Cisco BBSM Products Network Device Compatibility Guide

This guide lists the Cisco network devices that have been tested on BBSM products and the BBSM Hotspot 1.0 product. The lists are continuously updated, so check them when needed. If you need BBSM or BBSM Hotspot 1.0 to support another Cisco network device, contact your Cisco sales representative.

The "Where to Find More Information" section on page 6 provides links to the PDF versions of the BBSM or BBSM Hotspot 1.0 technical documentation.

Caution You must install all applicable service packs or patches for devices to function properly. Refer to the BBSM and BBSM Hotspot 1.0 software download website at the back of this guide.

Supported Network Devices

BBSM and BBSM Hotspot 1.0 support the following tested network devices:

- Cisco Aironet access points
- Cisco Catalyst long-reach Ethernet (LRE) switches
- Cisco Catalyst Ethernet switches

BBSM also supports tested Cisco UBR 7x00 series cable modem termination systems (CMTSs).

Table 1 describes the types of monitoring that BBSM and BBSM Hotspot 1.0 can use to detect when the client has disconnected. The access point and switch monitoring types are listed in Tables 2 through 4.

Table 1 Client Monitoring Types for Cisco Network Devices

Network Device Client Monitoring Type	Server Method of Monitoring Client Connectivity
Link status	The server queries the network device's MIB to detect when the link status for the client's port becomes inactive.
Forwarding table	The server queries the network device's forwarding table for the absence of the client MAC address.
Packet inactivity	The server detects when packets are no longer being sent or received. After a configured time period of inactivity, BBSM or BBSM Hotspot 1.0 disconnects the session.
Pinging	The server monitors client connectivity by pinging the client. This method may not always be reliable because some client-initiated VPN sessions may not respond to a ping when the tunnel is active. As a result, BBSM or BBSM Hotspot 1.0 may terminate the session because the server cannot detect that the session is active. When VPN support is required, we recommend that you configure your BBSM server to monitor client connectivity by detecting the MAC address or monitoring for packet inactivity.

Tables 2 through 4 list the Cisco access point and switch device monitoring types that can be selected from the network device drop-down menus in BBSM and BBSM Hotspot 1.0. Applicable Cisco IOS releases are shown in parentheses.

Table 2 Supported Cisco Aironet Access Points

Cisco Aironet Access Point[1]	Drop-Down Listing in the Cisco Switch Type Menu	Client Monitoring Type	BBSM Hotspot 1.0	BBSM 5.1	BBSM 5.2	BBSM 5.3
340 series	Aironet 340 AP	Link status	X	X	X	X
	Aironet 340 Packet	Packet inactivity			X	X
350 series	Aironet 350	Link status	X	X	X	X
	Aironet 350 Packet	Packet inactivity			X	X
1100 series	Aironet 1100	Link status	X		X	X
	Aironet 1100 Packet	Packet inactivity			X	X
1200 series	Aironet 1200 AP (IOS)	Link status	X		X	X
	Aironet 1200 AP (VxWorks)	Link status	X		X	X
	Aironet 1200 Packet (IOS)	Packet inactivity	X		X	X
	Aironet 1200 Packet (VxWorks)	Packet inactivity	X		X	X

1. Depending on the firmware version of the Cisco access point, the association of service set identifiers (SSIDs) and VLANs is supported.

Table 3 Supported Cisco Catalyst LRE Switches

Cisco Catalyst LRE Switch	Drop-Down Listing in the Cisco Switch Type Menu	Client Monitoring Type	BBSM Hotspot 1.0	BBSM 5.1	BBSM 5.2	BBSM 5.3
2912 LRE switch	2912 LRE	Link status	X	X	X	X
	2912 LRE MultiPort CPE	Packet inactivity	X	X	X	X
	2912 LRE Packet	Packet	X	X	X	X
2924 LRE switch	2924 LRE	Link status	X	X	X	X
	2924 LRE Hub	Forwarding table	X		X	X
	2924 LRE MultiPort CPE	Packet inactivity	X	X	X	X
	2924 LRE Packet	Packet inactivity	X	X	X	X
	2924 LRE Ping	Pinging	X	X	X	X
2950 LRE switch	2950LRE-8	Link status	X		X	X
	2950LRE-8-Hub	Forwarding table	X	X	X	X
	2950LRE-8-Packet	Packet inactivity	X	X	X	X
	2950LRE-8-Ping	Pinging	X	X	X	X
	2950LRE-24	Link status	X		X	X
	2950LRE-24-Hub	Forwarding table	X	X	X	X
	2950LRE-24-Packet	Packet inactivity	X	X	X	X
	2950LRE-24-Ping	Pinging	X	X	X	X

