



Configuring the Port Hop Delay

This chapter describes the port hopping feature and provides the procedure for configuring it in WEBconfig.

Port Hopping Overview

The port hopping feature enables wireless users to move from port to port without interrupting BBSM service. Within a BBSM network, users can move between like types of hardware, such as wireless access points, switch ports, or cable modems. Users cannot hop back and forth between wireless access points and wired switches. Also, mobility across subnets or cells operated by different customers is not supported.

Port hopping is disabled by default, and only the administrator can enable it. For the procedures to configure port hopping, refer to the following sections:

- To configure port hopping for the entire BBSM server during the initial configuration, run the Switch Discovery Wizard. Refer to the [“Running the Switch Discovery Wizard”](#) section on page 5-6.
- To configure ports for port hopping when entering a new network device in WEBconfig, use the Network Element Port Settings pop-up window. Refer to [Chapter 13, “Configuring PMS or Print Billing.”](#)
- To configure ports after network devices have been configured, use the Port Control feature. Refer to the chapter on using port control in the *Cisco BBSM 5.3 Operations Guide*.

When port hopping is enabled, BBSM keeps the session active when the user moves to another port or disassociates temporarily. For example, disassociation might occur when the signal is weak or an object comes between the wireless access point and the end user, which causes the user to associate suddenly with a secondary access point that might be configured to another aggregation switch port.

When a user dissociates from the BBSM network, BBSM searches for the user until one of the following occurs:

- The user’s MAC address reappears back on the network within the configured port hop delay time period. The session then continues without interruption.
- The port hop delay time period expires. BBSM then deactivates the session, and the user must reauthenticate to regain Internet access.

Port hopping events are logged to the Transaction History report. You can view these transactions through the Reporting Pages link on the Dashboard.

Note the following operational parameters for port hopping:

- Searching for end user—When port hopping is enabled and an end user disappears from the network, BBSM begins searching configured network devices for the end user. BBSM first searches the last known network device that the end user was associated with. If the user is not found, BBSM then searches the other network devices until the end user is found or the port hop delay time period expires.
- Session duration—The reported duration of an active session varies depending on how the session terminates:
 - If the search succeeds, BBSM includes the search time in the session duration.
 - If the search fails to find the user before the port hop delay time period expires, BBSM does not include the search time in the session duration. As a result, users who turn off their computers to terminate sessions are not charged BBSM’s search time after they have disconnected.
- Port hopping between sites—Port hopping is not allowed across BBSM sites. If a user disappears from the network for less time than the port hop delay time period, the session remains active until BBSM finds the user again on a port at the same BBSM site. However, if BBSM finds the user on a port at a different BBSM site from where the active session originated, the session is deactivated.



Note

A user could move from the original site, authenticate to another site, and then move back to the original site within the port hop delay time period. BBSM then deactivates the original active session even though the user moved back to the original site. You should deploy your network to prevent overlap between cells on different sites.

- Port hopping from a port hop disabled port—Port hopping is enabled on a per-port basis. The end user can hop from a port hop enabled port to any port on the same site and continue the session even if the port hop status of the destination port is disabled. However, the user cannot hop from a port hop disabled port at all. If this is attempted, BBSM deactivates the session.
- Port policy—As the user hops from port to port, the port policy that BBSM associates with the user session follows the user to each new port. BBSM applies the bandwidth limit (in kbps) specified at session activation to the session as the user moves from port to port.
- Active Ports report—While the system is searching for a user, the user session remains active and appears in the Active Ports report as associated with the last used port.

Port hopping works with any BBSM page set to varying degrees:

- Wireless network—Page sets such as DailyHotel that use the BBSM port and room numbers for billing are not useful because rooms are not recognized in wireless networks. The signal from an access point extends beyond walls. Because most access points, such as Cisco Aironet access points, configure all users to the same port number, using the Hotel accounting policy would not provide useful billing information.
- Wired network—The BBSM port ID and room numbers are more meaningful when using PMS billing. When using port hopping, BBSM keeps track of the original port and room number to make sure that charges incurred during the session are billed correctly to the user. As a user moves from port to port, although the system reports each new port and location, BBSM bills only the original port and room.

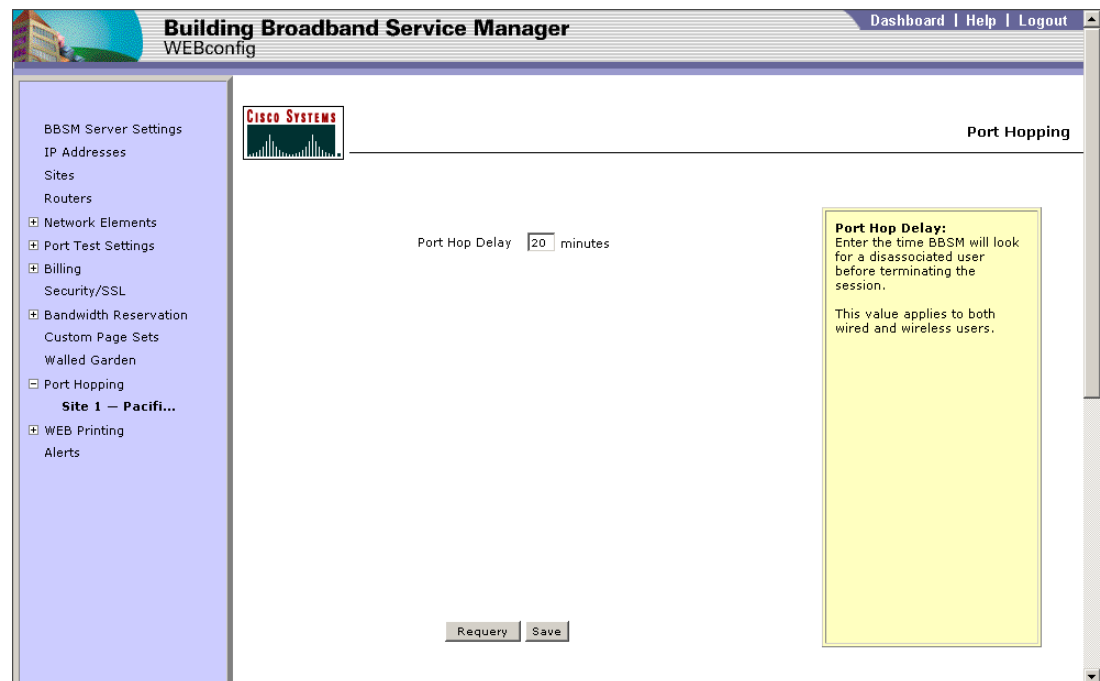
Configuration Procedure

The port hop delay time period sets the number of minutes that BBSM searches for the end user after disassociating from the original port. If the end user is not found within this time frame, the BBSM session is terminated. Port hopping must be configured for each port.

Follow this procedure to set the number of minutes for the port hop delay.

- Step 1** From the Dashboard, click **WEBconfig**. The BBSM Server Settings web page appears.
- Step 2** In the NavBar, navigate to Port Hopping site *x* web page by choosing **Port Hopping > Site *x***. The Site *x* web page appears. (See [Figure 20-1](#).)

Figure 20-1 Port Hopping Site Web Page



- Step 3** In the Port Hop Delay field, enter the number of desired minutes between 1 and 60. The default number of minutes is 20.
- Step 4** If desired, click **Requery** to repopulate the web page with the stored data and click **Save**.

