



# CHAPTER 10

## MSAP

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Cisco Mobility Services Advertisement Protocol (MSAP) provides requirements for MSAP clients and servers and describes the message exchanges between them. Mobile devices can retrieve service advertisements from an MSAP server over Wi-Fi infrastructure using MSAP. MSAP is introduced in this release of the mobility services engine (MSE) and provides server functionality.

MSAP is used by the mobile devices that have been configured with a set of policies for establishing network connectivity. MSAP facilitates mobile devices to discover network-based services available in a local network or services that are enabled through service providers. MSAP provides service advertisements that describe available services to mobile devices. Once the mobile device receives the service advertisements, it displays their icon and data on its user interface. You can launch the advertised service by clicking the displayed icon.

This chapter contains the following sections:

- [Licensing for MSAP, page 10-1](#)
- [Provisioning MSAP Service Advertisements, page 10-1](#)
- [Deleting Service Advertisements, page 10-3](#)
- [Applying Service Advertisements to a Venue, page 10-3](#)
- [Viewing the Configured Service Advertisements per MSE, page 10-4](#)
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## Licensing for MSAP

The MSAP license is based on the number of service advertisements supported by the MSE. There is only an evaluation license available for MSAP with a limit of 1000 service advertisement clicks.

## Provisioning MSAP Service Advertisements

To add new MSAP advertisements, follow these steps:

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- Step 1** Choose **Services > MSAP**.

- Step 2** From the Select a command drop-down list, choose **Add Service Advertisements**, and click **Go**.  
The Service Advertisement Details page appears.
- Step 3** Enter the service provider name in the Provider Name text box. This is the name of the provider who wants to provide advertisements to the client.
- Step 4** Select an icon that is associated with the service provider by clicking **Choose File**. This is the icon that is displayed on the client handset.

#### Adding Venue Policy to Service Advertisements




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**Note** You can also apply service advertisements to a venue by choosing **Services > MASP**. See the [“Applying Service Advertisements to a Venue”](#) section on page 10-3 for more information on how to apply service advertisements.

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- Step 5** Click **Add Venue** to specify at which venues you want the advertisements to be broadcasted.  
The Add/Edit Venue page appears.
- Step 6** Enter the venue name in the Venue Name text box.
- Step 7** From the Area Type drop-down list, choose the area type where you want to display the service advertisements. The possible values are **Floor Area** and **Outdoor area**.
- Step 8** From the Campus drop-down list, choose the campus name where you want to display the service advertisements.
- Step 9** From the Building drop-down list, choose the building name where you want the advertisements to appear.
- Step 10** From the Floor drop-down list, choose the floor type.




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**Note** Depending on what floor you choose, the information in the Display near selected APs information changes.

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- Step 11** From the SSID drop-down list, choose the SSIDs on which you want to broadcast the service advertisements. You can choose multiple SSIDs.
- Step 12** Select the Display Rule radio button. You can select either the **Display everywhere** or **Display near selected APs** radio button. By default, Display everywhere is selected.
- If you select Display everywhere, then it searches for all the MSAP-supported controllers that provide these SSIDs and assigns these controllers to the MSE.
- If you select Display near selected APs, then you can configure the following parameters:
- AP—Select those APs on which you want the advertisements to broadcast.
  - Radio—Select the radio frequency on which you want the advertisements to be broadcasted. The service advertisement is displayed when the mobile device is near the radio band that you have selected. The possible values are 2.4 GHz or 5 GHz.
  - min RSSI—Enter a value for RSSI at which you want the service advertisements to be displayed on the user interface.
- Step 13** Click **Save** to add the venue. The venue is added to the list of venues in the Service Advertisement Details page.

### Adding Service Brief Information to the Service Advertisement

- Step 14** Click **Add Advertisement**.  
The Add/Edit Advertisement page appears.
- Step 15** From the Advertisement Type drop-down list, choose the type of advertisement you want to display.
- Step 16** Enter the name that you want to display on the handset in the Friendly Name text box.
- Step 17** Enter the service description in the Friendly Description text box.
- Step 18** Enter the URL for each type of handset. The URL identifies the location at which the service can be retrieved. You can add multiple URLs by clicking **Add More URL**.
- Step 19** Click **Save**. This information is applied to the MSE and the synchronization happens automatically.
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## Deleting Service Advertisements

To delete a service advertisement, follow these steps:

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- Step 1** Choose **Services > MSAP**.  
The MSAP page appears.
- Step 2** Select the check box of the service advertisement that you want to delete.
- Step 3** From the Select a command drop-down list, choose **Delete Service Advertisement**, and click **Go**, or Click **Delete** in the MSAP page.
- Step 4** Click **OK** to confirm the deletion.
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## Applying Service Advertisements to a Venue

To apply service advertisements to a venue, follow these steps:

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- Step 1** Choose **Services > MSAP**.
- Step 2** Select the check box of the service advertisement that you to apply to a venue.
- Step 3** From the Select a command drop-down list, choose **Apply to Venue(s)**.
- Step 4** Click **Go**.
- Step 5** Follow [Step 6](#) through [Step 13](#) in the “[Provisioning MSAP Service Advertisements](#)” section on [page 10-1](#).  
or  
Click **Apply to Venues** in the MSAP page and follow [Step 6](#) through [Step 13](#) in the “[Provisioning MSAP Service Advertisements](#)” section on [page 10-1](#).
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## Viewing the Configured Service Advertisements per MSE

To view the configured service advertisements per MSE, follow these steps:

