



# Cisco WebDialer

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Cisco WebDialer, used in conjunction with Cisco CallManager, allows Cisco IP Phone users to make calls from web and desktop applications.

This chapter provides the following information about Cisco WebDialer:

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## Introducing Cisco WebDialer

Cisco WebDialer, which is installed on a Cisco CallManager server and used in conjunction with Cisco CallManager, allows Cisco IP Phone users to make calls from web and desktop applications. For example, Cisco WebDialer uses hyperlinked telephone numbers in a company directory to allow users to make calls from a web page by clicking on the telephone number of the person that they are trying to call.

Cisco WebDialer includes two main components: the Webdialer and Redirector servlets.

## Webdialer Servlet

The Webdialer servlet, a Java servlet, allows Cisco CallManager users in a specific cluster to make and end calls, as well as to access their phone and line configuration.

An application can interact with the Webdialer servlet through two interfaces:

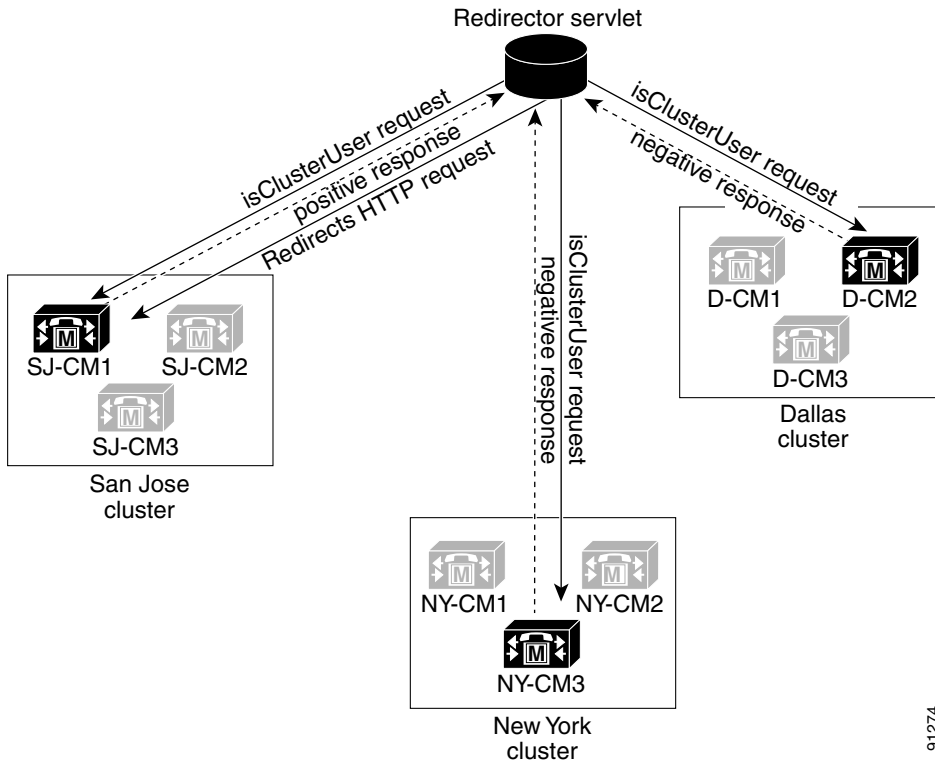
- The SOAP over HTTP interface—This interface that is based on the Simple Object Access Protocol (SOAP) gets used to develop desktop applications such as Microsoft Outlook Add-in and SameTime Client Plug-in. Developers can use the `isClusterUserSoap` interface to design multicluster applications that require functionality similar to a Redirector servlet.
- HTML over HTTP interface—This interface that is based on the HTTP protocol gets used to develop web-based applications such as the Cisco CallManager directory search page (`directory.asp`). Developers who use this interface can use the Redirector servlet for designing multicluster applications.

