

# Cisco NCS 2000 Series Deploying 96-Channel Flex Spectrum (OPT201)

**ID** OPT201 **Price** on request **Duration** 3 days

## Course Overview

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

## How you'll benefit

This class will help you:

- Gain an in-depth understanding of how to install, deploy, and maintain a Cisco Optical Networking Services (ONS) 15454 Multiple Spanning Tree Protocol (MSTP) network
- Practice what you learn through hands-on labs
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## Who should attend

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

## 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.

## Course Objectives

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

#### **Detailed Course 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

# About Fast Lane



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