



CHAPTER 2

Configuring Cisco Visual Voicemail on Your Cisco Unified Communications System

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Configuration of Visual Voicemail on Your Cisco Unified Communications System

Before you install Visual Voicemail, ensure that you plan appropriately for the installation. For more information, see [Planning to Install Cisco Visual Voicemail](#).

When you install Visual Voicemail, you can re-use some elements of the existing configuration of your TUI voicemail system. For some configurations, you do not need to create new versions of the following configuration elements, you can re-use these items:

- Voicemail ports
- Line groups
- Hunt lists

For other configurations, for example Cisco Unity Connection servers in an active-active configuration, you must create a line group and a hunt list for each server.

Related Topics

- [Visual Voicemail and Complex Configurations, page 2-2](#)

Visual Voicemail and Complex Configurations

Your Cisco Unified Communications system might contain the following elements for failover, clustering, or to ensure that the system can be scaled:

- Multiple voicemail servers
- Multiple Cisco Unified Communications Manager servers

If your system contains these elements, you must repeat some of the installation steps described in this chapter. You must repeat steps on different servers.

For more information about how to configure Visual Voicemail on complex configurations, see [Configuring Cisco Visual Voicemail on Complex Systems with Failover, Clusters, and Multiple Servers](#).

Related Topics

- [Configuration of Visual Voicemail on Your Cisco Unified Communications System, page 2-1](#)

Enabling Web Access on Phones

For Visual Voicemail to function correctly on Cisco Unified IP Phones, the phones must have web access enabled. To enable web access on the phones in your system, you can use the following Cisco Unified Communications Manager windows:

- Device Configuration window
- Common Phone Profile window
- Enterprise Phone Configuration window

For more information about these windows, see the *Cisco Unified Communications Manager Administration Guide* at the following URL:

http://www.cisco.com/en/US/products/sw/voicesw/ps556/prod_maintenance_guides_list.html

For more information about web access, see the *Cisco Unified Communications Manager Security Guide* at the same URL.

What to Do Next

- [Creating a Voicemail Pilot Number for Visual Voicemail, page 2-3](#)

How to Create Voicemail Pilot Numbers, Hunt Pilots, Line Groups, and Hunt Lists

- [Creating a Voicemail Pilot Number for Visual Voicemail, page 2-3](#)
- [Creating a Hunt Pilot for the Voicemail Pilot Number, page 2-3](#)
- [Testing Your Visual Voicemail Pilot Number, page 2-4](#)
- (Active-Active Cisco Unity Connection Only) [Creating a Line Group, page 2-4](#)
- (Active-Active Cisco Unity Connection Only) [Creating a Hunt List, page 2-4](#)

Creating a Voicemail Pilot Number for Visual Voicemail

Procedure

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- | | |
|---------------|---|
| Step 1 | Select Voice Mail > Voice Mail Pilot in Cisco Unified Communications Manager Administration. |
| Step 2 | Select Add New . |
| Step 3 | Enter a directory number for the voicemail pilot for Visual Voicemail in the Voice Mail Pilot Number field. |
| Step 4 | Select the same calling search space that you use for the TUI voicemail system from the Calling Search Space list box. |
| Step 5 | (Optional) Enter a description in the Description field, for example, enter Visual Voicemail Reverse Trap Pilot . |
| Step 6 | Select Save . |
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Related Topics

- [How to Configure Reverse TRaP Rules, page 2-7](#)

What to Do Next

- [Creating a Hunt Pilot for the Voicemail Pilot Number, page 2-3](#)

Creating a Hunt Pilot for the Voicemail Pilot Number

A hunt pilot is a string of digits and a set of associated digit manipulations that route calls to a hunt list. For more information about hunt pilots, see the *Cisco Unified Communications Manager Administration Guide* at the following URL:

http://www.cisco.com/en/US/products/sw/voicesw/ps556/prod_maintenance_guides_list.html

Procedure

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- | | |
|---------------|--|
| Step 1 | Select Call Routing > Route/Hunt > Hunt Pilot in Cisco Unified Communications Manager Administration. |
| Step 2 | Select Add New . |
| Step 3 | Enter the number of the Visual Voicemail pilot number in the Hunt Pilot field. |
| Step 4 | (Optional) Enter a description in the Description field, for example, enter Visual Voicemail Reverse Hunt Pilot . |
| Step 5 | Select the same hunt list that is associated with your telephone user interface (TUI) voicemail system from the Hunt List list box. |
| Step 6 | Select Save . |
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Related Topics

- [Creating a Voicemail Pilot Number for Visual Voicemail, page 2-3](#)

What to Do Next

- [Testing Your Visual Voicemail Pilot Number, page 2-4](#)

Testing Your Visual Voicemail Pilot Number

Call the Visual Voicemail pilot number. If you hear prompts from the TUI, you have successfully created the Visual Voicemail pilot number.

