Five9
The Intelligent Cloud Contact Center

Basic Configuration

Administrator's Guide

February 2026

Learn how to configure and manage your Five9 domain using the VCC Administrator interface.

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About Five9

Five9 is the leading provider of cloud contact center software, bringing the power of the cloud to thousands of customers and facilitating more than three billion customer interactions annually. Since 2001, Five9 has led the cloud revolution in contact centers, delivering software to help organizations of every size transition from premise-based software to the cloud. With its extensive expertise, technology, and ecosystem of partners, Five9 delivers secure, reliable, scalable cloud contact center software to help businesses create exceptional customer experiences, increase agent productivity and deliver tangible results. For more information visit www.five9.com.

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What's New

Release	Change	Topic
Feb 2026	Added topic on how to delete prompts.	Managing Voice Prompts
	Added call screening as a disposition.	System Dispositions Configuring Custom Dispositions
	Added administrator timeout details.	About the Virtual Contact Center Administrator Application
Jan 2026	Added a note about the new API Only User type, used to configure access to legacy web services.	Assigning User Roles and Permissions
Nov 2025	Added a note that manual outbound calls only use the phone number's area code and prefix for time zone.	Configuring Time Zone Dialing in VCC
Sep 2025	Updated the following topics to enhance clarity on how to add a number to the DNC list using dispositions and enable DNC-related permissions for agents.	Managing Do Not Call (DNC) Lists Agent Permissions
	Updated steps for how to upload greetings.	Managing Voicemail Greetings
	Corrected text on the supported number of speed dials.	Managing Speed Dial Numbers
Aug 2025	Added note to the Number Data Type.	Data Types
May 2025	Added to descriptions that FTP recording transfer details occur	Configuring Advanced Recording Uploads

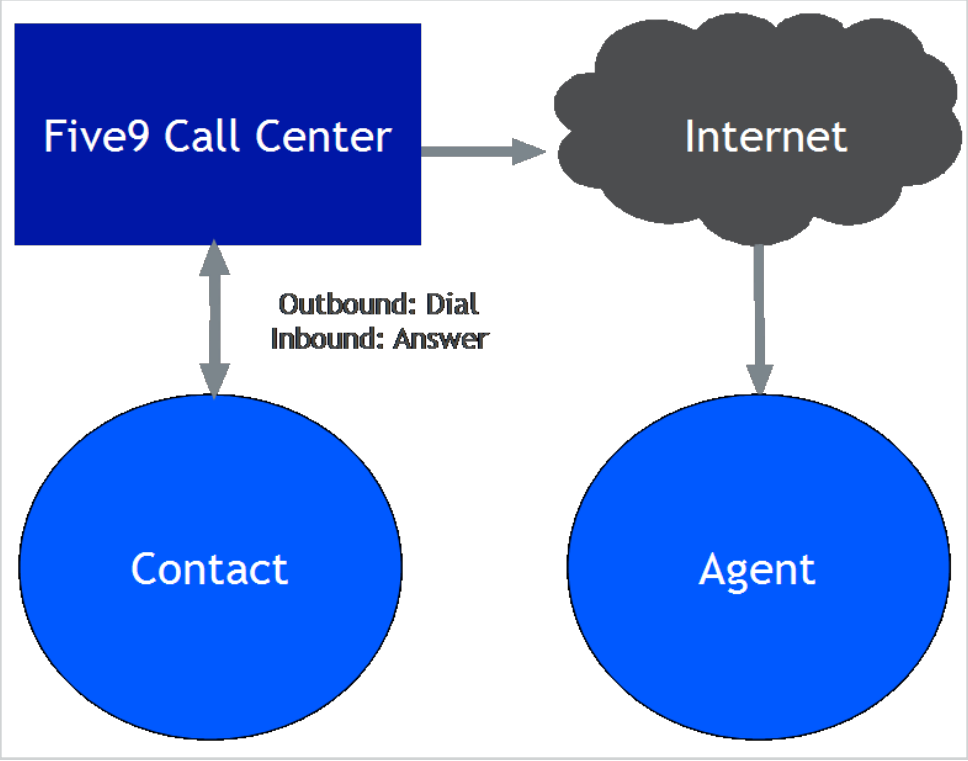
Release	Change	Topic
	in real-time.	Exporting Recordings and Transcripts
	Updated information on when administrative permissions are required.	Option 1: Installing the Software on a Single Workstation, Step 2 (Windows): Installing the Softphone

About the Virtual Contact Center Administrator Application

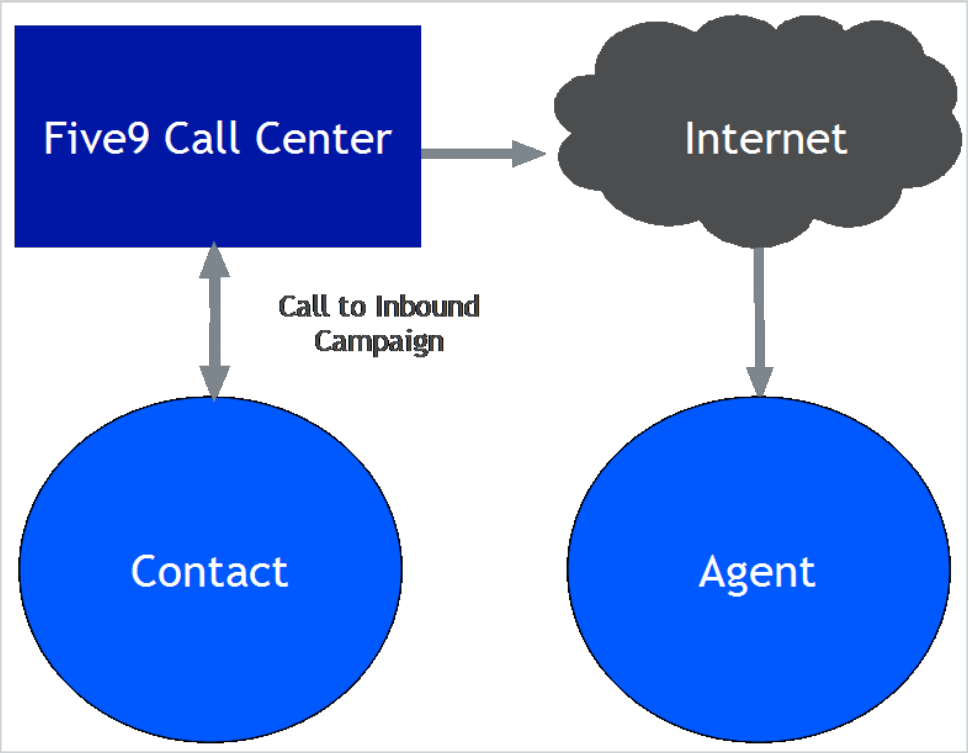
This information describes how to use the Five9 Virtual Contact Center (VCC) Administrator application to configure and manage your contact center domain.

The VCC is cloud-based software provided as a service for creating and managing outbound and inbound contact center operations:

- In outbound campaigns, the automatic dialer can make multiple simultaneous calls. The dialer can skip busy signals, answering and fax machines, and *no answer* calls. Agents process calls answered only by a live person.



- In inbound campaigns, callers dial directly to the VCC which automatically routes calls to agents based the campaign settings, such as skills and status.



The applications correspond to the user roles:

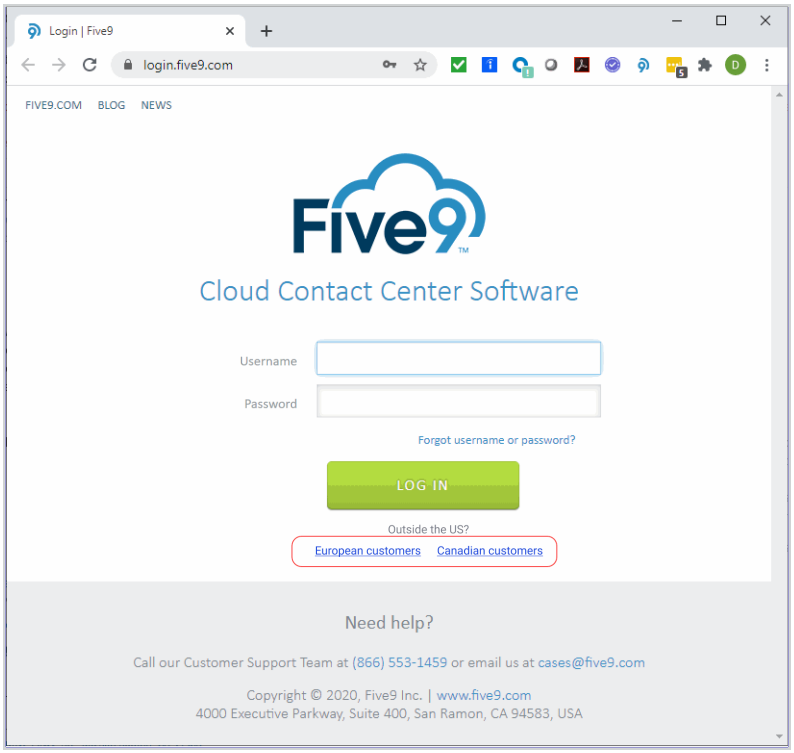
- Administrators configure and manage your Five9 contact center.
- Supervisors monitor and manage agents and campaigns, and view real-time statistics for contact center operations.
- Agents use the Internet to connect to the VCC from anywhere in the world so that they can process calls based on the rules that you define.
- Dashboards and Reports provides tools to analyze information about contact center, campaign, and agent performance.

Logging In to Five9

To log into your Five9 account, navigate to https://login.five9.com and enter your credentials.

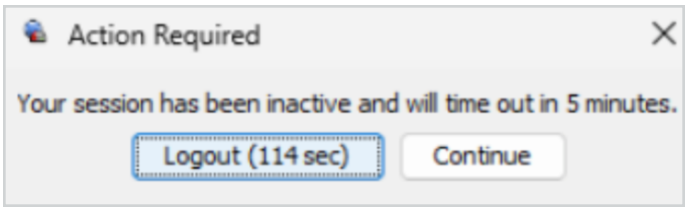
Note

To access domains outside the United States, use the links below the **LOG IN** button.



Administrator Inactivity Timeout

The VCC times out after 30 minutes of inactivity, requiring you reauthenticate. You will see a warning message and countdown before the timeout. Selecting **Continue** extends your session an additional 30 minutes.



If no activity occurs within the next five minutes or you select **Logout (seconds)**, the session ends and you must log in again. Activities that extend this timer include any click actions or keyboard presses.

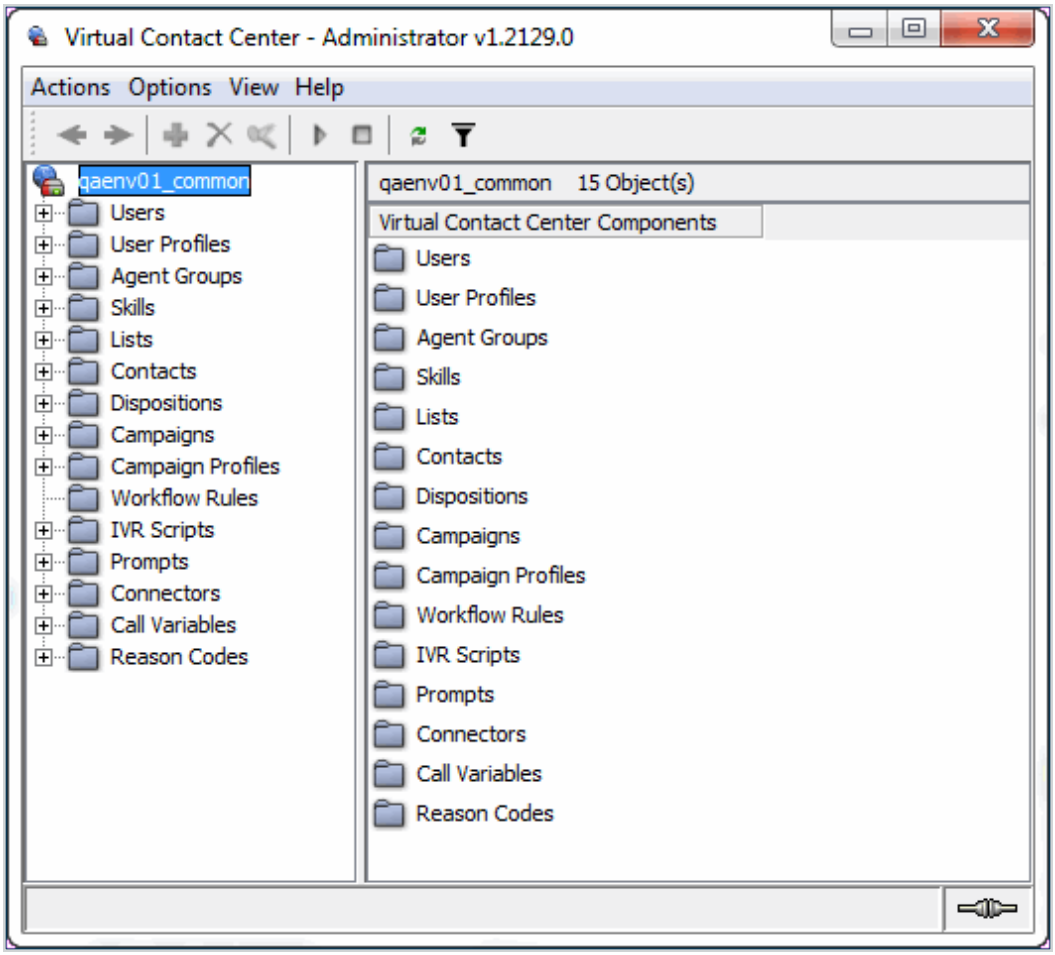
If your browser isn't the active, focused window on your computer, the timeout notification may not be immediately visible, and you might miss the opportunity to select **Continue** to stay logged in.

Note

The VCC terminates inactive sessions to reduce security risk. Open sessions are a potential attack surface, and expiring them limits the exploitation window for unauthorized access, token theft, and hijacking attacks.

Using the Administrator Application Interface

The Administrator Application opens with the main window used to monitor and configure aspects of the Virtual Contact Center (VCC).

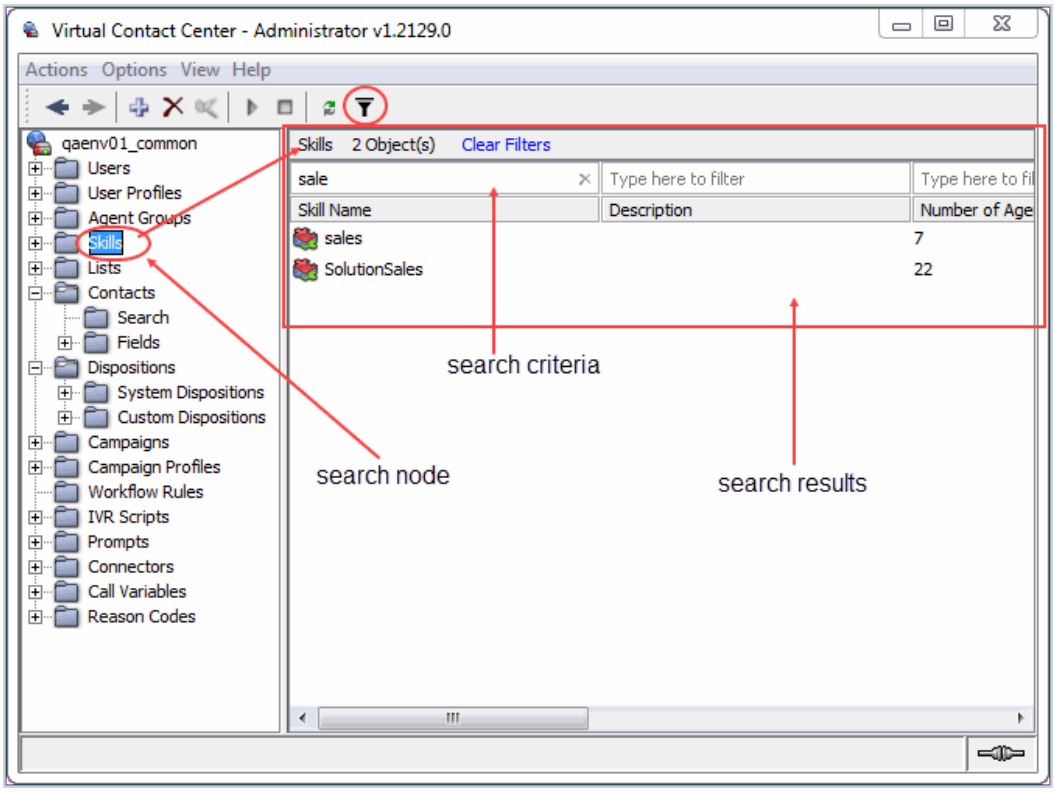


Use the navigation pane on the left to navigate the folders structure that lists the categories of objects that you can configure in your implementation.

Use the list pane on the right to see what is configured in each of the object categories. The list columns differ according to the information stored for each object category.

Filtering Objects

You can search for and filter the objects in your interface view. To enable filtering, click the filter icon.



You can see your search results in the list pane on the right. Your filters persist throughout your navigation.

Example

The skills list shown above has search criteria entered to filter for the keyword **sale**. You can navigate to another folder in the folder tree and return to the Skills folder in the left-side navigation to find the objects displayed are still filtered for the keyword **sale**.

Removing Filters

To remove the filter, click **Clear Filters**.

Filtering Options

Any search string entered as only lower case characters is not case-sensitive. A search string using a capital letter is case sensitive.

Example

Using **Sales** as the search criteria shows only results that contain **Sales**, not **sales**.

You can filter for an exact phrase using double quotation marks (",")

Example

Using **“Business”** as the search criteria shows results only for the exact word **Business**. This is case sensitive.

You can use an asterisk (*) as a wildcard for any number of characters.

Example

Using **“No”** as a search criteria in the System Dispositions node shows results for Do **No**t Call and **No** Answer system dispositions. Using **“No*”** as the search criteria in this same node shows only **No Answer** as a result.

You can use a question mark (?) as a wildcard for a single character.

Use the toolbar items to manage tasks. In the Actions menu, you can add, edit, and delete objects in your configuration.

Adding Objects to your Configuration

To add objects, use one of these methods:

Right-click a folder in the navigation pane, and select **Add *Object***.

or

Select a folder in the navigation pane, and in the toolbar, click the plus (**+**) sign in the toolbar.

Editing Configuration Objects

To edit objects, access the properties of the object from either the navigation or main pane:

Right-click the object, and select **View Properties**.

or

Double-click the object.

Deleting Configured Objects

To delete objects, use one of these methods:

> **Important**
>
> Because you may lose reporting data if you delete an object, be sure to export the reports that you need before deleting. To preserve all reporting data, remove the object from the campaign instead of deleting the object.

Right-click the object and select **Remove *Object***.

or

Select a folder in the navigation pane, and click the **X** in the toolbar.

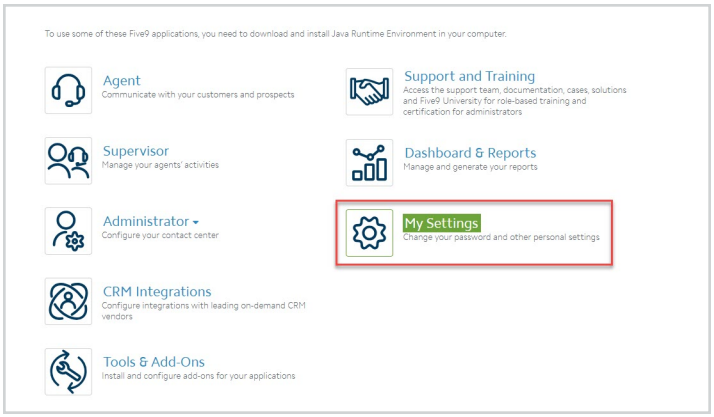
Managing Your VCC Account

Your may have been provided separate credentials for the Five9 Customer Portal and each application that you may access.

Changing Your Password and Security Answers

If you have permission, you can change your password and questions and answers at any time. If you do not have permission, you do not see this menu item.

1 Click **My Settings**.



2 Make your changes.

The password options that you see depend on your permissions and the requirements set for your domain. The security questions in the Security Setup menus contain a minimum of six options.

> **Note**
>
> Your current and maximum character count is shown as you enter a password. The **Update** button is enabled once the password requirements are met.

3 When done, click **Update.**

Recovering your Password

You must recover your password if you forget it or if you enter an incorrect password.

Forgotten Password

If you have forgotten your password to access the Customer Portal, follow these steps.

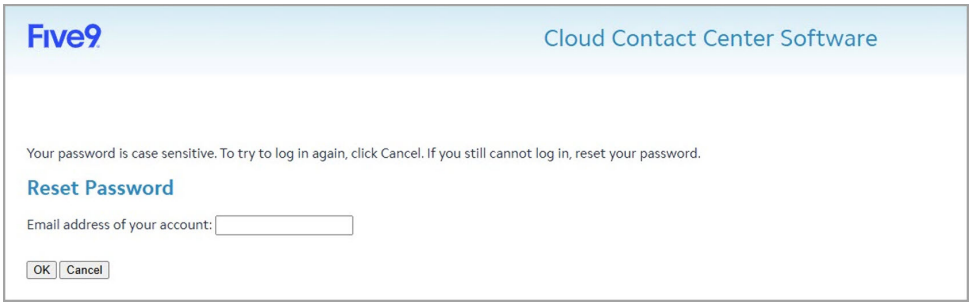
1 Enter your user name.



2 At the bottom of the login window, click **Reset password**.



3 In the Password Reset Form, enter your user name, and click **Reset Password**.

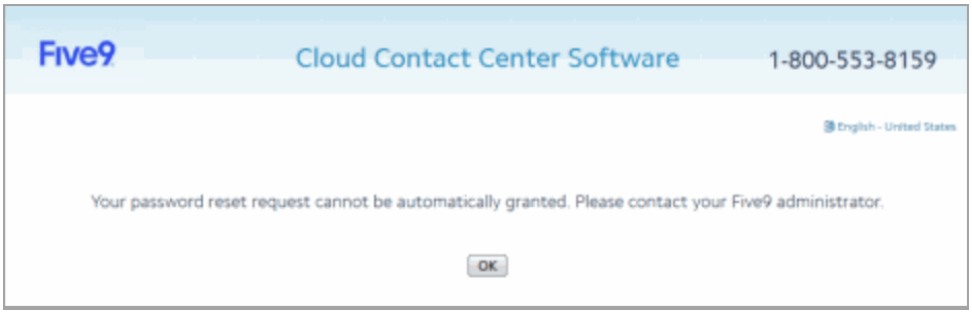


4 Enter your email address, and click **OK**.

If you have permission to reset your password, you see this window. Continue with step 5.



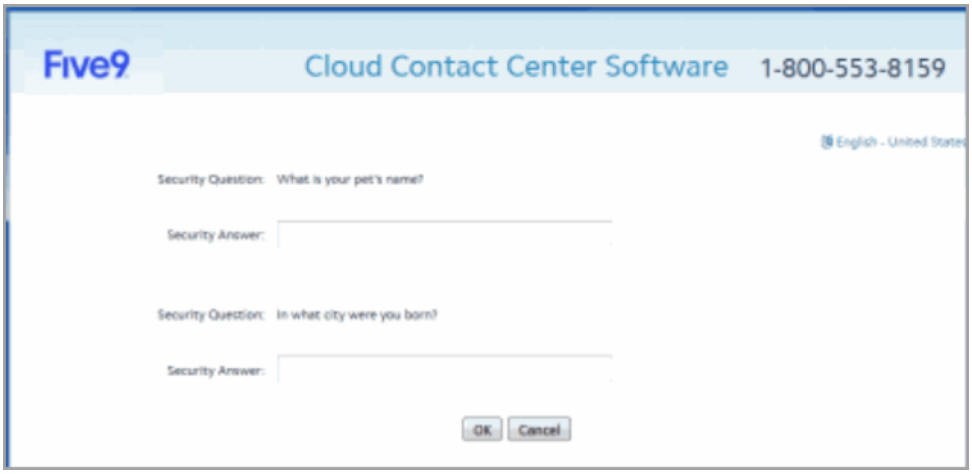
If you do not have permission to reset your password, you see this window. Contact your administrator:



5 Click **OK**.

The login window is displayed.

