BBSM Basics

This appendix provides a general overview of BBSM and its inner workings. For more detail, visit the BBSM web site at http://www.cisco.com.

Today's building networks require a complex combination of multiple technologies to deliver broadband services to end users. Service providers are pushing higher-and higher-speed bandwidth to the network edge. Many types of buildings; hotels, apartments, office buildings, airport concourses, even cruise ships benefit from the availability of T1, T3, and higher-speed network connections. As high-speed connections become universally available, service providers need to provide an effective solution for managing the provisioning and delivery of broadband services to building occupants.

Figure A-1 Typical Cisco BBSM Building Network

Cisco BBSM manages the delivery of broadband services and all network components required for broadband services delivery. Cisco BBSM is a software application that works with a general-purpose operating system and database platform that interact with policy servers as well as intelligent network devices to manage service delivery. Cisco BBSM allows service providers to deliver specific policies to each network access port where users connect. These policies, available on a per-port, per building, or per-user basis, include:

- Multiple access methods—Ethernet, wireless, Long Reach Ethernet (LRE), DSL, and cable
- Multiple authentication methods—port-based, RADIUS, prepaid accounts
- Multiple payment methods—charge to property management system, credit card, RADIUS account, access codes
- Multiple portal options—forced portal, “walled-garden,” free access, custom connect screens
- Multiple bandwidth options—multiple limited bandwidth options

Cisco BBSM essentially combines all network access control and management functions normally contained in multiple servers into one compact management device sized for deployment in the building network environment.

The Cisco BBSM server in Figure A-1 is the unifying agent that integrates the multiple in-building technologies into a complete solution. The Cisco BBSM server manages several key functions:

- Access—Cisco BBSM enables user access regardless of their network interface configurations.
- Authentication—Cisco BBSM supports multiple authentication methods.
- Accounting—Cisco BBSM accounts for usage and collects payment using multiple methods, including:
  - Direct posting of charges to a hotel property management system (PMS) for users connecting from guest rooms
  - Charge processing by a remote credit card processing service; this enables payment from any location on a property
  - Subscribers or prepaid users can authenticate via RADIUS and pay through offline methods
  - Meeting room attendees can use broadband access paid for via access codes

  PMS interface and credit card billing also enable “impulse” charges for additional bandwidth or future value-added services. Billing can be based on full-day or time-block increments.
- Portal—Cisco BBSM redirects all users through two steps during connection. First, they are directed to a Connect Screen, which explains the services available to them, including potentially multiple bandwidth and price options; Walled Garden free access areas, such as local sites, advertising, or weather; and a link to the hotel or property owners' home page. Once users select and purchase service, they are directed to a portal page as their first location on the Internet. This provides a second branding and marketing opportunity.
- Network Buildout and Configuration—Cisco BBSM includes multiple features designed to support network installation, configuration, and testing.