Related Topics

- [Creating a Voicemail Pilot Number for Visual Voicemail, page 2-3](#)
- [Creating a Hunt Pilot for the Voicemail Pilot Number, page 2-3](#)

What to Do Next

- [\(Active-Active Cisco Unity Connection Only\) Creating a Hunt List, page 2-4](#)
- [How to Install and Configure Voicemail Web Services, page 2-5](#)

(Active-Active Cisco Unity Connection Only) Creating a Line Group

If you want to configure Visual Voicemail in a cluster of publisher and subscriber Cisco Unity Connection servers in an active-active configuration with one Cisco Unified Communications Manager server, you must create a line group for each Cisco Unity Connection server.

The directory numbers that are listed for the ports for the publisher server must be added to the line group for the publisher server. Similarly, the directory numbers that are listed for the ports for the subscriber server must be added to the line group for the subscriber server.

To view a list of ports and associated directory numbers, select **Voice Mail > Cisco Voice Mail Port** in Cisco Unified Communications Manager Administration.

For more information about how to create a line group, see the *Cisco Unified Communications Manager Administration Guide* at the following URL:

http://www.cisco.com/en/US/products/sw/voicesw/ps556/prod_maintenance_guides_list.html

For more information about ports in Cisco Unity Connection, see the *System Administration Guide for Cisco Unity Connection* at the following URL:

http://www.cisco.com/en/US/products/ps6509/prod_maintenance_guides_list.html

What to Do Next

- [\(Active-Active Cisco Unity Connection Only\) Creating a Hunt List, page 2-4](#)

(Active-Active Cisco Unity Connection Only) Creating a Hunt List

If you want to configure Visual Voicemail in a cluster of publisher and subscriber Cisco Unity Connection servers in an active-active configuration with one Cisco Unified Communications Manager server, you must create a hunt list for each Cisco Unity Connection server.

You must add the line group for the publisher server to the hunt list for the publisher server. Similarly, you must add the line group for the subscriber server to the hunt list for the subscriber server.

For more information about how to create a hunt list, see the *Cisco Unified Communications Manager Administration Guide* at the following URL:

http://www.cisco.com/en/US/products/sw/voicesw/ps556/prod_maintenance_guides_list.html

What to Do Next

- [How to Install and Configure Voicemail Web Services, page 2-5](#)

How to Install and Configure Voicemail Web Services

- [Installing the Cisco Unity Web Service, page 2-5](#)
- [Configuring Cisco Unity Connection Settings for the Voicemail Web Service, page 2-5](#)
- [Testing That the Voicemail Web Service Is Accessible, page 2-6](#)

Installing the Cisco Unity Web Service

Procedure

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|---------------|--|
| Step 1 | Download the .msi installation file for the Cisco Unity web service to the Cisco Unity server. For information about where to get the .msi installation file, see the release notes at the following URL:

http://www.cisco.com/en/US/products/ps9829/prod_release_notes_list.html |
| Step 2 | Run the .msi installation file. |
| Step 3 | Follow the instructions in the installation wizard to install the Cisco Unity web service. |
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Related Topics

- [How to Install and Configure Voicemail Web Services, page 2-5](#)
- [Configuring Cisco Unity Connection Settings for the Voicemail Web Service, page 2-5](#)

What to Do Next

- [Testing That the Voicemail Web Service Is Accessible, page 2-6](#)

Configuring Cisco Unity Connection Settings for the Voicemail Web Service

When you install the Engineering Special (ES) for Cisco Unity Connection, the voicemail web service is also installed. You must configure the voicemail web service in Cisco Unity Connection.