6 Click the link that was emailed to you.



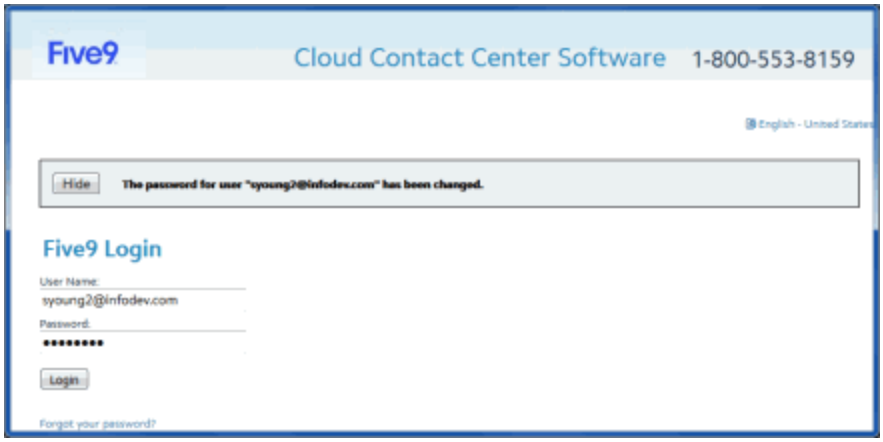
7 Answer the verification questions, and click **OK**.



8 Choose a new password according to the requirements that are displayed, and click **Update**.

The login window is displayed with a note about your new password.

> **Note**
>
> Your current and maximum character count is shown as you enter a password. The **Update** button is enabled once the password requirements are met.



9 Log in with your new password.

Incorrect Password

If you enter an incorrect password while attempting to log into your application, you are notified. If you enter an incorrect password more times than allowed by your administrator, your account is locked. To unlock your account, contact your administrator.

Temporarily Blocking User Accounts

To prevent unauthorized access, users are blocked from accessing applications after several failed authentication attempts as follows:

- A user account is blocked for 15 minutes after five failed authentication attempts within one hour.
- When a user's password is changed, that user account is typically unlocked within one minute.
- Lockout information is not shared between the Digital Channels Administrator and VCC Administrator applications. For example, a user may be locked out of the VCC Administrator application but not locked out of the Digital Channels Administrator application.
- A user that is locked out of the Digital Channels Administrator application may still access digital channel reporting using VCC social reports.

Accessing the Application During Domain Maintenance

If your company uses the Five9 Managed Geographic Redundancy (MGR) feature, and you are logged into your Five9 application when maintenance is required or an outage occurs, your Five9 server is moved to a backup data center. Administrators, supervisors, and agents receive notices about the status of server changes during the switchover process.

Managing Maintenance Moves

During a major service disruption, Five9 may move your application server to a backup data center until the issue is resolved.

Five9 MGR is designed to mitigate major service disruptions that might otherwise result in extended downtime for the Five9 Virtual Contact Center (VCC) platform. Domains are typically operational in the backup data center within 15 minutes.

Once service is restored in the primary domain, Five9 returns affected domains to their primary data center.

Messaging for Domains with Managed Geographic Redundancy

Users who are logged in at the time an outage occurs see messages when maintenance is about to begin. At five minutes and one minute before a data center move, agents on active calls receive additional reminders. Agents who are processing calls are allowed to finish the call and assign a disposition. As soon as the interaction is complete, they are reconnected to their Five9 agent application in the backup data center.

Applications and softphone stations are restarted automatically. Agents receive audible and visual confirmations upon reconnection and their status is set to Ready so that they can resume taking calls.

Planning Your Implementation

When you set up your Five9 Virtual Contact Center (VCC), the configuration tasks differ depending on the particular environment you are defining. Use these road maps to help guide you through your setup.

Creating an Outbound Basic Virtual Contact Center

1. Define **Skill Groups**.
2. Define **Defining User Profiles**.
3. Add **User Accounts**.
4. Set up contacts in **Managing Contact Fields**.
5. Define and reconcile **Call Lists**.
6. Define **Dispositions**.
7. Define **Campaign Profiles**.
8. Configure your campaigns (see **Configuring Campaigns** in the Campaign Administrator's Guide).
9. Associate campaigns and campaign profiles in **Assigning a Campaign Profile to a Campaign**.

Creating an Inbound Basic Virtual Contact Center

1. Define **Skill Groups**.
2. Define **Defining User Profiles**.
3. Add **User Accounts**.
4. Set up contacts in **Adding Contact Records** and **Managing Contact Fields**.
5. Define and reconcile **Call Lists**.
6. Define **Dispositions**.
7. Define and record prompts for your callers in **Prompts**.
8. Create your Interactive Voice Response (IVR) scripts – **Creating Interactive Voice Response (IVR) Scripts**.
9. Define **Campaign Profiles**.
10. Configure your campaigns (see **Configuring Campaigns** in the Campaign Administrator's Guide).
11. Associate campaigns and campaign profiles in **Assigning a Campaign Profile to a Campaign**.

Creating Interactive Voice Response (IVR) Scripts

1. Define and record prompts for your callers in **Prompts**.
2. Define **Skill Groups**.
3. Define **Dispositions**.
4. Create your Interactive Voice Response (IVR) scripts (see Interactive Voice Response (IVR) Administrator's Guide.
5. Set up your campaign IVR schedule (see Campaign Administrator's Guide).

Creating or Implementing International Call Support

Five9 Global Voice offers global contact solutions with local contact center agents, which overcomes latency issues often associated with international dialing. You do not need this feature to make calls throughout the world. However, Five9 Global Voice enables you to have the best quality calls and to have regional agents support local customers and is PCI compliant. You can set skills, IVR scripts, and inbound and outbound campaigns for regional call traffic handled by local agents. You can also configure uninterrupted coverage across multiple time zones and provide overflow call support during peak call conditions. For configuration information and settings, see **Configuring International Service with Five9 Global Voice**. For information about using Five9 Global Voice with WebRTC, see **Using WebRTC for Audio Communication**.

Domain Settings

The settings that you define for a domain are considered *default* because they apply to all campaigns in your domain. When you display the settings of a campaign, *default* is indicated in the definitions table. If you change settings and dispositions in a campaign, these new settings override your default domain settings, for example: two campaigns have a disposition named *Call back later*. In one campaign, the redial timer disposition is set to call back after seven days according to the default settings. To override the default domain setting, you set the callback to occur after 14 days in the other campaign.

- Character Limits in Domain Components
- Configuring Default FTP Settings
- Configuring Dialing Rules in VCC
- Configuring International Service with Five9 Global Voice
- Configuring Proxy User Access
- Configuring the Trusted IP Ranges
- Configuring Time Zone Dialing in VCC
- Configuring User Extensions
- Defining Additional Default Domain Call Settings
- Defining Audio Settings for Softphone
- Defining Email Notifications
- Defining Global Campaign Settings
- Defining the Maximum Number of Outbound Lines
- Defining Settings for Agent Desktop Plus
- Defining Single Sign-On Identity Providers
- Enabling Access to the REST API
- Enabling Desktop Toolkit Customizations
- Enabling Performance Dashboard
- Enabling Salesforce
- Managing Authorization Profiles
- Managing Automatic Number Identification (ANI)
- Managing Do Not Call (DNC) Lists
- Managing Security Certificates
- Managing Speed Dial Numbers
- Setting KPI and Global Parameters
- Setting Password Policies
- Using Dialing Lists in E164 Format

Character Limits in Domain Components

If you are using text channels in your domain, you must limit the numbers of characters in campaign components. Otherwise, the text server will not communicate with the Virtual Contact Center (VCC) server.

Component	Character Limit
Text Profile and VCC Campaign	32 characters
Text Group and VCC Skill	255 characters
User (*also email address*)	50 characters
Password	64 characters
First Name	32 characters
Last Name	32 characters

Managing Do Not Call (DNC) Lists

If you conduct outbound telemarketing campaigns, you may want to add an in-house or local DNC list to your domain so that as the dialer processes phone numbers, it automatically checks your DNC list. If a number is found in the list, it is not dialed.

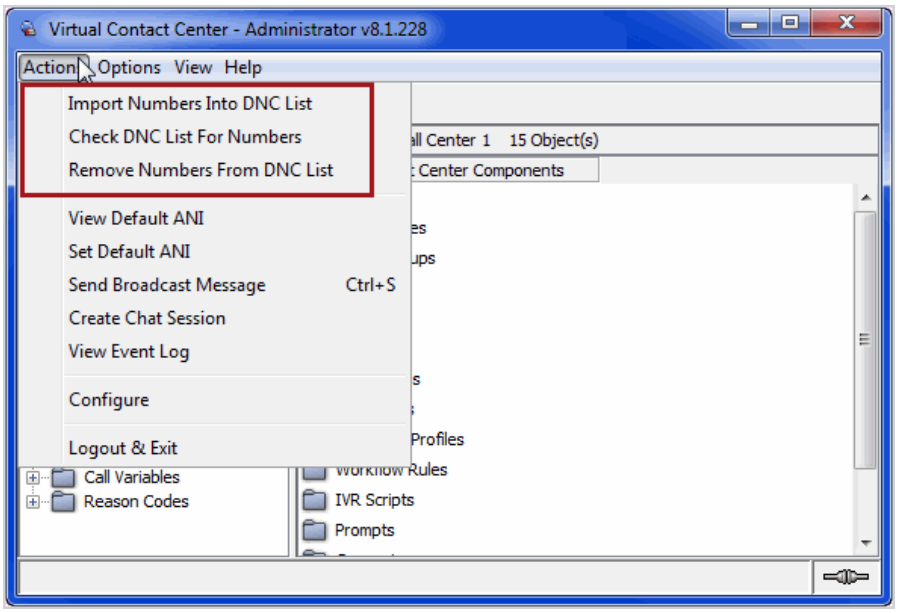
However, your local DNC list is not intended to replace national or regional DNC lists. Before importing call lists into Five9, always check your lists against the proper state or national Do Not Call registry. Suppliers, such as Contact Center Compliance, provide these services.

When your account is set up, the DNC list is empty. You can populate the list by importing a list of numbers, assigning a specific disposition, and using the Set DNC module in your IVR scripts.

Using DNC Lists

Numbers that you want to import into a list or remove from a list must be in TXT format files that contain a single column of phone numbers without any additional characters.

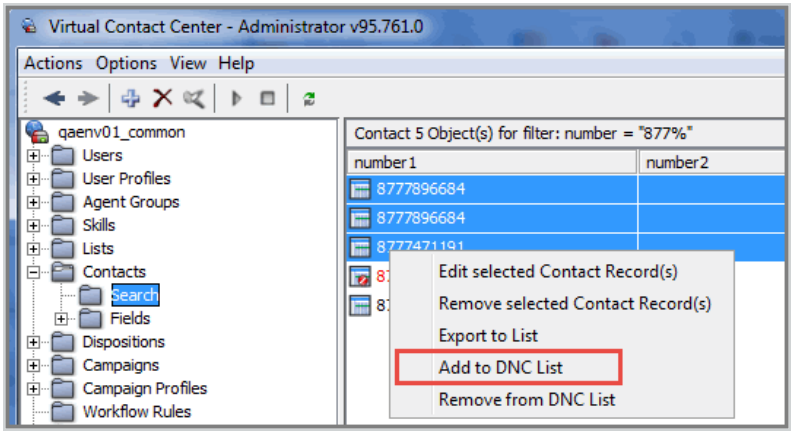
The time to process a list depends on the size of the list. When the process is finished, you see the results. The options are located in the Actions menu.



Because of the large file size of many lists, Five9 limits importing lists to the hours of 11:00 PM to 6:00 AM Pacific Time. Note that Pacific Time can be either Pacific Daylight Time (PDT) or Pacific Standard Time (PST), whichever is set on your domain.

If you try to import files outside these hours, you receive an error message.

You can add five or fewer numbers to the DNC list outside the restricted hours directly from the Contacts folder. To add numbers, select up to five numbers and right-click to access the options menu.

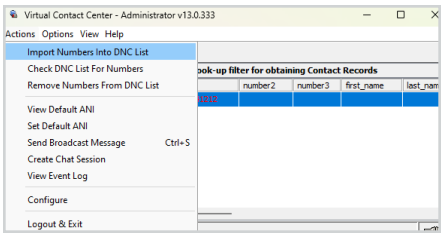


Importing Numbers to the DNC List

Importing numbers into the DNC list restricts the Five9 system to dial the added numbers on a domain level.

> **Important:** Ensure the .CSV file does not exceed 5Mb, which may overload Five9 servers.

1 From **Actions**, choose **Import Numbers Into DNC List**.



The **Import DNC List** dialog appears.

2 Select your DNC file, and then select **Import**.

> **Note:** A maximum of five numbers can be added to DNC during business hours. Adding more than five numbers to the DNC list can be done during off-hours (11 pm to 6 am Pacific).

How to Check the DNC List for Numbers

An administrator can find out what numbers are in the current DNC list for their domain using one of the following two ways:

- Java Admin using the Check the DNC List for Numbers action. See **Checking the DNC List For Numbers**.
- VCC using one of two reporting options. See **Generating DNC Reports**.

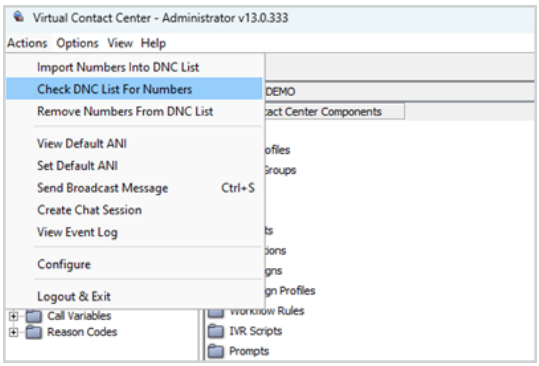
Checking the DNC List For Numbers

When you check numbers that are already on the DNC list, note the following:

- The DNC file should contain a single column of phone numbers only. It must be saved in standard text format (.txt).
- Due to the large file size of many Do Not Call lists, Five9 limits importing to the hours of 11:00 pm to 6:00 am Pacific Time. If you start the import outside these hours, you receive a notification message.
- Microsoft Excel is required.
- Wait until the system goes through the list to remove the numbers. The time depends on the list size. When the system finishes processing the list, you receive a notification indicating the results.

1 Select **Actions**.

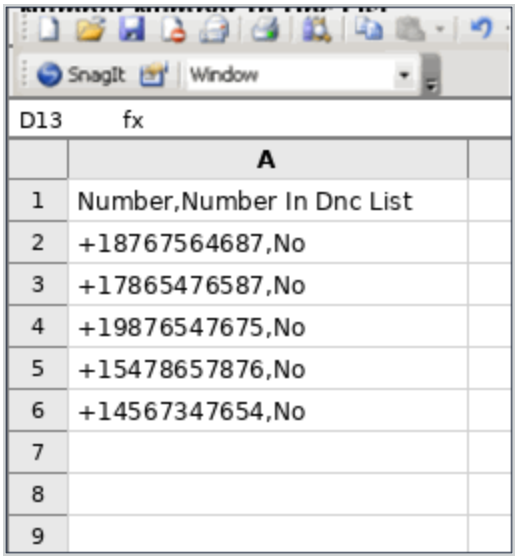
2 Select **Check DNC List For Numbers**.



3 Select the file that contains the list of numbers to be checked against the local DNC list, and then click **Check Numbers**.

The **Progress** dialog appears. The results indicate the number of records that you have exported to a CSV file. The file opens with the results, indicating **Yes** for the numbers that are in your DNC list and No for numbers that are not in your DNC list.

To search if a number is on the DNC) +1 is required before the number.

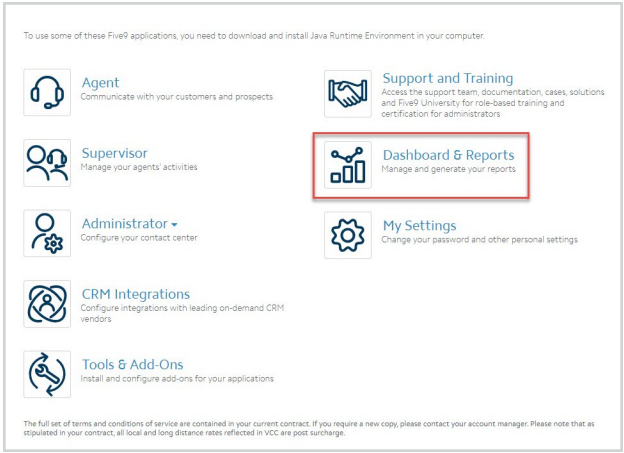


Generating DNC Reports

You can select from two available reports.

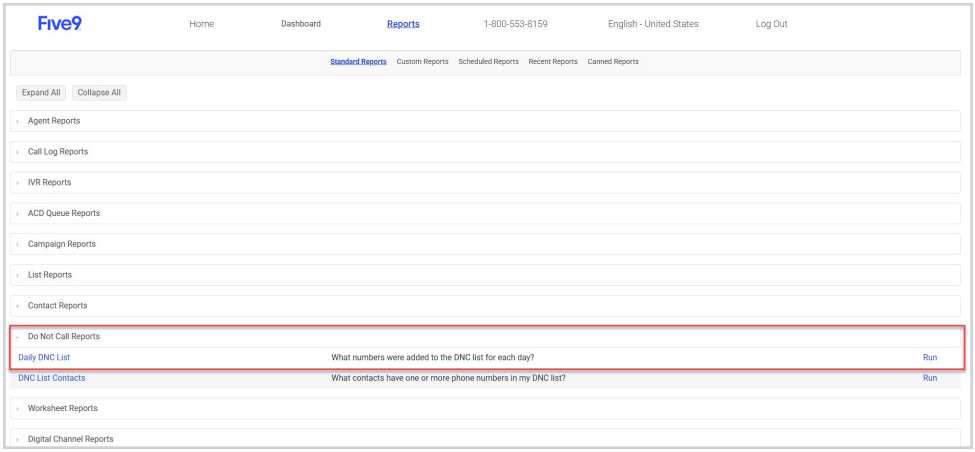
- **Daily DNC List** is the main report that lists the numbers added to the DNC list for each day. You can provide a date range and get the list of numbers in the DNC.
- **DNC List Contacts** lists the contacts who have one or more phone numbers in the DNC list.

1 Click on **Dashboard & Reports**.



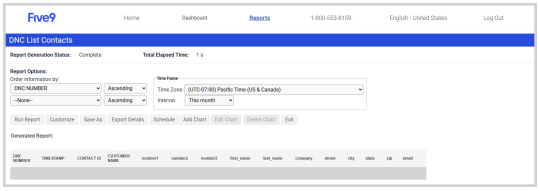
2 Select **Reports**, and navigate to **Standard Report**.

3 Select the report you wish to run, and then select the report and time frame options.

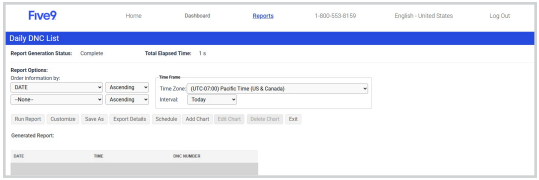


4 Select **Run Report**.

Example: DNC List Contacts



Example: Daily DNC List



Adding Numbers to DNC List using VCC Administrator Application

You can add numbers to the DNC list by importing a text file.

Multiple text files require that they contain five phone numbers per file. Five9 allows a maximum of five numbers to be added to DNC during business hours.

1. Select **Actions**.
2. Select **Import Numbers to DNC List**.
3. Select your text file.
4. Repeat Steps 1 - 3 for all other text files.

> **Example:** The import DNC function only allows numbers in the correct number format. 19225551234 = not allowed 9225551234 = allowed

Adding Numbers to the DNC list using Contact Lookup

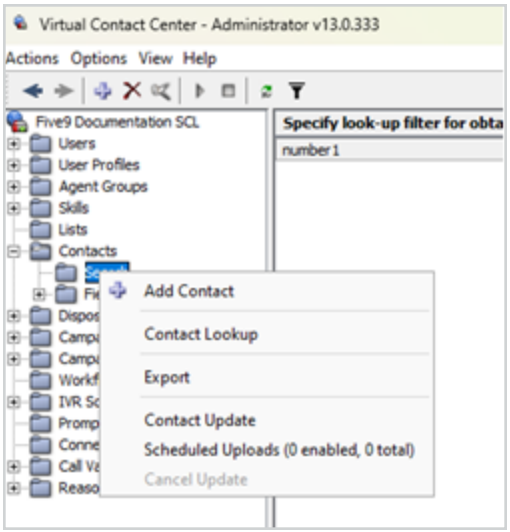
1. Go to the **Contacts** folder, and right-click on the **Search** folder, and then select **Contact Lookup**.
2. Select a maximum of five numbers by holding the **CTRL/Shift** button.
3. Each phone number in a record is counted by the system even though it has the same value.

   If a record has number1, number2, and number3, then the system already counts it as 3 numbers.
4. Right-click a selected record, and then select **Add to DNC List**.
5. Repeat Steps 1 - 3 for other phone numbers.

Removing a Number from the DNC list using Contact Lookup

1 Login to the Five9 Administrator application.

2 Go to the **Contacts** folder, and right-click on the **Search** folder, and then select **Contact Lookup**.



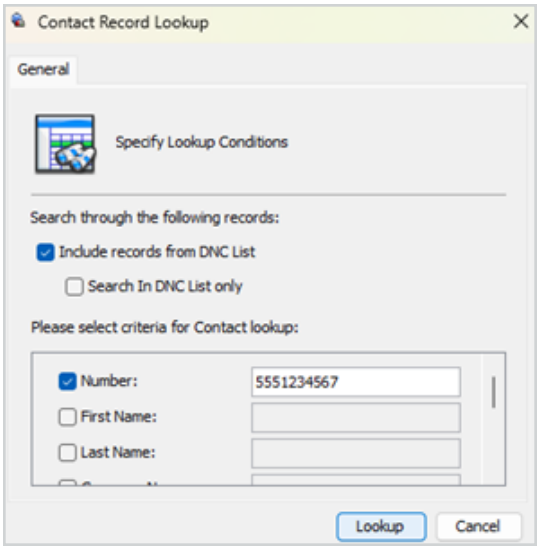
3 Make sure that the **Include records from the DNC list** is checked.

4 Select the criteria that you would like to use for searching the contact records and enter the required data/value.

You may use one or more criteria if needed. If you use multiple criteria, the contact records should have all of the values you entered.

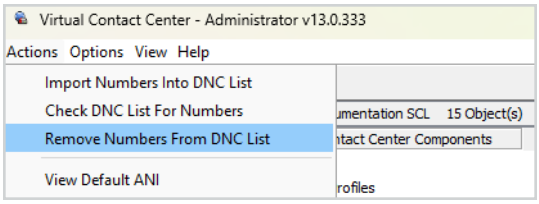
5 Click on the **Lookup** button.

To search all numbers in DNC, simply uncheck all criteria.



A phone number that is on the DNC list appears in Red.

6 Right-click on the **Contact Record**, and then select **Remove from the DNC list**.

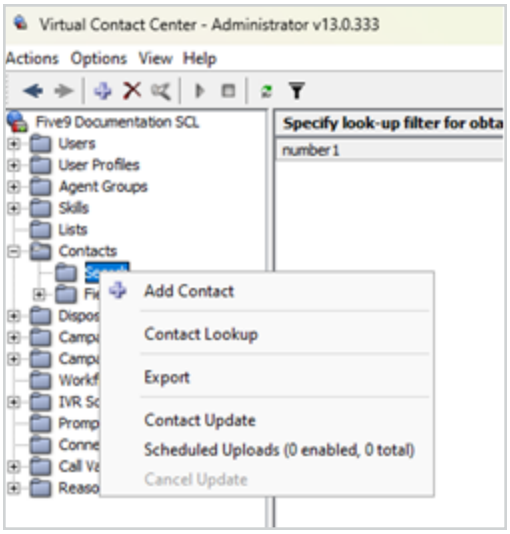


7 To view all contacts in DNC, untick all criteria.

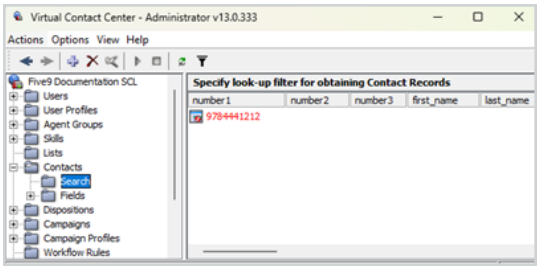
A notification message appears confirming that the phone number has been removed from the DNC list, and the number is no longer red.

