



## Preface

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This guide is written for the personnel responsible for configuring and maintaining the Building Broadband Service Manager (BBSM). After BBSM has been configured, it is ready to be used. During daily operation, BBSM uses the information provided during configuration to recognize the sites, ports, switches, and other related network equipment. The feature enables service providers to offer Internet services on a port-by-port basis.



### Note

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The term *customer* refers to the BBSM purchaser, including individuals or organizations. The term *end user* refers to the customer of the service provider or property owner and the end user who accesses the Internet through the BBSM system.

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This guide is organized into the following chapters and appendixes:

- [Chapter 1, “Overview,”](#) provides an overview of the BBSM system, including media and deployment options, network interfaces, and system features.
- [Chapter 2, “Advanced Topics,”](#) provides detailed discussions of topics pertinent to the BBSM system, such as VLANs and VPN client.
- [Chapter 3, “Getting Started,”](#) describes the initial steps to setting up the BBSM server.
- [Chapter 4, “Configuring Dual VLANs,”](#) describes how to configure two VLANs.
- [Chapter 5, “Running the BBSM Wizards,”](#) describes how to use the Address Change Wizard to configure BBSM IP addresses and the Switch Discovery Wizard to discover the access points and switches on your network.
- [Chapter 6, “Configuring DNS Forwarding,”](#) provides the procedure for configuring DNS forwarding after running the Address Change and the Switch Discovery wizards during the initial setup.
- [Chapter 7, “Connecting the PMS or Local Printer,”](#) provides the procedure to connect a PMS or local printer using serial or IP connections. Use the procedure only when you are using PMS billing or local print billing.
- [Chapter 8, “Configuring the Network and Bandwidth Management Settings,”](#) describes how to configure the basic network and bandwidth management settings in WEBconfig. (You must complete the procedures in [Chapter 3, “Getting Started,”](#) before beginning the initial system configuration.)
- [Chapter 9, “Changing the Internal Network IP Address Ranges,”](#) describes the BBSM IP address ranges that you need to configure and an overview of public and private IP addresses (multinets). Provides the procedure to configure the IP addresses in WEBconfig.
- [Chapter 10, “Configuring BBSM Sites,”](#) describes how to configure sites in WEBconfig. You can add sites, change site information, and delete sites and their related clusters using this web page.

- [Chapter 11, “Configuring Routers,”](#) provides the procedure to configure a router on the BBSM internal network.
- [Chapter 12, “Configuring Network Elements,”](#) describe how to configure each type of network element: access points, switches, and cable modem termination systems (CMTSs).
- [Chapter 13, “Configuring PMS or Print Billing,”](#) describes PMS, including two-way PMS, and print billing (local non-PMS bill printing) and lists the PMS protocols that BBSM currently supports. Provides the procedure for configuring PMS or print billing for the site.
- [Chapter 14, “Configuring RADIUS Billing,”](#) provides a RADIUS overview and the RADIUS attributes that apply to BBSM. Describes how to configure BBSM for RADIUS accounting and/or authentication.
- [Chapter 15, “Configuring Credit Card Billing,”](#) describes how to configure a credit card authorization server, enter the merchant ID for the site, and test the credit card interface.
- [Chapter 16, “Configuring Security and SSL,”](#) provides an overview of security as it relates to BBSM, the procedures to install an SSL certificate and configure SSL, change the MSDE *sa* username and password, and create (or later change) the BBSD and Web API usernames and passwords.
- [Chapter 17, “Configuring Bandwidth Management,”](#) describes bandwidth management, including bandwidth throttling and bandwidth reservation. Provides the procedure for configuring bandwidth throttling and reservation and for creating, configuring, and managing access codes.
- [Chapter 18, “Creating Custom Page Sets,”](#) provides an overview of BBSM page sets and the procedures to create custom page sets using either the Page Set Wizard to create a custom DailyHotel page set or the page set files to create a page set manually. Also describes how to add these page sets to the list of available page sets in WEBconfig.
- [Chapter 19, “Configuring Walled Gardens,”](#) describes walled gardens, which are specific websites the end user can access for free without authentication. Provides the procedure for configuring them.
- [Chapter 20, “Configuring the Port Hop Delay,”](#) describes the port hopping feature and provides the procedure for configuring it.
- [Chapter 21, “Configuring Alerts,”](#) describes the procedure to enable alerts and configure their parameters.
- [Appendix A, “Configuring Port Test Parameters,”](#) describes how to configure the port test parameters for testing ports.
- [Appendix B, “Changing Server Bandwidth Parameter Settings,”](#) describes how to change the default server bandwidth parameter settings in the registry, if necessary.

## Conventions

This publication uses the following conventions to convey instructions and information:

- Commands and data that you type are shown in **bold**.
- Variables or parameters for which you supply values are shown in angle brackets (<>). The > angle bracket is also used to indicate cascading menu choices, such as Billing > RADIUS > Site *x*.
- Terminal sessions and screen displays are shown in `screen font`.
- Optional elements are shown in square brackets ([ ]).

