



CHAPTER 29

Cisco Unified IP Phone Services

Using Cisco Unified Communications Manager Administration, you can define and/or maintain IP phone services that can display on supported Cisco Unified IP Phones models. IP phone services comprise XML applications or Cisco-signed Java Midlets that enable the display of interactive content with text and graphics on some Cisco Unified IP Phones models.

Cisco Unified Communications Manager provides Cisco-provided default IP phone services, which install automatically with Cisco Unified Communications Manager. You can also create customized Cisco Unified IP Phone services for your site.

After you provision the IP phone services, you can perform the following tasks:

- Assign the service to phones, that is, if the service is not marked as an enterprise subscription
- Provision the IP phone service as a speed dial (service URL button) on the phone, that is, if the service is not marked as an enterprise subscription

Users can log in to the Cisco Unified CM User Options and subscribe to these services for their Cisco Unified IP Phones; that is, as long as these IP phone services are not classified as enterprise subscriptions.

This section covers the following topics:

- [Cisco Unified IP Phone Service Configuration Checklist, page 29-1](#)
- [Understanding Cisco Unified IP Phone Services, page 29-3](#)
- [Installation/Upgrade Considerations for IP Phone Services, page 29-4](#)
- [Phone Support for IP Phone Services, page 29-4](#)
- [Guidelines and Tips, page 29-5](#)
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Cisco Unified IP Phone Service Configuration Checklist

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Users can log on to the Cisco Unified CM User Options and subscribe to these services for their Cisco Unified IP Phones; that is, as long as these IP phone services are not classified as enterprise subscriptions.

[Table 29-1](#) provides a checklist to configure Cisco Unified IP Phone services. For more information, see the “Where to Find More Information” section on page 29-6.

Table 29-1 Cisco Unified IP Phone Service Configuration Checklist

Configuration Steps	Related procedures and topics
<p>Step 1</p> <p>Provision the Cisco Unified IP Phone Service, including the list of parameters that personalize the service. (Device > Device Settings > Phone Service)</p> <p>Cisco-provided default services display in the Find and List IP Phone Services Configuration window after a Cisco Unified Communications Manager installation or upgrade. If you want to do so, you can update these services. If you update these services, you may need to update the Service Provisioning drop-down list box.</p>	<p>IP Phone Service Configuration Settings, <i>Cisco Unified Communications Manager Administration Guide</i></p> <p>Installation/Upgrade Considerations for IP Phone Services, page 29-4</p> <p>Configuring an IP Phone Service Parameter, <i>Cisco Unified Communications Manager Administration Guide</i></p> <p>To determine the parameters for your IP phone service, see the documentation that supports your IP phone service.</p>
<p>Step 2</p> <p>Configure the Service Provisioning drop-down list box.</p> <p>How you configure this setting depends on the phone models that are in your network. If all phone models in your network can parse the service configuration information from the phone configuration file, you can choose Internal. If you have phone models in your network that cannot parse the service configuration information from the phone configuration file, choose Both.</p> <p>Choosing Both allows you to support phones that can parse the service information from the phone configuration file and phone models that can only obtain the service information from a service URL; some phone models, for example, the Cisco Unified IP Phone 7960, can only obtain the service information from a service URL; to support all phone models in your network, choose Both.</p>	<p>This drop-down list box displays in the Enterprise Parameter Configuration window (System > Enterprise Parameter), in the Common Phone Profile window (Device > Device Settings > Common Phone Profile), and in the Phone Configuration window (Device > Phone).</p> <p>Common Phone Profile Configuration Settings, <i>Cisco Unified Communications Manager Administration Guide</i></p>

Table 29-1 Cisco Unified IP Phone Service Configuration Checklist (continued)

Configuration Steps		Related procedures and topics
Step 3	<p>For phones that have Messages, Directory, or Service buttons/options, you can specify under which button/option on the phone the service will display. (You do this in the Phone Services Configuration window.)</p> <p>If you want the service to display as a speed dial button on the phone, create and customize a phone button template that includes the service URL button; then, assign the IP phone service to the service URL button. You can only add services as speed dials if the service is not marked as enterprise subscription.</p>	<p>Phone Button Template Configuration Settings, <i>Cisco Unified Communications Manager Administration Guide</i></p> <p>Adding an IP Phone Service to a Phone Button, <i>Cisco Unified Communications Manager Administration Guide</i></p>
Step 4	Notify users that the Cisco Unified IP Phone Services are available.	See the phone documentation for instructions on how users access Cisco Unified IP Phone services.

