



Cisco WebDialer

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

This chapter provides the following information about Cisco WebDialer:

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- [Related Topics, page 16-13](#)

Introducing Cisco WebDialer

Cisco WebDialer, which is installed on a Cisco Unified CallManager server and used in conjunction with Cisco Unified CallManager, allows Cisco Unified 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 the following two main components:

- [Webdialer Servlet, page 16-1](#)
- [Redirector Servlet, page 16-2](#)

Webdialer Servlet

The Webdialer servlet, a Java servlet, allows Cisco Unified CallManager users in a specific cluster to make and complete 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 HTTPS interface—This interface that is based on the HTTPS protocol gets used to develop web-based applications. 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 Unified 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 Cisco Unified CallManager cluster. Availability of the Redirector servlet occurs only for multicluster applications and only for applications that are developed by using HTML over HTTPS interfaces.

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 Unified CallManager servers with Webdialer servlets that have been configured for Cisco Unified CallManager servers SJ-CM1, D-CM2, and NY-CM3.

The system administrator configures the Webdialer servlets on any Cisco Unified CallManager server by entering the IP address of that specific Cisco Unified CallManager server in the *List of WebDialers* service parameter (see the [“Setting Service Parameters for the Webdialer Servlet”](#) section on page 16-6). For information on configuring the Webdialer servlet and the Redirector servlet, refer to the [“Configuring the Webdialer Servlet”](#) section on page 16-6 and the [“Configuring the Redirector Servlet \(Optional\)”](#) section on page 16-10.

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

1. The Cisco Unified CallManager server sends an initial *makeCall* HTTPS 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* HTTPS request only to that server.

3. The Redirector servlet sends a response that asks for information, which results in the authentication dialog box opening for the user.
4. The user enters the Cisco Unified CallManager user ID and password and clicks the **Submit** button.
5. The Redirector servlet reads only the user identification from this information and sends an *isClusterUser* HTTPS request to each Cisco WebDialer server that the system administrator has configured.
6. The Redirector servlet redirects the original request from the user to SJ-CM1.

Additional Information

See the [“Related Topics”](#) section on page 16-13.

Redundancy

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

If a single Redirector servlet is supporting multiple Cisco WebDialers in a multicluster environment, it provides a single point of failure. For example, in [Figure 16-1](#), 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 `https://sanjoseclustercompany.com:8443/webdialer/Redirector`, change that URL to a virtual link such as `https://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.

Additional Information

See the [“Related Topics” section on page 16-13](#).

System Requirements for Cisco WebDialer

Cisco WebDialer requires the following software components:

- Cisco Unified CallManager 5.0(2) or later
- Cisco Unified IP Phone models that are supported by CTI

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

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

You can launch Cisco WebDialer from the Directory window, in Cisco Unified CallManager User Options. You can access Cisco WebDialer from Cisco Unified CallManager User Options, under the Directory link. For example, you could access a URL similar to the following one:

```
https://<ccmIP address>:8443/ccmuser
```

For documentation on installing and configuring Cisco Unified CallManager, refer to the [“Related Topics” section on page 16-13](#).

Interactions and Restrictions

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

- [Interactions, page 16-3](#)
- [Restrictions, page 16-4](#)

Interactions

The following interactions apply to Cisco WebDialer:

- When using Client Matter Codes (CMC), the user must enter the proper code at the tone; otherwise, the IP phone disconnects, and the user receives 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 receives reorder tone.
- Cisco WebDialer uses change notifications on the ApplicationDialRule database table to track and use the updated dial rules.

Restrictions

Cisco WebDialer supports Skinny Client Control Protocol (SCCP) and Session Initiation Protocol (SIP) based phones that Cisco Computer Telephony Integration (CTI) supports.



Note

Cisco WebDialer supports only the 7970/71 and 7961/41 SIP IP phone models.

Additional Information

See the [“Related Topics”](#) section on page 16-13.

Installing and Activating Cisco WebDialer

Cisco WebDialer automatically installs on the server on which you installed Cisco Unified CallManager. Perform the following procedure to activate Cisco WebDialer on the Cisco Unified CallManager server.

