



CHAPTER 4

Configuring and Viewing System Properties

This chapter describes how to configure and view system properties on the location server.

This chapter contains the following sections:

- [Configuring General Properties, page 4-2](#)
- [Modifying NMSP Parameters, page 4-2](#)
- [Viewing Active Sessions on a System, page 4-4](#)
- [Viewing and Configuring Advanced Parameters, page 4-4](#)

Configuring General Properties

You can use Cisco WCS to edit the general properties of a location server such as contact name, user name, password, and HTTPS.

To edit the general properties of a location server, follow these steps:

- Step 1** In Cisco WCS, choose **Services > Mobility Services** to display the Mobility Services window.
- Step 2** Click the name of the location server you want to edit. A two-tabbed panel labeled with General and Performance appears.



Note If the General Properties window does not display by default, select **General Properties** from the **Systems** menu left panel.

- Step 3** Modify the parameters as appropriate in the **General** panel. [Table 4-1](#) describes each parameter.

Table 4-1 General Properties

Parameter	Configuration Options
Contact Name	Enter a contact name for the location server.
Username	Enter the login user name for the Cisco WCS server that manages the location server.
Password	Enter the login password for the Cisco WCS server that manages the location server.
Port	8001 Note The following ports are in use on a location server in release 6.0: tcp 22: SSH port tcp 6100: Virtual frame buffer tcp 8001: Location server port udp 123: NTPD port (open after NTP configuration) udp 32768: Location internal port
HTTPS	Enable this check box to communicate with Cisco WCS.

- Step 4** Click **Save** to update the Cisco WCS and location server databases.

Modifying NMSP Parameters

Network Mobility Services Protocol (NMSP) is the protocol that manages communication between the location server and the controller. Transport of telemetry, emergency, and chokepoint information between the location server and the controller is managed by this protocol.

**Note**

No change in the default parameter values is recommended unless the network is experiencing slow response or excessive latency.

- Telemetry, emergency and chokepoint information is only seen on controllers and Cisco WCS installed with release 4.1 software or later.
- The TCP port (16113) that the controller and the location server communicate over MUST be open (not blocked) on any firewall that exists between the controller and the location server.

To configure NMSP parameters, follow these steps:

- Step 1** In Cisco WCS, choose **Services > Mobility Services**.
- Step 2** Click the name of the location server whose properties you want to edit.
- Step 3** Choose **System > NMSP Parameters**. The configuration options appear.
- Step 4** Modify the NMSP parameters as appropriate. [Table 4-2](#) describes each parameter.

Table 4-2 NMSP Parameters

Parameter	Description
Echo Interval	How frequently an echo request is sent from a location server to a controller. The default value is 15 seconds. Allowed values range from 1 to 120 seconds. Note If a network is experiencing slow response, you can increase the values of the echo interval, neighbor dead interval and the response timeout values to limit the number of failed echo acknowledgements.
Neighbor Dead Interval	The number of seconds that the location server waits for a successful echo response from the controller before declaring the neighbor dead. This timer begins when the echo request is sent. The default values is 30 seconds. Allowed values range from 1 to 240 seconds. Note This value must be at least two times the echo interval value.
Response Timeout	How long the location server waits before considering the pending request as timed out. The default value is 1 second. Minimum value is one (1). There is no maximum value.
Retransmit Interval	Interval of time that the location server waits between notification of a response time out and initiation of a request retransmission. The default setting is 3 seconds. Allowed values range from 1 to 120 seconds.
Maximum Retransmits	The maximum number of retransmits that are sent in the absence of a response to any request. The default setting is 5. Allowed minimum value is zero (0). There is no maximum value.

- Step 5** Click **Save** to update the Cisco WCS and location server databases.

Viewing Active Sessions on a System

You can view active user sessions on the location server.