Table 4 Supported Cisco Catalyst Ethernet Switches

Cisco Catalyst Switch	Drop-Down Listing in the Cisco Switch Type Menu	Client Monitoring Type	BBSM Hotspot 1.0	BBSM 5.1	BBSM 5.2	BBSM 5.3
1900 *(does not support port-to-port security)*	Cisco 1900	Link status		X	X	X
2912 series	Cisco 2912	Link status		X	X	X
	Cisco 2912M	Link status		X	X	X
	Cisco 2912 VLAN/Port	VLAN/Port		X	X	X
2916M	Cisco 2916M	Link status		X	X	X
2924 series	Cisco 2924	Link status		X	X	X
	Cisco 2924 Hub	Forwarding table			X	X
	Cisco 2924 Packet	Packet inactivity			X	X
	Cisco 2924M	Link status		X	X	X
	Cisco 2924 VLAN/Port	VLAN/Port		X	X	X
	Cisco 2924 VLAN/Port Hub	Forwarding table				X

Table 4 Supported Cisco Catalyst Ethernet Switches (continued)

Cisco Catalyst Switch	Drop-Down Listing in the Cisco Switch Type Menu	Client Monitoring Type	BBSM Hotspot 1.0	BBSM 5.1	BBSM 5.2	BBSM 5.3
2940 series	2940	Link status				X
	2940 Packet	Packet inactivity				X
2948	Cisco 2948	Link status		X	X	X
2950 series[1]	Cisco 2950-12 (v. 12.0)	Link status	X	X	X	X
	Cisco 2950-12 (v. 12.1.11)	Link status	X	X	X	X
	Cisco 2950-24 (v. 12.0)	Link status	X	X	X	X
	Cisco 2950-24 (v. 12.1.11)	Link status	X	X	X	X
	Cisco 2950-48 (v. 12.1.11)	Link status	X	X	X	X
	Cisco 2950Packet-12 (v. 12.1.11)	Packet inactivity	X	X	X	X
	Cisco 2950Packet-24 (v. 12.1.11)	Packet inactivity	X	X	X	X
	Cisco 2950Packet-48 (v. 12.1.11)	Packet inactivity	X	X	X	X
2970 series	2970	Link status				X
	2970 Packet	Packet inactivity				X
3512 series	Cisco 3512	Link status	X	X	X	X
	Cisco 3512 VLAN/Port[2]	Link status	X	X	X	X
•3524 series	Cisco 3524	Link status	X	X	X	X
	Cisco 3524 Hub	Forwarding table	X		X	X
	Cisco 3524 Packet	Packet inactivity	X		X	X
	Cisco 3524 VLAN/Port[2]	Link status	X	X	X	X
3548 series	Cisco 3548	Link status	X	X	X	X
	Cisco 3548 Packet	Packet inactivity	X		X	X
	Cisco 3548 VLAN/Port[2]	Link status	X	X	X	X
3550 series[1] (including the 3550-PWR switch)	Cisco 3550-12 (v. 12.1.11)	Link status	X	X	X	X
	Cisco 3550-24 (v. 12.1.11)	Link status	X	X	X	X
	Cisco 3550-48 (v. 12.1.11)	Link status	X	X	X	X
	Cisco 3550Packet-12 (v. 12.1.11)	Packet inactivity	X	X	X	X
	Cisco 3550Packet-24 (v. 12.1.11)	Packet inactivity	X	X	X	X
	Cisco 3550Packet-48 (v. 12.1.11)	Packet inactivity	X	X	X	
3750 series[3]	3750	Link status				X
	3750 Packet	Packet inactivity				X

Table 4 Supported Cisco Catalyst Ethernet Switches (continued)