Procedure

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|---------------|--|
| Step 1 | Select System Settings > Advanced > Connection Administration in Cisco Unity Connection Administration. |
|---------------|--|

Step 2 Enter values for the following Voice Mail Web Service settings:

Field	Setting
Applications Can Cache the Cisco Unity Connection Password	Select this option to enable Visual Voicemail to cache the extension and numeric password of users. This is required if you want to enable your users to use the sign-in option Keep me signed in .
Session Timeout (in Seconds)	Ensure that this value is set to 300 .
Pilot Number for Voice Mail	Enter the directory number of your TUI voicemail service.
Pilot Number for TRAP Connections	Enter the Visual Voicemail pilot number.

Step 3 Select **Save**.

Related Topics

- [How to Install and Configure Voicemail Web Services, page 2-5](#)

What to Do Next

- [Testing That the Voicemail Web Service Is Accessible, page 2-6](#)

Testing That the Voicemail Web Service Is Accessible

Procedure

Step 1 Start a browser.

Step 2 Use the HTTP protocol to access the URL of the voicemail web service on the Cisco Unity or Cisco Unity Connection server.

You can access the URL structured as follows:

- Cisco Unity:
http://<domain-name-of-Cisco Unity-server>/vmws/vmws.dll?Handler=GenAuthenticationWSDL
- Cisco Unity Connection:
http://<domain-name-of-Cisco Unity Connection-server>/vmws/services/Authentication?wsdl

For example, access a URL similar to the following:

- Cisco Unity: http://unityserver/vmws/vmws.dll?Handler=GenAuthenticationWSDL
- Cisco Unity Connection: http://unityconnectionserver/vmws/services/Authentication?wsdl

If the source of an XML file is displayed, the voicemail web service has been correctly installed.

Related Topics

- [How to Install and Configure Voicemail Web Services, page 2-5](#)

What to Do Next

- [About the Visual Voicemail .Jad and .Jar Files, page 2-7](#)

About the Visual Voicemail .Jad and .Jar Files

Before you install Visual Voicemail, you must update your Cisco Unity or Cisco Unity Connection server to the release required for Visual Voicemail, as listed in the release notes at the following URL:

http://www.cisco.com/en/US/products/ps9829/prod_release_notes_list.html

During the installation of the updates, the following files are copied to the server:

- VisualVoicemail.jad
- VisualVoicemail.jar

VisualVoicemail.jad is a Java Application Descriptor (JAD) file. When you update the servers, the MIME type for .jad files is automatically set to the following value:

text/vnd.sun.j2me.app-descriptor

Related Topics

- [Testing the Visual Voicemail .Jad File on Your Voicemail Server, page 2-7](#)

Testing the Visual Voicemail .Jad File on Your Voicemail Server

Procedure

Step 1 Start a browser.

Step 2 Access the URL of the .jad file on the voicemail server.

You can access the URL structured as follows:

`http://<IP-address-of-voicemail-server>/midlets/VisualVoicemail/VisualVoicemail.jad`

For example, access:

`http://209.165.200.225/midlets/VisualVoicemail/VisualVoicemail.jad`

Depending on the browser you use, a dialog that prompts you to open or to save the VisualVoicemail.jad file is displayed.

Related Topics

- [About the Visual Voicemail .Jad and .Jar Files, page 2-7](#)

What to Do Next

- [How to Configure Reverse TRaP Rules, page 2-7](#)

How to Configure Reverse TRaP Rules

- [Configuring a Reverse TRaP Rule on Cisco Unity, page 2-8](#)

- [Configuring a Reverse TRaP Rule on Cisco Unity Connection, page 2-8](#)
- [Testing Your Reverse TRaP Rule, page 2-9](#)

Configuring a Reverse TRaP Rule on Cisco Unity

Procedure

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- Step 1** Start a browser on the Cisco Unity server.
- Step 2** Access the system administration web page of the Cisco Unity server.
You can access the URL structured as follows:
http://<localhost>/Web/SA
For example, access:
http://unityserver/Web/SA
- Step 3** Select **Call Routing** in the **Call Management** section.
- Step 4** Select **Direct Calls** in the left pane.
- Step 5** Change the rule order in the Routing Table so that the Route to Reverse TRaP rule is before the Attempt Sign-In rule.
- Step 6** Set the status of the Route to Reverse TRaP rule to **Enabled**.
- Step 7** Enter the number of the Visual Voicemail pilot number in the **Dialed number (DNIS)** field.
- Step 8** Select Reverse TRaP from the **Send calls to** list box.
- Step 9** Select **Save**.



