node turn-up and create circuits using the Cisco Transport Controller software
- Configure optical networks with multidegree ROADM multishelf nodes
- Configure optical networks with colorless, contentionless, omnidirectional, and MPO cross-connect advanced features
- Describe and configure the NCS 2000 400-Gbps Xponder line card
- Add a node to an existing DWDM ring
- Describe the NCS 2000 Troubleshooting Guide
- Use the features and documentation with Transport Controller to perform maintenance, testing, and basic troubleshooting

PÚBLICO-ALVO

This course is designed for technical professionals who need to know how to deploy a Cisco NCS 2000 Series Dense Wavelength-Division Multiplexing (DWDM) network with Flex Spectrum.

The primary audience for this course includes:

Designers

Systems engineers and implementation staff

Network operations center personnel

Technical support personnel who are involved with the deployment, operations, and maintenance of the Cisco NCS 2000 Series

Channel partners and resellers

PRÉ-REQUISITOS

Prerequisites

To fully benefit from this course, you should first complete the Cisco Fundamentals of Fiber Optics Technology (FFOT) video training course, or have an equivalent level of knowledge and skills.

CONTEÚDO PROGRAMÁTICO

Outline

DWDM and Flex Spectrum Foundation

NCS 2000 Chassis and Cards

Design ROADM Networks with CTP

Hardware Installation and Multishelf

Node Turn-Up and Circuit Creation

Advanced Feature Networks and Circuits

Testing, Maintenance, and Basic Troubleshooting

Spectrum Switched Optical Network

Lab outline

Cisco Transport Controller

Cisco Transport Planner

Adding a Node to Existing DWDM Ring Network

Optical Channel Network Connection (OCHNC) Circuits

Optical Channel Client Connection (OCHCC) Circuits

Colorless Ports and Circuits

Contentionless Circuits

Connection Verification

Performing the Optical Time Domain Reflectometer (OTDR) Test

Maintenance and Performance Monitoring

MSTP Troubleshooting

Configuring the 400XP card