## Redirector Servlet

The Redirector servlet, a Java based Tomcat servlet, finds the Cisco CallManager cluster for a request that a Cisco WebDialer user makes. It redirects that request to the specific Cisco WebDialer server that is located in that user's Cisco CallManager cluster. Availability of the Redirector servlet occurs only for multicluster applications and only for applications that are developed by using HTML over HTTP interfaces.

[Figure 14-1](#) illustrates how a Redirector servlet redirects a call in a multicluster environment.

Figure 14-1 Multiple Clusters



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### Example of Cisco WebDialer Using the Redirector Servlet

For example, consider three clusters, each one in a single city such as San Jose (SJ-CM), Dallas (D-CM), and New York (NY-CM). Each cluster contains three Cisco CallManager servers with Webdialer servlets that have been configured for Cisco CallManager servers SJ-CM1, D-CM2, and NY-CM3.

The system administrator configures the Webdialer servlets on any of the Cisco CallManager servers by entering the IP address of that specific Cisco CallManager server in the *List of WebDialers* service parameter (see the “[Setting Service Parameters for the Webdialer Servlet](#)” section on page 14-9). For information on configuring Webdialer and Redirector servlets, refer to the “[Configuring the Webdialer Servlet](#)” section on page 14-8 and the “[Configuring the Redirector Servlet \(Optional\)](#)” section on page 14-10.

When a user who is located in San Jose clicks on a telephone number in the corporate directory search window that is enabled by Cisco WebDialer, the following actions happen:

1. The Cisco CallManager server sends an initial *makeCall* HTTP request to the Redirector servlet.
2. If this request is received for the first time, the Redirector servlet reads the Cisco WebDialer server cookie and finds it empty.

For a repeat request, the Redirector servlet reads the IP address of the Cisco WebDialer server that previously serviced the client and sends a *isClusterUser* HTTP request only to that server.

3. The Redirector servlet sends back a response that asks for information, which results in the authentication dialog box opening for the user.
4. The user enters the Cisco CallManager user ID and password and clicks the **Submit** button.
5. The Redirector servlet reads only the user identification from this information and sends a *isClusterUser* HTTP request to each Cisco WebDialer server that the system administrator has configured.

Figure 14-1 illustrates how this request is sent to the Webdialer servlets that have been configured for SJ-CM1, D-CM2, and NY-CM3. Depending on the geographical location of the calling party, the Webdialer servlet from the cluster that represents that location responds positively to the Redirector servlet. The remaining Webdialer servlets that were contacted return a negative response. The Webdialer servlet SJ-CM1 responds positively to the request because the calling party is located in San Jose (SJ-CM).

6. The Redirector servlet redirects the original request from the user to SJ-CM1.

## Redundancy

Because redundancy is important for applications running in a multicluster environment, this section describes one method to achieve that redundancy.

If a single Redirector servlet is supporting multiple WebDialers in a multicluster environment, it provides a single point of failure. For example, in Figure 14-1, a Redirector servlet runs on the San Jose cluster and also services the New York and Dallas clusters. If this Redirector servlet fails to run on the San Jose cluster, the users who are serviced by all three clusters cannot use Cisco WebDialer.

To avoid this single point of failure, configure Redirector servlets for each cluster. If the directory search window points to a URL such as `http://SanJoseCluster.company.com/webdialer/Redirector`, change that URL to a virtual link such as `http://webdialer-service.company.com/webdialer/Redirector`. This virtual link points to a virtual machine that is using a Cisco DistributedDirector. All the Redirector servlets operate behind this virtual link.

For more information on installing and configuring Cisco DistributedDirector, refer to the suite of documents for Cisco DistributedDirector.

## System Requirements for Cisco WebDialer

Cisco WebDialer requires the following software components:

- Cisco CallManager 4.0(1) or later

The following phones support Cisco WebDialer:

- Cisco IP Phones 7900 models

To configure your company directory search window for Cisco WebDialer or the Cisco CallManager directory search window, you must

- Install and configure Cisco CallManager.
- Configure Cisco WebDialer.