8 If the contact record is unsearchable, manually add the number, and then click **Save**.

Once the number is added and saved, check if the number turns red. If it does, it indicates that the number is still on the DNC list.


Virtual Contact Center - Administrator v13.0.333
Actions Options View Help
Five9 Documentation SCL
Users
User Profiles
Agent Groups
Skills
Lists
Contacts
Specify look-up filter for obta
number 1
Add Contact
Contact Lookup
Export
Contact Update
Scheduled Uploads (0 enabled, 0 total)
Cancel Update


New Contact Properties
General
Add New Contact
In DNC No
number1 5551234567
number2
number3
first_name
last_name
company
street
city
state
zip
email
Save
Cancel


Virtual Contact Center - Administrator v13.0.333
Actions Options View Help
Five9 Documentation SCL
Specify look-up filter for obtaining Contact Records
number1
number2
number3
first_name
last_name
9784441212

9 Go back to **Step 6** to remove the number from the DNC list.

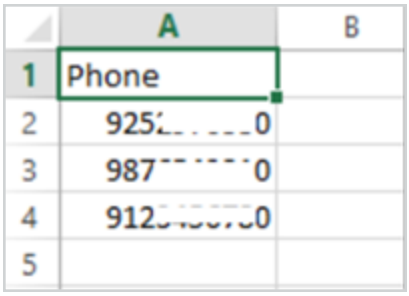
Make sure that the number format is correct. If the domain is in e.164 format, and you searched using e.164 formats, the number does not appear.

10 If you have a list of numbers that you would like to remove from the DNC list, and you want to do it by batch, see **Removing Multiple Number from the DNC List**.

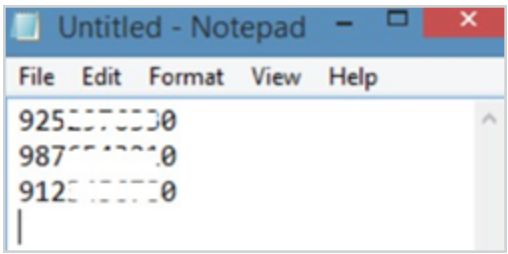
Removing Multiple Number from the DNC List

1 Save the list of numbers to an Excel (.csv) or Notepad (.txt) file.

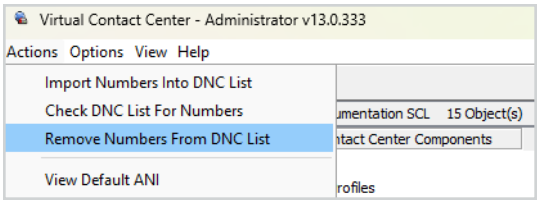
Excel sample:



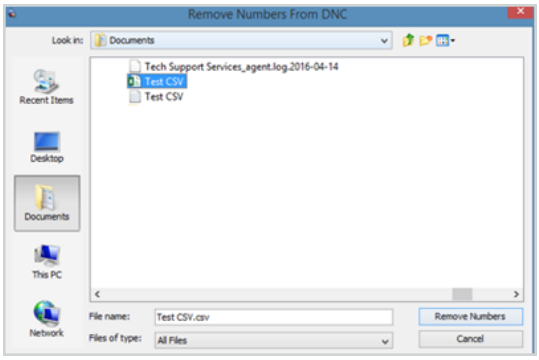
Text example:



2 In the Five9 Administrator application, go to **Actions**, and then select **Remove Numbers from the DNC list**.



3 Locate the file, and then click the **Remove Numbers** button.



A notification confirming how many numbers were removed from the DNC list displays.

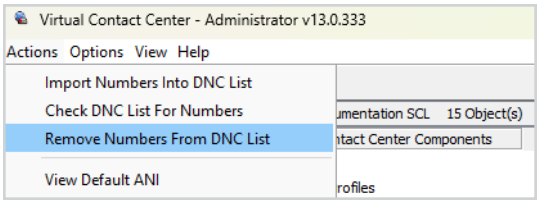
The phone number is on the DNC List but is unsearchable on Contact Lookup when trying to remove it from the list. This happens when a phone number is added to the Do Not Call (DNC) List without creating a contact record.

The DNC list is only a list of phone numbers that the system cannot dial. There are times when numbers are added to it directly and times when they are tagged as a Do Not Call number after a call. The former does not create a contact record, while the latter does.

Therefore, a phone number added to the DNC List directly will be unsearchable through Contact Lookup since it is not a Contact yet. If the administrator wants to remove a number from the DNC list, removing it through Contact Lookup will not be an option.

The administrator has to remove the number from the DNC list by:

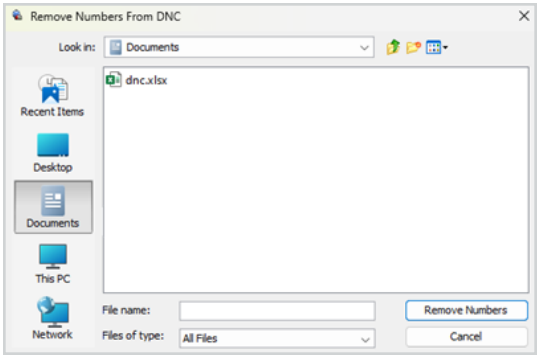
1 Prepare a CSV. file with the phone number that must be removed from the DNC list.



2 Click **Actions**.

3 Click **Remove Numbers from DNC List**.

4 Upload the CSV file containing the phone number, and then click **Remove Numbers**.



Using Disposition to Add a Number to DNC List

You can configure how an agent can add a number to the DNC list using a disposition. For more information about how to add a number to the DNC list using a disposition, see **Types of Dispositions**.

Enabling DNC-Related Permissions for Agents

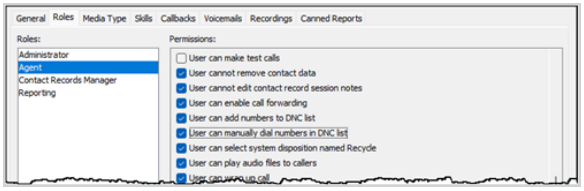
You can permit agents to add numbers to the DNC list or manually dial numbers in the DNC list or both.

1 Open the user properties.

2 Enable the following permissions:

- **User can add numbers to DNC list:** User can add numbers to the DNC list either directly or by using a disposition.
- **User can manually dial numbers in DNC list:** User can manually call the numbers in the DNC list.

> **Note:** The system restricts an agent who doesn't have this permission from dialing a number in the list, it displays a message when a restricted agent attempts to make a call.



3 Select **Save** to apply the changes to the settings.

For more information about agent permissions, see **Agent Permissions**.

Managing Automatic Number Identification (ANI)

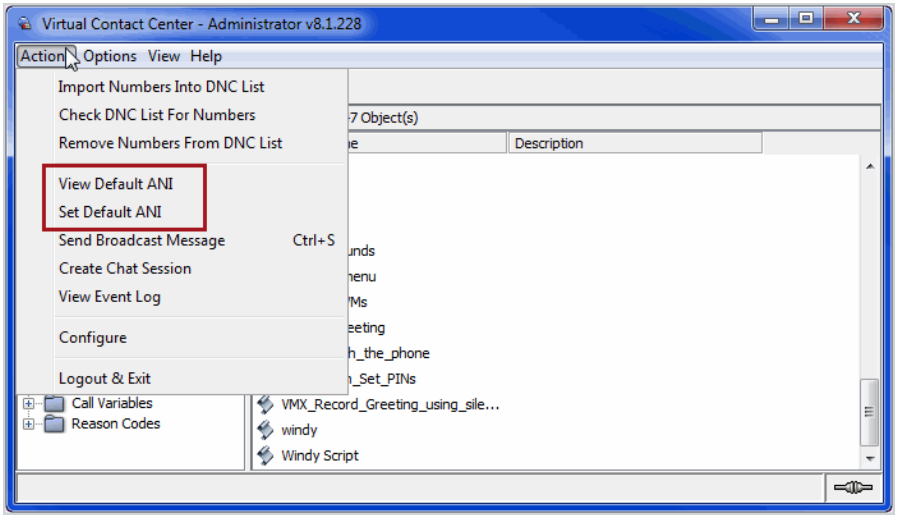
Automatic Number Identification (ANI) allows call recipients to see the phone number from which their call is originating. Set and manage the default Automatic Number Identification (ANI) and ANIs for local presence.

Default ANI

FCC and Telemarketing regulations require that you set a valid default ANI number for your domain. It is also required by Five9 for you to start any campaign. If you leave the default ANI blank, you see an error message when starting an outbound campaign or making an outbound manual call. The ANI tells the call recipients what telephone number made the call. The number appears in the caller ID displayed for outbound calls from your domain.

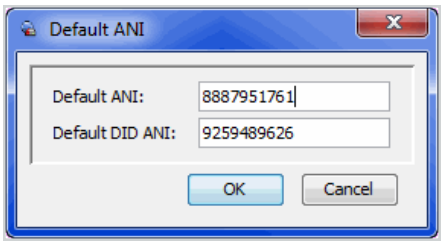
If you have an inbound number assigned to you by Five9, you may use that one, your main office line, or even a mobile phone number. For inbound campaigns, you can use the phone number assigned to that campaign as your default ANI. Be sure to set up the inbound campaign and test it before you try to use it as your default ANI. The default ANI must conform to these requirements:

- Must be reachable by your Five9 inbound campaigns.
- Must give callers an IVR DNC Opt Out option or an agent.
- Must accept callbacks for any outbound or dialed manual calls made from your campaigns.
- Can be superseded by a campaign profile settlings or Local ANI groups in other settings and configuration.
- Satisfies the minimum requirement in case other settings are not used.



Set a Default ANI to Identify Your Contact Center Domain

1 Select **Actions > Set Default ANI**.



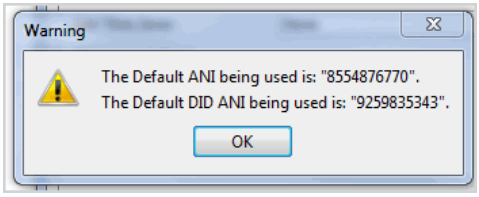
2 Select Default ANI or Default DID ANI, and enter a number.

International numbers can contain a maximum of 17 digits, plus prefix. The prefix may be 011 (for a total of 20 digits) or + (for a total of 17 digits plus a + sign).

3 Click **OK** to save the default ANI definition.

View the Default ANI

Select **Actions > View Default ANI**. The default ANI appears in a message window.



Override the Default ANI for a Campaign

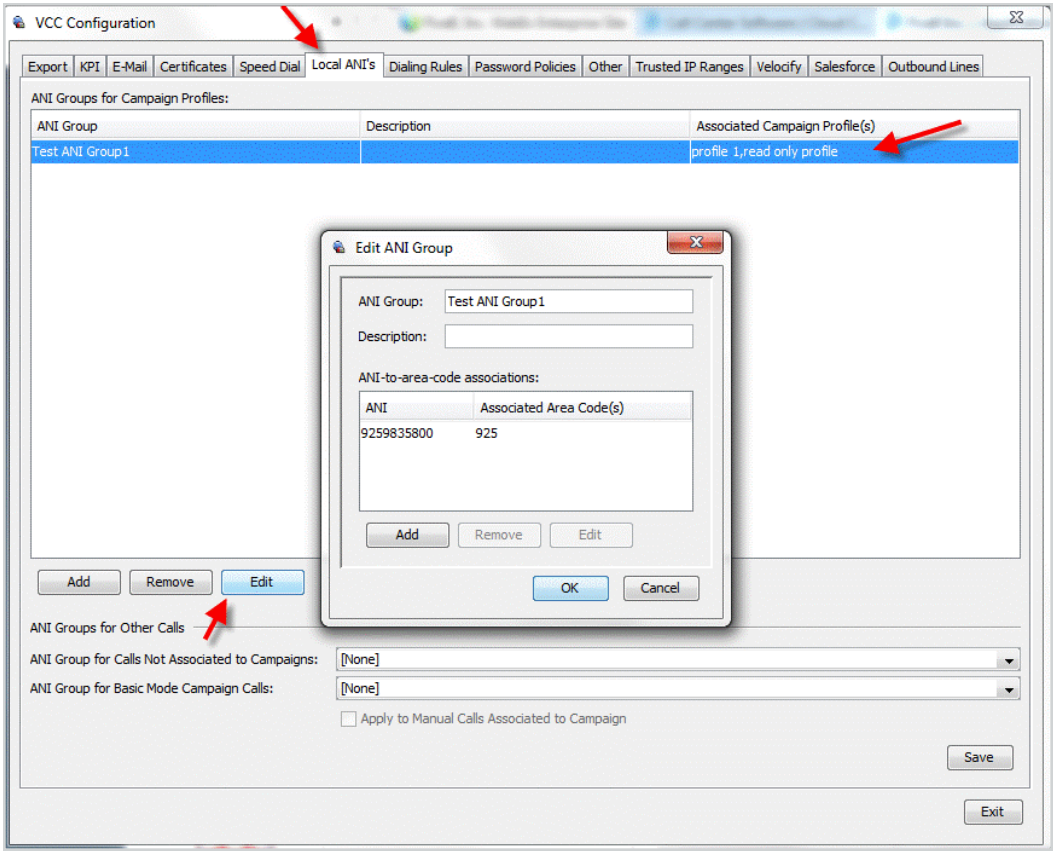
You can specify a number to use for a particular campaign in place of the default number defined for the domain. In a campaign profile, define an ANI in the campaign profile properties. For more information, see **Editing the Properties of Campaign Profiles**.

Map ANIs to Campaigns to Create Local Presence Prefixes

You can define ANI numbers so that they display a prefix local to the contact you are calling. For example, if a caller dials from a number in the 212 area code, you can display one of your numbers as also having a 212 area code. Depending on your corporate business needs, you can purchase and configure as many local presence

numbers as you need. Configure your domain to display the local numbers for the area codes you are calling.

In the configuration menu, open the Local ANIs tab and define the local numbers.



Local ANIs

This section describes how to associate the displayed outgoing phone numbers (ANIs) and the area codes of the outbound calls. This feature enables you to display ANI numbers for return calls that are local to your contacts. Calls to area codes that are not mapped use the ANI set in the campaign profile or your domain's default ANI number. See **Managing Automatic Number Identification (ANI)**.

You can create multiple ANI groups. An ANI group is a set of ANI-to-area-code associations. For each ANI group, only one ANI may be assigned to a prefix. Multiple prefixes may be assigned to each ANI. One ANI that is assigned to multiple area codes counts as multiple ANI-to-area-code associations.

- Maximum number of ANI-to-area-code associations per ANI Group = 100
- Maximum number of ANI groups per domain = 20

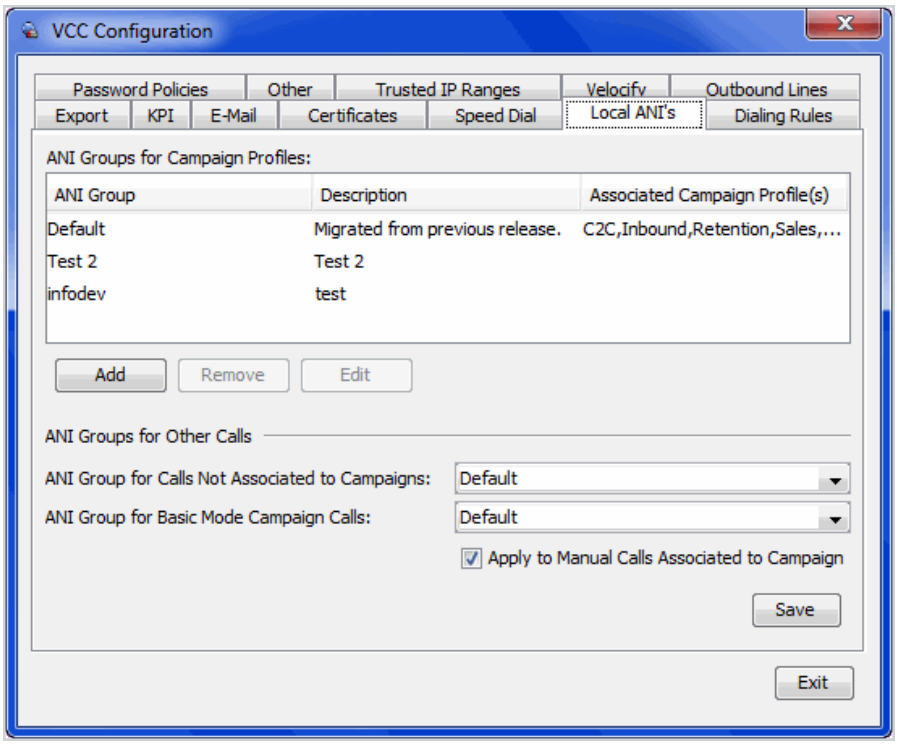
Define an ANI Group and Map the Group to a Campaign

1 Select **Actions > Configure**.

2 Select the **Local ANIs** tab.

This window is divided into two sections:

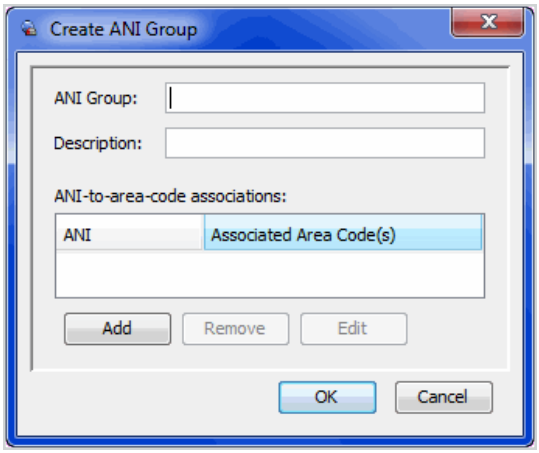
- ANI groups for campaign profiles
- ANI groups for other calls



Map an ANI Group to a Campaign Profile

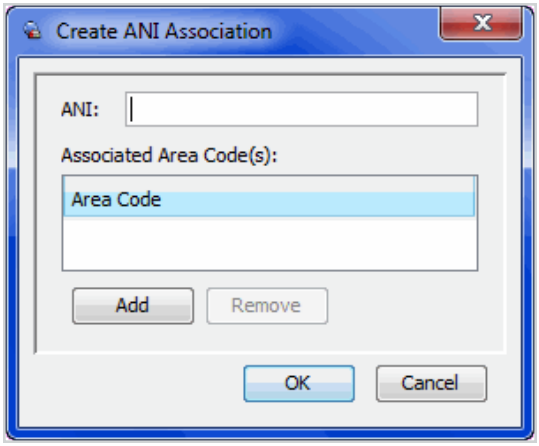
Follow these steps.

1 Name and describe the ANI group.



Once an ANI group is assigned to campaign profiles, the names of the each associated profile appears in the list.

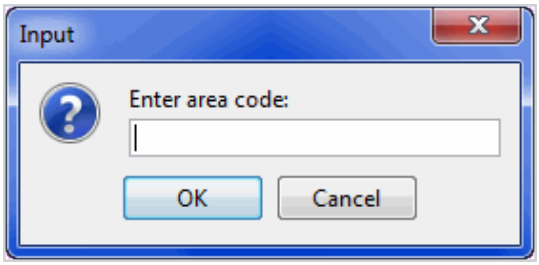
2 Click **Add** to open the **ANI Association** window.



3 In the **ANI** field, enter the phone number to be used as the outgoing caller ID number.

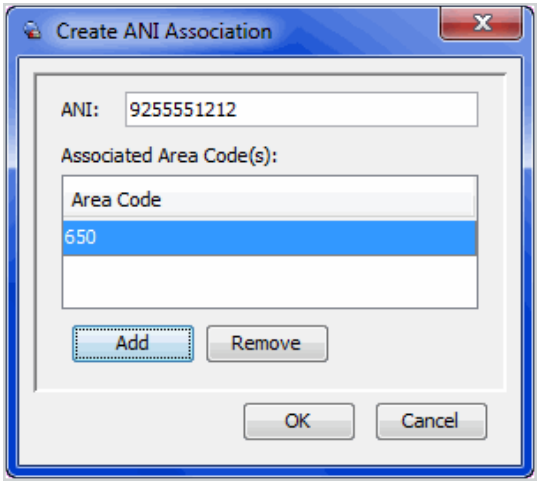
Maximum length for international numbers = 17 digits, plus the prefix. The prefix may be 011 (total = 20 digits) or the plus (+) sign (total = 17 digits and a + sign).

4 Click **Add** to enter the area code.



5 Enter the area code, and click **OK**.

The added area code appears in the list.



6 Repeat Step 3 for each area code you need to add for this ANI number.

7 Click **OK** to save the ANI association.

8 Click **OK** to save the ANI Group.

Assign ANI Groups for Calls Not Associated with Campaigns

If you do not select an ANI group, the default ANI is used.

1 For calls not associated to campaigns, select an ANI group.

This group is used for manual calls for which agents do not select a campaign.

2 For campaign calls in basic mode, select an ANI group.

This group is used by basic mode campaigns that do not have a campaign profile.

3 Click **Save** and **Exit**.

Configuring Default FTP Settings

This section describes how to configure the default FTP settings to transfer call recordings and reports from the Five9 VCC server to your FTP server. In addition to these default settings, you can also configure specific settings for each campaign. Campaign and disposition settings override default settings.

Depending on your business requirements, choose FTP, FTPs, or FTPes. FTP is adequate if the path to the storage location for the recordings is already encrypted, such as when the location is at your site and you have implemented a VPN. Otherwise, to protect recordings in transit, Five9 recommends SFTP. The configuration for each option is similar, except that with SFTP, you can upload an optional security key file. If you intend to use a key, you must obtain a private key file from your SFTP server administrator before starting configuration. For more information on keys, see **Creating Public and Private Keys**.

Exporting Recordings and Transcripts
Configuring FTP Options for Scheduled Reports
Configuring FTP Options for Transcripts
Creating Public and Private Keys

To configure the FTP transfer settings, select **Actions > Configure**.

Exporting Recordings and Transcripts

You can record agent calls. Each recorded call is stored in a single file in WAV format. The recordings are stored for 30 days in the properties of the agent's account (see **Managing User Recordings**). If you have an FTP server, recordings are transferred in real-time to your server.

You can choose to store your recordings at your regional telephony Point of Presence (PoP) rather than a Five9 data center that may be located outside of your region. For more information about this feature for your domain, contact your Five9 representative.

You can also configure FTP settings for each campaign. The campaign FTP settings override the settings on the VCC Configuration page. To configure the campaign, see the Campaign Administrator's Guide, *Outbound Campaign Properties*.

The maximum length for call recordings is one hour for each call. To increase the maximum length up to three hours, contact your Five9 support representative.

By default, the number of simultaneous call recordings is limited to 20% of the provisioned agent seats. When calls are flagged, they are recorded if a port is available. You can transfer recordings of agent calls daily.