Note

Do not add any other reverse TRaP rules for Visual Voicemail. Also, do not rename the existing reverse TRaP rule. If you change the name of the reverse TRaP rule from *Route to Reverse TRaP*, Visual Voicemail does not function correctly.

What to Do Next

- [Testing Your Reverse TRaP Rule, page 2-9](#)

Configuring a Reverse TRaP Rule on Cisco Unity Connection

Procedure

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- Step 1** Select **Call Management > Call Routing > Direct Routing Rules** in Cisco Unity Connection Administration.
- Step 2** Select **Add New**.
- Step 3** Enter a name for the rule in the Display Name field, for example, enter **Visual Voicemail Reverse Trap Rule**.
- Step 4** Select **Save** to save the name.

- Step 5** Follow these steps to create a condition:
- Select **Add New** in the Routing Rule Conditions section.
 - Select the **Dialed Number** option.
 - Select **Equals** from the list box of condition operators.
 - Enter the number of the Visual Voicemail pilot number in the value field.
 - Select **Save** to save the condition.

Check that the new rule is displayed in the Routing Rule Conditions section.

- Step 6** Select the **Edit Direct Routing Rule** link at the top of the window.

- Step 7** Select the **Conversation** option on the Edit Direct Routing Rule window, then select **Reverse Trap** from the list box.

- Step 8** Select **Save** to save the rule.

**Note**

Do not add any other reverse TRaP rules for Visual Voicemail.

What to Do Next

- [Testing Your Reverse TRaP Rule, page 2-9](#)

Testing Your Reverse TRaP Rule

Call the Visual Voicemail pilot number. If you hear five or six seconds of silence followed by termination of the call, you have successfully created the reverse TRaP rule.

Related Topics

- [Configuring a Reverse TRaP Rule on Cisco Unity, page 2-8](#)
- [Configuring a Reverse TRaP Rule on Cisco Unity Connection, page 2-8](#)

What to Do Next

- [How to Add the Visual Voicemail Service in Cisco Unified Communications Manager, page 2-9](#)

How to Add the Visual Voicemail Service in Cisco Unified Communications Manager

- [Viewing the .Jad File, page 2-10](#)
- [Service Parameters for Visual Voicemail, page 2-10](#)
- [Adding the Visual Voicemail Service, page 2-11](#)

Viewing the .Jad File

To add the Visual Voicemail service, you must first obtain information about the service from the VisualVoicemail.jad file. To obtain this information, you must view the content of the file.

Procedure

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- Step 1** Follow the procedure in [Testing the Visual Voicemail .Jad File on Your Voicemail Server, page 2-7](#).
- Step 2** Save the .jad file.
- Step 3** Open VisualVoicemail.jad in a text editor
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Related Topics

- [Adding the Visual Voicemail Service, page 2-11](#)
- [About the Visual Voicemail .Jad and .Jar Files, page 2-7](#)

Service Parameters for Visual Voicemail

To update a Visual Voicemail service parameter, you must delete the Visual Voicemail service then recreate the service. Therefore, you must decide which service parameters you want to use before you create the Visual Voicemail service.

You can use the following parameters with the Visual Voicemail service:

Parameter	Description
call_connect_delay	<p>Specifies in milliseconds the delay that Visual Voicemail allows for a call to be automatically answered and connected to the voicemail server. This call is then used to play or record a message.</p> <p>The default value is 1000, but this value might need to be adjusted if there is significant network latency between the IP Phones running Visual Voicemail and the voicemail server.</p> <p>If this value is not large enough, then calls created by Visual Voicemail to play or record messages might be disconnected after five or six seconds.</p> <p>Only modify the value of this parameter if establishing calls to the voicemail server is unreliable.</p> <p>Suggested maximum value: 2500</p> <p>Suggested minimum value: 500</p>
log_level	Specifies the degree of detail that you want to appear for the phones that subscribe to the Visual Voicemail service.
never_save_localization_data	(Optional) Specifies whether to save localized user interface text in the memory of the phones.
tui_key_mappings_file_url	(Optional) Specifies the HTTP location of the key mappings file. For more information about this parameter, see Configuring Key Mappings in Visual Voicemail .

Parameter	Description
tui_key_mappings_file_version	(Optional) Specifies the version number of the key mappings file. For more information about this parameter, see Configuring Key Mappings in Visual Voicemail .
use_secure_https_connection	(Optional) Specifies whether to implement security in the Visual Voicemail service, that is whether to use HTTPS instead of HTTP to transmit voice messages. Set the value of this parameter to Yes to implement security in the Visual Voicemail service.
voicemail_server	Specifies the hostname of the voicemail server.