For documentation on installing and configuring Cisco CallManager, refer to the [“Where to Find More Information”](#) section on page 14-14.

## Interactions and Restrictions

The following sections describe the interactions and restrictions for Cisco WebDialer:

- [Interactions, page 14-6](#)
- [Restrictions, page 14-6](#)

## Interactions

The following interactions apply to Cisco WebDialer:

- Cisco WebDialer uses the Cisco Tomcat Service that hosts the Cisco CallManager Extension Mobility and Cisco IP Manager Assistant (IPMA) features.
- When using Client Matter Codes (CMC), the user must enter the proper code at the tone; otherwise, the IP Phone disconnects and the user hears reorder tone.
- When using Forced Authorization Codes (FMC), the user must enter the proper code at the tone; otherwise, the IP Phone disconnects and the user hears reorder tone.

## Restrictions

Cisco WebDialer only supports Skinny Client Control Protocol (SCCP) based phones that Cisco Computer Telephony Integration (CTI) supports.

# Installing and Activating Cisco WebDialer

Cisco WebDialer automatically installs on the server on which you installed Cisco CallManager.

Perform the following procedure to activate Cisco WebDialer on the Cisco CallManager server.

### Procedure

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- Step 1** Choose **Application > Cisco CallManager Serviceability**.
  - Step 2** Choose **Tools > Service Activation**.
  - Step 3** Choose the Cisco CallManager server listed in the **Servers** pane.
  - Step 4** Check the box next to **Cisco WebDialer**.
  - Step 5** Click **Update**.



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**Note** Do not restart the Cisco Tomcat Service.

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## Upgrading Cisco WebDialer to Release 4.0(1) from Release 3.3(3)

To upgrade the 3.3(3) release of Cisco WebDialer to the 4.0(1) release, perform the following procedure.

### Procedure

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- Step 1** From Add/Remove Programs, uninstall Cisco WebDialer. Uninstalling Cisco WebDialer does not remove the configuration initialization (.ini) files that are located at C:\Program Files\Cisco\WebDialer.
- Step 2** Do not delete the initialization files.
- Step 3** Upgrade Cisco CallManager to the 4.0(1) release. Cisco CallManager reads the initialization files and configures the service parameters in the Cisco CallManager database.
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## Configuring Cisco WebDialer

This section contains the following information:

- [Cisco WebDialer Configuration Checklist, page 14-8](#)
- [Configuring the Webdialer Servlet, page 14-8](#)
- [Setting Service Parameters for the Webdialer Servlet, page 14-9](#)
- [Configuring the Redirector Servlet \(Optional\), page 14-10](#)

## Cisco WebDialer Configuration Checklist

Table 14-1 provides a configuration checklist for Cisco WebDialer.

**Table 14-1 Cisco WebDialer Configuration Checklist**

Configuration Steps		Related procedures and topics
<b>Step 1</b>	Install and activate the Cisco WebDialer service.	<a href="#">Installing and Activating Cisco WebDialer</a> , page 14-6
<b>Step 2</b>	Configure the Webdialer servlet.	<a href="#">Setting Service Parameters for the Webdialer Servlet</a> , page 14-9
<b>Step 3</b>	(Optional) Configure the Redirector servlet.	<a href="#">Configuring the Redirector Servlet (Optional)</a> , page 14-10
<b>Step 4</b>	(Optional) Configure the application dial rules for multiple cluster applications.	<a href="#">Configuring Application Dial Rules (Optional)</a> , page 14-11
<b>Step 5</b>	(Optional) Create a proxy user.	<a href="#">Creating a Proxy User (Optional)</a> , page 14-11

## Configuring the Webdialer Servlet

To configure the Webdialer servlet

- Activate the Cisco WebDialer service. See the “[Installing and Activating Cisco WebDialer](#)” section on page 14-6.
- Set trace settings (optional). See the “[Trace Settings \(optional\)](#)” section on page 14-13.
- Set the Cisco WebDialer service parameters. See the “[Setting Service Parameters for the Webdialer Servlet](#)” section on page 14-9.