Important

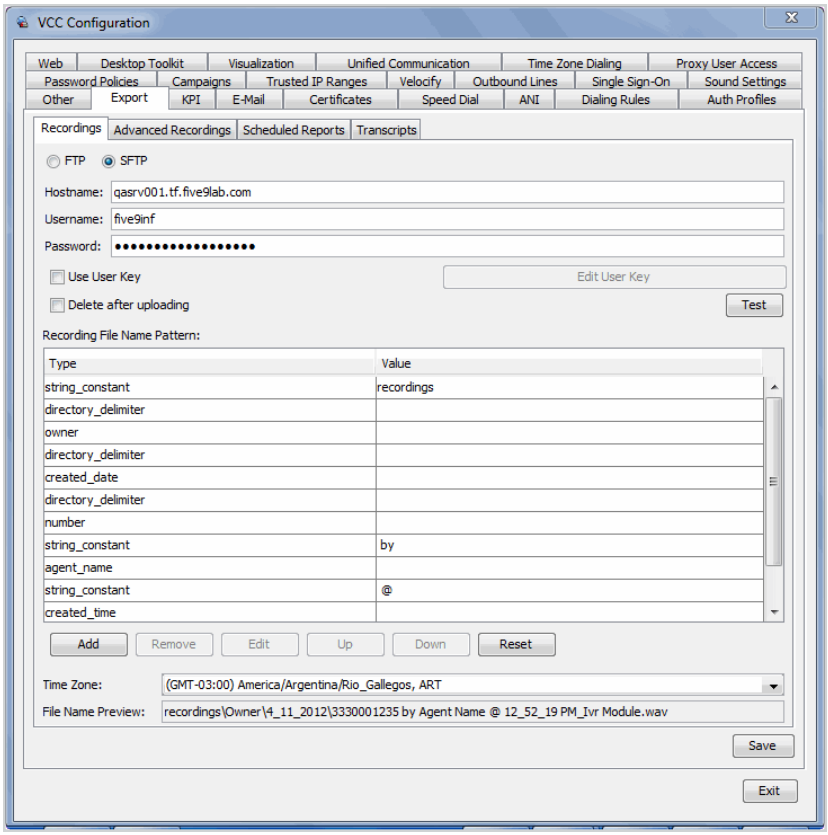
If you plan to use SFTP with a security key, be sure to obtain a private key file from your SFTP server administrator.

Defining Call Recording Settings
Deleting Uploaded Call Recordings

Defining Call Recording Settings

Follow these steps.

1 Select the **Export > Recordings** tab.



2 Select a transfer protocol: **FTP** or **SFTP**.

3 In the top section, enter the settings of your FTP server:

- **Hostname:** Name of the FTP server, which must be either an IP address or a fully qualified domain name (without ftp://).
- **Username** and **Password:** Passwords are masked.
  - FTP: Credentials for accessing the FTP server.
  - SFTP: User name for the server only. Do not enter a password because authentication with the security key supersedes the password of the server.

4 If you use SFTP with a security key, follow these steps. Otherwise, go to step 6.

a Check **Use User Key**.

b Click **Edit User Key**.

c Click **Load from file**.

d Locate the private key file that you obtained from your SFTP server administrator, and click **Open**.

e Click **OK**.

5 To verify the connection, click **Test**.

You see a success message. If not, verify your entries.

6 To set the pattern to the path of the file recordings, follow this example:

```
recordings\Owner\4_11_2016\3330001235 by Agent Name@ 12_52_19 PM_
Ivr Module.wav
```

The pattern contains these elements:

- Variables extracted from the system, for example: `Agent Name`.

`_ivr_module *`	`disposition_name`	`number1`
`agent_name`	`first_name`	`number2`
`call_guid **`	`ivr_module`	`number3`
`campaign_name`	`last_name`	`owner`
`created_date`	`length`	`session_id`
`created_time`	`number`	`skill_name`

  * IVR path for recordings made in the IVR script only. For example, the Input and Menu modules have an option to record the user's input. If this option is enabled, the name of the module is prefixed with an underscore, for example: the module named Menu3 is added as `_Menu3` to the recording file name.

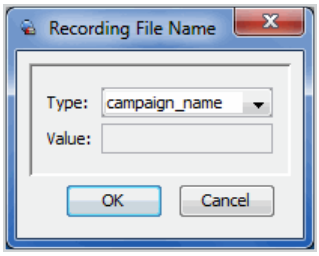
  ** Call ID in the call log reports. If multiple segments of the same call are recorded, all segments have the same `call_guid` but different time stamps, agents, and other attributes.

- `string_constant` is an element that contains an assigned value, such as recordings, by, or @.

- `directory_delimiter` inserts a backslash (\) for the path to the file.

To add an element to the pattern, follow these steps:

a Click **Add**.
The Recording File Name window is displayed.



b Select one of the types, for example: `campaign_name`.

The variables in the menu, such as campaign or agent, enable you to precisely set the file naming convention for call recordings.

If you need a unique identifier for each call, use `session_id`. The types are listed alphabetically. You cannot actually specify the name of a campaign; you can specify only the value of `string_constant`.

c Click **OK**.

d To change the location of an element, click **Up** or **Down** to place your element in the correct position in the name pattern.

You can see the pattern in the File Name Preview field.

To edit an element, follow these steps:

a Click **Edit**.

b Modify the element as needed.

c Click **OK**.

To delete an element:

a Select the element you want to remove.

b Click **Remove**.

c Click **Yes**.

*To undo changes that you do not want to save, click **Reset**.*

a Select your time zone.

b **Save** your changes.

If you do not save your changes before exiting the configuration menu, your changes are discarded.

Deleting Uploaded Call Recordings

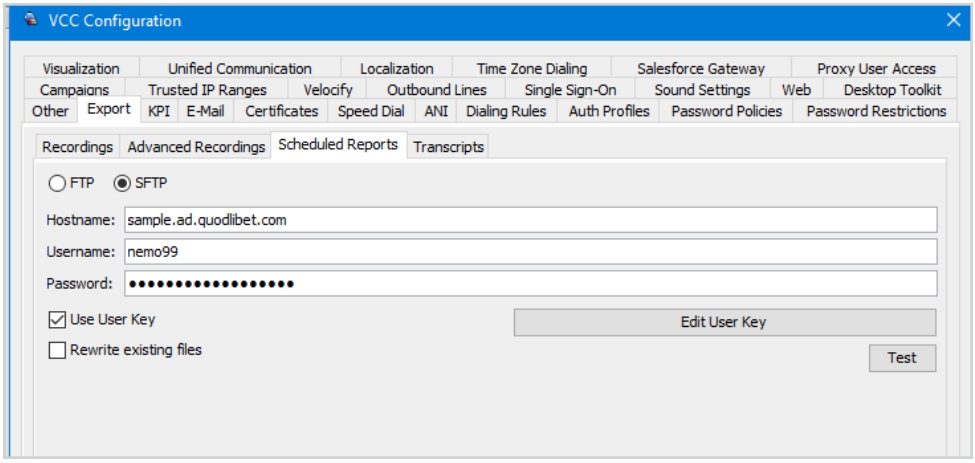
if your privacy policy requires that call recordings be deleted from the Five9 server immediately after they are uploaded to your corporate server, check **Delete after uploading**. The WAV files will be deleted as soon as the file transfer is complete.

Configuring FTP Options for Scheduled Reports

You may schedule reports to be transferred at a specified time. The generated report is sent to an email address and optionally uploaded by FTP in the specified format.

> **Note**
>
> If you export matrix reports to CSV format, the headers are not formatted correctly. Instead, export the report to a spreadsheet program and save the report as a CSV file.

1 Navigate to **Export > Scheduled Reports**.



2 Define the FTP server, see **Exporting Recordings and Transcripts**.

3 If you want newly exported files to overwrite existing files that have the same name, select **Rewrite existing files**.

If you do not select this option, a suffix is appended to the existing file.

4 Click **Save**.

Configuring FTP Options for Transcripts

You can save and send transcripts of your chat and email interactions. If you have an FTP server, recordings can be transferred daily to your server.

You can also configure FTP settings for each campaign. The campaign FTP settings override the settings on the VCC Configuration page. To configure the campaign, see Campaign Administrator's Guide, *Outbound Campaign Properties*.

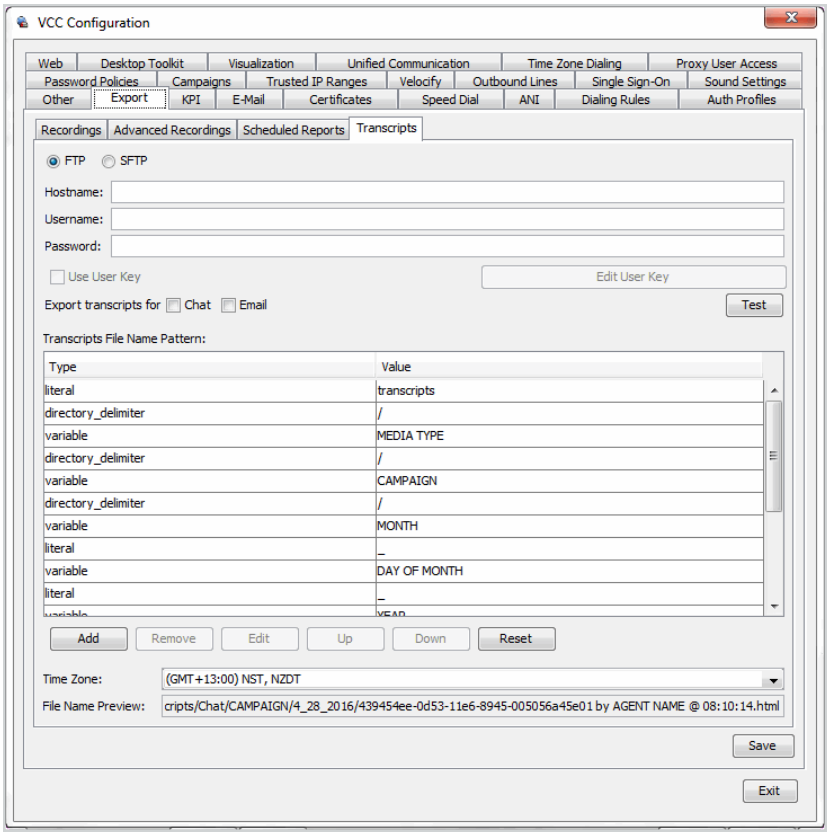
Important

If you plan to use SFTP with a security key, be sure to obtain a private key file from your SFTP server administrator.

Defining Transcript Settings

Follow these steps.

1 Select the **Export > Transcripts** tab.



2 Select a transfer protocol: **FTP** or **SFTP**.

3 Enter the settings of your FTP server:

- **Hostname:** Name of the FTP server, which must be either an IP address or a fully qualified domain name (without ftp://).
- **Username** and **Password:** Passwords are masked.
  - FTP: Credentials for accessing the FTP server.
  - SFTP: User name for the server only. Do not enter a password because authentication with the security key supersedes the password of the server.

4 If you use SFTP with a security key, follow these steps. Otherwise, go to step 6.
   a Check **Use User Key**.
   b Click **Edit User Key**.
   c Click **Load from file**.
   d Locate the private key file that you obtained from your SFTP server administrator, and click **Open**.
   e Click **OK** to save the settings.

5 To verify the connection, click **Test**.

   Verify your entries if you do not receive a success message.

6 Select transcript export for **chat/email**.

Defining the File Name Pattern

1 To set the pattern to the path of the file recordings, follow this example:

```
recordings\Owner\4_11_2016\3330001235 by***Agent Name***@ 12_52_19 PM_Ivr
Module.wav
```

   The pattern contains these elements:

- Variables extracted from the system, for example: `Agent Name`.

_ivr_module *	disposition_name	number1
agent_name	first_name	number2
call_guid **	ivr_module	number3
campaign_name	last_name	owner
created_date	length	session_id
created_time	number	skill_name

* IVR path for recordings made in the IVR script only. For example, the Input and Menu modules have an option to record the user's input. If this option is enabled, the name of the module is prefixed with an underscore, for example: the module named Menu3 is added as `_Menu3` to the recording file name.

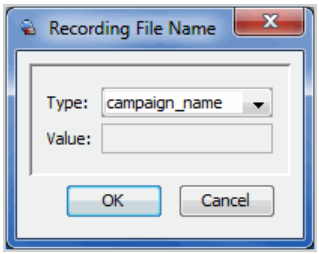
** Call ID in the call log reports. If multiple segments of the same call are recorded, all segments have the same `call_guid` but different time stamps, agents, and other attributes.

- `string_constant` is an element that contains an assigned value, such as recordings, by, or @.
- `directory_delimiter` inserts a backslash (\) for the path to the file.

To add an element to the pattern, follow these steps:

a Click **Add**.

The Recording File Name window is displayed.



b Select one of the types, for example: `campaign_name`.

The variables in the menu, such as campaign or agent, enable you to precisely set the file naming convention for call recordings. If you need a unique identifier for each call, use `session_id`. The types are listed alphabetically. You cannot actually specify the name of a campaign; you can specify only the value of `string_constant`.

c Click **OK**.

d To change the location of an element, click **Up** or **Down** to place your element in the correct position in the name pattern.

You can see the pattern in the File Name Preview field.

To edit an element, follow these steps:

a Click **Edit**.

b Modify the element as needed.

c Click **OK**.

To delete an element, follow these steps:

a Select the element you want to remove.

b Click **Remove**.

c Click **Yes**.

To undo changes that you do not want to save, click **Reset**.

a Select your time zone.

b Save your changes.

If you do not save your changes before exiting the configuration menu, your changes are discarded.

Creating Public and Private Keys

If you plan to use SFTP with a security key, you must first create the keys. Although this example uses OpenSSH, you can use another SFTP server. If so, refer to the documentation of your server.

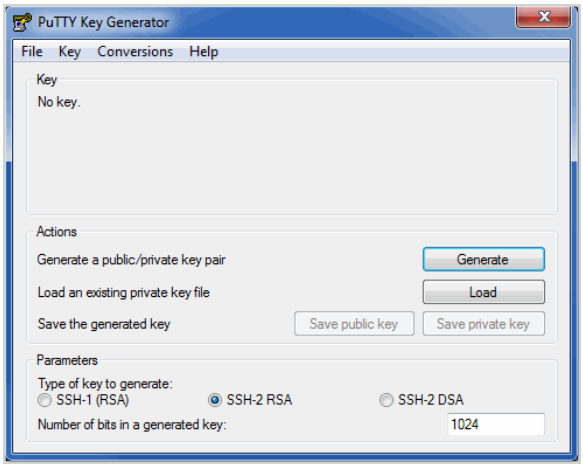
1 Download PuTTygen.

2 Run PuTTygen with these settings:

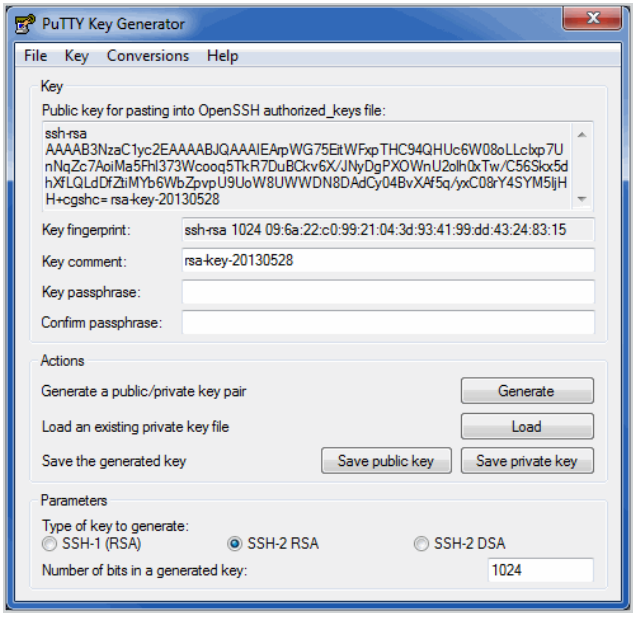
a Keep the default key type (SSH2-RSA) or select another, depending on your preference.

b Keep the default key size (1024 bits) or increase it, depending on your desired security margin.

Five9 has verified 1024 and 4096 bits.



3 Click **Generate**, and move your mouse over the blank area to add randomness to the key.



4 Do not specify a key passphrase.

5 Click **Save public key**, for example: `ssh2-xxxxxxx-public`

6 Click **Save private key**.

A warning window appears about the passphrase.

7 Click **Yes**.

8. Name your private key, for example: `ssh2-xxxxxxx-private.ppk`
9. Optionally, store a copy of the keys for your records.
10. In the menu bar at the top, select **Conversions > Export OpenSSH key**.

    Again, a warning window appears about the passphrase.
11. Click **Yes**.
12. Rename the file: `ssh2-xxxxxxxxx-private_as_openSSH.key`
13. Store the public key on the SFTP server.
    - If you use OpenSSH, place the key in `/user/.ssh/authorized_keys`
    - If you use another SFTP server, see that program's user guide for instructions.
14. Provide the private key to your VCC administrator.

Configuring Advanced Recording Uploads

Advanced Recording Upload (ARU) is an additional feature for real-time call recording uploads. It contains more advanced features like stitching call segments, rules-based upload with flexible criteria, and multiple FTP upload locations. The Advanced Recordings tab is visible only if this option is enabled for your domain. For more information, contact your representative. For more information, contact your Five9 representative.

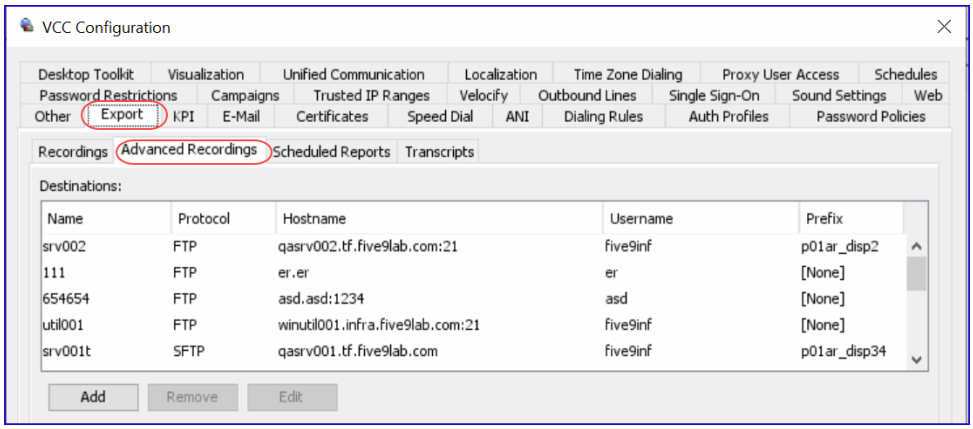
You may define rules to specify the parameters and options for uploading recordings, voicemail messages, and IVR inputs. You can define up to five upload destinations for each rule. When you configure your rules in Advanced Recording Upload, you can pause the uploads until you have completed the configuration. Completed rules are uploaded once you resume uploads.

If you are changing from standard to advanced recording upload, you may run both at the same time, but you should do so only to verify that recordings are uploaded as expected. To verify the upload status of the recordings, use the Recording Log report.

Adding Upload Destinations

To add upload destinations, follow these steps.

1 In the **Export** tab, select **Advanced Recordings**.



2 In the Destinations section at the top of the page, click **Add**.

3 Assign an intuitive name.

4 Select a transfer protocol: **FTP**, **SFTP**, **FTPS**, **Google Drive**, or **Amazon S3**.

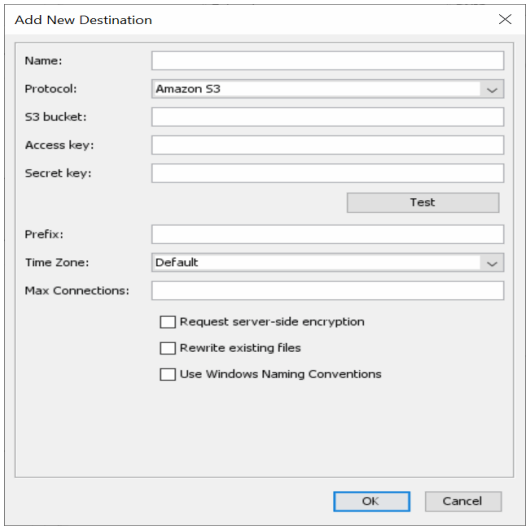
> **Important**
>
> To ensure that your recordings are reliably transferred, select the appropriate transfer method and destination for your business:
>
> - **Amazon S3**: If your contact center has 25 or more agents, select this protocol because bandwidth, ports, and performance monitoring are handled by the vendor.
> - **FTP methods**: To ensure that you have sufficient resources and monitoring to manage the recording upload, consult your FTP administrator.
> - **Google Drive**: This option if meant for small office and home office operations. Although Google offers account with various storage amounts, Five9 does not recommend this option for businesses that have more than a few agents.

5 Configure the protocol that you selected.

Configuring Amazon S3 Settings

> **Important:** While the Amazon Bucket Naming Rules permit the use of dots (.) in the Amazon S3 bucket name, this can be problematic when validating SSL certificates used for virtual host addresses during HTTPS connections to S3. Five9 recommends that you use other indicators, such as hyphens (-), to identify fourth-level domains. See AWS re:Post for more detail.

To configure Amazon S3 settings, follow these steps.



1. Identify your **S3 bucket**.

   > **Note:** If configuring an Amazon bucket with a non-default policy, export requires at least s3:PutObject and s3:ListBucket permissions.

2. Provide your **Access key**.
3. Provide your **Secret key**.
4. To verify the connection, click **Test**.

   If you do not receive a success message, verify your entries.

5. (Optional) Set **Prefix**.

Prefix is the folder to add before all files for this destination. For example: the path `directory/filename.txt` has a prefix that generates **<prefix>/directory/filename.txt**.

6 (Optional) Set **Time Zone**.

> **Important:** Selecting the default timezone option for the Advanced Recording destination uses the timezone specified in the Export > Recording configuration tab, not the default timezone configured for your domain.

7 (Optional) Set **Max Connections**.

Use this option to limit your maximum number of consecutive connections for uploading voice recordings to your destination server. if this value exceeds the maximum number of recording ports configured for your domain, the total number of recording export connections is limited by the maximum number of recording ports configured for your domain.

8 (Optional) Set **Request server-side encryption**.

Use this option to encrypt data that is stored at rest. To encrypt the data that you want to upload, add an additional request header. Decryption happens automatically when the data is retrieved.

9 (Optional) **Rewrite existing files**.

Use this option to overwrite existing file names rather than creating successive files, such as `abc_log (1)`, `abc_log(2)`, and so on.

10 (Optional) Select **Use Windows Naming Conventions**.

Enable this option to ensure that the name of the exported file complies with Microsoft Windows requirements. All forbidden characters, trailing dots, or reserved words are replaced with - (dash).

Example

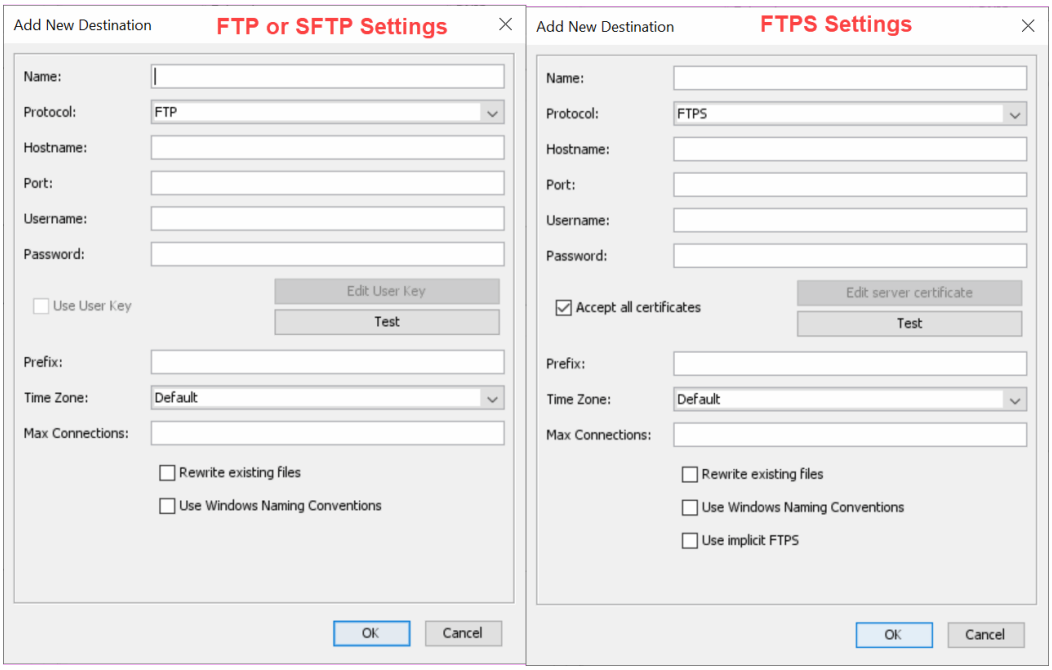
`C:/*/appt./lpt1/123.txt` is replaced by `C-/-/appt-/-lpt1-/123.txt`

11 Save your settings.

Proceed to Adding Upload Rules.