Related Topics

- [Updating Visual Voicemail Service Parameters, page 7-2](#)

Adding the Visual Voicemail Service

Procedure

- Step 1** Select **Device > Device Settings > Phone Services** in Cisco Unified Communications Manager Administration.
- Step 2** Select **Add New**.
- Step 3** Enter information in the IP Phone Services Configuration window, as follows:

Field	Setting
Service Name	Enter the name of the service exactly as it appears in the VisualVoicemail.jad file. This name is displayed in the list of available services when you subscribe a phone to a service.  Note You must enter the name of the service exactly as it appears in the VisualVoicemail.jad file. For example, if there are no spaces in the name of the service in the VisualVoicemail.jad file, do not include spaces in the name in this field.
ASCII Service Name	Enter a name for the service in ASCII characters. This name is displayed on a phone if the phone cannot display Unicode characters.
Service URL	Enter a URL that points to the service target .jad file. For example, enter a URL similar to the following URL: http://209.165.200.225/midlets/VisualVoicemail/VisualVoicemail.jad
Service Category	Select Java MIDlet .
Service Type	Select Messages to associate the service with the Messages button on the phone.
Service Vendor	Enter the name of the service vendor as it appears in VisualVoicemail.jad.
Service Version	Leave this field blank.

Field	Setting
Enable	Select this to enable the service.
Enterprise Subscription	Do not select this. This method of installing the Visual Voicemail service on phones is suitable for only the most simple phone systems.

Step 4 Select **Save**.

Step 5 Select **New Parameter** to add a parameter to the service.

Field	Setting
Parameter Name	Enter the following text in this field: voicemail_server
Parameter Display Name	Enter a name for the parameter. This name is used in the Cisco Unified Communications Manager user interface. For example, enter Voicemail server .
Default Value	Cisco Unity: Enter the hostname of the primary server. Cisco Unity Connection: If you have a Cisco Unity Connection cluster, enter the cluster DNS alias. Otherwise, enter the hostname of your Cisco Unity Connection server. This value is displayed to administrators when they subscribe phones to this service. When a user signs in to Visual Voicemail, the hostname of any partner server that is available is cached by the Visual Voicemail MIDlet for use during failover. For this reason, only one hostname is needed for this parameter.
Parameter Description	Enter a description. For example, enter Hostname of voicemail server .
Parameter is Required	Select this option.
Parameter is a Password	Do not select this option.

For more information about service administration, see *Cisco Unified Communications Manager System Guide* and *Cisco Unified Communications Manager Administration Guide* at the following URL:

http://www.cisco.com/en/US/products/sw/voicesw/ps556/prod_maintenance_guides_list.html

Step 6 Select **Save**.

Step 7 Select **Add New** to add another parameter to the service.

Field	Setting
Parameter Name	Enter the following text in this field: call_connect_delay
Parameter Display Name	Enter a name for the parameter. For example, enter Call Connect Delay .
Default Value	Enter 1000 .
Parameter Description	Enter a description. For example, enter Default call connect delay .

Field	Setting
Parameter is Required	Select this option.
Parameter is a Password	Do not select this option.

Step 8 Select **Add New** to add another parameter to the service.

Field	Setting
Parameter Name	Enter the following text in this field: log_level
Parameter Display Name	Enter a name for the parameter. For example, enter Log Level .
Default Value	Enter the following text in this field: info
Parameter Description	Enter a description. For example, enter Level of logging .
Parameter is Required	Select this option.
Parameter is a Password	Do not select this option.

Step 9 Select **Save And Close**.

Related Topics

- [Viewing the .Jad File, page 2-10](#)
- [Service Parameters for Visual Voicemail, page 2-10](#)
- [About the Visual Voicemail .Jad and .Jar Files, page 2-7](#)
- [Installing by Enterprise Subscription, page 5-3](#)
- [How to Add the Visual Voicemail Service in Cisco Unified Communications Manager, page 2-9](#)

What to Do Next

- (Optional) [Configuring Security for Cisco Visual Voicemail](#)
- (Optional) [Configuring Cisco Visual Voicemail on Complex Systems with Failover, Clusters, and Multiple Servers](#)
- [Installing Cisco Visual Voicemail on Phones](#)

