



## CHAPTER 5

# Managing Directory Handlers

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## Directory Handler Settings Overview

Directory handlers provide directory assistance in Cisco Unity that callers can use to reach subscribers. When a caller searches on a subscriber name or part of a name, a directory handler looks up the extension and routes the call to the correct subscriber. Note that subscribers cannot be accessed by using directory handlers unless they have recorded names.

Each directory handler contains settings that specify how it searches for names, what it does when it finds one or more matches, and what it does when it detects no caller input.

The multiple directory handler feature provides quick, effective, and secure directory searches for systems with hundreds or thousands of subscribers. Multiple directory handlers are also used for call routing in headquarters and branch office deployments where Cisco Unity provides centralized call processing. Administrators can create as many directory handlers as they need to manage caller searches for subscribers.

## Creating and Modifying Directory Handlers

You can use the default pre-defined directory handler or any other existing directory handler as a template to create additional directory handlers. Create as many directory handlers as needed to route calls to subscribers by using available filters such as location, class of service, and public distribution list membership.

You can also modify or delete directory handlers; however, note that the default directory handler can be modified, but not deleted.

Subscribers can be listed in more than one directory handler.

Because directory handlers do not have greetings, use call handlers or one-key dialing to route callers to a directory handler, and use the call handler greeting to explain caller options for each directory handler.

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### To Create a Directory Handler

- Step 1** In the Cisco Unity Administrator, go to any **Call Management > Directory Handlers** page.
- Step 2** Click the **Add** icon.
- Step 3** In the Add a Directory Handler dialog box, enter information as applicable in the Name field.
- Step 4** Select **New Handler** or **Based on Existing Handler**. If you select Based on Existing Handler, select the applicable directory handler in the Based On field.
- If you base a new directory handler on an existing one, all of the settings are copied except for the extension and recorded name. If you select New Handler, the new directory handler is based on the default directory handler.
- Step 5** Click the **Add** button.
- Step 6** Specify the settings for your new directory handler, as applicable, and then click the **Save** icon.
- Note that there may be a delay in synchronizing and accessing new directory handlers. See the [“Synchronizing Directory Handlers with the Subscriber Database”](#) section on page 5-3 for more information.
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### To Modify a Directory Handler

- Step 1** In the Cisco Unity Administrator, go to any **Call Management > Directory Handler** page.
- Step 2** Click the **Find** icon.
- Step 3** Double-click the directory handler that you want to modify.
- Step 4** Change settings as applicable, and then click the **Save** icon.
- Note that there may be a delay in synchronizing and accessing new directory handlers. See the [“Synchronizing Directory Handlers with the Subscriber Database”](#) section on page 5-3 for more information.
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### To Delete a Directory Handler

- Step 1** In the Cisco Unity Administrator, go to any **Call Management > Directory Handler** page.
- Step 2** Click the **Find** icon.
- Step 3** Double-click the directory handler that you want to delete.
- Step 4** Click the **Delete** icon.
- Step 5** On the Cisco Unity server desktop, double-click the **Cisco Unity Tools Depot** icon.
- Step 6** In the left pane, under Diagnostic Tools, double-click **DbWalker**.
- Step 7** In the Automatic Repairs tab, check the following check boxes, as applicable, to initiate repairs:
- **Remove Orphaned Call Handlers**
  - **Delete Empty Private Distribution Lists**
  - **Set Broken User Keys to Ignore**
  - **Remove References to Missing Greeting or Voice Name WAV Files**

**Tip**

Alternatively, you can run the Cisco Unity Directory Walker (DbWalker) utility without any check boxes checked to determine whether there are links to the deleted directory handler from other objects, such as call handlers, as well as to identify other database problems. Based on what you learn from the DbWalker output, you can then run the utility a second time, with your choice of automatic repairs selected.

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- Step 8** In the Logging pane, enter the location for the output log file.
- Step 9** Click **Walk Database**.
- Step 10** Click **OK**, then click **OK** again to view the output log to see the errors that were identified and what automatic repairs, if any, were made.
- Step 11** Click **Exit**.
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## Synchronizing Directory Handlers with the Subscriber Database

Depending on the complexity of the Cisco Unity system configuration, synchronization of a new directory handler can take several minutes to several hours to complete. Factors that can affect synchronization speed include:

- System configuration, including multi-domain environments, organization unit structure, synchronization timer setting, and public distribution list complexity
- Cisco Unity Digital Networking configuration
- Number of subscribers and public distribution lists

When a directory handler is scoped by a distribution list, the membership is synchronized from Active Directory into the Cisco Unity SQL Server database. Changing the distribution list by which the directory handler is scoped requires a synchronization. This synchronization takes place when the Cisco Unity directory services (AvDSAD and AvDSGlobalCatalog) poll the directory for any changes to be applied to the SQL Server database, which usually occurs within 15 to 20 minutes after the directory handler scope change is made in the Cisco Unity Administrator.

If an outside caller calls into Cisco Unity and navigates to a recently created or modified directory handler on which synchronization has not yet completed, the Cisco Unity conversation may not present the full list of the directory members and/or may fail to find some directory members. This can also occur if the system administrator calls into Cisco Unity to verify directory handler additions or changes immediately after the changes are made in the Cisco Unity Administrator.

To initiate an immediate synchronization, do the following procedure.

### To Manually Synchronize the Cisco Unity Database and Verify That Subscribers Can Be Located in the Directory Handler

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- Step 1** In the Cisco Unity Administrator, go to the **System > Configuration > Settings** page.
- Step 2** In the Replicate Cisco Unity Directory Objects section, click **Changed Objects**.  
The Settings page is refreshed and the database changes will be synchronized in the background.
- Step 3** Wait a few minutes, then call in to Cisco Unity and confirm that the subscriber(s) can be located in the directory handler.

- Step 4** If the subscriber(s) still cannot be located, confirm that they have recorded names. Subscribers cannot be accessed by using directory handlers unless they have recorded names.
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## Limiting Directory Handler Searches

The search options settings specify whether a directory handler searches for subscribers by using first name first, or last name first. Additionally, these settings allow you to restrict directory handler searches to the local Cisco Unity server, a public distribution list, a class of service, or if your organization uses Digital Networking to network Cisco Unity servers within a dialing domain, to expand searches to Cisco Unity servers at other locations.

**Note**

For more information about dialing domains, see the “Dialing Domains” section in the “Digital Networking” chapter of the *Networking Guide for Cisco Unity*. (The guide is available at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products\\_feature\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_feature_guides_list.html).)

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Even if you have Digital Networking set up, you may want to consider limiting directory handler searches to the local server if either of the following conditions is true:

- If there are a large number of subscribers with the same name in your organization. In this situation, if you enable directory handler searches for multiple locations, the list of matching names presented to callers may be too long to be useful.
- If it is important to retain the individual call transfer settings for subscribers associated with other networked locations. If you enable directory handler searches for multiple locations, any calls transferred from a directory handler to subscribers not associated with the local server are automatically handled by the phone system—rather than by Cisco Unity—even if these subscribers are set up for supervised transfers on their own local Cisco Unity servers. As a result, the call screening, call holding, and announce features would not be available on these calls.