Understanding Cisco Unified IP Phone Services

Cisco Unified IP Phone services comprise XML applications or Cisco-signed Java Midlets that enable the display of interactive content with text and graphics on Cisco Unified IP Phones. Typical services that might be supplied to a phone include weather information, stock quotes, and news quotes.

With IP phone service provisioning, you can perform the following tasks:

- Configure how the phone provisions the service.

You can specify whether the phone gets the service from its configuration file, whether the phone retrieves the service from a custom Service URL, or whether the phone supports both options.
- Configure whether the IP phone service displays on the phone.

You can enable or disable a service in Cisco Unified Communications Manager Administration, which allows you to display or not display the service on the phone without deleting the service from the database.

For example, if you do not want to display any call history information on the phone, choose **Device > Device Settings > Phone Services**, and uncheck the **Enable** check box for the Missed Calls, Received Calls, Placed Calls, and Intercom Calls in each configuration window.
- Configure where the IP phone services display on the phone.

By default, for phones with Directory, Messages, or Services buttons/options, the service displays either under one of the buttons/options on the phone. If you want to do so, you can change this assignment in Cisco Unified Communications Manager Administration.

If you want to display the IP phone service as a speed dial on the phone, you can do so. (See the “[Cisco Unified IP Phone Service Configuration Checklist](#)” section on page 29-1.)
- Configure whether a service displays on all phones in the cluster that support services (or whether phone users can subscribe to the service via the Cisco Unified CM User Options).

If the service is not marked as an enterprise subscription, you (or an end user) can subscribe the service to the phone; for example, you can subscribe a lobby phone or other shared devices to a service if the service is not marked as an enterprise subscription.

If the service is marked as an enterprise subscription, the service displays on all phone in the cluster, unless you disable the service in Cisco Unified Communications Manager Administration (by unchecking the Enable check box in the Phone Services Configuration window).

When the user clicks the Subscribe button, Cisco Unified Communications Manager builds a custom URL and stores it in the database for this subscription. The service then appears on the device services list.

- Configure a list of parameters for the IP phone service. These parameters personalize a service for an individual user. Examples of parameters include stock ticker symbols, city names, zip codes, or user IDs. To determine the parameters for your IP phone service, see the documentation that supports your IP phone service.



Tip

IP phone service provisioning allows you to install Cisco-signed Java MIDlets or XML applications on the phone. In addition, IP phone service provisioning provides Cisco-provided default services after an installation or upgrade.

Installation/Upgrade Considerations for IP Phone Services

If you provisioned services before a Cisco Unified Communications Manager upgrade, you may need to perform additional configuration tasks after the upgrade. For example, if you use a custom directory that points to a specific service URL, you may need to update the Service Provisioning drop-down list box.

If you upgrade Cisco Unified Communications Manager and your services do not display or work on the phone, change the Service Provisioning setting to **Both**.

Cisco Unified Communications Manager automatically provisions Cisco-provided default services, which are described in “[IP Phone Service Configuration Settings](#)” in the *Cisco Unified Communications Manager Administration Guide*. These services display in the Find and List IP Phone Services window (**Device > Device Settings > Phone Services**). To update these services, click the link in the window. You can change the name of the service, where the default service displays on the phone, and the service URL. If you change the service URL for the default services, choose **Both** from the Service Provisioning drop-down list box, which allows you to support various phone models in your network; that is, your network can support phone models that can retrieve the service information from the phone configuration file and phone models that can retrieve the service information from an external service URL (for example, the Cisco Unified IP Phone 7960).

Phone Support for IP Phone Services

Consider the following process, which indicates how a Cisco Unified IP Phone supports XML services and Cisco-signed Java MIDlets:

1. The phone receives its configuration file after a reset, restart, or boot up and updates its local service configuration if changes exist.
2. If any service in the configuration file is a Cisco-signed Java MIDlet, the phone compares the provisioned Java MIDlet services to the list of installed Java MIDlet services to determine whether the services need to be installed, uninstalled, upgraded or downgraded. The phone automatically attempts to perform the necessary actions. If the phone fails to install the Java MIDlet on the phone, the phone retries to perform the necessary actions.

3. For XML services, the information in the phone configuration file points to a web script/file, which returns an XML object. Because these services are not installed on the phone, the phone invokes the service URL only when the user selects the option for the service on the phone.

