

High-Touch Delivery Learning Services

Operating and Maintaining a Cisco DCM (DCMOM)



The Operating and Maintaining a Cisco Digital Content Manager (DCM) instructor-led course provides the student with the knowledge and skills required to operate and maintain this complex component used to process MPEG video streams for transport. This task-based course will give you the knowledge and skills to configure the Cisco® DCM. Hands-on practical exercises will enable you to apply your skills. Select exercises are used for key tasks common to Cisco DCM implementation in a broadband network.

Duration

Two days.

Target Audience

This course is designed for technical professionals who need to know how to operate and maintain a Cisco DCM in their network environment. 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:

- Identify DCM hardware components and describe their functions
- Use the DCM's GUI to configure basic service settings and transport stream parameters such as bandwidth settings, MPEG program numbers, PID numbers, and multicast addresses
- Use the DCM's GUI to successfully:
 - Multiplex services from input ports to output ports
 - Reduce and manage the bandwidth of services
 - Switch local content to support targeted advertising campaigns
 - Configure DCM redundancy features to make sure of service continuity
- Use the DCM GUI to configure and monitor system performance

Course Prerequisites

Following are the prerequisites for this course:

- MPEG processing fundamentals and terminology.
- Recommended course: Introduction to Video Compression

To locate Cisco courses that cover the listed prerequisites, refer to www.cisco.com/go/ase.

Course Outline

The course outline is as follows:

I. DCM Functions

- DCM Role in Video Delivery
- The MPEG Transport Stream
- Multiplexing
- Transrating
- Digital Program Insertion
- Forward Error Correction
- Scrambling/Descrambling
- Transcoding

II. DCM Hardware

- DCM Models
- DCM Front and Back Panel Features
- ASI Card
- GbE Card
- Coprocessor Plug-In
- FEC Card
- 8VSB Card
- Other Available Cards and Hardware Elements

III. DCM Interface Overview

- Menus and Submenus
- Tree View
- Icons
- Alarms View

IV. Device Setup

- General Default Settings
- Accessing the Configuration Interface
- Hardware and Software Version
- Setting Device Name and Clock
- Setting IP Address of Management Ports
- Connecting the Management Port
- Checking Licenses

V. Card Configuration

- A. Accessing the Configuration Menu
- B. ASI Card Interface and Configuration
- C. GbE Port Interface and Configuration
- D. Configuring the IP Aliasing Feature
- E. Status Subpage
- F. Setting Default Input/Output Values

VI. Modifying Incoming and Outgoing Transport Streams (TSs)

- A. Modifying Incoming TS Settings
- B. Modifying Incoming TS Service Parameters
- C. Methods for Building Outgoing Streams
- D. Creating and Modifying Outgoing Streams on the ASI Card
- E. Creating and Modifying Outgoing Streams on the GbE Card

VII. Transrating

- A. Overview
- B. Bit-Rate Limiting
- C. Statistical Multiplexing
- D. Pass Through
- E. Creating and Modifying Transrating Groups
- F. Licenses/Video Processing Units

VIII. Digital Program Insertion (DPI)

- A. Overview
- B. Splicing Events
- C. Trigger Splicing Events
- D. Using the Advance Routing Screen
- E. Licenses/Video Processing Units

IX. DCM Redundancy

- A. Types of Redundancy
- B. IP Aliasing
- C. Port Backup and Mirroring
- D. TS Backup
- E. Service Backup

X. Maintenance

- A. Device Reboot and Factory Default
- B. Creating and Deleting User Accounts
- C. ESD
- D. Importing Configuration Files
- E. Device Status
- F. Bit-Rate Status
- G. Input Status per TS or Service
- H. Output Status per TS or Service
- I. Alarms

Lab Outline

The lab outline is as follows:

- Lab 1: Getting Help
- Lab 2: Taming the Sub-Menu
- Lab 3: Device Configuration
- Lab 4: ASI and GbE Card/Port Configuration
- Lab 5: Building and Modifying Transport Streams
- Lab 6: Building Transrating Groups
- Lab 7: Digital Program Insertion
- Lab 8: Service Backup
- Lab 9: Maintenance

Registration Information

For more information about schedules and registration for this course, contact aeskt_registration@cisco.com.

For More Information

For more information on High-Touch Delivery Learning Services for Cisco classic products and technologies, refer to www.cisco.com/go/ase.

For information on Cisco TelePresence® training, refer to www.telepresenceu.com/.

For information on broadband video training for service providers, refer to www.cisco.com/go/spvtraining.

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