Configuring FTP,SFTP, and FTPS Settings

To configure the FTP/SFTP/FTPS server, enter the following settings.



Configure the Credentials. Configure the common access credentials, follow these steps.

Hostname	Name of the server, which must be either an IP address or a fully qualified domain name. The URL is identified automatically, based on the protocol that you select.
Port	Port number of the server.
Username	FTP or SFTP: Credentials for accessing the server. The password is masked.
Password	FTPS: User name of the server only. Do not enter a password because authentication with the security key supersedes the password of the server.

For FTPS certificates, **Accept all certificates** is the default setting. Deselect this option to edit your security certificate, and proceed to configuring optional settings.

Configure the SFTP User Key. To configure your SFTP user key, follow these steps.

1 Click **Edit User Key**.

2 Click **Load from file**.

3 Locate the private key file that you obtained from your SFTP server administrator, and click **Open**.

4 Click **OK**.

5 To verify the connection, click **Test**.

If you do not receive a success message, verify your entries.

6 Save your settings.

Configure the Optional Settings. To configure the optional settings, follow these steps.

1 Set **Prefix**.

Prefix is the folder to add before all files for this destination. For example: the path `directory/filename.txt` has a prefix that generates **<prefix>/directory/filename.txt**.

2 Set **Time Zone**.

> **Important:** Selecting the default timezone option for the Advanced Recording destination uses the timezone specified in the Export > Recording configuration tab, not the default timezone configured for your domain.

3 Set **Max Connections**.

Use this option to limit your maximum number of consecutive connections for uploading voice recordings to your destination server. Your maximum number consecutive connections is limited by the total number of recording export connections allotted for your domain.

4 Select **Rewrite existing file**.

Use this option to overwrite existing file names rather than creating successive files, such as `abc_log(1)`, `abc_log(2)`, and so on.

5 Select **Use Windows Naming Conventions**.

Enable this option to ensure that the name of the exported file complies with Microsoft Windows requirements. All forbidden characters, trailing dots, or reserved words are replaced with - (dash).

Example

`C:/*/appt./lpt1/123.txt` is replaced by `C-/-/appt-/-lpt1-/123.txt`

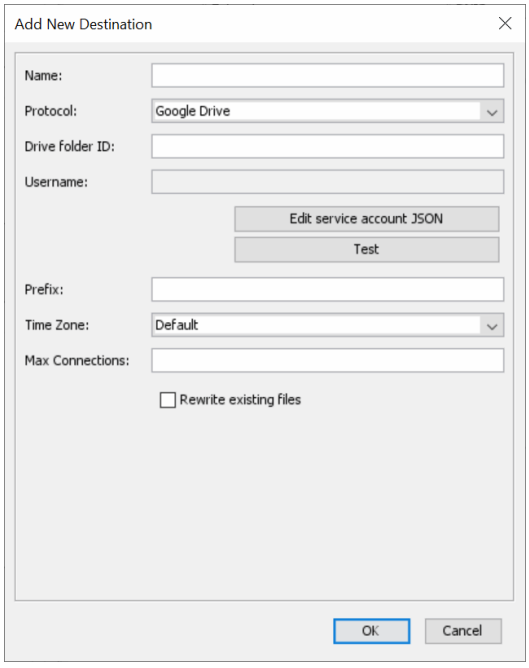
6 (Optional - FTPS only) **Use implicit FTPS**.

7 Save your settings.

Proceed to Adding Upload Rules.

Configuring Google Drive Settings

To configure Google Drive settings, follow these steps.



1 Identify your **Drive folder ID**.

2 Provide your **Username**.

3 To load your user key, click **Edit service account JSON**.

4 To verify the connection, click **Test**.

If you do not receive a success message, verify your entries.

5 (Optional) Set **Prefix**.

Prefix is the folder to add before all files for this destination. For example: the path `directory/filename.txt` has a prefix that generates **<prefix>/directory/filename.txt**.

6 (Optional) Set **Time Zone**.

> **Important:** Selecting the default timezone option for the Advanced Recording destination uses the timezone specified in the Export > Recording configuration tab, not the default timezone configured for your domain.

7 (Optional) Set **Max Connections**.

Use this option to limit your maximum number of consecutive connections for uploading voice recordings to your destination server. Your maximum number consecutive connections is limited by the total number of recording export connections allotted for your domain.

8 (Optional) Select **Rewrite existing files**.

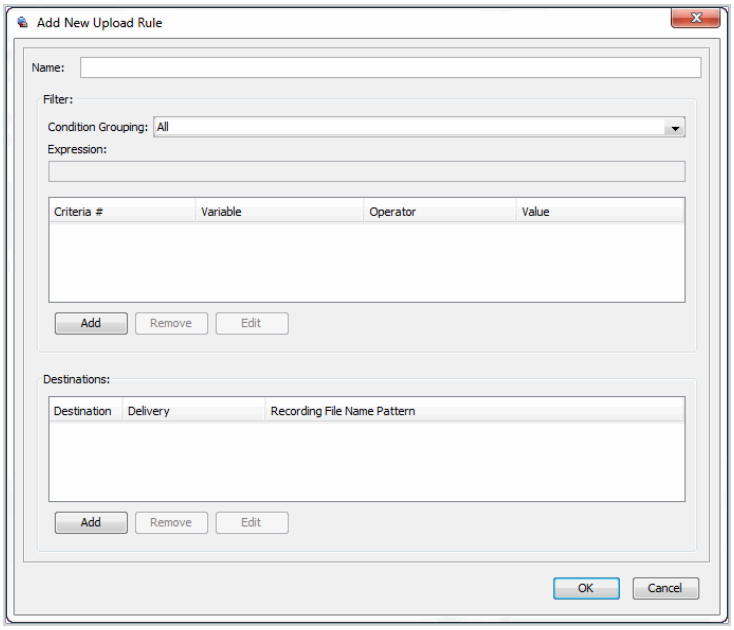
Use this option to overwrite existing file names rather than creating successive files, such as `abc_log(1), abc_log(2)`, and so on.

9 Save your settings.

Adding Upload Rules

Upload rules define the particular details of your recording uploads, such as your delivery option and file name pattern. Five9 recommends that you apply a maximum of five upload rules for each destination.

1 In the rules section, click **Add**.



2 Provide an intuitive name.

> **Note:** Refrain from using a Call-Attached Variable (CAV) that includes a colon (:) in the value, such as `timestamp`. You may use a recording variable such as `createddate` or `createdtime` instead, as these use an underscore (_).

3 Select a **Condition Grouping** from the list.
- **All**: When all rule conditions apply.
- **Any**: When any rule conditions apply.
- **Custom**: Provide a custom expression for your rule conditions.

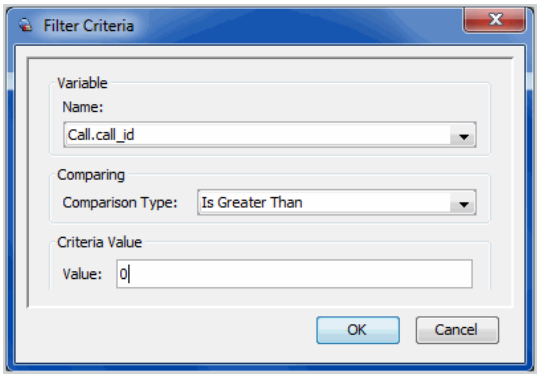
4 (Optional) Provide a custom **Expression** for your rule conditions.

Agent and recording variables are among those evaluated once a disposition is assigned to the interaction.

5 To add filter criteria, click **Add** in the filter section. Agent and recording variables are among those evaluated once a disposition is assigned to the interaction.

Important

You must specify criteria to enable upload. For example, if you want every call recording you can specify a criteria for `Call.call_id>0`, shown below.



a Select a variable name.

b Choose a comparison type.

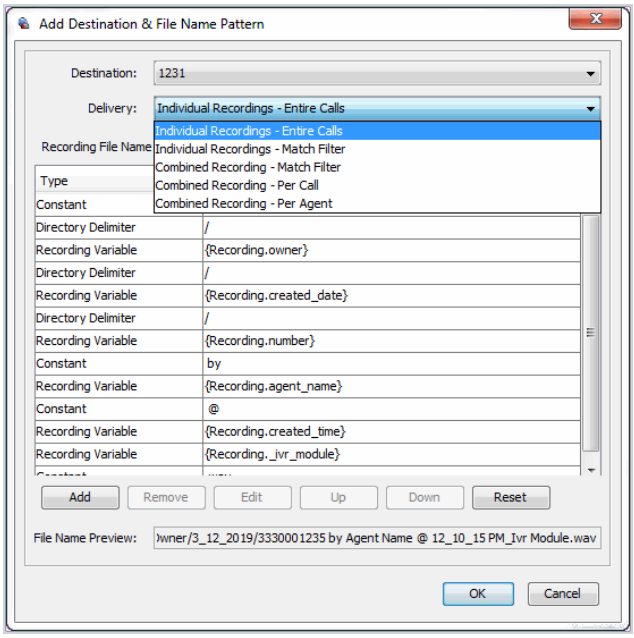
c Specify a criteria value.

d Click **OK**.

6 To add a destination and file name pattern, click **Add** in the destination section.

Important

The file name is limited to 250 characters. The complete remote path and file is limited to 10240 characters. You can use a variable, such as `recording.id`, to identify specific recording segments.



7 Select a destination.

8 Select a delivery option.

Call variables are evaluated once a disposition is set for the interaction. Calls may be transferred among agents. These variables are used in the delivery filter expressions.

Multiple lists begin with en dashes. No style completes this list, with it also left aligned with above paragraph.

- **Individual Recordings – Entire Call**: The entire interaction is recorded in individual segments.
- **Individual Recordings – Match Filter**: Portions of your interaction match your filters in individual segments.
- **Combined Recording – Match Filter**: Portions of your interaction match your filters in a single file.
- **Combined Recording – Per Call**: The entire call is exported in a single file.
- **Combined Recording – Per Agent**: When filter criteria match at least one recorded call segment, all recorded segments are exported and grouped by the **Recording.agent** variable. Although this behavior is identical to that of Combined Recording – Per Call, this behavior is used for calls that have been transferred between agents.

9 Choose a destination from the menu, or click **Add** to create a destination.

10 Click **Add**, **Remove**, **Up**, **Down**, or **Rest** to modify the path and file name of the call recording.

11 Click **OK** to save your destination settings.

12 Click **OK** to save your upload rule.

13 Click **Save** to save your work.

Running the Recording Log Report

A Recording Log report is available in the standard Call Log reports. This report lists the upload status of your advanced recording configurations and includes the following fields:

- **Recording ID:** Five9 unique identifier for each leg of the call recording.
- **Agent:** Username of the agent that handled the call.
- **File Path:** The configured file path pattern where the file is uploaded.
- **Filename:** The configured filename pattern.
- **File Size:** Size of the file in bytes.

> **Note**
> The file size field shows information only when the Status field shows UPLOADED. When the file status still shows NEW, the file size field is blank.

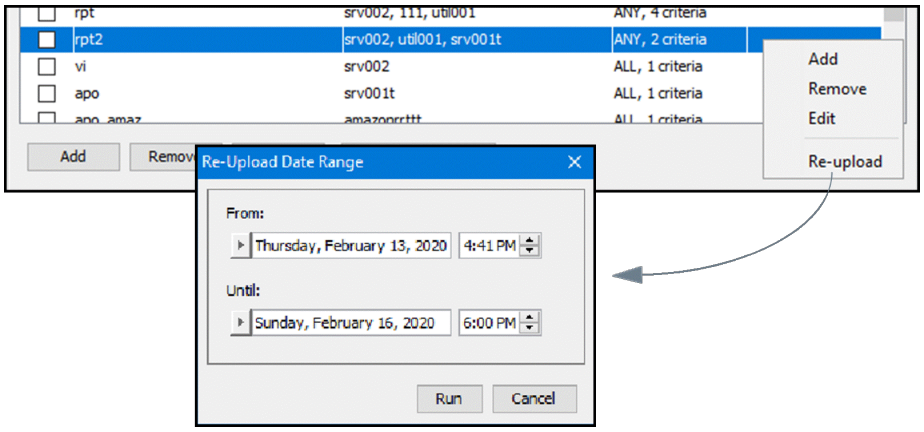
- **Length:** Call recording length.
- **Status:** Status of the upload.
- **Hostname:** (S)FTP User, Host, and Prefix.
- **Stitched:** Displays the configured delivery options.
- **Deleted:** Boolean. True = 1, False = 0.
- **Upload Attempts:** Number of attempts until successful upload.
- **Upload Timestamp:** Timestamp of the successful upload.
- **Error Message:** Error message for failed upload attempt.

Re-Uploading

You can upload a set of recordings for a specific date range as in these examples:

- To export recordings that were not previously selected for upload.
- To resend recordings with an updated file name pattern.

1 Right-click an upload rule.



2 Select **Re-upload**.

3 Select a start and end date.

4 Click **Run**.

The **Re-Upload Status** column for this rule displays one of these statuses:

- **Running:** The upload is in process.
- **Pending:** The upload was requested but has not started.
- **Interrupted (reason):** The upload has been interrupted for one of these reasons:
  - **Unknown**
  - **Canceled by a user**
  - **Run error**
- **Completed:** The upload is finished.

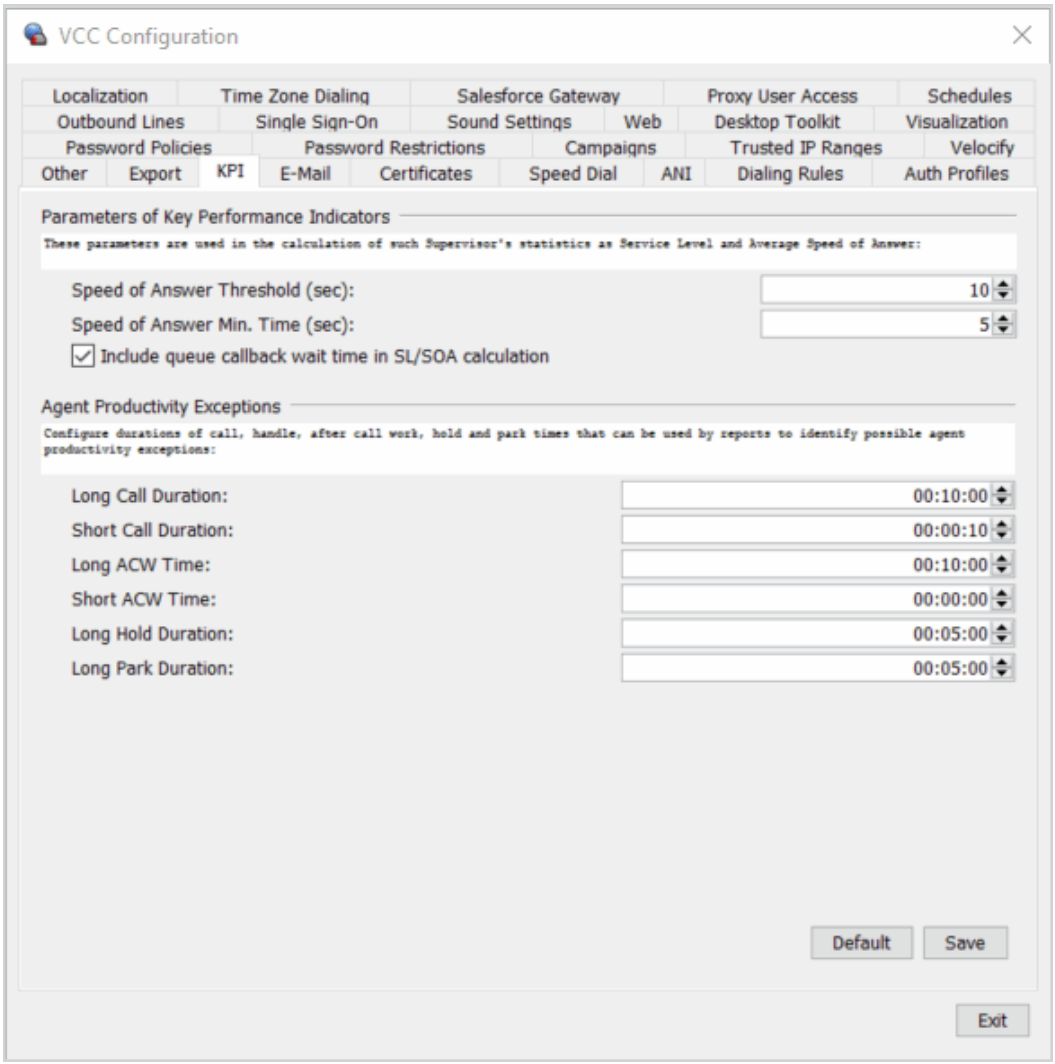
To cancel the upload process, right-click and select **Cancel**.

Setting KPI and Global Parameters

> **Note:** This section is optional.

To customize some of the service level statistics available in the Supervisor application and in reports, set limits in the **KPI** tab. To use default values, click **Default** at the bottom of the **KPI** window.

In reports, the service level is calculated for each call whether or not the service level was met. Service levels are expressed as percentages.



Defining Service Level

Setting the Speed of Answer Threshold (seconds). This threshold value determines the service level for a call. If you want calls to be answered within 30 seconds, set the threshold value to 30. The default value is 20 seconds.

For inbound calls, the speed of answer is the interval between the call entering an ACD queue and being connected to an agent. Service level is measured by comparing the speed of answer (SOA) value to the threshold value. Service level is boolean and set as follows:

- 1: SOA <= SOA threshold; the agent answered the call in time.
- 0: SOA > SOA threshold; the agent did not answer the call before the threshold.

Calls that are disconnected while in the queue for less than the threshold value are excluded.

Setting the Speed of Answer Minimum Time (seconds). Calls shorter than this setting, such as abandoned calls and wrong numbers, are excluded from statistics. This parameter is not used in outbound campaigns because these campaigns do not use the ACD. The default value is five seconds.

Including queue callback wait time in SL/SOA calculation. When enabled, waiting time for queue callback is included in the service level calculation that is shown in reports and Supervisor Plus applications. This option is disabled by default.

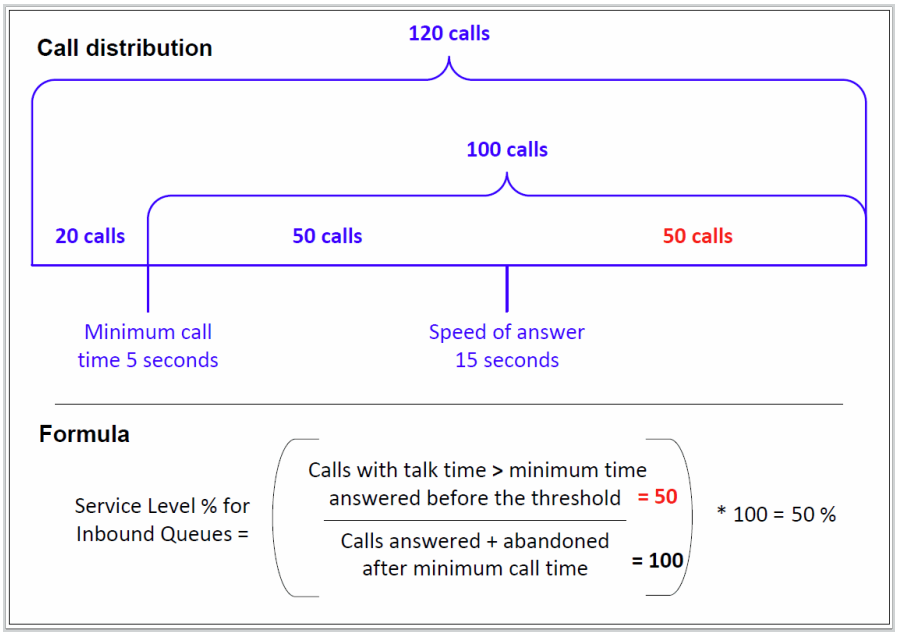
Examples

This topic describes how service level is calculated in different scenarios. For inbound examples, the speed of answer and the minimum call length are set. For outbound calls, the speed to answer is set. In all cases, statistics are calculated for one hour, for example: 1:00 – 1:59 PM. Abandoned calls are excluded from calculations. Statistics are specific to either inbound or outbound calls. Statistics for calls that are answered must have talk time.

> **Note:** The abandon rate 2-second rule calculation option allows you to use a queue time of 2 seconds or higher to identify outbound calls as abandoned. The **Outbound Campaign Abandon Rate % 2 Seconds Rule** standard report shows these values.

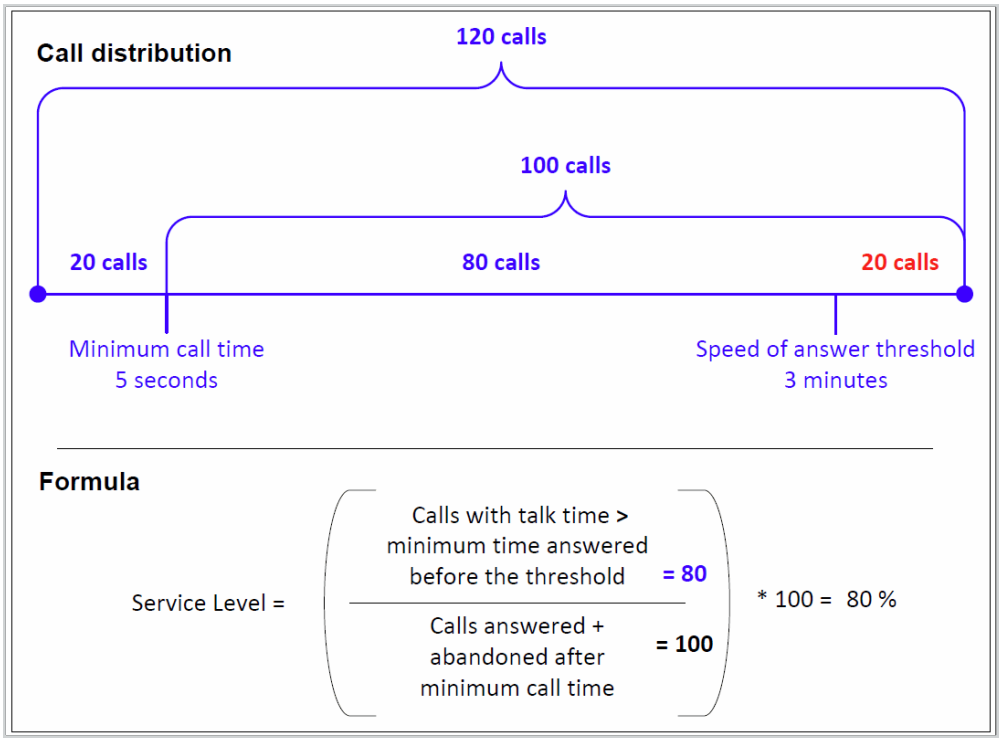
Inbound Queues. Speed of answer for the queue measures how fast the agent answers the call. This formula calculates the percentage of calls in a queue that met the service level because they were answered before the speed of answer threshold.

- 120 calls in the queue.
- 20 calls were abandoned before the five-second minimum duration.
- 120 - 20 = 100 calls in the queue for longer than five seconds count towards the service level agreement.
- 50 calls were answered in fewer than 15 seconds.



