
Implementing the Application Control Engine Service Module

Duration: 4 Days **Course Code: ACESM**

Overview:

The Implementing the Application Control Engine Service Module (ACESM) course teaches delegates how to design, deploy and optimize intelligent network services using the Cisco (ACE) Application Control Engine Module for the Catalyst 6500 Switch. All key features of the ACE 2.0 software, including resource virtualisation and management, server load balancing (Layer 2-4 and Layer 7), SSL termination and offload, and security features like application-layer inspection and fix-ups

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Target Audience:

This course is designed for: Technical engineers and network architects who need to design or deploy server load-balancing solutions using the Cisco ACE module.

Objectives:

- Upon completing this course, the learner will be able to meet these overall objectives:
 - Describe IP application delivery with the ACE module
 - Describe the structure and function of the Modular Policy CLI statements used to configure ACE features
 - Describe the capabilities the ACE module used to load balance IP-based applications
 - Identify the layer 7 processing options used to provide advanced application networking
 - Create new contexts and resource classes
 - Create class maps and serverfarms
 - Configure an ACE context load balance traffic flows
 - Configure an ACE context to monitor real servers
 - Implement fixups and inspection
 - Describe the ACE features that provide IP application security
 - Implement SSL termination
 - Configure network address translations
 - Describe the high availability features of the ACE module
 - Configure an ACE context to perform a variety functions in an integrated environment
 - Troubleshoot common SLB configuration errors
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Prerequisites:

The knowledge and skills that a learner must have before attending this course are as follows:

- TCP / IP protocol
 - HTTP and SSL protocols
 - N-tier application architecture
 - Server load-balancing
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Content:

Introducing Cisco ACE Module

- IP Protocol Stack Review
- IP Application Review
- Introducing the Cisco ACE Module

Deploying Cisco ACE Module

- Connecting ACE to the Network
- Network Topologies
- Virtualisation
- Resource Management
- Authorizing Management Users
- Configuring Interfaces

Configuring Modular Policy CLI

- Class Maps
- Policy Maps
- Applying Policy Maps

Managing the Cisco ACE Module

- Permitting Management Traffic
- SNMP Manageability

Understanding Security Features

- IP Access Control Lists
- ACL Object Groups
- SYN Cookies
- TCP/IP Fragmentation/Reassembly
- TCP/IP Normalisation
- Network Address Translation and Port Address Translation

Configuring Layer 4 Load Balancing

- Load Balancing Concepts
- Load Balancing Algorithms
- Configuring Layer 4 Load Balancing
- Traffic Rate Limiting

Health Monitoring

- Health Monitoring Overview
- Active Health Probes
- HTTP Error Code Monitoring
- Using TCL Scripting
- Route Health Injection
- Backup Servers/Server Farms
- KAL-AP Integration

Configuring Layer 7 Protocol Processing

- HTTP Layer 7 Load Balancing
- Persistent and Pipelined HTTP Extensions
- HTTP Modifications
- Session Persistence
- HTTP Inspection
- FTP Processing
- RDP Processing
- Radius Processing
- SIP Processing
- Generic Protocol Parsing
- Inspected Protocols

Processing Secure Connections

- Digital Encryption Technologies
- SSL Service Options
- Configuring a Public-Key Infrastructure
- Configuring SSL Proxy Services

Understanding High Availability

- Redundancy
- Object Tracking
- Failover
- State Replication
- Displaying Fault Tolerance Information
- Configuring Multiple Integrated Features.

Integrating Multiple Features

- Analysing Network Requirements
- Designing ACE Contexts
- Designing ACE features
- Configuring Multiple Integrated Features

Further Information:

For More information, or to book your course, please call us on 00 971 4 446 4987

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