Procedure

-
- Step 1** From the navigation area of the Cisco Unified CallManager application, choose **Cisco Unified CallManager Serviceability** and click **Go**.
 - Step 2** Choose **Tools > Service Activation**.
 - Step 3** Choose the Cisco Unified CallManager server that is listed in the **Servers** drop-down list box.
 - Step 4** From CTI Services, check the check box next to **Cisco WebDialer Web Service**.
 - Step 5** Click **Save**.



Note

You must also activate and start the CTI Manager service for Cisco WebDialer to function properly. To ensure that the CTI Manager service is started, from Cisco Unified CallManager Serviceability, choose **Tools > Control Center - Feature Services**.

Additional Information

See the [“Related Topics”](#) section on page 16-13.

Configuring Cisco WebDialer

This section contains the following information:

- [Cisco WebDialer Configuration Checklist, page 16-5](#)
- [Configuring the Webdialer Servlet, page 16-6](#)
- [Setting Service Parameters for the Webdialer Servlet, page 16-6](#)
- [Configuring the Application User, page 16-8](#)
- [Configuring WebDialer for the Local Language, page 16-9](#)
- [Configuring the Redirector Servlet \(Optional\), page 16-10](#)

Additional Information

See the “[Related Topics](#)” section on page 16-13.

Cisco WebDialer Configuration Checklist

[Table 16-1](#) provides a configuration checklist for Cisco WebDialer. For more information, see the “[Related Topics](#)” section on page 16-13.

Table 16-1 Cisco WebDialer Configuration Checklist

Configuration Steps		Related procedures and topics
Step 1	Activate the Cisco WebDialer service.	Installing and Activating Cisco WebDialer, page 16-4
Step 2	Configure the Webdialer servlet.	Setting Service Parameters for the Webdialer Servlet, page 16-6
Step 3	Add each user that you want to use WebDialer to the Standard End User Group for Cisco Unified CallManager.	Adding Users to the Standard Cisco Unified CallManager End Users Group, page 16-11
Step 4	Determine which language WebDialer displays by setting the locale field in the Cisco Unified CallManager User Options Menu.	Configuring WebDialer for the Local Language, page 16-9
Step 5	(Optional) Configure the Redirector servlet.	Configuring the Redirector Servlet (Optional), page 16-10
Step 6	(Optional) Configure the application dial rules for multiple cluster applications.	Configuring Application Dial Rules (Optional), page 16-10
Step 7	(Optional) Create a proxy user.	Creating a Proxy User (Optional), page 16-11

Table 16-1 Cisco WebDialer Configuration Checklist (continued)

Configuration Steps	Related procedures and topics
Step 8 (Optional) Configure Cisco WebDialer trace settings.	Trace Settings (optional), page 16-13 <i>Cisco Unified CallManager Serviceability Administration Guide</i>
Step 9 Configure Cisco WebDialer alarms.	Related Topics, page 16-13 <i>Cisco Unified CallManager Serviceability Administration Guide</i>

Configuring the Webdialer Servlet

To configure the Webdialer servlet

- Activate the Cisco WebDialer service. See the “[Installing and Activating Cisco WebDialer](#)” section on page 16-4.
- Set trace settings (optional). See the “[Trace Settings \(optional\)](#)” section on page 16-13.
- Set the Cisco WebDialer service parameters. See the “[Setting Service Parameters for the Webdialer Servlet](#)” section on page 16-6.
- Configure application user.

Additional Information

See the “[Related Topics](#)” section on page 16-13.

Setting Service Parameters for the Webdialer Servlet

Cisco Unified CallManager provides the following service parameters for the Webdialer servlet:

- CAPF Profile Instance ID for Secure Connection to CTI Manager—This parameter specifies the Instance Id of the Application CAPF Profile for Application User WDSecureSysUser that this Cisco WebDialer server will use to open a secure connection to CTI Manager.
- List of WebDialers—This parameter lists IP addresses for all Cisco WebDialers in your corporation. To enter new values, enter the IP address of the Cisco Unified CallManager server and the port number on which Cisco WebDialer is enabled.



Note Cisco Unified CallManager Administration 5.0 requires that you specify a port number, for example, “172.19.253.97:8443” with “8443” as the port number.

