



CHAPTER 4

Configuring Mobility Services Engine Properties

This chapter describes how to configure mobility services engine properties.

This chapter contains the following sections:

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- [“Modifying History Parameters” section on page 4-2](#)
- [“Editing NMSP Parameters” section on page 4-4](#)

Modifying General Properties

You can use Cisco WCS to edit the general properties of a mobility services engines such as contact name, user name, password, HTTP and HTTPS.

To edit the general properties of a mobility services engine, follow these steps:

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- Step 1** In Cisco WCS, click **Mobility > Mobility Service Engines** to display the All Servers window.
 - Step 2** Click the name of the mobility services engine you want to edit.
 - Step 3** In the **Systems** menu (left panel), select **General Properties**.
 - Step 4** Modify the parameters as appropriate. [Table 4-1](#) describes each parameter.

Table 4-1 *General Properties*

Parameter	Configuration Options
Contact Name	Enter a contact name for the mobility services engine.
User Name	Enter the login user name for the Cisco WCS server that manages the mobility services engine.
Password	Enter the login password for the Cisco WCS server that manages the mobility services engine.
Port	8001
HTTP	Check the Enable check box to enable HTTP. By default, HTTPS is enabled. Note HTTP is primarily enabled to allow third-party applications to communicate with the mobility services engine. Note Cisco WCS always communicates through HTTPS.
Legacy Port	Enter the mobility services port number that supports HTTPS communication. The Legacy HTTPS option must also be enabled.
Legacy HTTPS	This parameter does not apply to mobility services engines. It applies only to location appliances.

- Step 5** Click **Save** to update the Cisco WCS and mobility services engine databases.
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Modifying History Parameters


You can use Cisco WCS to specify how often to collect client station, rogue access point, and asset tag histories from the controllers associated with a mobility services engine.

You can also program the mobility services engine to periodically prune (remove) duplicate data from its historical files to reduce the amount of data stored on its hard drive.

To configure mobility services engine history settings, follow these steps:

- Step 1** In Cisco WCS, click **Mobility > Mobility Service Engines**. The All Servers window appears.
- Step 2** Click the name of the mobility services engine whose properties you want to edit.
- Step 3** From the **Location** menu (left panel), select **History Parameters** from the Administration sub-heading to display the configuration options.
- Step 4** Modify the following history parameters as appropriate. [Table 4-2](#) describes each parameter.

Table 4-2 History Parameters

Parameter	Description
Archive for	Enter the number of days for the mobility services engine to retain a history of each enabled category. Default value is 30. Allowed values are from 1 to 99999.
Prune data starting at	Enter the interval of time in which the mobility services engine starts data pruning (between 0 and 23 hours, and between 1 and 59 minutes). Also enter the interval in minutes after which data pruning starts again (between 0, which means never, and 99900000). Default start time is 23 hours and 50 minutes, and the default interval is 1440 minutes.
Client Stations	Check the Enable check box to turn historical data collection on, and enter the number of minutes (1 to 99999) that elapse between data collection events. Default value is 120.
Asset Tags	Check the Enable check box to turn historical data collection on, and enter the number of minutes (1 to 99999) to elapse between data collection events. Default value is 180. Allowed values are from 1 to 99999.
	 <p>Note Before the mobility services engine can collect asset tag data from controllers, you must enable the detection of RFID tags using the CLI command config rfid status enable.</p>
Rogue Clients and Access Points	Check the Enable check box to turn historical data collection on (disabled by default), and enter the number of minutes (1 to 99999) to elapse between data collection events. Default value is 360.
Wired Stations	Check the Enable check box to turn historical data collection on for wired stations, and enter the number of minutes (1 to 99999) to elapse between data collection events. Default value is 720.
Enable History Logging of Location Transitions for <i>Client Stations, Asset Tags and Rogue Clients and Access Points</i>	Check any or all of the element (client stations, asset tags ,and rogue clients and access points) check boxes to log location transitions for the selected element type(s). When history logging is enabled for an element, a location transition event is logged each time the location of the selected element changes.

- Step 5** Click **Save** to store your selections in the mobility services engine database.

Editing NMSP Parameters

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



Note

- The NMSP parameter is supported on mobility services engines installed with release 5.1 and later.
- 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 mobility services engine communicate over **MUST** be open (not blocked) on any firewall that exists between the controller and mobility services engine for NMSP to function.

To configure NMSP parameters, follow these steps:

- Step 1** In Cisco WCS, click **Mobility > Mobility Service Engine**.
- Step 2** Click the name of the mobility services engine whose properties you want to edit.
- Step 3** From the **Location** menu (left panel), select **NMSP Parameters** from the Advanced sub-heading. The configuration options appear.
- Step 4** Modify the NMSP parameters as appropriate. [Table 4-3](#) describes each parameter.



Note

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

Table 4-3 NMSP Parameters

Parameter	Description
Echo Interval	<p>Defines how frequently an echo request is sent from a mobility services engine to a controller. The default value is 15 seconds. Allowed values range from 1 to 120 seconds.</p> <p>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.</p>
Neighbor Dead Interval	<p>The number of seconds that the mobility services engine waits for a successful echo response from the controller before declaring the neighbor dead. This timer begins when the echo request is sent.</p> <p>The default values is 30 seconds. Allowed values range from 1 to 240 seconds.</p> <p>Note This value must be at least two times the echo interval value.</p>
Response Timeout	<p>Indicates how long the mobility services engine 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.</p>

Table 4-3 NMSP Parameters (continued)

Parameter	Description
Retransmit Interval	Interval of time that the mobility services engine 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	Defines 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 mobility services engine databases.