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- Step 1** Choose **Services > Mobility Services Engine**.
- Step 2** Click **Device Name** to view its properties.  
The General Properties page appears.
- Step 3** Choose **MSAP Service > Advertisements** from the left sidebar menu.  
The following information appears in the MSAP Service page:
- Icon—Displays an icon associated with the service provider.
  - Provide Name—Displays the service providers name.
  - Venue Name—Displays the venue name.
  - Advertisements
    - Friendly Name—Friendly name that is displayed on the handset.
    - Advertisement Type—Type of advertisement that is displayed on the handset.
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## Viewing MSAP Statistics

To view MSAP statistics, follow these steps:

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- Step 1** Choose **Services > Mobility Services Engine**.
- Step 2** Click **Device Name** to view its properties.  
The General Properties page appears.
- Step 3** Choose **MSAP Service > Statistics** from the left sidebar menu.  
The following information appears in the MSAP Service page:
- Top 5 Active Mobile MAC addresses—Displays information about the most active mobiles in a given venue.
  - Top 5 Service URIs—Displays information about the usage of the services across a given venue or provider.
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## Viewing the MSE Summary Page for MSAP License Information

See the [“Managing Mobility Services Engine \(MSE\) Licenses”](#) section on page 15-140 for more information on MSE licensing.

## Viewing Service Advertisements Synchronization Status

To view service advertisements synchronization status, follow these steps:

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- Step 1** Choose **Services > Synchronize Services**.
- Step 2** Choose **Service Advertisements** from the left sidebar menu. The following information appears in the Service Advertisements page.
- **Provider Name**—Shows the name of the service provider.
  - **Service**—Shows the type of service that a particular advertisement is using.
  - **MSE**—Shows whether the service advertisement is synchronized with the MSE or not.
  - **Sync Status**—Shows the synchronization status. A green two-arrow icon indicates that its corresponding element is synchronized with the given server such as MSE. A gray two-arrow icon with a red circle indicates that its corresponding item is not synchronized with a given server.
  - **Message**—Shows any message related to the advertisement synchronization failure.
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## MSAP Reports

This section describes how to create the MSAP reports and contains the following topics:

- [Mobile MAC Statistics, page 10-5](#)
- [Service URI Statistics, page 10-6](#)

### Mobile MAC Statistics

Click **Mobile MAC Statistics** from the Report Launch Pad to open the Mobile MAC Statistics Reports page. In this page, you can enable, disable, delete, or run currently saved report templates.

To create a new report, click **New** in the Report Launch Pad page or in the Mobile MAC Statistics Reports page. See the “[Configuring a Mobile MAC Statistics Report](#)” section on page 10-5 for more information.

### Configuring a Mobile MAC Statistics Report

This section describes how to configure an Mobile MAC Statistics report.

#### Settings

- **Report Title**—If you want to save this report template, enter a report name.
- **Report by**
  - **Mobile MAC by MSAP Server**—Choose this option if you want to generate a report on mobile MACs based on MSAP servers.
  - **Mobile MAC by Venue**—Choose this option if you want to generate a report on mobile MACs based on venue.
- **Report Criteria**—The report criteria differs based on the Report By option selected. Click **Edit** and choose the required filter criteria.




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**Note** In the Report Criteria page, click **Select** to confirm your filter criteria or **Close** to return to the previous page.

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- Reporting Period
  - Last—Select the **Last** radio button and choose a period of time from the drop-down list.
  - From—Select the **From** radio button and enter the From and To dates and times. You can type a date in the text box, or click the calendar icon to choose a date. Choose the hours and minutes from the drop-down lists.



**Note** The reporting period is based on the alarm last seen time. The times are in the UTC time zone.



**Note** Fixed columns appear in blue font and cannot be moved to the Available columns.

The Mobile MAC Statistics report results contain the following:

- Mobile MAC
- Click Count



**Note** This report provides Most Active Mobile MACs based on click count by MSE and/or by venue. If multiple MSEs are selected, top Mobile MACs are grouped by each MSE in the selected sorting order.

## Service URI Statistics

Click **Service URI Statistics** in the Report Launch Pad page to open the Service URI Statistics Reports page. In this page, you can enable, disable, delete, or run currently saved report templates.

To create a new report, click **New** from the Report Launch Pad or from the Mobile MAC Statistics Reports page. See the “[Configuring a Service URI Statistics Report](#)” section on page 10-6 for more information.

### Configuring a Service URI Statistics Report

This section describes how to configure an Service URI Statistics report.

#### Settings

- Report Title—If you plan to save this report template, enter a report name.
- Report by
  - Service URI by MSAP Server—Choose this option if you want to generate a report on mobile MACs based on MSAP servers.
  - Service URI by Venue—Choose this option if you want to generate a report on the Service URIs based on Venue.
  - Service URI by Mobile MAC—Choose this option if you want to generate a report on the Service URIs based on Mobile MAC.
  - Service URI by Provider—Choose this option if you want to generate a report on the Service URIs based on Provider.
- Report Criteria—The report criteria differs based on the Report By option selected. Click **Edit** and choose the required filter criteria.



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**Note** In the Report Criteria page, click **Select** to confirm your filter criteria or **Close** to return to the previous page.

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- Reporting Period
  - Last—Select the **Last** radio button and choose a period of time from the drop-down list.
  - From—Select the **From** radio button and enter the From and To dates and times. You can type a date in the text box, or click the **calendar** icon to choose a date. Choose the hours and minutes from the drop-down lists.



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**Note** The reporting period is based on the alarm last seen time. The times are in the UTC time zone.

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**Note**

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Fixed columns appear in blue font and cannot be moved to the Available columns.

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The Service URI Statistics report results contain the following:

- Service URI
- Mobile MAC
- Click Count
- This report provides Top Service URIs based on click count by MSE and/or by venue. If the multiple MSEs are selected, top Service URIs are grouped by each MSE in the selected sorting order.