Ensure that a space separates each IP address and 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 displays when the user clicks the telephone number of the person that the 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 CTI Manager**—Enter the IP address of the primary Cisco CTI Manager.
The default IP address of the Cisco 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 CTI Manager**—Enter the IP address of the backup Cisco CTI Manager. The maximum length specifies 15 digits. No IP address implies that no backup Cisco CTI Manager exists.
- **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 WebDialer Web Service is restarted the next time.
The minimum length specifies 0 hours, and the maximum length specifies 168 hours.
- **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.
To disable the Duration of End Call Dialog service parameter, the user checks the Disable Auto-Close check box in the User Options window. If the Disable Auto-Close check box is checked, the End Call dialog does not close automatically, and the **Hangup** button returns the user to the Make Call window.
- **Apply Application Dial Rules on Dial**—Default specifies True. If you do not need Cisco WebDialer to use application dial rules, change the setting to False.
- **CTI Manager Connection Security Flag**—This clusterwide parameter indicates whether security for the Cisco WebDialer service CTI Manager connection gets disabled or complies with the security mode of the cluster. If security is enabled, Cisco WebDialer opens a secure connection to CTI Manager by using the Application CAPF profile that is configured in Application CAPF Profile Instance Id for Secure Connection to CTI Manager parameter.

**Note**

All changes require a restart of the Cisco WebDialer service for the changes to take effect.

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

Procedure

-
- Step 1** Choose **System > Service Parameters**.
 - Step 2** From the Server drop-down list box, choose the Cisco Unified CallManager server on which you want to configure Cisco WebDialer service parameters.
 - Step 3** From the Service drop-down list box, choose the Cisco WebDialer Web Service.

Default values already exist for the parameters Primary Cisco CTI Manager, Duration of End Call Dialog, User SessionExpiry (InHours), and Apply Application Dial Rules (True). Enter new values if your application requires them.

The parameter Backup Cisco CTI Manager does not have any default values that are assigned to it. Enter values for this parameter if your application requires a backup Cisco CTI Manager.

Step 4 For new parameter values to take effect, restart the Cisco WebDialer Web Service.

Additional Information

See the [“Related Topics”](#) section on page 16-13.

Configuring the Application User

The WebDialer needs a CTI connection to make and end calls. The WebDialer uses the application user and password that are required to create a CTI provider. (The database stores this value as application user and the system retrieves it from there.) To secure a TLS connection to CTI, see the [“Secure TLS Connection to CTI”](#) section on page 16-8.

Secure TLS Connection to CTI

Cisco WebDialer supports a secure (TLS) connection to CTI. Obtain the secure connection by using the “WDSecureSysUser” application user.



Note

You must configure a CAPF profile, in the Application User CAPF Profile Configuration windows in Cisco Unified CallManager Administration, that is configured for the instance ID for application user WDSecureSysUser to obtain a secure connection. If you enable security from the service parameters window, the Cisco WebDialer will open a secure connection to CTI Manager by using the Application CAPF profile. You should configure both the “CTI Manager Connection Security Flag” and the “CAPF Profile Instance ID for Secure Connection to CTI Manager” service parameters for the secure connection to succeed. Refer to [“Application User CAPF Profile Configuration”](#) and [“Service Parameters Configuration”](#) in the *Cisco Unified CallManager Administration Guide*.

Perform the following procedure to configure the application user.

Procedure

Step 1 Choose **User Management > Application User**.

The Find and List Application Users window displays.

Step 2 Click **Find**.

Step 3 From the Application User Configuration window, click **WDSysUser** or **WDSecureSysUser**.



Note

To configure a CAPF profile, refer to [“Application User CAPF Profile Configuration”](#) in the *Cisco Unified CallManager Administration Guide*.



Note

You can change the password that is associated with the WDSysUser. The application obtains the new password from the database.