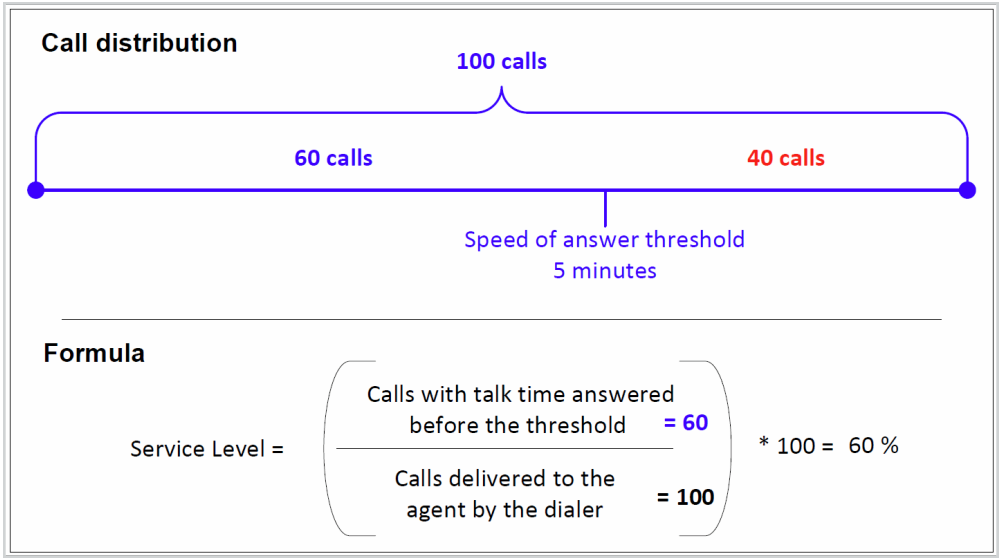
Inbound Talk Time. Speed of answer for talk time measures how fast the agent handles the call to resolve the customer's problem (was talk time shorter or greater than minimum time?). This formula calculates the percentage of calls that met the service level because they were answered within the specified speed of answer and lasted longer than the minimum set call duration.

- 120 calls in the queue.
- 20 calls were considered abandoned because their duration was shorter than the five-second set minimum.
- 120 - 20 = 100 calls in the queue count towards the service level agreement if they are answered before the speed of answer threshold.
- 80 calls were answered before the speed of answer threshold.



Outbound Talk Time. In this example, the speed of answer is set to five minutes (300 seconds).

- 100 dialed calls were delivered to agents.
- 60 calls with talk time were answered before the speed of answer threshold.
- 40 calls were answered after the speed of answer threshold.



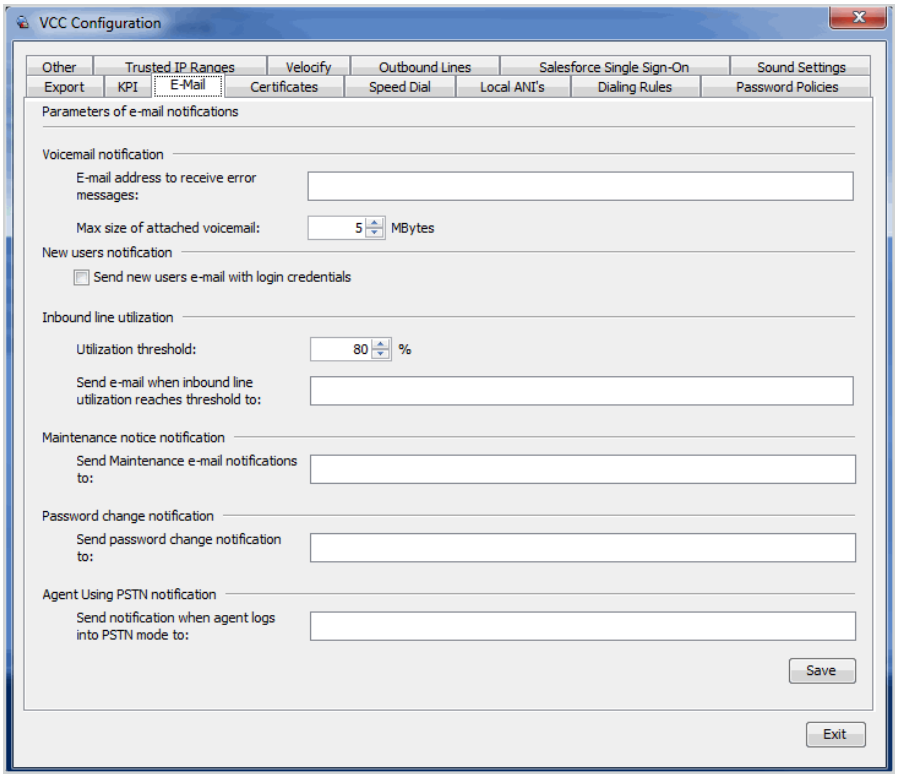
Agent Productivity Exceptions

These thresholds are used in reports because they can indicate a deviation from the expected agent performance. ACW represents the after-call work time spent in the wrap-up state.

- Long Call Duration
- Long ACW Time
- Long Hold Duration
- Short Call Duration
- Short ACW Time
- Long Park Duration

Defining Email Notifications

This section is optional. Navigate to **Actions > Configure > E-Mail** tab.



Field	Description
Voicemail Notification	Optional email notification when users receive a voicemail message. This address is also used for bounced email messages and as the *reply to* address. Configure voicemail notification in the properties of each user account. See also, **Managing Voicemail**. Max size of attached voicemail: The email can include the voicemail message as an attachment, which can be very large. If an attachment is larger that the specified size, the email is sent without the attachment.
New users notification	Email address of new users for login credentials.
Inbound line utilization	Line usage threshold in percentage. Notify email recipient when inbound line usage reaches threshold.
Maintenance notice notification	Email address of the recipient.
Password change notification	Email address of the recipient.
Agent Using PSTN notification	Email address of the recipient.

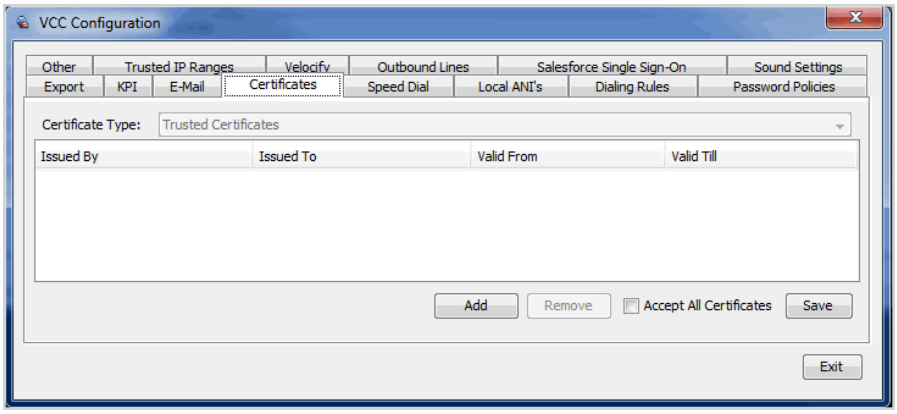
Managing Security Certificates

When configuring an IVR script to retrieve data from an external data source, you can use a secure connection. You may upload a security certificate for additional server authorization. Certificates can also be used for system disposition connectors.

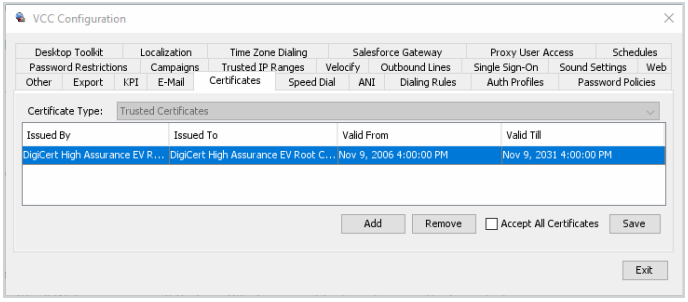
Installing a Certificate

You need to import certificates only for unsigned certificates. Certificates signed by an authority such as VeriSign or Thawte are automatically accepted by the VCC. If you try to import a signed certificate, you receive a corrupted file error. The default file extension is CRT.

Navigate to **Actions > Configure > Certificates**.



Click **Add** to display the list of certificates available. Scroll to the certificate you want to add, and click **Open** to add the certificate to the list.



Optionally, check **Accept All Certificates** to allow the system to trust the certificates from all servers.

- The system allows connection with all Web servers even if their certificates cannot be found among the imported ones.
- The system allows connection with only the Web servers with certificates already in the list or signed by a certificate authority.

Click **Save**, then **Exit** to save the certificates

Testing the Imported Certificates

Send test HTTPS requests to the server from a Web browser. If you are successful, your setup is completed. If you see a browser message about the certificate, most likely you need to import it.

Removing a Certificate

To remove a certificate, select it in the certificates list and click **Remove**.

You will be prompted to confirm the operation.

Generating an Unsigned Certificate

Use a utility such as `keytool` with this command to generate an unsigned certificate:

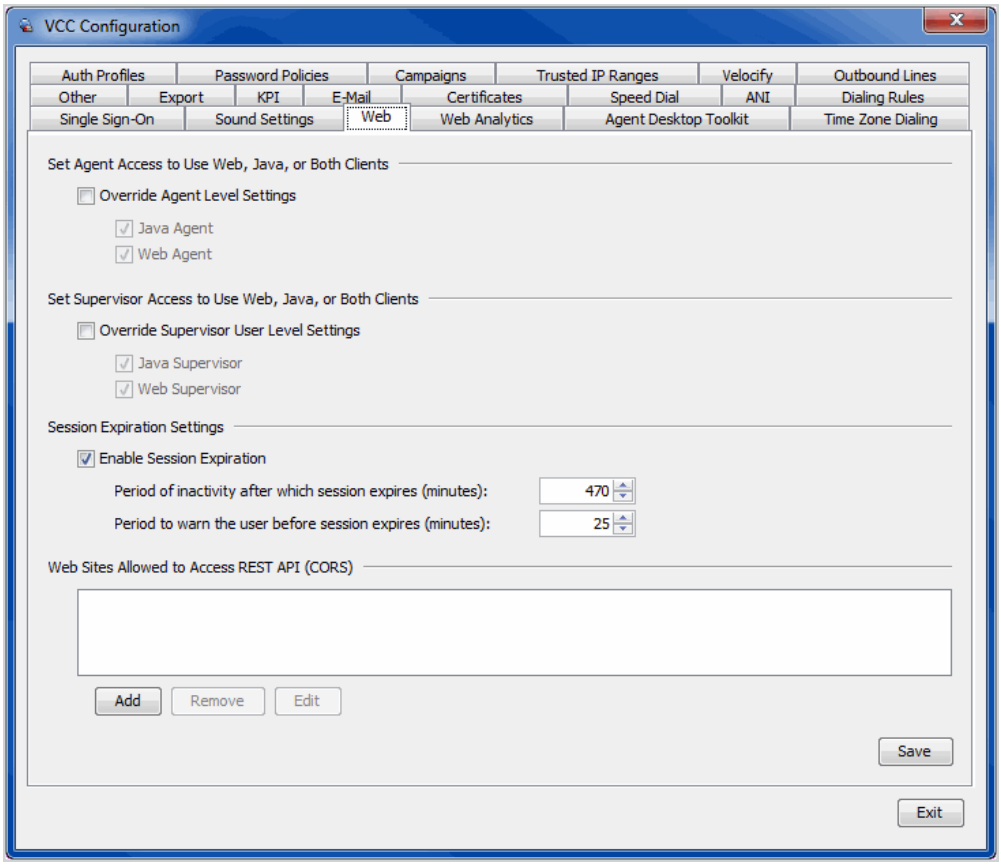
```
keytool -genkey -alias mykey -keyalg RSA -validity 3650 -keystore
mykeys.keystore
```

Defining Settings for Agent Desktop Plus

If your domain is licensed for Agent Desktop Plus, you can configure global settings for your web-enabled agents in the Web tab of the VCC Global Configuration Settings. Navigate to **Actions** > **Configure** > **Web**.

You can change and set the duration for the period of inactivity (specified in minutes) to your desired setting. You can also set the period (set in minutes) to warn the user before the session expires.

> **Note:** The default setting is 480 minutes for inactivity and 20 minutes for the warning notification.



Field	Description
Override Agent Level Settings	Overrides for all agents the permissions in the user's properties for the Java and Web agent interfaces. This setting forces agents to use the option(s) that you select here.
Override Supervisor User Level Settings	Overrides for all supervisors the permissions in the user's properties for the Java and Web supervisor interfaces. This setting forces supervisors to use the options that you select here.
Enable Session Expiration	Number of inactive minutes allowed before the session expires and before the session expiration warning. The session expiration timer continues regardless of the application's state, whether it is fully open and visible or hidden behind another tab. Session expiration will not occur if the agent is on an active call. To disable it, uncheck **Enable Session Expiration**. • Assuming the "Period to warn the user before session expires

Field	Description
	(minutes)" is set to five minutes. • Assuming the "Period of inactivity after which session expires (minutes)" is set to 20 minutes. After 15 minutes of inactivity, a warning appears, indicating that five minutes remain before the actual expiration, which occurs after 20 minutes of inactivity. Inactivity is defined as the absence of use or interaction with the mouse or keyboard on a control within the application, as opposed to general computer activities. The timer does not reset when you click anywhere on the user interface.

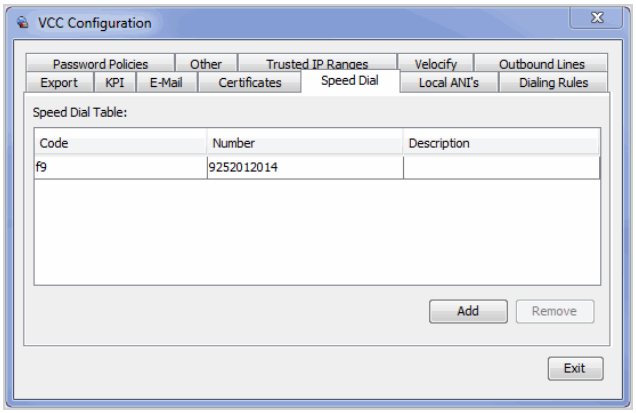
Managing Speed Dial Numbers

Speed Dial numbers provide fast access to the most frequently dialed outbound numbers in the **Make Call**, **Add Conference Participant**, and **Transfer Call** menus of the Agent application. You can define short codes for agents to enter instead of entering full-length phone numbers each time. Agents may see **(Emergency)** appended to numbers that are designated as emergency contact.

> **Note:** Speed dial numbers can be combinations of three character strings that can contain any combination of letters (A-Z) and digits (0-9).

Adding Speed Dial Numbers

1 Navigate to **Actions > Configure > Speed Dial**.



2 Click **Add** to define the speed-dial number

- **Code:** Shortcut code up to three digits or letters to provide quick access to the phone number.
- **Number:** Complete valid phone number. You can enter international numbers with up to 20 digits.
- **Description:**

  Short description of the speed-dial number.

3 Click **OK** to save your changes.

Delete Speed-Dial Numbers

1 Select one or more numbers you want to remove from the list.
2 Click **Remove**.
3 Click **Yes** to verify that you want to remove the selected numbers.

Configuring Dialing Rules in VCC

Dialing rules prevent the VCC from calling contacts in specified states or regions during a specified time range. You can apply the rule to the time zone of a phone number or

to a fixed time zone. The rules may be applied to manual calls. You can define time zone rules as follows:

- Area code + prefix of phone number to be dialed.
- Alphanumeric postal code.
- State

To apply dialing rules to campaigns, enable **Follow the restrictions on state dialing hours/dates** in the Time Zone Dialing tab of the campaign properties. For more information, see **Configuring Time Zone Dialing in VCC**.

Adding Dialing Rules
Deleting Dialing Rules

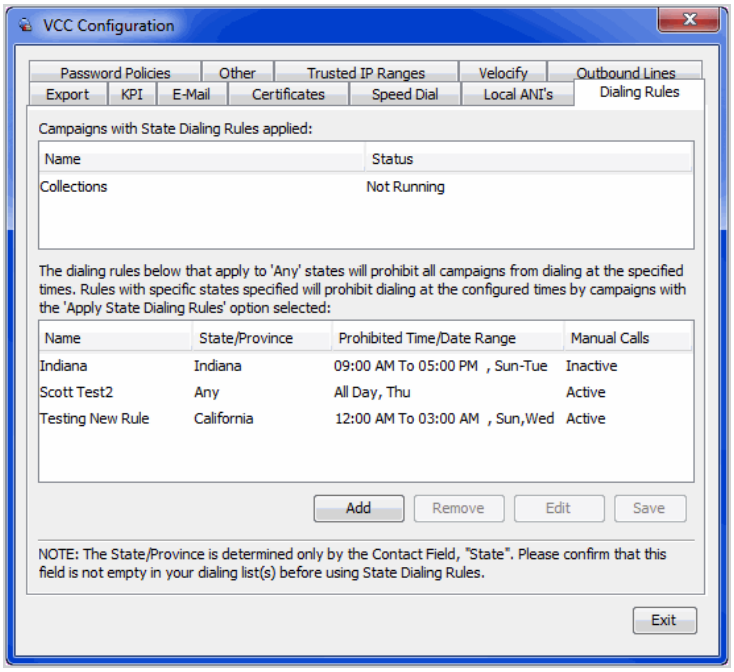
Adding Dialing Rules

Dialing rules are applied based on the contact's state. See **Configuring Time Zone Dialing in VCC** for information on setting the way that the state is determined

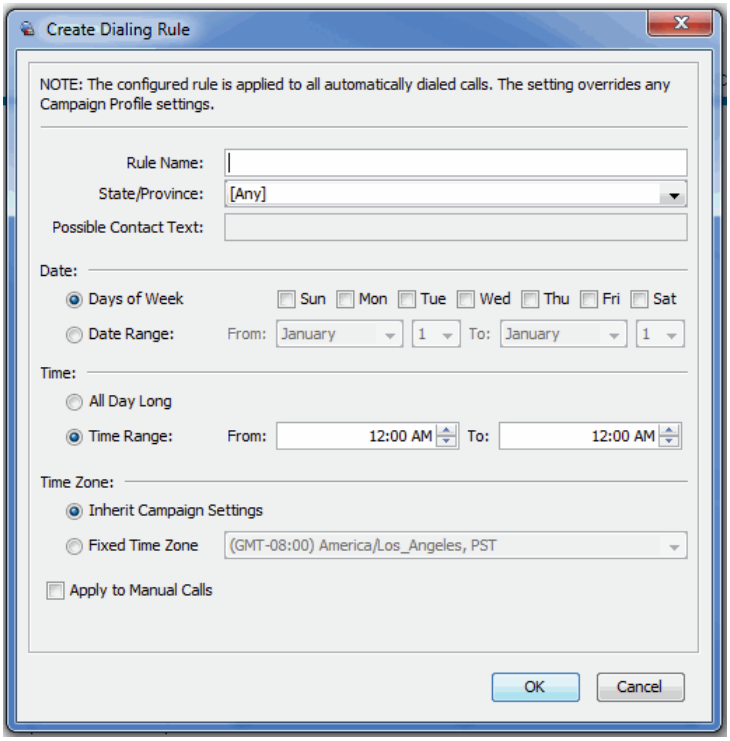
. You can add as many rules as you need.

1. Select **Actions > Configure**.
2. Select the **Dialing Rules** tab.

   The upper section contains the campaigns that follow these dialing rules. The lower section contains the rules.



3 Click **Add** to open the Create Dialing Rule window and define a new rule.



Field	Description
Rule Name	Name that appears in the dialing rules table.
State/Province	U.S. state, Washington, DC, Puerto Rico, or Canadian province. The Other option has no configured possible contact text (next item), which enables you to create a rule for arbitrary text values that may be entered in the state contact field.
Possible Contact Text	Comma-separated list of how this state might be indicated in the calling list. Additional text can be contained in the State contact field (for example, Alabama, AL indicates that this dialing rule applies to contact records using either Alabama or AL in this field).
Date	**Days of Week**: Apply the state dialing rules based on days of the week instead of a date range. Select this option to comply with telemarketing laws in each state, without any manual intervention with campaigns. **Date Range:** Applies to specific dates, during which campaigns should not dial to the specified state. For example, such a rule can exclude state holidays from your dialing activity. You can specify a date range which contains one or multiple days.
Time	**All Day Long**: Apply the dialing restriction to the entire day. Select this option if you do not need to dial customers on the specified days. For example, such a rule can be used to exclude holidays from dialing. **Time Range**: Apply the rule to the specified time range. For example, you may not want to dial after 8 PM every

Field	Description
	day or on Sundays before 10 AM. Campaign dialing time options can also be specified in Profile properties. See Editing the Properties of Campaign Profiles.
Time zone	Select inherit campaign settings or fixed time zone. Time zones with DST shifts are automatically adjusted.
Apply to Manual Calls	To apply the rule to manual calls in addition to automatically dialed calls, check **Apply to Manual Calls**. To enforce that queue callbacks follow your defined dialing rules, enable this feature.

4 Click **OK** to save your changes.

> **Note**
>
> In Five9 CRM integrations, dialing rules are not applied in the following scenario:
>
> - Two contact records have the same number: Record A specifies a state that has an associated dialing rule, while Record B does not specify any state.
> - A skill voicemail or missed call is arbitrarily associated with Record B.
> - An agent returns the call at a time prohibited by the dialing rule.
> - The call is permitted because it is associated with Record B.

Deleting Dialing Rules

To delete rules, select one or more numbers in the list, click **Remove** and **OK**.

Configuring Time Zone Dialing in VCC

The Time Zone Dialing tab contains options that set, for your entire domain, how a contact's time zone and state are determined for use in dialing rules. These settings can be overridden for specific campaigns. For more information, see the Campaign Administrator's Guide, *Configuring Time Zone Dialing Options*.



Time Zone Assignment

Use these options to set how time zone is determined:

- Use the Phone Number Area Code + Prefix.
- Use the ZIP/Postal Code of Contact. If that is not available, use Phone Number Area Code + Prefix. Applies only to U.S. and Canada.
- Use State of Contact Record. If that is not available, use Phone Number Area Code + Prefix.

> **Note:** Manual outbound calls do not use the state assigned to the contact record. They always follow the time zone assignment based on the phone number's area code and prefix.

When setting time zone assignment and state dialing rules, be sure to consider what location data is available. For example, the contact's state may not always be specified. Consider also what works best for your contact center's business.

State Dialing Rules

Use these options to set how the state is determined:

- Use the contact's state only.
- Use the contact's state. If that is not available, use the contact's phone number, area code, and prefix to search for the state.
- Use the contact's state. If that is not available, use the ZIP or postal code of the contact record to search for the state. ZIP, postal code, or state apply only to the U.S. and Canada.

Configuring Schedules

The Schedules tab enables you to create schedules to be shareable and reusable among your campaigns and IVR scripts rather than creating these uniquely for each use.

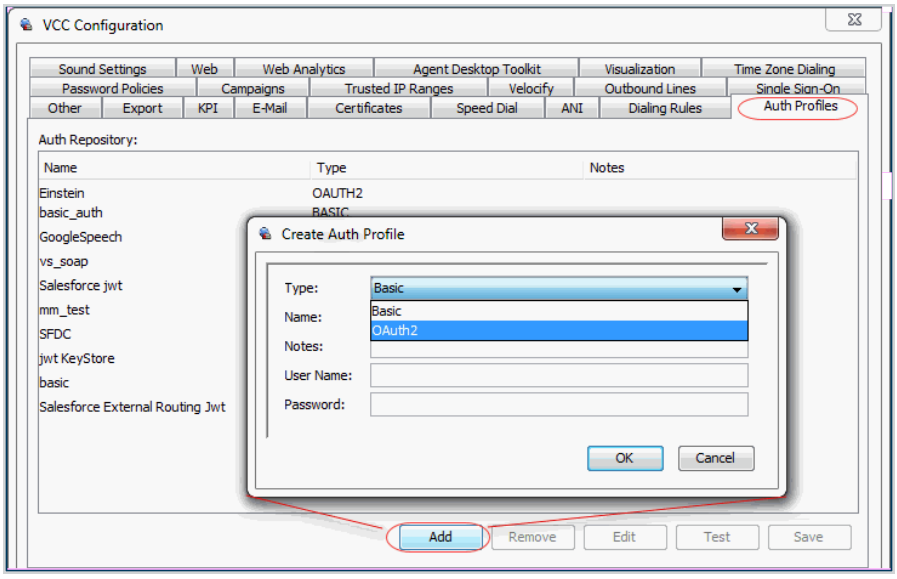
Creating Schedules

To create a new schedule, follow these steps.

1. Navigate to VCC Configuration > Schedules.
2. Click **Add**.
3. Provide a unique name for this schedule.
4. Provide a schedule description.
5. To add schedule events, click **Add**.
6. For each schedule event, populate the day and time information.
7. To save that event, click **OK**.
8. Associate an IVR script to which this schedule applies.
9. To save this schedule, click **OK**.