## Setting Service Parameters for the Webdialer Servlet

Cisco CallManager provides the following service parameters for the Webdialer Servlet:

- **List of WebDialers**—This parameter lists IP addresses for all WebDialers in your corporation. To enter new values, enter the IP address of the Cisco CallManager server on which Cisco WebDialer is enabled.

Ensure that each IP address is separated by a space. Ensure that only one WebDialer servlet per cluster is enabled. If more than one WebDialer servlet per cluster is enabled, a drop-down menu on the computer screen displays when the user clicks on the telephone number of the person that user wants to call.

This drop-down menu contains the different locations where the calling party (end user making the call) is located. The end user chooses the appropriate location and proceeds to make the call.

- **Primary Cisco CTIManager**—Enter the IP address of the primary Cisco CTIManager.

The default IP address of the CTI Manager specifies 127.0.0.1, which is the local host server that is used to set up Cisco WebDialer.

The maximum length specifies 15 digits.

- **Backup Cisco CTIManager**—Enter the IP address of the backup Cisco CTIManager. The maximum length specifies 15 digits. No IP address implies that no backup CTI Manager exists.
- **Duration of End Call Dialog (in seconds)**—Enter the duration, in seconds, to display the dialog to end a call. This dialog indicates that the user must end the call if the user dialed out in error.

The default value specifies 15 seconds, with a maximum value of 60 seconds and a minimum value of 10 seconds.

- **User Session Expiry (in hours)**—Enter the duration, in hours, for which the user login session is valid.

A default value of 0 indicates that the login session is valid for an indefinite time, until Cisco Tomcat Service is restarted the next time.

The minimum length specifies 0 hours, and the maximum length specifies 168 hours.

Use the following procedure to initially set or modify existing service parameters for the Webdialer servlet.

### Procedure

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- Step 1** Choose **Service > Service Parameters**.
- Step 2** From the Service Parameters Configuration window, choose the Cisco CallManager server.
- Step 3** Choose the WebDialer service.
- Default values already exist for the parameters Primary Cisco CTIManager, Duration of End Call Dialog, and User SessionExpiry (InHours). Enter new values if required by your application.
- The parameter Backup Cisco CTIManager does not have any default values assigned to it. Enter values for this parameter if your application requires a backup Cisco CTIManager.
- Step 4** For the new parameter values to take effect, restart the Cisco Tomcat Service.
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## Configuring the Redirector Servlet (Optional)

Configure the Redirector servlet only if your applications require multiple clusters. For single-cluster applications, use the Cisco CallManager directory search window (directory.asp) that is bundled with Cisco CallManager.

Perform the following procedure to configure the Redirector servlet.

### Procedure

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- Step 1** Choose **Service > Service Parameters**.
- Step 2** From the Service Parameters Configuration window, choose the Cisco CallManager server.
- Step 3** Choose the WebDialer service.

- Step 4** For the parameter, *List of WebDialers*, enter new values as required by your application. See the [“Setting Service Parameters for the Webdialer Servlet” section on page 14-9](#) for a description of this service parameter.
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## Using directory.asp

For single-cluster applications, access Cisco WebDialer through the Cisco CallManager directory search window (directory.asp), which is bundled with Cisco CallManager and which you can access at the following URL:

http://<CallManager\_server\_on\_which\_Cisco WebDialer is configured>/CCMuser/directory.asp

You can also access Cisco WebDialer through customized directory search applications that can be developed by using Simple Object Access Protocol (SOAP) or HTML interfaces. For information on these interfaces, refer to the *Cisco WebDialer API Reference Guide*.

## Configuring Application Dial Rules (Optional)

Ensure that the application dial rules are configured for multiple cluster applications of Cisco WebDialer. You do not need to configure these dial rules if you are using the Cisco CallManager directory search window (directory.asp) for single-cluster applications.

