

Cisco NCS 2000 Series Deploying 96-Channel

Duration: 3 Days **Course Code: OPT201** **Delivery Method: Virtual Learning**

Overview:

The Cisco NCS 2000 Deploying 96 Channel FlexSpectrum Release 10.5 Version 1 is an Instructor-led course offered by Cisco Learning Services. It covers the Cisco Network Convergence System (NCS) 2000 Series with FlexSpectrum system.

Virtual Learning

This interactive training can be taken from any location, your office or home and is delivered by a trainer. This training does not have any delegates in the class with the instructor, since all delegates are virtually connected. Virtual delegates do not travel to this course, Global Knowledge will send you all the information needed before the start of the course and you can test the logins.

Target Audience:

This course is designed for technical professionals who need to know how to deploy a Cisco NCS 2000 Series DWDM network with FlexSpectrum.

Objectives:

- **After completing this course, you should be able to:**
- Describe the route and select principle
- Successfully run the Cisco Transport provisioning tool and design simple FlexSpectrum networks
- Connect to and set up a FlexSpectrum node using the Cisco Transport Planner tool output>Create simple DWDM circuits that traverse the FlexSpectrum network and trace the power from beginning to end
- Configure the 10 x 10 card for five individual transponders and appropriate G.709 options
- Understand and install the provisionable patch cord (PPC) association between transponder ports and theDWDM MUX and DMX ports, and install optical channel client connections
- Describe the major features of the Cisco NCS2000 EDFA17/24 and EDRA17/24 amplifiers
- Understand the difference between colored ports, colorless ports, and colorless applications
- Install 40 Gigabit Ethernet transponder circuits on colorless ports and change the wavelength without the need to move fiber jumpers
- Understand the concept of omnidirectional add-drop and the contentionless feature
- Create 100 Gigabit Ethernet circuit into a node on a wavelength that already exists on the omnidirectional add-drop section
- Install the cross-connect options for nodes with up to 12 sides, including colorless and omnidirectional and contentionless add-drop
- Conduct maintenance and performance-monitoring tasks
- Troubleshoot the 96-channel FlexSpectrum system

Prerequisites:

The prerequisite for this course is the Cisco Fundamentals of Fiber Optics Technology (FFOT) video training.

Content:

Course Outline

- Module 1: NCS 2000 FlexSpectrum Product Fundamentals
- Module 2: Shelf Layout and Software
- Module 3: Documentation
- Module 4: Cisco Transport Controller
- Module 5: Cisco Transport Planner
- Module 6: Shelf and Card Installation
- Module 7: MultiShelf Fundamentals
- Module 8: Node Turn-Up
- Module 9: Ring Network
- Module 10: Optical Channel Network Connection
- Module 11: 10 x 10 card and 10G Muxponders and Transponder
- Module 12: Optical Channel Client Connection
- Module 13: 40, 100, and 200 Gigabit Ethernet Transponders and Muxponders
- Module 14: Two-Degree ROADM
- Module 15: Colorless and Contentionless Add/Drop
- Module 16: Mesh Network and MPO Cross-Connects for Complex Nodes
- Module 17: Omnidirectional, Colorless, and Contentionless Add/Drop for Complex Nodes
- Module 18: Maintenance and Performance Monitoring
- Module 19: NCS 2000 Troubleshooting

Lab Outline

- Lab 1: Start the Cisco Transport Controller software and access the NCS shelves
- Lab 2: Configure the Cisco Transport Planner and create FlexSpectrum networks
- Lab 3: Setup the three-node FlexSpectrum network
- Lab 4: Install optical-channel network circuits and inspect power levels
- Lab 5: Optical Channel Client Connections
- Lab 6: Install 40 Gigabit Ethernet transponders on colorless ports and change the wavelength
- Lab 7: Install circuits into omnidirectional contentionless add/drop
- Lab 8: Explore maintenance and performance monitoring capabilities
- Lab 9: Troubleshooting FlexSpectrum

Further Information:

For More information, or to book your course, please call us on 353-1-814 8200

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