Managing Authorization Profiles

You can use the **Auth Profiles** tab to manage your authorization profiles in a single repository.

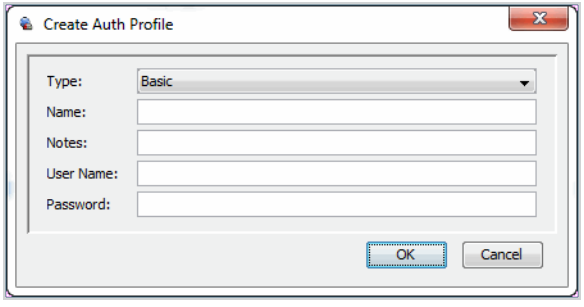


Creating Authorization Profiles

The following authorization profile types and testing are available.

Basic Authorization Profile

Basic authorization profiles require the minimal level of access grant credentials. A unique profile name, user name, and password are required. Descriptive notes are optional.



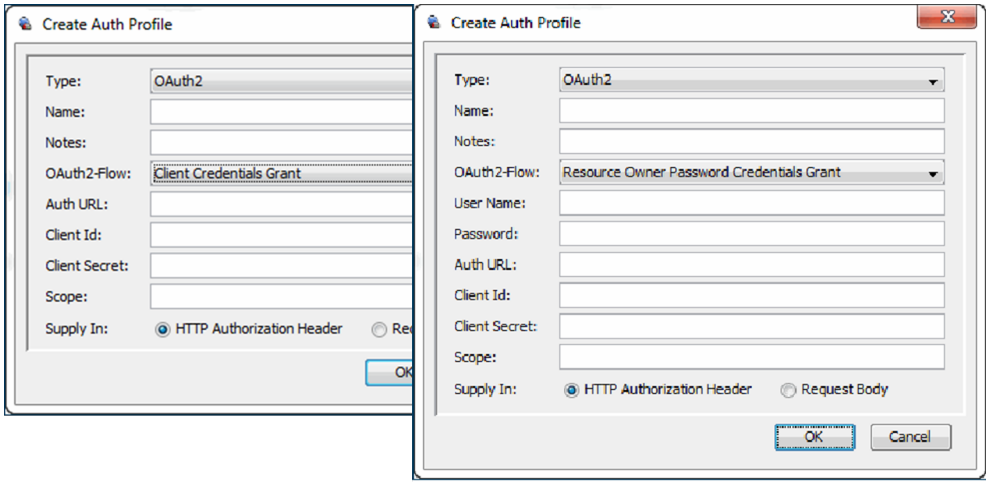
To add a profile using basic authorization credentials, follow these steps:

1. Click **Add**.
2. Select **Basic** from the **Type** selection list.
3. Provide a unique **Name** for this profile.

4 Add any **Notes** to describe this profile.
5 Enter the profile **User Name**.
6 Enter the profile **Password**.
7 Click **OK**.

OAuth2 Client or Resource Owner Password Credentials Grants

OAuth2 client credentials grant enables an application to make protected resource requests on behalf of the resource owner with authorization.

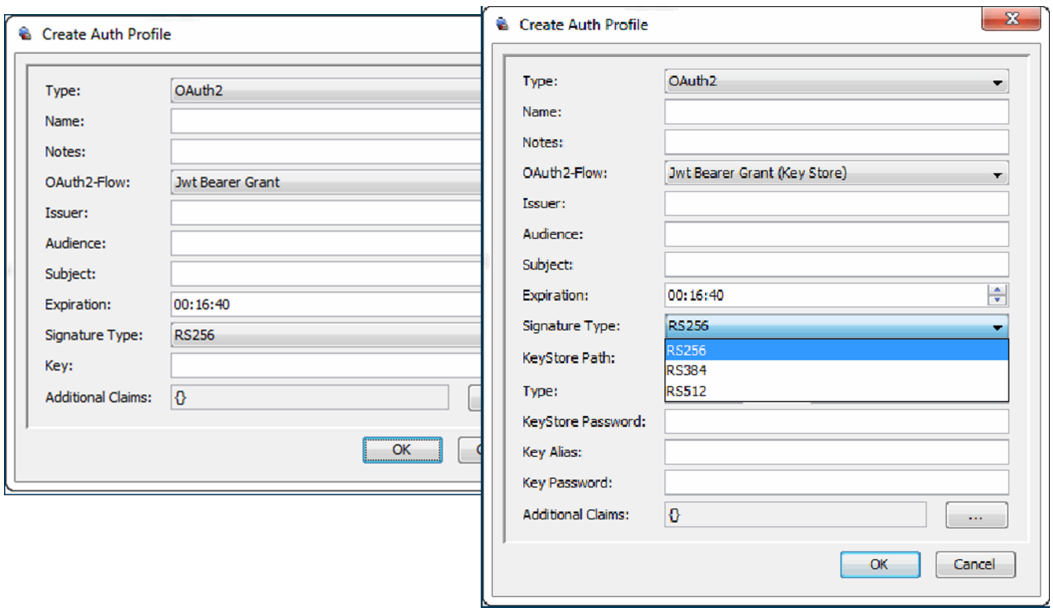


To add a profile using OAuth2 client credentials grant, follow these steps:

1 Click **Add**.
2 Select **OAuth2** from the **Type** selection list.
3 Provide a unique **Name**, and add **Notes** to describe this profile.
4 From the **OAuth2-Flow** list, choose **Client Credentials Grant** or **Resource Owner Password Credentials Grant**.
5 Enter the **User Name** for the Resource Owner Password credentials grant.
6 Enter the **Password** for the Resource Owner Password credentials grant.
7 Enter the **Auth URL** address.
8 Enter the **Client ID**.
9 Enter the **Client Secret**.
10 Enter the **Scope**.
Enter multiple scopes as a space-delimited list.
11 Select **HTTP Authorization Header** or **Request Body** to **Supply** your credentials.
12 Click **OK**.

OAuth2 JWT Bearer Grant and Key Store

OAuth2 JWT bearer grant enables applications with the appropriate scope to access resources and perform actions in Jira and Confluence on behalf of users.



To add a profile, follow these steps:

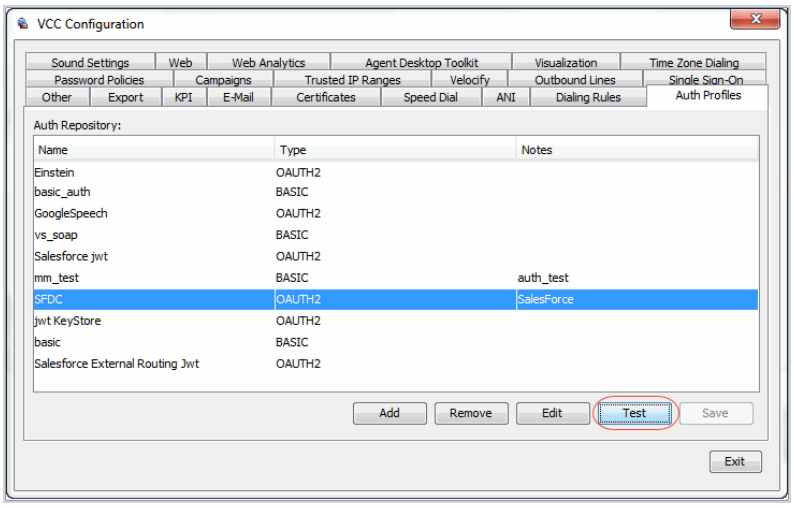
1. Click **Add**.
2. Select **OAuth2** from the **Type** selection list.
3. Provide a unique **Name** for this profile.
4. Add any **Notes** to describe this profile.
5. Choose **Jwt Bearer Grant** or **JWT Bearer Grant (Key Store)** from the **OAuth2-Flow** selection list.
6. Enter the **Issuer** for this profile.
7. Enter the **Audience** for this profile.
8. Enter the **Subject** for this profile.
9. Enter the **Expiration** for this profile in HH:MM:SS format.
10. Using the **Signature Type** selection list choose RS256, RS384, or RS512.
11. Enter the profile **Key** specific to JWT Bearer Grant with no key store.
12. Enter the **KeyStore Path**.
13. Enter the **KeyStore Type**.
14. Enter the **KeyStore Password**.
15. Enter the **Key Alias**.
16. Enter the **Key Password**, and click **OK**.

Testing Authorization Profile Credentials

Important

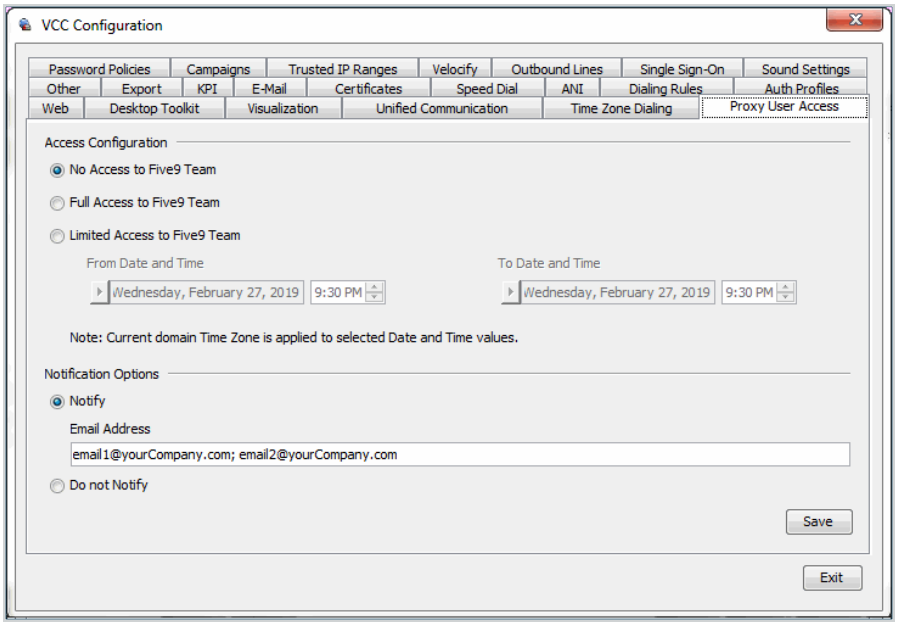
Five9 does not currently support JWT Bearer Tokens. However, you can use this authorization profile.

To test your credentials, click **Test**.



Configuring Proxy User Access

Proxy access enables Five9 personnel to access your domain without entering your personal credentials. This feature is useful for troubleshooting. Proxy user access is disabled by default.



1 Select **Actions > Configure**.

2 Select the **Proxy User Access** tab.

3 Choose an access configuration:

- **No Access to Five9 Team**: (Default) Access is denied.
- **Full Access to Five9 Team**: Access is granted for any user with a profile in your domain.
- **Limited Access to Five9 Team**: Access is granted for a defined time period for users who have a profile in your domain.

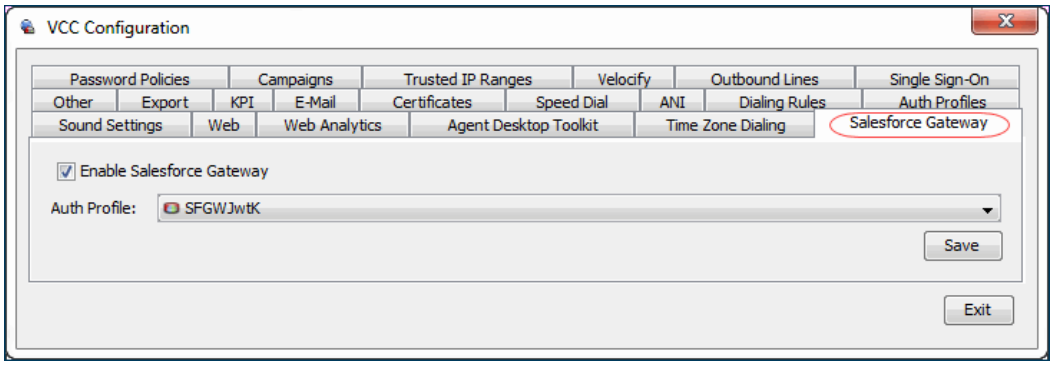
4 Configure your notification options to receive email notification for proxy user login/logout events.

- **Notify**: Enter semicolon-delimited email addresses for email notification of proxy user login/logout events.
- **Do Not Notify**: You are not notified for proxy user login/logout events.

5 **Save** your settings.

Enabling Salesforce

If your domain is enabled for Five9 Engagement Workflow, this menu enables you to manage external routing of Salesforce chat and case objects with the configured Salesforce authorization profile (see Managing Authorization Profiles).



Defining the Maximum Number of Outbound Lines

When all outbound lines are in use by campaigns, agents may encounter problems when attempting to make transfers, callbacks, manual calls, or outbound calls. To avoid this problem, reduce the maximum number of lines used for automated campaign calls to save outbound lines (100% minus the configured setting) for other activities.

This setting reduces the number of lines which may be used by outbound campaigns in predictive, power, or progressive dialing modes, and by autodial campaigns. Preview dialing campaigns, third-party transfers, and manual calls associated with campaigns share the defined outbound line utilization percentage.

The number of reserved lines is rounded to the nearest whole number, and the effective maximum number of maximum lines for automated dialing is shown to the right of the percentage setting. If the total number of provisioned outbound lines for the account changes in the future, the maximum number of lines for automated dialing is automatically reduced or increased.

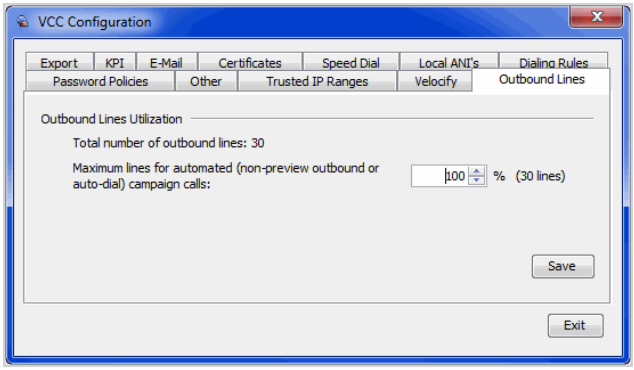
New accounts are created with a setting of 95%. The minimum possible percentage is 25%. If an account has fewer than 4 outbound lines, or if outbound campaigns are disabled, the option is disabled.

If the maximum number of outbound lines for automated campaign calls is changed to a number that is lower than the maximum in an autodial campaign, the VCC Configuration setting takes precedence: the lower number is used. A warning appears the next time you access the campaign properties to change settings.

1 Select **Actions > Configure**.

2 Select the **Outbound Lines** tab.

You can see the total number of outbound lines provisioned for the account.



3 Define the maximum percentage of lines for automated campaign calls.

4 Click **Save** and **Exit**.

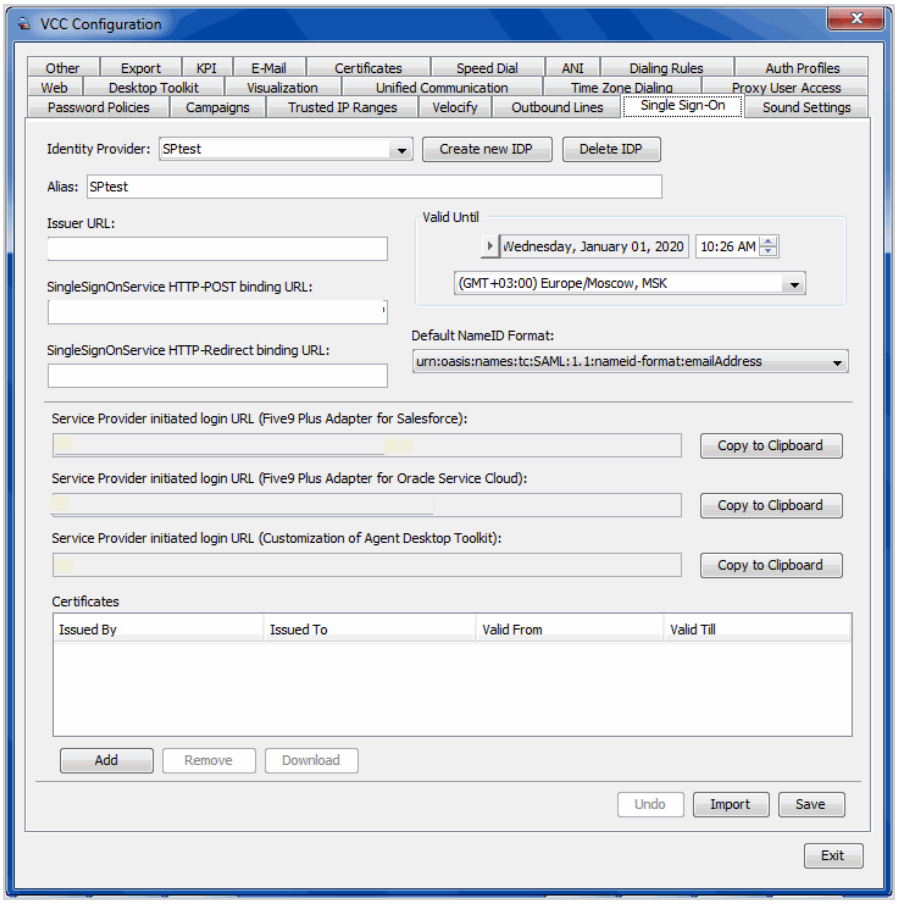
Defining Single Sign-On Identity Providers

For detailed SSO configuration and administration details, see the Single Sign-On Administrator's Guide.

For single sign-on, you may configure and use simultaneously multiple identity providers in each domain. To enable users to be recognized by all the identity providers that you configure, you must assign to each user a unique Federation ID in the user's properties.

> **Note**
>
> Configuration changes may take up to 10 minutes to take effect.

In this section, you define the parameters of your single sign-on providers and certificates.

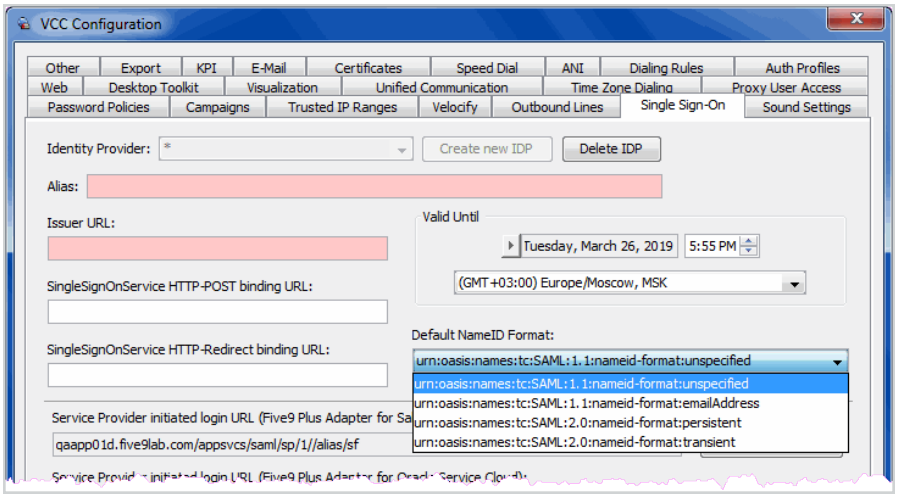


Defining Identity Providers

You create, edit, or delete defined identity providers in the upper section of the Single Sign-On tab.

Defining a New Identity Provider

To create a new identity provider, follow these steps:



1 Navigate to **Actions > Configure > Single Sign-On**.

2 Click **Create new IDP**.

3 Populate the resulting fields.

Field	Description
Alias	Provide an intuitive name.
Issuer URL	Provide the URL to the IdP that will issue the security token.
SingleSignOnService HTTP-POST Binding URL	Provide SAML POST binding URL.
SingleSignOnService HTTP-POST Redirect URL	Provide SAML POST redirect URL.
Valid Until	Provide termination date/time/time zone for expiration of this set of metadata. This date defined may be up to the certificate validity date.
Default Name ID Format	Select the format for your default Name ID.

4 Click **Save**.

Deleting a Defined Identity Provider

To delete defined identity providers, click **Delete IdP**.

Defining Service Provider Initiated Login URLs

Using a service provider Initiated login URL enables your users to utilize SSO credentials managed by a third-party IdP. The service provider (SP) sends an authentication request to the IdP. Both the request and the returned SAML assertion are sent through the agent's browser via HTTP POST. In this section, you can populate login URLs distinctly for: Five9 Plus Adapter for Salesforce, Five9 Plus Adapter for Oracle Service Cloud, and customization of Agent Desktop Toolkit (ADT).

Defining Certificates

You need to import certificates only for unsigned certificates and SAML authentication. Certificates signed by an authority such as VeriSign or Thawte are automatically accepted by the VCC. Any certificates used for SAML authentication, regardless of the certificate source public key provided by the IDP, must be imported into VCC. If you try to import a signed certificate, you receive a corrupted file error. The default file extension is CRT.

You may have unique certificates for each application or you may refer to a single certificate metadata to create unique IDP entries for each application. You may define multiple certificates for an IDP with different expiration dates to prevent SSO service interruption due to certificate expiration.

To add or import a security certificate, follow these steps:

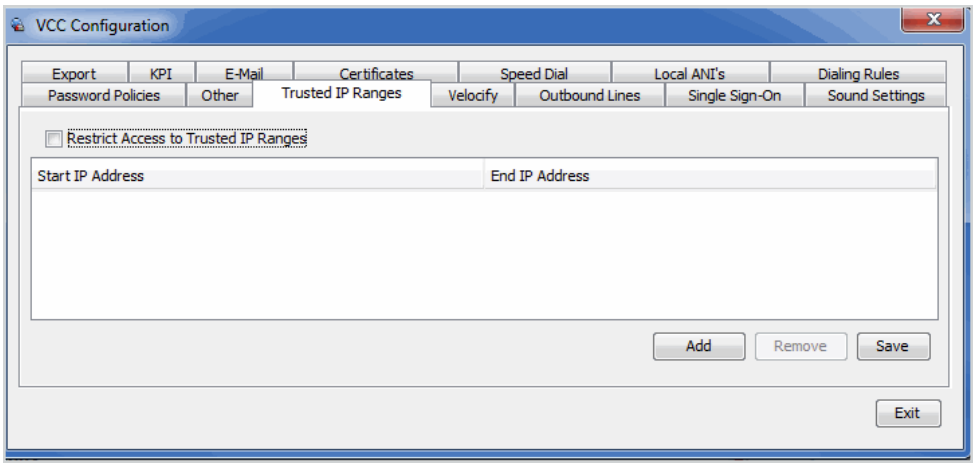
1. Click **Add** to display the list of certificates available.
2. Scroll to the certificate you want to add, and click **Open** to add the certificate to the list.
3. Click **Save**.

Configuring the Trusted IP Ranges

You can configure the IP ranges that allow access to VCC applications. Users must access the VCC applications from a computer with an IP address in one of the configured ranges.

1 Select **Actions > Configure**.

2 Select the **Trusted IP Ranges** tab.



3 Click **Add** to add a new line in the list where you may specify an IP range (with Start and End IP Addresses).

For each line, follow these steps:

a Double-click the start IP address line, and enter your value.

b Double-click the end IP address line, and enter your value.

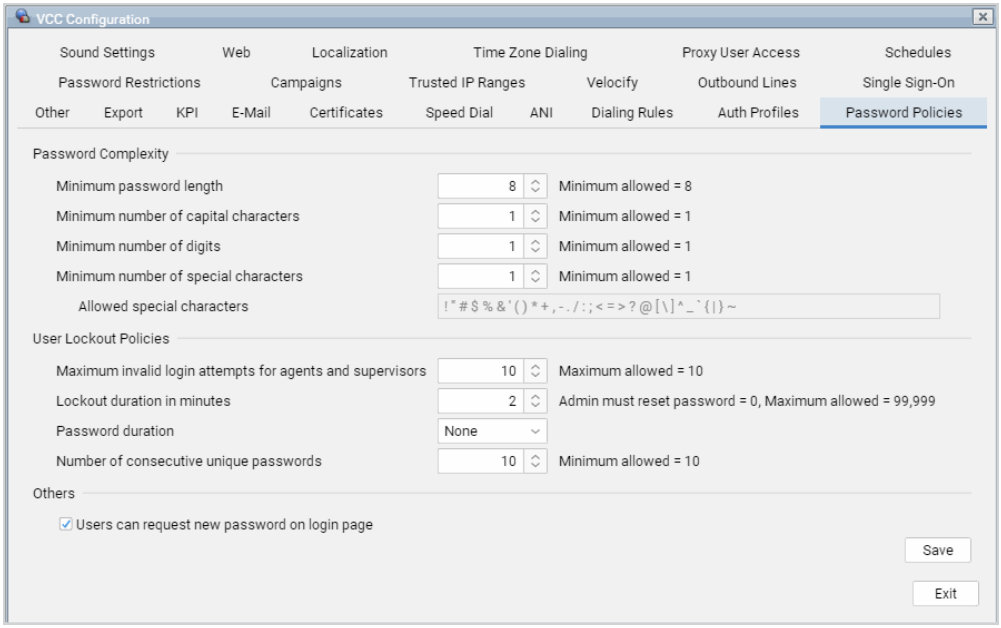
4 Repeat step 3 as needed to add other ranges.