For information on configuring these application dial rules, refer to [Adding a Dial Rule](#) in the *Cisco CallManager Administration Guide*.

## Creating a Proxy User (Optional)

Create a proxy user if you are using the makeCallProxy HTML over HTTP interface to develop an application for using Cisco WebDialer. For information on the makeCallProxy interface, refer to the *makeCallProxy* section in the *Cisco WebDialer API Reference Guide*.

You can enable authentication proxy rights for either an existing user or a new user.

### Authentication Proxy Rights for Existing User

Perform the following procedure to enable authentication proxy rights for an existing user.

#### Procedure

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- Step 1** Choose **User > Global Directory**.
  - Step 2** Enter the name of the Cisco CallManager user and click **Search**.  
A user information window that lists the **Last Name**, **First Name**, **User ID**, and **Department** of the user opens.
  - Step 3** Click any field that is listed in Step 2.  
A user configuration window displays for that user.
  - Step 4** Click the **Extension Mobility** link from the left panel.  
The Extension Mobility window displays for that user.
  - Step 5** Click the **Enable Authentication Proxy Rights** check box.
  - Step 6** Click **Update Selected**.
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### Authentication Proxy Rights for New User

Perform the following procedure to enable authentication proxy rights for a new user.

#### Procedure

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- Step 1** Choose **User > Add New User**.
- Step 2** Enter the following mandatory fields:  
**First Name**; **Last Name**; **User ID**; **User Password**; **Confirm Password**; **PIN**; and **Confirm PIN**.
- Step 3** Click **Insert**.
- Step 4** Click the **Extension Mobility** link from the left panel. The Extension Mobility window displays for that user.

- Step 5** Check the **Enable Authentication Proxy Rights** check box.
  - Step 6** Click **Update Selected**.
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## Troubleshooting

For information about troubleshooting tools, error messages, and how to recover from Cisco WebDialer problems, see [Appendix A, “Troubleshooting Features and Services”](#). For information about trace settings, see the [“Trace Settings \(optional\)” section on page 14-13](#). For information about alarms and perfmon counters, see the [“Alarms and Perfmon Counters” section on page 14-14](#).

## Trace Settings (optional)

Perform the following procedure to enable debug traces for Cisco WebDialer.

### Procedure

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- Step 1** Choose **Application > Cisco CallManager Serviceability**.
- Step 2** Choose **Trace > Configuration**.
- Step 3** Choose the Cisco CallManager server that is listed in the **Servers** pane.  
The window displays the service names for the server that you chose.
- Step 4** Choose the **Cisco WebDialer** service.
- Step 5** In the Trace Configuration window, change the trace settings according to your troubleshooting requirements. For more information on traces, refer to the *Cisco CallManager Serviceability Administration Guide*.
- Step 6** Click **Update**.



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**Note** Do not restart the Cisco Tomcat Service.

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## Alarms and Perfmon Counters

Cisco WebDialer generates its own alarms and has its own perfmon counters. For more information on alarms and perfmon counters for Cisco WebDialer, refer to the *Cisco CallManager Serviceability System Guide*.

## Where to Find More Information

This section lists documents that provide information on additional Cisco technology.

### Related Topics

- [Service Parameters Configuration](#), *Cisco CallManager Administration Guide*
- [Cisco IP Phone Configuration](#), *Cisco CallManager Administration Guide*
- [Application Dial Rules Configuration](#), *Cisco CallManager Administration Guide*

### Additional Cisco Documentation

- *Cisco CallManager Release 4.1*—A suite of documents related to the installation and configuration of Cisco CallManager. Refer to the *Cisco CallManager Documentation Guide for Release 4.1* for a list of documents on installing and configuring Cisco CallManager 4.1.
- *Cisco IP Phones and Services*—A suite of documents related to the installation and configuration of Cisco IP Phones.