Cisco NCS 2000 Series Deploying 96-Channel

Varighed: 3 Days **Kursus Kode: OPT201** **Version: 3.0** **Leveringsmetode: Virtuel deltagelse**

Beskrivelse:

The Cisco NCS 2000 Deploying 96-Channel Flex Spectrum course covers 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 featu
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

This course is worth 24 Continuing Eduction (CE) Credits.

Virtuel deltagelse

Et V&C Select kursus indholder nøjagtig det samme som et almindeligt kursus. Før kursusstart modtager man kursusmaterialet. Dernæst logger man på kurset via internettet og ser via sin pc den selvsamme præsentation som de øvrige deltagere, man kommunikerer via chat med underviseren og de øvrige deltagere på kurset. Denne uddannelsesmodel er både tids-og omkostningsbesparende og kan være et oplagt alternativ til almindelig klasseundervisning, hvis man f.eks. har et begrænset rejsebudget.

Målgruppe:

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

Agenda:

- **After completing 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

Forudsætninger:

Attendees should meet the following prerequisites:

- Completion of Cisco Optical Technology Intermediate Course

Test og certificering

Recommended as preparation for the following exams:

- **500-210 -** SP Optical Technology Field Engineer Representative
Students should also review the NCS 2000 and NCS 4000 Technical Overview e-learning as well before taking this exam

Indhold:

DWDM and Flex Spectrum Foundation

- Examining Terminology and Technology
- Introducing Flex Spectrum Features
- Introducing Network Topologies and Nodes
- Introducing the Management Software and Documentation

NCS 2000 Chassis and Cards

- Investigating NCS 2000 Series Chassis and Common Equipment
- Investigating NCS 2000 Series Controller Cards
- Investigating NCS 2000 Transponders, Muxponders and Crossponders Cards
- Investigating NCS 2000 Pluggable Port Modules for Transponders
- Investigating NCS 2000 Add/Drop Multiplexers and Demultiplexers Cards
- Investigating NCS 2000 Amplifies Cards
- Investigating NCS 2000 Passive Auxilary Modules

Design ROADM Networks with Transport Planner

- Getting Started with Transport Planner
- Using Transport Planner for Network Design
- Generating the Installation Package
- Designing a 2-degree ROADM Network

Hardware Installation and Multishelf

- Installing NCS 2000 Series Hardware
- Configuring Multishelf Networks

Node Turn-Up and Circuit Creation

- Performing Node Turn-Up in CTC
- Creating OCHNC Circuits
- Creating OCHCC Circuits
- Configuring 400G Cards

Advanced Feature Networks and Circuits

- Creating Colorless and Contentionless Add/Drop Networks
- Creating Omnidirectional and Contentionless Add/Drop
- Creating Mesh Nodes with MPO Cross-Connects
- Verifying Installed Cabling Connections

Testing, Maintenance and Basic Troubleshooting

- Testing OTDRS
- Maintaining the Network, Shelf and Cards
- Performing Basic Troubleshooting

Spectrum Switched Optical Network

- Examining the Terminology and Technology
- Supported SSON Circuit Types
- Provisioning GMPLS Optical Channels Using SSON

Labs

- Discovery Lab 1: Cisco Transport Controller
- Discovery Lab 2: Cisco Transport Planner
- Discovery Lab 3: Adding a Node to Existing DWDM Ring Network
- Discovery Lab 4: Optical Channel Network Connection (OCHNC) Circuits
- Discovery Lab 5: Optical Channel Client Connection (OCHCC) Circuits
- Discovery Lab 6: Creating 400-Gbps Xponder OTN Circuits
- Discovery Lab 7: Colorless Ports and Circuits
- Discovery Lab 8: Contentionless Circuits
- Discovery Lab 9: Performing the Optical Time Domain Reflectometer (OTDR) Test
- Discovery Lab 10: Maintenance and Performance Monitoring
- Discovery Lab 11: NCS 2000 Troubleshooting
- Discovery Lab 12: Configuring SSON Circuits

Flere Informationer:

For yderligere informationer eller booking af kursus, kontakt os på tlf.nr.: 44 88 18 00

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