

## Advanced Services' Cisco Secure Access Control Server Rel. 4.2 (ACS) v2



This course teaches you how to provide secure access to your network using the Cisco® Secure Access Control Server (ACS) Release 4.2 and to monitor and generate reports with ACS View. You will gain a thorough understanding of the operation of the Cisco Secure ACS to control access to network services and devices. Course subjects include the principles of authentication, to restrict user access to networks, services, and devices; authorization, to restrict the functions users can perform on services and devices; and accounting, to track the activities of users. The RADIUS, TACACS+, Extensible Authentication Protocol (EAP), and 802.1x protocols are discussed in theory and practice as the basis of network security. Specific methods and configurations are shown that can be used in your production networks to achieve targeted and detailed restrictions. The course includes hands-on labs to provide personal experience in configuring the Cisco ACS and ACS View and Cisco network devices.

### **Duration**

Four days.

### **Target Audience**

This course is for network administrators, network operators, and system administrators responsible for securing their networks to assure authorized access only by authenticated users, with accounting of their activities.

### **Course Objectives**

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

- Describe the importance of network access security needs and challenges associated with a network
- Understand the features, functions, and benefits of the Cisco Secure ACS and ACS View
- Integrate Cisco Secure ACS with external user databases, such as Windows Active Directory

- Configure Cisco Secure ACS and Cisco IOS® Software to implement AAA features for typical scenarios: VPN remote access, wired/wireless 802.1x network access, and device administration access
- Effectively use Cisco Secure ACS to:
  - Control access to the network and to network services by remote VPN, wireless, or wired users
  - Control the authority to perform specific functions
  - Record and audit the activity of users on the network and on services
- Effectively use Cisco Secure ACS View to:
  - Collect and consolidate ACS server logs and configuration data
  - Generate access, system, and entitlement reports as well as custom and favorite reports
  - Schedule (daily/weekly/monthly) reports in HTML, PDF, and CSV formats
  - Monitor ACS system health
  - Create real-time thresholds on specified conditions and monitor/forward alerts

### Course Prerequisites

Following are the prerequisites for this course:

- Understanding of TCP/IP networking
- AAA security concepts and terminology
- Basic understanding of security challenges facing networks
- Basic Microsoft Windows system administration
- Basic Cisco IOS Software router and switch configuration (CCNA® certifications equivalent)
- Basic Cisco ASA (Adaptive Security Appliance 5500) or VPN concentrator configuration
- Internet Web browser use

To locate Cisco courses that cover the listed prerequisites, go to the Cisco Training and Events webpage at [www.cisco.com/web/learning/index.html](http://www.cisco.com/web/learning/index.html).

### Course Outline

The course outline is as follows:

- Module 1: Introduction
  - Access Control in the Network
  - AAA Concepts/Technology
  - Cisco Secure ACS/ACS View Product Overviews
- Module 2: Getting Started
  - ACS Server Installation and Initial Configuration
  - ACS View Installation and Initial Configuration
- Module 3: Network Access Scenarios
  - Remote VPN Access Scenarios
  - Wired/Wireless 802.1x Scenario
- Module 4: Device Administration Scenarios
  - Securing Device Administration using Network Access Restrictions (NAR)

- Securing Device Administration Using Privilege Levels and CLI View
- Securing Device Administration Using Command Authorization Sets
- Module 5: Other Deployment Topics
  - Scalability and Performance
  - Database Replication

## Lab Outline

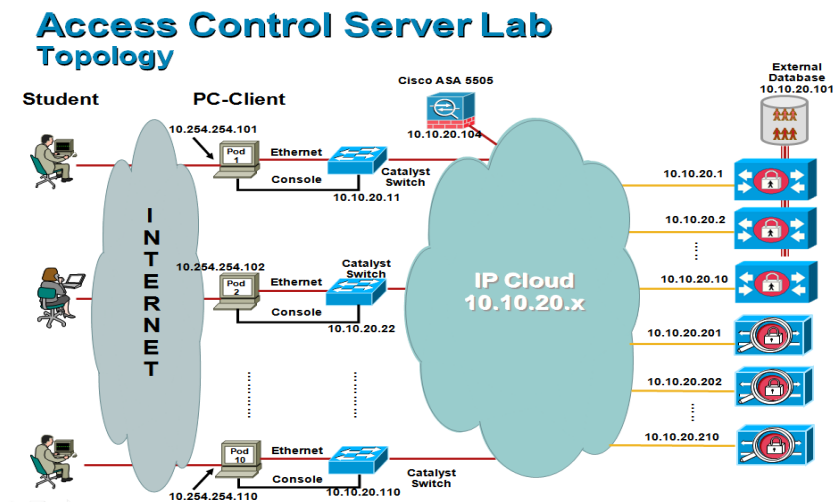
The lab outline is as follows:

- Module 2: Getting Started
  - Lab 2-1: ACS Windows Installation and ACS View Appliance Setup
  - Lab 2-2: Administering the ACS Windows Server
  - Lab 2-3: Administering the ACS View Server
- Module 3: Network Access Scenarios
  - Lab 3-1: Network Conguration (RADIUS)
  - Lab 3-2: Remote Access (VPN) Profile
  - Lab 3-3: Network Configuration (802.1x)
  - Lab 3-4' Wired/Wireless 802.1x Profile
- Module 4: Device Administration Scenarios
  - Lab 4-1: Network Conguration (TACACS+)
  - Lab 4-2: Network Access Restrictions
  - Lab 4-3: Command Authorization Sets

## Lab Topology

Figure 1 shows the lab topology that is used in this course.

Figure 1. Lab Topology of Cisco Secure ACS 4.2



## Registration Information

For more information about schedules and registration for this course, contact [aeskt\\_registration@cisco.com](mailto:aeskt_registration@cisco.com).

## For More Information

For more information about Advanced Services Education course offerings, including custom training options, as well as Advanced Services Curriculum Planning Services and the Advanced Services Technical Knowledge Library (TKL), refer to the Advanced Services Education website at [www.cisco.com/go/ase](http://www.cisco.com/go/ase).



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