For every session, Cisco WCS displays the following information:

- Session identifier
- IP address from which the location server is accessed
- Username of the connected user
- Date and time when the session started
- Date and time when the location server was last accessed
- How long the session was idle since it was last accessed

To view active user sessions, follow these steps:

-
- Step 1** In Cisco WCS, choose **Services > Mobility Services**.
- Step 2** Click the name of the location server on which you want to view active sessions.
- Step 3** Choose **System > Active Sessions**.
-

Viewing and Configuring Advanced Parameters

In Cisco WCS, at the Advanced Parameters window ([Figure 4-1](#)) you can both view general system level settings of the location server, and configure monitoring parameters.

- Refer to the [“Viewing Advanced Parameters Settings” section on page 4-4](#) to review current system level settings of the advanced parameters.
- Refer to the [“Configuring Advanced Parameters” section on page 4-5](#) to modify the current system level settings of the advanced parameters.



Note

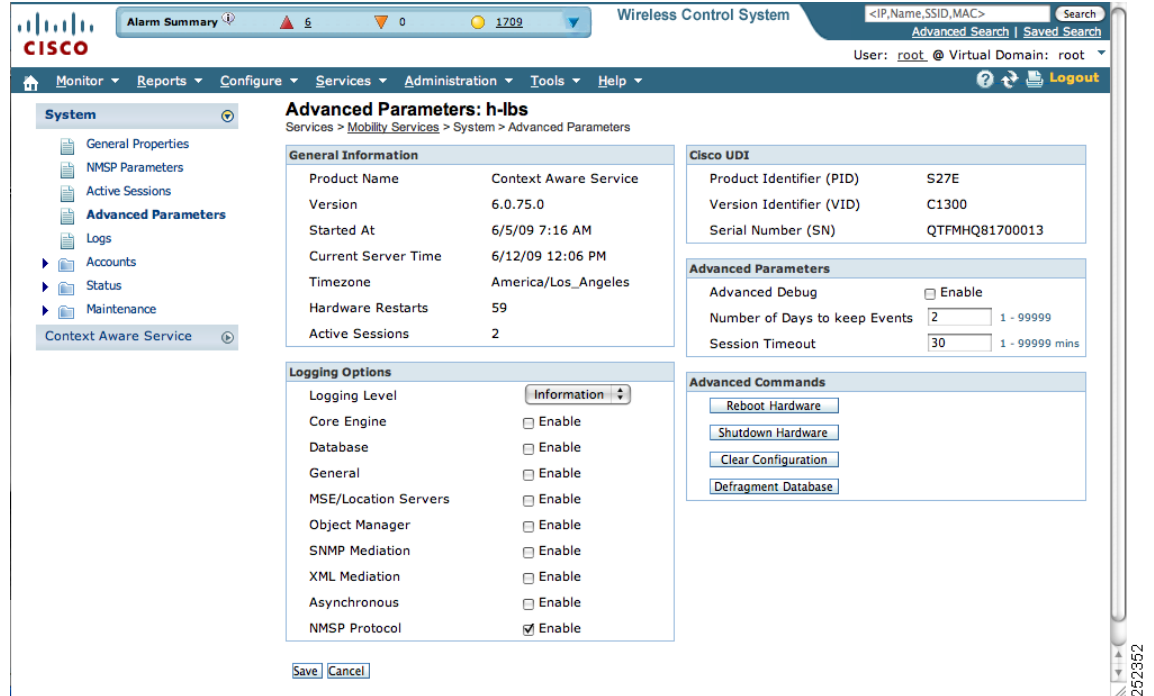
You can also initiate advanced commands such as a system reboot, a system shutdown, clearing the configuration file, and defragment the system database. Refer to the [“Initiating Advanced Commands” section on page 4-6](#) for information on these commands and when they should be used

Viewing Advanced Parameters Settings

To view the advanced parameter settings of the location server, follow these steps:

-
- Step 1** In Cisco WCS, choose **Services > Mobility Services**.
- Step 2** Click the name of a location server to view its status.
- Step 3** Choose **System > Advanced Parameters**. The following window appears ([Figure 4-1](#)).

