

Advanced Services' Service Control Application for Broadband Training (SCA BB) v5



This course provides knowledge and hands-on experience with the Cisco® Service Control Application for Broadband (SCA BB). Students gain knowledge about the elements of this solution, including the Cisco Service Control Engine (SCE), SCA BB Console, Cisco Subscriber Manager, and Cisco Collection Manager plus the Reporter, Service Configuration Editor, and Protocol Signature Editor tools. This course provides information to run and configure an SCA BB solution for bandwidth control using several different subscriber modes: subscriberless; anonymous subscribers; subscriber aware in push mode; subscriber aware in pull mode; and using a RADIUS or Dynamic Host Configuration Protocol (DHCP) authentication, authorization, and accounting (AAA) system.

SCA BB is offered in a traditional classroom or as an interactive virtual live classroom training delivered over Cisco WebEx® conferencing. Both versions are led by the same knowledgeable instructors. The course materials are the same (although minor changes are made to accommodate the virtual live classroom environment), and both versions have the same hands-on labs. This delivery method offers the same learning experience as the traditional version with the added benefit of remote attendance and access.

Duration

- Instructor-led offering: Four days, eight hours a day
- Virtual live classroom offering: Five days, six hours a day

The virtual live classroom offering allows you to attend the live instruction, along with getting access to lab equipment, without leaving your office. For more information about the virtual live classroom delivery format, go to www.cisco.com/go/ase.

Target Audience

This course is intended for people designing, deploying, or supporting SCA BB.

Course Objectives

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

- Describe the uses and benefits of bandwidth control provided by an SCE solution
- Identify the steps and procedures for installing an SCE solution
- Configure an SCE solution for building a site containing SCE, Subscriber Manager, Collection Manager, Quota Manager and a database
- Implement subscriberless global bandwidth controls
- Generate detail reports on bandwidth usage by subscribers and service usage
- Load static users into the SCE
- Configure anonymous users using the CLI on the SCE
- Configure subscribers using the Subscriber Manager application
- Load a file containing subscriber information into the Subscriber Manager
- Integrate an SCE solution with a RADIUS system
- Implement optimized bandwidth controls for multitiered groups of subscribers
- Configure priorities for services for subscribers to optimize bandwidth usage
- Configure quota limits for subscriber usage for types of services
- Create time-based bandwidth controls for subscribers
- Create greater classification enhancement and refinement through the use of zones
- Configure the SCE for sending Raw Data Records (RDR)
- Configure the Collection Manager for the collection and storage of usage data
- Configure the Reporter for creating reports and customize the display for those reports.
- Describe the use of Quota Manager
- Implement combinations of bandwidth controls, quota, time-based, and tiered services to provide comprehensive subscriber bandwidth controls
- Describe the functionality and purpose of virtual links
- Describe the primary points and effects on overall system design with an SCE solution using policy servers, value-added services (VAS), and high-availability considerations
- Describe security issues and an SCE use of filters, spam protection, distributed denial of service (DDOS) protection, worm controls, and anomaly detection
- Analyze traffic and create new protocol signature

Course Prerequisites

Following are the prerequisites for this course:

- Basic understanding of internet protocols
- Basic knowledge of IP addressing

To locate Cisco courses that cover the listed prerequisites, go to the Cisco Training and Events web page at www.cisco.com/web/learning/index.html.

Course Outline

- Course Introduction
- Describe the Cisco SCA BB Components and System Configuration
- Configure Global Bandwidth Controls
- Configure Subscriber Modes and Use Subscriber Manager
- Define and Configure Bandwidth Control Methods
- Understand and Use RDRs, Collection Manager, and Reports
- Configure Quota Management
- Usage and Integration of SCA BB with Other Components

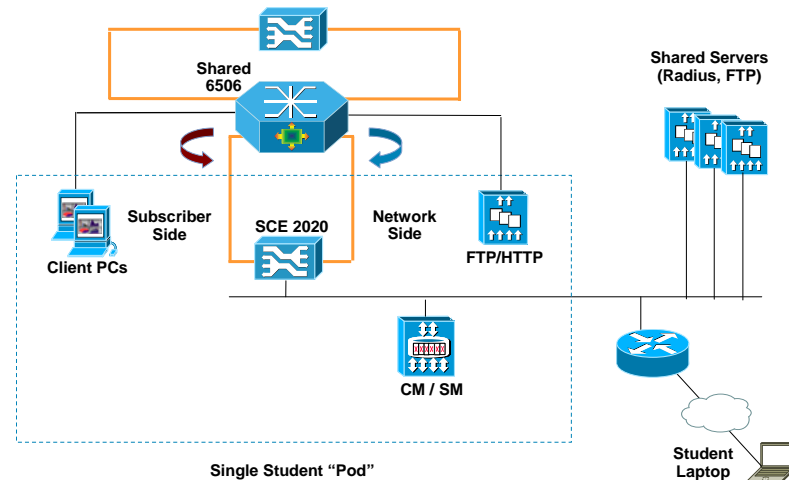
Lab Exercises

- Defining a Site
- Cisco SCE Configuration
- Global Controller
- Filtering Traffic
- Anonymous Subscribers in the Cisco SCE
- Named Subscribers and the Cisco SCE
- Cisco SCE and Subscriber Manager in Push Mode
- Cisco SCE and Subscriber Manager in Pull Mode
- Relative Priority
- Extra Bandwidth Controller
- Service Control
- Remarking ToS
- Quota for Kilobytes
- Quota for Sessions
- Signature Creation

Lab Topology

Figure 1 shows the lab topology used in this course.

Figure 1 Lab Network Topology



Registration Information

For more information about schedules and registration for this course, contact 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.



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