


Cisco BBSM

Version 5.1



Cisco Building Broadband Service Manager (BBSM) software expands its powerful feature set with the release of version 5.1. The release provides increased functionality for applications in hotels, public wireless access zones, and limited bandwidth situations.

BBSM 5.1 will ship October 8, 2001. It will use the same product number and pricing as BBSM version 5.0. The upgrade utility for existing installs will be available in early November.

The new features of BBSM 5.1 are:

- **RADIUS Accounting Support**—Previously BBSM supported only RADIUS Authentication. Version 5.1 adds RADIUS Accounting support, allowing BBSM to automatically transmit accounting records to a RADIUS server. By using the RADIUS NAS identifier combined with a RADIUS session ID, unique records can be tracked across multiple BBSM servers.
- **Port Hopping**—Allows a user to transparently hop from wired port to wired port or wireless port to wireless port, providing user mobility within a site.
- **Expanded Walled Garden Functionality**—Supports unlimited walled garden entries, which are entered as an individual IP addresses or an entire subnet.

- **Maximum Sessions Limit**—Allows installation to assign a maximum number of concurrent sessions thereby preventing the WAN link from becoming over-subscribed. If a user starts a session that exceeds the configured limit, BBSM redirects the user to a “system busy” Web page that can be customized.
- **Building Broadband Service Director (BBSD)**—is a server-based product for directing multiple Building Broadband Service Manager (BBSM) servers in the field. BBSD allows a service provider or large property owner/manager to centrally maintain, manage and report on multiple BBSM servers. BBSD provides a cost-effective way to manage a building Broadband service network.

Wireless Hotspots

Wi-Fi (802.11) wireless hotspots are primary applications for the 5.1 release. BBSM provides subscriber membership using RADIUS authentication. Users that do not want to subscribe, have a choice of other payment methods such as credit cards or access codes. When a RADIUS session is authorized, the BBSM tracks the length of the session in minutes while allowing the user to move between wireless access



points in a site. When the user ends the session, BBSM records the transaction and sends it to the RADIUS accounting server for further processing.

Tiered Service Offerings for Wireless Hotspots

BBSM's rate shaping feature has been extended to work with RADIUS accounting so that service providers can offer tiered service in wireless hotspots and other locations using a time-based pricing model. For cost-sensitive customers, the service provider can offer a maximum rate of 56Kbps at \$.05 per minute. For the customer requiring high-speed connectivity, the service provider can offer an unthrottled service at a higher price per minute. With BBSM 5.1, tiered packages with different connectivity rates can be created and used to upsell higher premium packages. This feature is not only useful in wireless hotspots but can be applied to all MxU environments.

Property-wide Connectivity in Hotels

An additional benefit of BBSM 5.1 is support for roaming between wired ports. The port hopping feature allows users to connect laptops in guest rooms, public areas or conference areas without having to pay each time they access the Internet. The feature does not support connectivity from a wired port to a wireless 802.11 connection or vis-versa because the user would access the network using different Ethernet NIC adapters (with different MAC addresses). BBSM would identify the wired and wireless connections as two separate laptops and would be unable to provide access for the connection that was not originally registered. To offer a combination wired and wireless service in a hotel, a common web-based authentication method such as access codes would need to be implemented in both the guest room and the public areas.

Higher-Education Campus Environment

The combination of rich content capabilities with an integrated billing and authentication system has made BBSM a popular broadband service creation platform for university and college environments. Cisco BBSM 5.1

expands broadband capabilities for universities and colleges by providing easy access to information anywhere at anytime.

In addition to delivering high-speed broadband access to dormitory environments with RADIUS authentication, high-education institutions can now offer multiple services to students, faculty and guests via a variety of authentication and billing options.

- **Username and Passwords**—Many RADIUS servers can act as a front end to the Microsoft Windows Directory Service, Novell Netware Directory, Sun NIS+ user directories, and other user databases. BBSM authenticates the user using RADIUS and the university user database. BBSM can ensure that two computers on the network cannot use the same username simultaneously.
- **Rate Shaping**—This enables the school to offer a basic service level that might be free as part of the tuition charge or an IT services fee, and premium service levels that can be purchased as needed by students, faculty or staff. It helps manage high networking costs, prevents single users from tying up the network, and creates new revenue opportunities for the school.
- **Connect Screen and Forced Portal**—In a University environment, these can be actively managed community web sites that could feature student paper headlines and links, campus services links, and ads for pizza delivery and other essential services.
- **Credit Card**—For immediate billing and access, the end user could choose to enter a credit card and be billed by the minute for the service. This is a great option for one-time visitors to the campus or to enable impulse purchases of upgraded service levels by students and others.

BBSM's powerful ASP logic enables schools to extend and enhance their campus-wide internet access services.

BBSM Software Development Kit (SDK)

Cisco provides a software development kit for BBSM available for download at http://www.cisco.com/pcgi-bin/dev_support/access_level/product_support. The BBSM SDK for each software release is typically updated and available 45 days after the release begins shipping.

The SDK enables the following value added services:

- Customization and development services for BBSM Active Server Page Web screens which define the access policy for the port and present the branding to the end customer
- Installation services to configure and install BBSM software for various vertical building applications.
- Custom development of BBSM modules for billing and accounting interfaces to OSS systems.
- Custom development of BBSM modules for third party network hardware.
- Integration of BBSM billing features with external servers such as Microsoft Windows Terminal server for renting Microsoft Office applications in an application service provider environment.



Corporate Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 526-4100

European Headquarters
Cisco Systems Europe
11, Rue Camille Desmoulins
92782 Issy-les-Moulineaux
Cedex 9
France
www-europe.cisco.com
Tel: 33 1 58 04 60 00
Fax: 33 1 58 04 61 00

Americas Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-7660
Fax: 408 527-0883

Asia Pacific Headquarters
Cisco Systems Australia, Pty., Ltd
Level 9, 80 Pacific Highway
P.O. Box 469
North Sydney
NSW 2060 Australia
www.cisco.com
Tel: +61 2 8448 7100
Fax: +61 2 9957 4350

Cisco Systems has more than 200 offices in the following countries and regions. Addresses, phone numbers, and fax numbers are listed on the

Cisco Web site at www.cisco.com/go/offices

Argentina • Australia • Austria • Belgium • Brazil • Bulgaria • Canada • Chile • China PRC • Colombia • Costa Rica • Croatia
Czech Republic • Denmark • Dubai, UAE • Finland • France • Germany • Greece • Hong Kong SAR • Hungary • India • Indonesia
Ireland • Israel • Italy • Japan • Korea • Luxembourg • Malaysia • Mexico • The Netherlands • New Zealand • Norway • Peru
Philippines • Poland • Portugal • Puerto Rico • Romania • Russia • Saudi Arabia • Scotland • Singapore • Slovakia • Slovenia • South Africa
Spain • Sweden • Switzerland • Taiwan • Thailand • Turkey • Ukraine • United Kingdom • United States • Venezuela • Vietnam • Zimbabwe

Copyright © 2001, Cisco Systems, Inc. All rights reserved. Cisco, Cisco IOS, Cisco Systems, and the Cisco Systems logo are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the U.S. and certain other countries.

All other trademarks mentioned in this document or Web site are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0108R)

Printed in the USA

09/01 BW7640