Figure 4-1 System > Advanced Parameters



Configuring Advanced Parameters

On the Advanced Parameters window, you can use Cisco WCS:

- To specify the logging level and types of messages to log.
Refer to the [“Configuring Logging Options”](#) section on page 4-5.
- To set how long events are kept, how long before a session time-outs, interval between data clean ups, and enable or disable advanced debug level messages in the logs.
Refer to the [“Configuring Advanced Parameters”](#) section on page 4-6.

Configuring Logging Options

You can use Cisco WCS to specify the logging level and types of messages to log.

To configure logging options, follow these steps:

- Step 1** In Cisco WCS, choose **Services > Mobility Services**.
- Step 2** Click the name of the location server that you want to configure.
- Step 3** Choose **System > Advanced Parameters**. The advanced parameters for the selected location server appears.
- Step 4** Scroll down to the Logging Options section and choose the appropriate option from the Logging Level drop-down menu.

There are four logging options: **Off**, **Error**, **Information**, and **Trace**.

**Caution**

Use **Error** and **Trace** only when directed to do so by Cisco Technical Assistance Center (TAC) personnel.

Step 5 Check the **Enabled** check box next to each item listed in that section to begin logging of its events.

Step 6 Click **Save** to apply your changes.

Configuring Advanced Parameters

You can use Cisco WCS to set how long events are kept, how long before a session time-outs, interval between data clean ups and enable or disable advanced debug level messages in the logs.

To configure advanced parameters, follow these steps:

- Step 1** In Cisco WCS, choose **Services > Mobility Services**.
- Step 2** Click the name of the location server that you want to configure.
- Step 3** Choose **System > Advanced Parameters**. The advanced parameters for the selected location server appears.
- Step 4** In the Advanced Parameters section, make the appropriate changes. [Table 4-3](#) describes the parameters.

Table 4-3 *Advanced Parameters*

Parameter	Configuration Options
Advanced debug	Check the check box to enable advanced debug. This enables reporting of advanced debug level messages to the log files.
Number of days to keep events	Enter the number of days that events are kept in the event table. Default value is 2.
Session time-out (minutes)	Enter the number of minutes a Cisco WCS or client session can remain inactive before it times out. Default value is 30.

Initiating Advanced Commands

You can initiate a system reboot or shutdown, clear the system configuration or defragment a database by clicking the appropriate button on the Advanced Parameters page.

Rebooting or Shutting Down a System

To reboot or shutdown a location server, follow these steps:

- Step 1** In Cisco WCS, choose **Services > Mobility Services**.
- Step 2** Click the name of a location server you want to reboot or shutdown.

- Step 3** Choose **System > Advanced Parameters**.
- Step 4** In the Advanced Commands section of the window (right), click the appropriate button (**Reboot Hardware** or **Shutdown Hardware**).
- Click **OK** in the confirmation pop-up window to initiate either the reboot or shutdown process. Click **Cancel** to stop the process.
-

Clearing the System Database

To clear the database of a location server, follow these steps:

- Step 1** In Cisco WCS, choose **Services > Mobility Services**.
- Step 2** Click the name of a location server for which you want to clear its database.
- Step 3** Choose **System > Advanced Parameters**.
- Step 4** In the Advanced Commands section of the window (right), click the **Clear Configuration** button.



Note The Clear Configuration command clears the database not the configuration file.

Click **OK** in the confirmation pop-up window to clear the location server database. Click **Cancel** to stop the process.

Defragmenting the Database

To defragment the location server database, follow these steps:

- Step 1** In Cisco WCS, choose **Services > Mobility Services**.
- Step 2** Click the name of a location server for which you want to defragment its database.
- Step 3** Choose **System > Advanced Parameters**.
- Step 4** In the Advanced Commands section of the window (right), click the **Defragment Database** button.
- Click **OK** in the confirmation pop-up window to initiate the process. Click **Cancel** to stop the process.
-

