Implementing CiscoWorks LMS
Course CWLMS v4.0; 5 Days, Instructor-led

Course Description
Implementing CiscoWorks LMS (CWLMS) v4.0 teaches learners how to use the CiscoWorks LAN Management Solution (LMS) 4.0 to manage their network. The focus is to find the correct tools within CiscoWorks to document the network inventory, manage device configurations, control software updates, monitor performance, troubleshoot faults, and simplify the deployment of new Cisco technologies.

Objectives
Upon completing this course, the learner will be able to meet these overall objectives:
- Describe fundamental network management concepts and introduce the features of CiscoWorks LMS 4.0
- Install CiscoWorks LMS 4.0, log into the portal for the first time, and use the Getting Started workflow to configure the server
- Explore and customize the dashboards in My Menu, manage portlets, and change the portal layout
- Manage the network device inventory
- Manage network device configurations and software images.
- Monitor and troubleshoot the network
- Use the Work Centers to perform complete lifecycle management of network devices
- Perform advanced administration tasks in CiscoWorks LMS

Prerequisites
The knowledge and skills that a learner must have before attending this course are as follows:
- Knowledge of basic Cisco IOS commands, Cisco Catalyst operating system commands, and TCP/IP
- Basic Microsoft Windows and Internet browser navigation skills
- Basic e-mail usage skills

Who Should Attend
The primary audience for this course is as follows:
- Network administrators
- Network managers
The secondary audience for this course is as follows:

- Network designers
- Network engineers
- Systems engineers

Course Outline

Module 1: Introduction to CiscoWorks LMS 4.0

- Lesson 1: Defining Network Management
  - What Is Network Management?
  - What Is FCAPS?
  - Benefits of Network Management
- Lesson 2: Exploring the Network Management Process
  - Performing Network Management
  - Standards for Information—MIB
  - Standards for Communication—SNMP
- Lesson 3: Introducing CiscoWorks LMS 4.0
  - CiscoWorks LMS 4.0 Overview
  - CiscoWorks LMS Menus
  - Fault Toolbar
  - Banner Interface Elements

Module 2: Getting Started

- Lesson 1: Installing CiscoWorks LMS 4.0
  - Preparing to Install CiscoWorks LMS 4.0
  - CiscoWorks LMS Deployment Options and Requirements
  - Installing CiscoWorks LMS 4.0
- Lesson 2: Logging into CiscoWorks LMS 4.0
  - Securely Log into CiscoWorks LMS
  - Navigate the CiscoWorks LMS Portal
- Lesson 3: Using the Getting Started Workflow
  - Introduction
  - Data Migration
  - General System Settings
  - Multi-server Configuration
  - Other System Settings
  - Device Management
  - User Management
  - Software and Device Updates
  - Advanced Configurations

Module 3: My Menu

- Lesson 1: Understanding My Menu
  - My Menu Dashboards
CiscoWorks Campus Manager Applications

- Lesson 2: Managing Dashboards, Portlets, and Portal Layout
  - Managing the Dashboards
  - Adding and Configuring Portlets
  - Changing the Portal Layout

Module 4: Inventory Management

- Lesson 1: Collecting Inventory and End User Information
  - Inventory Collection Settings
  - User Tracking Collection Settings
  - Device Credentials Verification
- Lesson 2: Performing Device Administration
  - Overview of Device Administration
  - Add, Import, and Manage Devices
  - Manage Device State
  - Discovery
  - Device Aliases
  - Device Allocation Policy
  - Add as Managed Devices
  - IPSLA Devices
  - Manage Auto Update Server
- Lesson 3: Viewing and Creating Inventory, User Tracking, and Switch Port Reports
  - Inventory Reports
  - Create Inventory Reports
  - View User Tracking Reports
  - Create User Tracking Reports
  - View Switch Port Reports
- Lesson 4: Using Inventory Tools
  - CiscoView
  - Device Center
  - Mini-RMON
  - SmartCase

Module 5: Configuration and Software Management

- Lesson 1: Managing the Configuration Archive
  - Archive Management Overview
  - Configuration Archive Collection Settings
  - Configuration Archive Summary
  - Configuration Archive Views
  - Configuration Archive Synchronization
  - Configuration Archive Compare Configs
  - Configuration Archive Label Configs
  - Configuration Archive Protocol Usage Summary
• Lesson 2: Verifying Configuration Compliance
  o Out-of-Sync Summary
  o Compliance Templates
• Lesson 3: Using Configuration Tools
  o Config Editor
  o NetConfig
  o Template Center
  o Software Image Management
• Lesson 4: Using Configuration Workflows
  o VLAN Workflow
  o VFR Lite
  o Virtual Switching System