Additional Information

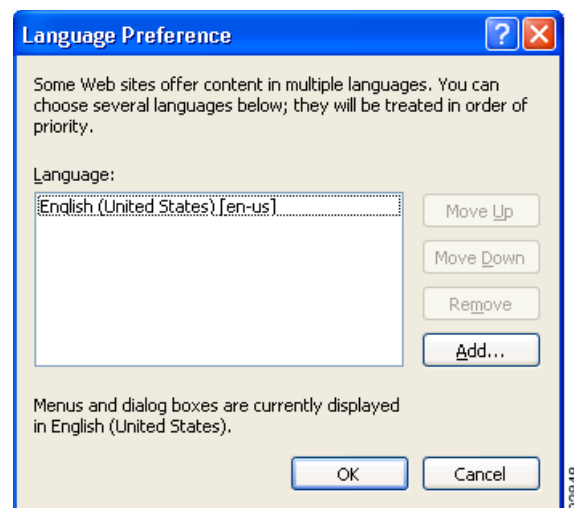
See the “[Related Topics](#)” section on page 16-13.

Configuring WebDialer for the Local Language

Cisco Unified CallManager gives precedence to languages that are set up in the client browser; for example, Microsoft Internet Explorer (see [Figure 16-1](#)). To change the language that the client displays, use the browser settings (not the Locale field in the Cisco Unified CallManager User Options menu). Conversely, Cisco WebDialer gives precedence to the locale that is configured in the Cisco Unified CallManager User Options menu. Cisco WebDialer accesses locales in the following ways:

- You can configure a Cisco WebDialer user for a locale from the Cisco Unified CallManager User Options Menu; for example, Japanese. When the user logs in to WebDialer, the WebDialer preferences window displays in Japanese. The user can change the language to the browser language; for example, by using Microsoft Internet Explorer. Cisco WebDialer recognizes the browser language only in the format ll_CC. For example, the Japanese locale gets defined as ja_JP.
- You can configure a Cisco WebDialer user for no locale (Locale field is set to None in the Cisco Unified CallManager User Options menu). When the user logs in to WebDialer, the WebDialer preferences window displays in English. To change the language of the browser, the user must add a user-defined locale in the browser (using the format of ll_CC). For example, the Japanese locale gets defined as ja_JP.

Figure 16-1 *Locale Settings in Microsoft Internet Explorer*



Refer to the documentation that came with your browser for information on how to change a user-defined locale. Refer to the *Customizing Your Cisco Unified IP Phone on the Web* for information on how to set the locale in the Cisco Unified CallManager User Options menu.

Additional Information

See the “[Related Topics](#)” section on page 16-13.

Partition Support

Cisco WebDialer includes partition information, provided by JTAPI, as well as line information. The following list comprises the different available configurations:

- Lines with the same DN: Cisco WebDialer handles different partition as different lines.
- Lines with the same DN: Cisco WebDialer handles same partition and different devices as shared lines.
- Lines with the same DN: Cisco WebDialer does not support same partition and in same device.

Additional Information

See the [“Related Topics” section on page 16-13](#).

Configuring the Redirector Servlet (Optional)

Configure the Redirector servlet only if your applications require multiple clusters. Perform the following procedure to configure the Redirector servlet.

Procedure

-
- Step 1** Choose **System > Service Parameters**.
 - Step 2** From the Server drop-down list box, choose the Cisco Unified CallManager server on which you want to configure the Redirector Servlet.
 - Step 3** From the Service drop-down list box, choose the Cisco WebDialer Web Service.
 - Step 4** For the parameter, *List of WebDialers*, enter new values that your application requires. See the [“Setting Service Parameters for the Webdialer Servlet” section on page 16-6](#) for a description of this service parameter.
-

Additional Information

See the [“Related Topics” section on page 16-13](#).

Configuring Application Dial Rules (Optional)

Ensure that the application dial rules are configured for multiple cluster applications of Cisco WebDialer.

For information on configuring these application dial rules, refer to the [“Application Dial Rules Configuration” section on page 29-1](#) in the *Cisco Unified CallManager Administration Guide* for dial rule design and error checking.



Note

Cisco WebDialer must pick up the dial rule change without a restart.

Additional Information

See the [“Related Topics” section on page 16-13](#).

Adding Users to the Standard Cisco Unified CallManager End Users Group

For users to use the Cisco WebDialer links in the User Directory windows in Cisco Unified CallManager, you must add each user to the Standard Cisco Unified CallManager End Users Group. The following procedure describes how to add users to this group.