## Related Publications

These documents provide complete information about BBSM:

- *Cisco BBSM 5.3 Operations Guide* (order number DOC-7816161=)
- *Cisco BBSM 5.3 Software Installation Guide* (order number DOC-7815714=)
- *Cisco BBSM 5.3 SDK Developer Guide* (available on Cisco.com)

To ensure you have the latest information on BBSM, refer to the release notes on Cisco.com before installing, configuring, or upgrading the BBSM server.

## Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. Cisco also provides several ways to obtain technical assistance and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

### Cisco.com

You can access the most current Cisco documentation at this URL:

<http://www.cisco.com/univercd/home/home.htm>

You can access the Cisco website at this URL:

<http://www.cisco.com>

You can access international Cisco websites at this URL:

[http://www.cisco.com/public/countries\\_languages.shtml](http://www.cisco.com/public/countries_languages.shtml)

## Ordering Documentation

You can find instructions for ordering documentation at this URL:

[http://www.cisco.com/univercd/cc/td/doc/es\\_inpck/pdi.htm](http://www.cisco.com/univercd/cc/td/doc/es_inpck/pdi.htm)

You can order Cisco documentation in these ways:

- Registered Cisco.com users (Cisco direct customers) can order Cisco product documentation from the Ordering tool:  
<http://www.cisco.com/en/US/partner/ordering/index.shtml>
- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, USA) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

## Documentation Feedback

You can send comments about technical documentation to [bug-doc@cisco.com](mailto:bug-doc@cisco.com).

You can submit comments by using the response card (if present) behind the front cover of your document or by writing to the following address:

Cisco Systems  
Attn: Customer Document Ordering  
170 West Tasman Drive  
San Jose, CA 95134-9883

We appreciate your comments.

## Obtaining Technical Assistance

For all customers, partners, resellers, and distributors who hold valid Cisco service contracts, Cisco Technical Support provides 24-hour-a-day, award-winning technical assistance. The Cisco Technical Support Website on Cisco.com features extensive online support resources. In addition, Cisco Technical Assistance Center (TAC) engineers provide telephone support. If you do not hold a valid Cisco service contract, contact your reseller.

## Cisco Technical Support Website

The Cisco Technical Support Website provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The website is available 24 hours a day, 365 days a year at this URL:

<http://www.cisco.com/techsupport>

Access to all tools on the Cisco Technical Support Website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a user ID or password, you can register at this URL:

<http://tools.cisco.com/RPF/register/register.do>

## Submitting a Service Request

Using the online TAC Service Request Tool is the fastest way to open S3 and S4 service requests. (S3 and S4 service requests are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Service Request Tool automatically provides recommended solutions. If your issue is not resolved using the recommended resources, your service request will be assigned to a Cisco TAC engineer. The TAC Service Request Tool is located at this URL:

<http://www.cisco.com/techsupport/servicerequest>

For S1 or S2 service requests or if you do not have Internet access, contact the Cisco TAC by telephone. (S1 or S2 service requests are those in which your production network is down or severely degraded.) Cisco TAC engineers are assigned immediately to S1 and S2 service requests to help keep your business operations running smoothly.

To open a service request by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)  
EMEA: +32 2 704 55 55  
USA: 1 800 553 2447

For a complete list of Cisco TAC contacts, go to this URL:

<http://www.cisco.com/techsupport/contacts>

## Definitions of Service Request Severity

To ensure that all service requests are reported in a standard format, Cisco has established severity definitions.

Severity 1 (S1)—Your network is “down,” or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Severity 2 (S2)—Operation of an existing network is severely degraded, or significant aspects of your business operation are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Severity 3 (S3)—Operational performance of your network is impaired, but most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Severity 4 (S4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

## Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- Cisco Marketplace provides a variety of Cisco books, reference guides, and logo merchandise. Visit Cisco Marketplace, the company store, at this URL:  
<http://www.cisco.com/go/marketplace/>
- The Cisco *Product Catalog* describes the networking products offered by Cisco Systems, as well as ordering and customer support services. Access the Cisco Product Catalog at this URL:  
<http://cisco.com/univercd/cc/td/doc/pcat/>
- *Cisco Press* publishes a wide range of general networking, training and certification titles. Both new and experienced users will benefit from these publications. For current Cisco Press titles and other information, go to Cisco Press at this URL:  
<http://www.ciscopress.com>
- *Packet* magazine is the Cisco Systems technical user magazine for maximizing Internet and networking investments. Each quarter, Packet delivers coverage of the latest industry trends, technology breakthroughs, and Cisco products and solutions, as well as network deployment and troubleshooting tips, configuration examples, customer case studies, certification and training information, and links to scores of in-depth online resources. You can access Packet magazine at this URL:  
<http://www.cisco.com/packet>

- *iQ Magazine* is the quarterly publication from Cisco Systems designed to help growing companies learn how they can use technology to increase revenue, streamline their business, and expand services. The publication identifies the challenges facing these companies and the technologies to help solve them, using real-world case studies and business strategies to help readers make sound technology investment decisions. You can access iQ Magazine at this URL:

<http://www.cisco.com/go/iqmagazine>

- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:

<http://www.cisco.com/ipj>

- World-class networking training is available from Cisco. You can view current offerings at this URL:

<http://www.cisco.com/en/US/learning/index.html>