

# High-Touch Delivery Learning Services

## Cisco Encoder D9036 Operations Training (ENCOPS)



This instructor-led course offered by High-Touch Delivery Learning Services provides hands-on practice configuring and operating a Cisco® encoder. Students are introduced to the hardware and software, basic Virtual Service Encoder (VSE) configuration for video and audio encoding; configuring the encoder to insert system information tables for DVB applications and to insert messages for digital programming insertion (DPI) applications; and perform basic operations such as alarm monitoring, license management, backup and restore configuration files, and restarting the unit.

### Duration

Two days.

### Target Audience

This course is designed for technical professionals who need to know how to configure and operate a Cisco encoder. The primary audience for this course includes:

- System engineers
- Technical support personnel
- Channel partners, resellers

### Course Objectives

Upon completion of this course, you should be able to:

- Describe the hardware and software features of a Cisco encoder
- Configure and use a Cisco encoder to perform basic video and audio encoding by configuring virtual service encoders (VSEs) and to output encoded transport streams
- Describe how to use the encoder to output SI/PSI tables and DPI messages, how to add the encoder to a StatMux pool, and the basic equipment needed for a redundancy topology
- Perform basic encoder operations to monitor the user interface alarms, manage licenses, back up and restore configuration files, configure GbE port backup, and restart the unit if needed

## Course Prerequisites

Following are the prerequisites for this course:

- Knowledge of video compression or completion of the Intro to Video Compression course is required.
- Attendees should have experience in cable television signaling.

To locate Cisco courses that cover the listed prerequisites, refer to [www.cisco.com/go/ase](http://www.cisco.com/go/ase).

## Course Outline

The course outline is as follows:

- Module 1: Encoder Basics
  - The Role of Encoders in Media Content Flow
    - What Is an Encoder?
  - Main Encoder Features
    - Encoders and MPEG Transport Streams
    - Model and Feature Examples
    - ROSA Network Management System (NMS) and ROSA Video Service Management (VSM) Support
    - PowerVu Support
  - Hardware Features
    - Front Panel
    - Cooling
    - Rear Panel
    - Modular Platform Cards (Modules)
  - Using the GUI
    - Connecting and Logging On
    - The Encoder Graphical User Interface (GUI)
    - Basic GUI Setup
    - Finding Version and Serial Numbers
- Module 2: VSE Creation
  - Adding a VSE
    - VSE Basics
    - VSE Resource Utilization
    - Adding a VSE
  - Configuring the VSE Components
    - Configuring Video Components
    - Configuring Audio Components
    - Configuring VBI Components
  - Insert the VSE Service into an Outgoing Stream
    - Inserting a VSE Service into Outgoing Transport Stream
    - Configuring Outgoing Ports, Transport Streams, and Services
- Module 3: Feature Overview
  - Multiplexing Outgoing Streams
    - What Is Multiplexing?
    - Component Passing, Blocking, and Remapping Fundamentals
    - Editing a Default Tracking Rule
  - Generating PSI/SI Tables
    - PSI/SI Table Basics
    - Generating the PSI/SI Tables
  - Inserting Digital Program Insertion (DPI) Messages
    - Digital Program Insertion Fundamentals
    - Encoder DPI Triggers
    - Use the Interface to Configure DPI Messages
  - Adding the Encoder to a Statmux Pool
    - Statistical Multiplexing (Statmux) Fundamentals
    - Configuring the Encoder for a Statmux Pool

## High-Touch Delivery Learning Services

- Module 4: Operations
  - Alarm Monitoring
    - Configuring Alarms
    - Viewing Alarms
    - Alarm History
  - Trace Logs
    - Overview
    - Viewing Trace Logs
  - License Management
    - License Overview
    - Upgrade and Install a License File
    - Transfer Wizard
  - Customizing Output on the MIO Card
    - The MIO Card Ports
    - Configuring the I/O Card Default Settings
    - Configuring the Address Resolution Protocol
    - Configuring a Static Route for the MIO Card
    - Configuring the ASI Ports
    - Configuring the GbE Ports
  - Upgrading the Firmware
    - Upgrading the Software
  - Backup, Restore, and Restart
    - Backup and Restore Configuration Files
    - GbE Port Backup
    - Redundancy Scenarios
    - Restart the System

### Registration Emails

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Tandberg telepresence solutions: [telepresencetraining@cisco.com](mailto:telepresencetraining@cisco.com).

### Website Addresses for More Information

Cisco classic products and technologies: [www.cisco.com/go/ase](http://www.cisco.com/go/ase).

Telepresence solutions training: [www.telepresenceeu.com/](http://www.telepresenceeu.com/).

Broadband video training for service providers: [www.cisco.com/go/spvtraining](http://www.cisco.com/go/spvtraining).



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