The phone automatically uninstalls the Cisco-signed Java MIDlet under the following circumstances:

- When Cisco Extension Mobility is used to change the current active user on the phones, which occurs during login and logout
- If a phone user is not logged into the phone via Cisco Extension Mobility, but the Owner User ID field is updated in Cisco Unified Communications Manager Administration (which changes the current active user for the device)
- If the phone registers with a different Cisco Unified Communications Manager cluster that does not support Cisco-signed Java MIDlets (or if the other cluster has a different service configuration for the device)
- If the configuration is cleared on the phone by any method; for example, via the Settings menu on the phone or a factory reset on the phone.

**Tip**

Cisco Unified IP Phone models support IP phone services provisioning differently; for example, the Cisco Unified IP Phone 7941G, 7941G-GE, 7961G, 7961G-GE, 7942G, 7962G, 7945G, 7965G, 7970G, 7971G, and 7975G can parse the service information from the phone configuration file, can support movement of services to the Message, Directory, and Services buttons/options on the phone, and so on; for example, the Cisco Unified IP Phones 7906G, 7911G, and 7931G do not support Cisco-signed Java MidLets, but these phones can parse the service information from the phone configuration file. To determine the service provisioning support for your phone model, see the *Cisco Unified IP Phone Administration Guide* that supports your phone model and this release of Cisco Unified Communications Manager.

Guidelines and Tips

Consider the following guidelines and tips when you provision IP phone services in Cisco Unified Communications Manager Administration:

To minimize the impact to Cisco Unified Communications Manager performance and call processing, do not put IP phone services on any Cisco Unified Communications Manager server at your site or any server that is associated with Cisco Unified Communications Manager, such as the TFTP server or publisher database server.

If you do not want to display the service on the phone, uncheck the Enable check box in the IP Phone Services Configuration window (**Device > Device Settings > Phone Services**).

If you want to display IP phone services on a different button than the button that is specified as the default, update the Services Type setting.

If you change the default service URL for a Cisco-provided default service, for example, you change the service URL for the corporate directory from Application:Cisco/CorporateDirectory to a custom URL, make sure that you choose Both from the Service Provisioning drop-down list box. (See [“Cisco Unified IP Phone Service Configuration Checklist”](#) section on page 29-1.)

If you want to do so, you can configure the Services Provisioning enterprise parameter, which applies the configuration to all phones in the cluster that support IP phone services. (In Cisco Unified Communications Manager Administration, choose **System > Enterprise Parameter**.)

If an end user or you subscribe to a disabled service, the phone does not display the service on the button/menu.

If you upgrade Cisco Unified Communications Manager and your services do not display or work on the phone, change the Service Provisioning setting to **Both**.

**Note**

Cisco Unified Communications Manager allows you to create two or more IP phone services with identical names. Cisco recommends that you do not do so unless most or all phone users are advanced, or unless an administrator always configures the IP phone services. Be aware that if AXL or any third-party tool accesses the list of IP phone services for configuration, you must use unique names for IP phone services.

Dependency Records

To find devices that a specific Cisco Unified IP Phone service is using, in the IP Phone Services Configuration window in Cisco Unified Communications Manager Administration, choose Dependency Records from the Related Links drop-down list box and click **Go**. The Dependency Records Summary window displays information about devices that are using the Cisco Unified IP Phone Service. To find out more information about the device, click the device, and the Dependency Records Details window displays. If the dependency records are not enabled for the system, the Dependency Records Summary window displays a message.

For more information about Dependency Records, see [“Accessing Dependency Records”](#) and [“IP Phone Services Configuration”](#) in the *Cisco Unified Communications Manager Administration Guide*.

Where to Find More Information

Related Topics

- [Cisco Unified IP Phone Service Configuration Checklist, page 29-1](#)
- [Understanding Cisco Unified IP Phone Services, page 29-3](#)
- [Installation/Upgrade Considerations for IP Phone Services, page 29-4](#)
- [Phone Support for IP Phone Services, page 29-4](#)
- [Guidelines and Tips, page 29-5](#)
- [Dependency Records, page 29-6](#)
- [Phone Button Template Configuration, Cisco Unified Communications Manager Administration Guide](#)
- [Cisco Unified IP Phone Configuration, Cisco Unified Communications Manager Administration Guide](#)
- [IP Phone Services Configuration, Cisco Unified Communications Manager Administration Guide](#)

Additional Cisco Documentation

- *Cisco Unified IP Phone Administration Guide for Cisco Unified Communications Manager* (specific to phone model)
- Cisco Unified IP Phone user documentation and release notes (specific to models)