Cisco Catalyst Switch	Drop-Down Listing in the Cisco Switch Type Menu	Client Monitoring Type	BBSM Hotspot 1.0	BBSM 5.1	BBSM 5.2	BBSM 5.3
4000 series[4]	Cisco 400x	Link status		X	X	X
4500 series[5]	Cisco 4x0x	Link status	X		X	X
6509[6]	Cisco 6509	Link status	X		X	X

1. For the Catalyst 2950 and 3550 switches, you must upgrade to Cisco IOS Release 12.1(11)EA1 or later if you are running Cisco IOS Release 12.1(6) or 12.1(9).
2. This network device type supports VLAN per port (Switchport Multi command) for port-to-port security on Cisco Catalyst 2900 and 3500 XL series switches for running Cisco IOS Releases 11.2(8)SA3 through 12.0(5.1)XW. IOS releases later than 12.0(5.1)XW have a new method of implementing port-to-port security through private VLAN edge (port protected and switch port protected). Use Catalyst 2900 or 3500 link status switch types for switches with IOS releases later than 12.0(5.1)XW. For more information, consult the IOS guide for your software release.
3. You must upgrade to Cisco IOS Release 12.1(14) EA1 or later to use the Cisco Catalyst 3750 switch with BBSM.
4. BBSM was tested with Cisco Catalyst 4006, Supervisor III, Cisco IOS releases 12.1(12c)EW and 12.1(14)E1, and Supervisor IV, Cisco IOS Release 12.1(12c)EW.
5. BBSM was tested with Cisco Catalyst 4507, Supervisor IV, Cisco IOS Release 12.1(12c)EW.
6. BBSM was tested with Cisco Catalyst 6509, Supervisor I, Cisco IOS release 7.4(3).

Table 5 lists the BBSM-supported CMTS types. Based on the CMTS configuration that you entered in WEBconfig, the system automatically configures the CMTS type.

Table 5 Supported Cisco CMTSs

Cisco Catalyst CMTS	CMTS Type	BBSM Hotspot 1.0	BBSM 5.1	BBSM 5.2	BBSM 5.3
CMTS	Cisco uBR7100[1]		X	X	X
	Cisco uBR7200		X	X	X

1. Requires a version of IOS that supports bridging (such as Cisco IOS Release 12.1.7EC).

Other BBSM Switch Options

You can choose the following BBSM or BBSM Hotspot 1.0 switch options based on your needs. You can use these options whether or not your switch is listed in the Switch Type drop-down menu:

- Generic—Client connectivity is monitored by link status. The server queries the network device's MIB to detect when the link status for the client's port becomes inactive.
- Generic without Link Status—Client connectivity is monitored by querying the network device forwarding table for the absence of the client MAC address.
- NULL:Clients connect to router—Client connectivity is monitored by packet inactivity. Although you can use this option with any network device, do not use it if you need to know the end user's port location for authentication or billing.

Where to Find More Information

The following website directs you to all of the technical documentation for BBSM and BBSM Hotspot 1.0:

http://www.cisco.com/en/US/products/sw/netmgtsw/ps533/prod_technical_documentation.html

The following are specific websites for documentation and software downloading:

- *Cisco BBSM 5.3 Configuration Guide*
  http://www.cisco.com/univercd/cc/td/doc/product/aggr/bbsm/bbsm53/config/53config.pdf
- *Cisco BBSM 5.3 SP1 Configuration Guide*
  http://www.cisco.com/univercd/cc/td/doc/product/aggr/bbsm/bbsm53/configsp/53config.pdf
- *Cisco BBSM 5.3 Operations Guide*
  http://www.cisco.com/univercd/cc/td/doc/product/aggr/bbsm/bbsm53/ops/53ops_gd.pdf
- *Cisco BBSM Products Q&A:*
  http://www.cisco.com/univercd/cc/td/doc/product/aggr/bbsm/bbsm_q_a.pdf
- *Cisco BBSM Hotspot 1.0 User Guide:*
  http://www.cisco.com/univercd/cc/td/doc/product/aggr/bbsm/bbsmhs10/hs10user/hs10user.pdf
- Cisco BBSM and BBSM Hotspot 1.0 software download website:
  http://www.cisco.com/pcgi-bin/tablebuild.pl?topic=268439484