Module 6: Network Monitoring and Troubleshooting
• Lesson 1: Visualizing the Network with Topology Services
  o Data Collection Settings
  o Monitor and Troubleshooting Settings
  o Launching Topology Services
  o Viewing Devices in the Network Views
  o Viewing VTP Domains and VTP Views
  o Viewing Topology Groups
  o Using Topology Filters
  o Managing Topology Devices and Links
  o Managing Maps in Topology Services
  o Viewing Reports from Topology Services
• Lesson 2: Monitoring Network Performance
  o Performance Settings
  o Threshold Settings
  o Performance Reports
  o Monitoring Dashboard
• Lesson 3: Monitoring Network Response Time
  o What is Cisco IP SLA?
  o IP SLA Devices
  o IP SLA Operations
  o IP SLA Collectors
  o User-Defined Collector Groups
  o IPSLA Outage Settings
  o IPSLA Detailed Reports and Graphs
  o IPSLA Summary Reports
  o IPSLA System Summary Reports
  o IPSLA Report Archives
• Lesson 4: Monitoring Syslog Messages
• Lesson 5: Monitoring Network Faults
  o Fault Collection Settings
  o Fault Group Management
  o Fault Settings Setup
  o Monitoring Tools
  o Fault Notifications and Action Settings
  o Fault and Event History
  o Fault History Purge Settings
  o Best Practices Deviation Settings
  o Fault and Event Best Practices Reports

• Lesson 6: Using Troubleshooting Tools
  o NetShow
  o Troubleshooting Workflows
  o VRF Lite

Module 7: CiscoWorks LMS Work Centers
• Lesson 1: Using the Smart Install Work Center
  o Getting Started with Smart Install
  o Manage Files for Smart Install Provisioning
  o Provision Smart Install in the Network
  o Troubleshoot Smart Install

• Lesson 2: Using the Identity Work Center
  o Getting Started with Identity
  o Prepare for Identity Provisioning
  o Provision Identity in the Network
  o Identity Job Browser

• Lesson 3: Using the Auto Smartports Work Center
  o Getting Started with Auto Smartports
  o Provision ASP in the Network
  o Provision ASP Interfaces
  o Configure MAC-Based Groups
  o Troubleshoot Auto Smartports

• Lesson 4: Using the EnergyWise Work Center
  o Getting Started with EnergyWise
  o Enable Switches
  o Manage Endpoint Groups
Module 8: CiscoWorks LMS Administration

- **Lesson 1: Using the Trust Management Menu**
  - Local Server Menu
  - Multi Server Menu

- **Lesson 2: Managing Collection Settings**
  - Config Menu
  - Data Collection Menu
  - Fault Menu
  - Inventory Menu
  - Performance Menu
  - Syslog Menu
  - User Tracking Menu
  - VRF Lite Menu

- **Lesson 3: Performing Network Administration Tasks**
  - Change Audit Settings Menu
  - Discovery Settings Menu
  - PSIRT/EOS and EOL Settings Menu
  - Configuration Job Settings Menu
  - Device Credential Settings Menu
  - Display Settings Menu
  - Monitor/Troubleshoot Menu
  - Notification and Action Settings Menu
  - Purge Settings Menu
  - Resource Browser Menu
  - Software Image Management Menu
  - Best Practices Deviation Settings Menu

- **Lesson 4: Performing System Administration Tasks**
  - Authentication Mode Setup Menu
  - Backup Menu
  - Cisco.com Settings Menu
  - Debug Settings Menu
  - Group Management Menu
  - License Management Menu
  - Log Rotation Menu
  - Server Monitoring Menu
  - Device Management Functions Menu
  - SMTP Default Server Menu
  - Software Center Menu
System Preferences Menu
- User Management

Lesson 5: Performing Other Administrative Tasks
- CiscoWorks LMS Application Port Usage
- Configure Network Devices for CiscoWorks LMS
- CiscoWorks LMS Glossary

Lab Outline
- Lab 2-1: Logging into CiscoWorks
- Lab 2-2: Using the Getting Started Workflow
- Lab 3-1: Managing My Menu
- Lab 4-1: Collecting Inventory and End User Information
- Lab 4-2: Performing Device Administration
- Lab 4-3: Viewing and Creating Inventory and User Tracking Reports
- Lab 4-4: Using Inventory Tools
- Lab 5-1: Managing the Configuration Archive
- Lab 5-2: Verifying Configuration Compliance
- Lab 5-3: Using Config Editor
- Lab 5-4: Using NetConfig
- Lab 5-5: Using Template Center
- Lab 5-6: Using Software Image Management
- Lab 5-7: Using the VLAN Workflow
- Lab 6-1: Using Topology Services
- Lab 6-2: Monitoring Network Performance
- Lab 6-3: Monitoring Network Response Time
- Lab 6-4: Monitoring Syslog Messages
- Lab 6-5: Monitoring Network Faults
- Lab 6-6: Deploying NetShow Commands
- Lab 6-7: Using Troubleshooting Workflows
- Lab 7-1: Using Smart Install Work Center
- Lab 7-2: Using Identity Work Center
- Lab 7-3: Using Auto Smartports Work Center
- Lab 7-4: Using EnergyWise Work Center