Procedure

-
- Step 1** Choose **User Management > User Group**.
The Find and List User Group window displays.
Click **Find**.
- Step 2** Click the **Standard CCM End Users** link.
- Step 3** The User Group Configuration window displays.
- Step 4** Click **Add End Users to Group**.
The Find and List Users window displays.
- Step 5** Click **Find**. You can enter criteria for a specific user.
- Step 6** Check the check box next to the users that you want to add to the user group and click **Add Selected**.



Note If you want to add all users in the list of users, click **Select All** and then **Add Selected**.

The users display in the Users in Group table on the User Group Configuration window.

Additional Information

See the [“Related Topics” section on page 16-13](#).

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

-
- Step 1** Choose **User Management > User Group**.
The Find and List User Group window displays.
Click **Find**.

- Step 2** Click the **Standard EM Authentication ProxyRights** link.
The User Group Configuration window displays.
- Step 3** Click **Add End Users to Group**.
The Find and List Users window displays.
Click **Find**. You can also add a criteria for a specific user.
- Step 4** Choose the user to which you want to add proxy rights and click **Add Selected**.



Note If you want to add all the users in the list, click **Select All** and then click **Add Selected**.

The user displays in the Users in Group table on the User Configuration window.

Authentication Proxy Rights for New User

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

Procedure

- Step 1** Choose **User Management > End User**.
- Step 2** Click **Add New**.
- Step 3** Enter the following mandatory fields:
Last Name; User ID; Password; Confirm Password; PIN; and Confirm PIN.
- Step 4** Click **Save**.
- Step 5** Choose **User Management > User Group**.
The Find and List User Group window displays.
- Step 6** Click the **Standard EM Authentication ProxyRights** link.
The User Group Configuration window displays.
- Step 7** Click **Add End Users to Group**.
The Find and List Users window displays.
- Step 8** Click **Find**. You can also enter criteria for a specific user.
- Step 9** Choose the user to which you want to add proxy rights and click **Add Selected**.



Note If you want to add all the users in the list, click **Select All** and then click **Add Selected**.

The user displays in the Users in Group table on the User Configuration window.

Additional Information

See the [“Related Topics”](#) section on page 16-13.

Trace Settings (optional)

You can configure trace settings from Cisco Unified CallManager Serviceability Administration. Use the following CLI commands to access the trace files:

```
file get activelog tomcat/logs/webdialer/log4j
```

```
file get activelog tomcat/logs/redirector/log4j
```

You can use the Real-Time Monitoring Tool (RTMT) to collect traces.

**Note**

The same trace settings apply to both Cisco WebDialer and Redirector.

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

Procedure

- Step 1** From the navigation drop-down list box of the Cisco Unified CallManager application, choose **Serviceability** and then click **Go**.
- Step 2** Choose **Trace > Configuration**.
- Step 3** From the Server drop-down list box, choose the server on which you want to enable traces for Cisco WebDialer.
- Step 4** From the Service drop-down list box, choose the **Cisco WebDialer Web 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 Unified CallManager Serviceability Administration Guide*.
- Step 6** Click **Save**.

Additional Information

See the “[Related Topics](#)” section on page 16-13.

Related Topics

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

Additional Cisco Documentation

- *Cisco Unified CallManager Serviceability Administration Guide*
- *Cisco Unified CallManager Serviceability System Guide*
- *Cisco Unified CallManager Release 5.0*—This suite of documents relates to the installation and configuration of Cisco Unified CallManager. Refer to the *Cisco Unified CallManager Documentation Guide for Release 5.x* for a list of documents on installing and configuring Cisco Unified CallManager 5.x.

- *Cisco Unified IP Phones for Cisco Unified CallManager*—This suite of documents relates to the installation and configuration of Cisco Unified IP Phones.
- *Cisco Unified IP Phone User Guides for Cisco Unified CallManager*—The *Customizing Your Phone on the Web* section of each User Guide describes how to use the User Options windows. This section provides information on Cisco WebDialer, so the user can make calls from the web by clicking a telephone number that is linked to the company directory.