5 Enable **Restrict Access to Trusted IP Ranges**.

6 **Save** changes and **Exit**.

Setting Password Policies

In this section, you set the password policies for your domain and enable the permissions that apply to passwords. Select the **Actions > Configure > Password Policies** tab.



Password Complexity

You can set these password complexity requirements.

Minimum password length	Shortest possible password. The default minimum allowed is 8. For stronger passwords, increase this number. You can set any length from 8 to 100.
Minimum number of capital characters	Minimum number of uppercase letters. The default minimum allowed is 1. For stronger passwords, increase this number. You can set any value from 1 to 25.

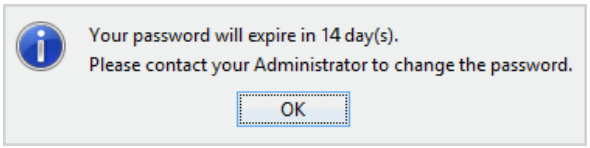
Minimum number of digits	Minimum number of numerical characters. The default minimum allowed is 1. For stronger passwords, increase this number. You can set any value from 1 to 25.
Minimum number of special characters	Special characters, such as punctuation marks, $, %, and so on. The default minimum allowed is 1. You can set any value from 1 to 25. See the complete list below.
Allowed special characters	Not editable. Set of special characters allowed for in password: `! " # $ % & ' ( ) * + ,- . / : ; < = > ? @ [ \ ] ^ _ ` { | } ~`

User Lockout Policies

When your domain is created by Five9, two options are added to your configuration:

- Start date and time of the security reminders for all users
- Number of days to show reminders

Maximum invalid login attempts for agents and supervisors	Largest number of unsuccessful login attempts before an agent or supervisor user account is locked. The default value is 5; the maximum is 10. This setting applies to individual applications and the customer portal. However, the lockout process is displayed differently in each. After an account is locked, further login attempts are ignored. See **Unlocking Users**.
Lockout duration in minutes	Number of minutes that a user lockout is enforced. This value is displayed on the user property sheet for locked out users and updates when you change tabs or open the page. A value of zero (0) minutes requires an administrator to reset user passwords. The maximum value is 99,999 minutes.
Password duration	Expiration period in days. The default value is 30 days; the maximum is 360 days. Password expiration notifications are sent to Java users starting at 20% remaining time, such as 18 days remaining for a 180-day expiration policy. Web application users are notified beginning at less than 8 days remaining. Different messages display for less than 8 days, 1 day, and zero (0) days remaining. After the expiration date, users must contact their administrator to change their password.

	
Number of consecutive unique passwords	Set this value to prevent the reuse previous passwords. The default value is 10, the maximum value is 25. For stronger security, increase the value.

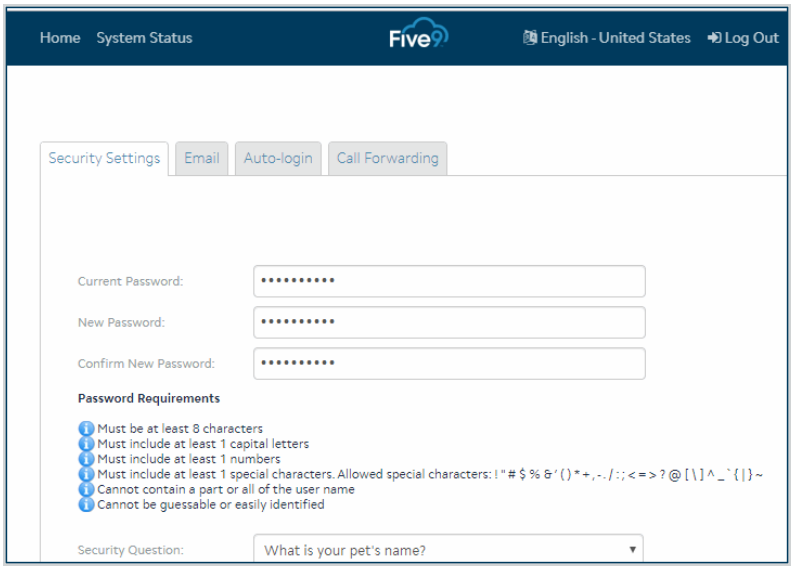
Password Reset Permissions

Users can request new password on login page	Enables users to reset their password from the login page and to see the security questions. This is selected by default. If you disable this option, users must contact an administrator to reset their password.

Note: Be sure to manage the accounts of API users and other users who are not allowed to change their password. The Administrator application presents the list when you log in.

Password Requirements

Your password requirements are displayed in the **Change Password** window of My Settings and in the user applications. The **Update** button is enabled when the password requirements are met.

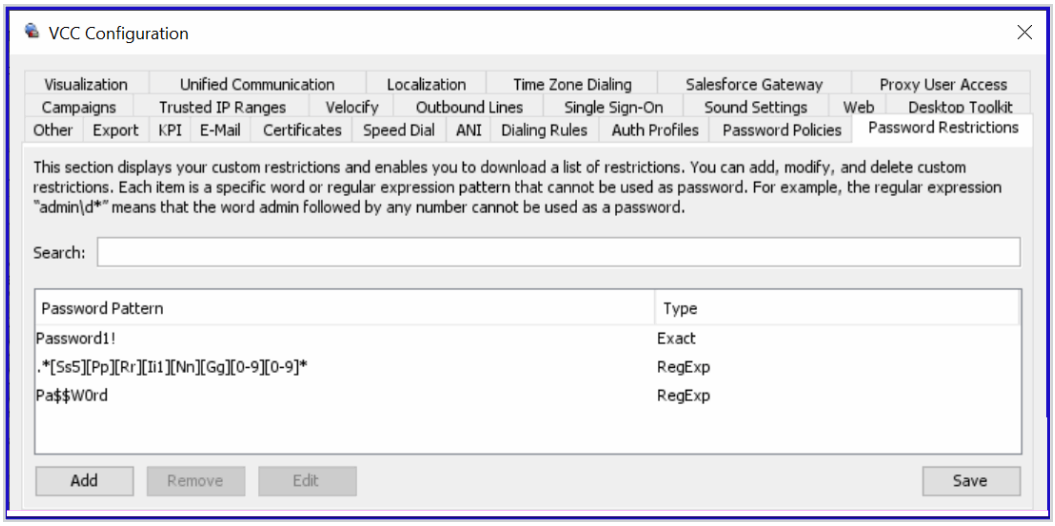


Configuring Password Restrictions

Restricting common or easily-guessed passwords form use enhances your security.

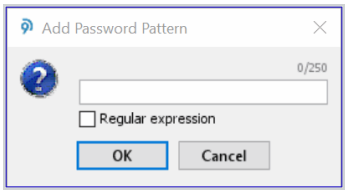
Five9 populates a list of mandatory password exclusions. You can also define custom password exclusions for your domain. You can use regular expressions or define password patterns. Restricted strings are not case sensitive. For example, `MyCompany`, `mycompany`, and `myCompany` are all forbidden by a single restriction.

Manage password restrictions in the Password Restrictions tab:



To add password restrictions for your domain, follow these steps:

1 In the Password Restrictions tab, click **Add**.



2 Enter the password or regular expression to restrict.

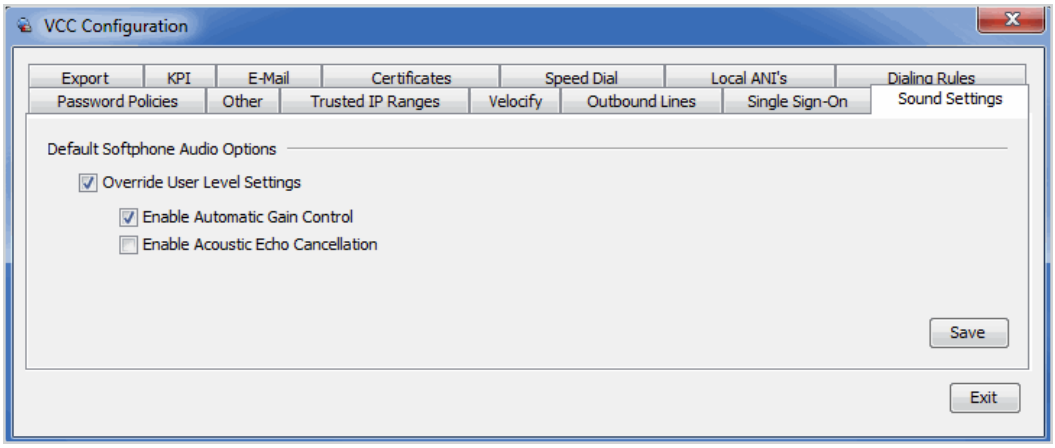
3 Click **OK**.

4 Click **Save**.

Defining Audio Settings for Softphone

If you are using Five9 Softphone with your integration, you can define settings at the domain level to override settings an individual user might have set to manipulate sound quality. Individual users can adjust the amplification of the microphone to improve voice quality or attempt to prevent echoing in the call.

To open the Sound Settings tab, navigate to **Actions** > **Configure** > **Sound Settings**.

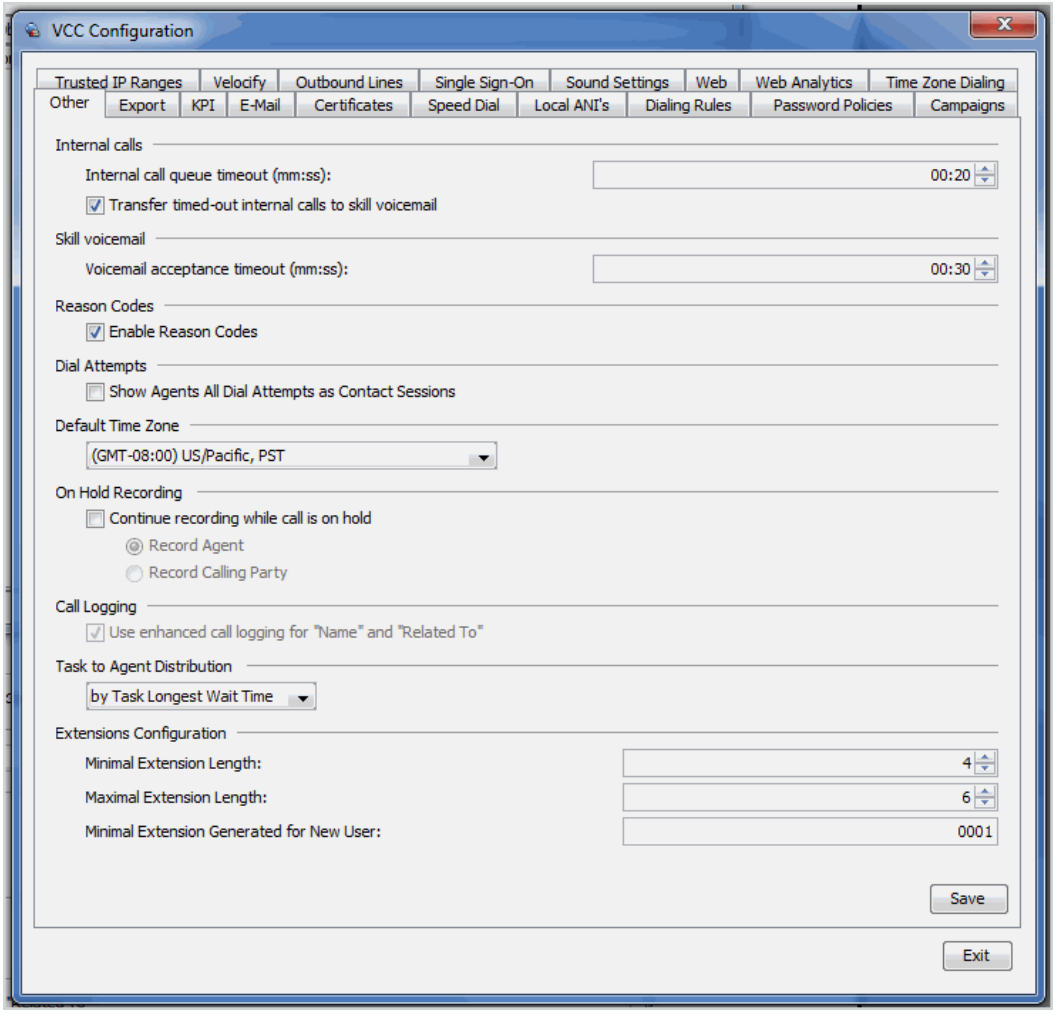


Field	Description
Override User Level Settings	To override any settings an individual user might have set when they adjusted Five9 Softphone settings from their station.
Enable Automatic Gain Control	Adjusts the amplification of the microphone so that the sound is more consistent throughout a call.
Enable Acoustic Echo Cancellation	Improves voice quality by preventing or removing echoes in a call.

Defining Additional Default Domain Call Settings

You can define additional call settings in the tab named **Other** in the VCC Configuration window. The options configured in the **Other** tab apply to all agents in the domain. Some of the options, such as reason codes, are described in that section.

[Defining Internal Calls and Skill Voicemail Settings](#)
[Defining Time-Out Settings for Cold Transfers](#)
[Showing Dial Attempts as Contact Sessions](#)
[Setting Domain Locale and Translations](#)
[Defining the Default Time Zone for Your Domain](#)
[Setting Call Recording Options for On-Hold Calls](#)
[Enabling Enhanced Call Logging](#)
[Setting the Distribution of Interactions](#)



Defining Internal Calls and Skill Voicemail Settings

Internal call and skill voicemail settings apply to agent-to-agent or agent-to-skill group calls.



1 Select **Actions > Configure**.

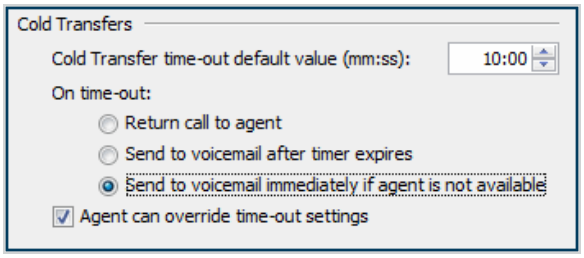
2 Select the **Other** tab.

Specify Time-Out Period for Internal Calls	◦ **Internal Call Queue Time-out:** Specify in mm:ss format how long an internal call can remain in the call queue before a time-out occurs. ◦ **Transfer time-out internal calls to skill voicemail:** Check if internal call should be transferred to the related skill voicemail when time-out period is reached.
Skill Voicemail	**Voicemail acceptance time-out:** Indicate in mm:ss format the length of time before voicemail time-out when a call is transferred.

3 Click **Save**.

Defining Time-Out Settings for Cold Transfers

You can globally specify the waiting time allowed and the action to be taken once the timer has expired or enable agents to adjust these settings for each call. Changes override the agent settings and take effect at their next login.



Important

When call recording continues when agent transfers the call to a third party, you are responsible for notifying the third party that the call is being recorded and for obtaining consent when required by law.

Understanding Cold Transfer Time-Out Setting Results

The results of your agent's cold transfer time-out attempts vary depending on your target availability, timer setting, and the time-out action that you choose. The following tables describe the possible outcomes of your setting combinations.

- T = Cold-transfer time-out setting: (00:00 = infinite time-out, 00:30 = 30-second time-out)
- A = Action taken when time-out expires
- VM = Voicemail

Destination = Agent **Call Transfer Result When the Receiving Agent is:**					
Settings	**Logged Out**	**Not Ready**	**Ready** **(auto-accept calls)**	**Ready** **(manually accept calls)**	**Ready** **(on an active call)**
T = 00:00 **A = Send to VM after timer if no agents are available**	Call sent to agent's VM	Added to personal queue - no time-out	Agent gets call	Agent station rings until call is answered or abandoned	Added to personal queue - no time-out
T = 00:00 **A = Send to VM immediately if**	Call sent to agent's VM	Call sent to agent's VM	Agent gets call	Agent station rings until call is answered or abandoned	Call sent to agent's VM

Destination = Agent Call Transfer Result When the Receiving Agent is:					
Settings	**Logged Out**	**Not Ready**	**Ready** **(auto-accept calls)**	**Ready** **(manually accept calls)**	**Ready** **(on an active call)**
no agents are available					
T = 00:30 **A = Send to VM after timer if no agents are available**	Call sent to agent's VM	Personal queue for 30 seconds, then VM	Agent gets call	Personal queue for 30 seconds, then VM	Personal queue for 30 seconds, then VM
T = 00:30 **A = Send to VM immediately if no agents are available**	Call sent to agent's VM	Call sent to agent's VM	Agent gets call	Personal queue for 30 seconds, then VM	Call sent to agent's VM
T = 00:30 **A = Return call to originating agent**	Return call to orignal agent	Personal queue for 30 seconds, then return to original agent	Agent gets call	Personal queue for 30 seconds, then return to original agent	Personal queue for 30 seconds, then return to original agent

Destination = Queue	**Call transfer result to VCC Queue:**	
Settings	**Queue With Ready Agents**	**Queue Without Ready Agents**
T = 00:00 A = Send to VM immediately if no agents are available	Agent gets call	Added to queue with no time-out
T = 00:30 A = Send call to VM after timer expires	Agent gets call	Added to queue for 30 seconds then returned sent to VM
T = 00:30 A = Send to VM immediately if	Agent gets call	Immediately sent to VM

Destination = Queue Settings	Call transfer result to VCC Queue:	
	Queue With Ready Agents	Queue Without Ready Agents
no agents are available		
T = 00:30 A = Return call to agent	Agent gets call	Added to queue for 30 seconds then returned to originating agent

Calls forwarded to external numbers do not return to your contact center.

VCC Configuration

To configure your cold transfer timeout settings, follow these steps.

1 Select **Actions > Configure**.

2 Select the **Other** tab.

Specify Time-out Period and Actions for Cold Transfers

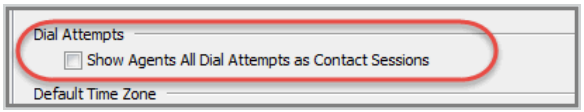
Field	Description
Cold Transfer time-out default value	Default is 10:00 minutes. Specify in mm:ss format how long the transferred call can remain awaiting connection before a time-out occurs.
On time-out	Action to be taken on timer expiration: ◦ Return call to agent. ◦ Send to voicemail after timer expires. ◦ Send to voicemail immediately if agent is not available. This option does not apply to external phone numbers.
Agent can override time-out settings	If enabled, agents can override the domain-specific cold transfer time-out settings

3 Click **Save**.

Showing Dial Attempts as Contact Sessions

This feature enables agents to see call attempts that were automatically assigned a disposition by the dialer in the Contact Sessions panel of the Contacts screen in the

Agent application.



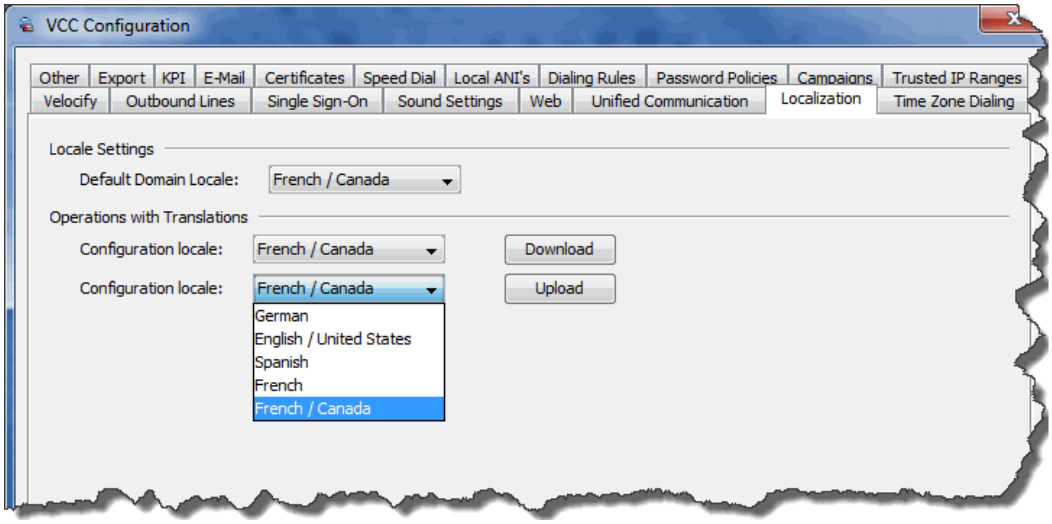
Setting Domain Locale and Translations

This option only displays if your domain is enabled for multiple languages. This feature applies to all Five9 Plus applications in both Classic and responsive modes. In reports, data sources and standard and custom reports are translated. For more information, contact your account representative.

This application supports these languages:

- English
- French (Canada)
- French (France)
- Spanish
- German
- Japanese
- Polish
- Brazilian Portuguese
- Dutch
- Norwegian
- Swedish
- Danish
- Finnish

If your account is enabled for multiple languages, select **Actions > Configure > Localization** to access the features. You can select the languages for your environment and assign to specific agents a language permission. Agents and supervisors can then select their preferred language from the list of languages.



You can also change the language in the Options menu (next to the Actions menu) at the top of the Administrator application. To apply the changes, log out and back in.

Setting Domain Default Locale

To assign a default domain locale, select a language.

Using Translated Files

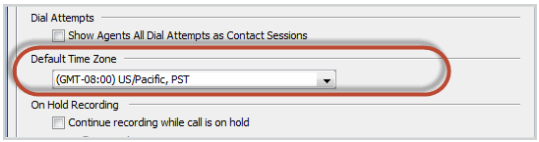
You can add to the Administrator application translated custom objects, such as campaigns, skills, and dispositions, and you can create rules to use translated text for domain defaults and associate languages to campaigns and users.

You can download a file that contains your translations and upload a modified file containing additions or corrections. Select a language and click **Download** or **Upload**.

Defining the Default Time Zone for Your Domain

This option enables you to set up the date and time for all users in your domain. The selected date and time appear in all applications in the places where the date or time appears, including contact fields and mouse-over tool tips.

1 Navigate to **Actions > Configure > Other**.



2 Select a time zone.

3 Click **Save**, **Exit**, and **OK**.

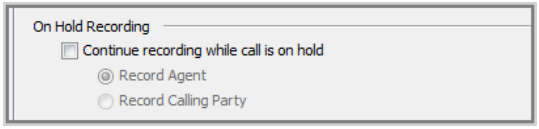
4 Log out and log back in again to apply the changes.

Setting Call Recording Options for On-Hold Calls

You can record either the contact or agent on hold or the parked contact. The current call segment, except for the on-hold music, is saved in a separate file. The entire call recording is associated with the agent.

The option applies to your domain for manual calls that are not associated with a campaign. If the corresponding option is set for a campaign, the campaign option overrides the domain option. This option is different from these events during which agents are always recorded:

- Consult before transfer, conference, and transfer
- Hold while starting a conference

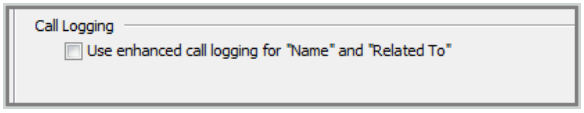


Specify On-Hold Recording Settings	
Continue recording while call is on hold	Specify whether to record the agent while the call is on hold or record the called party while the call is on hold.

Enabling Enhanced Call Logging

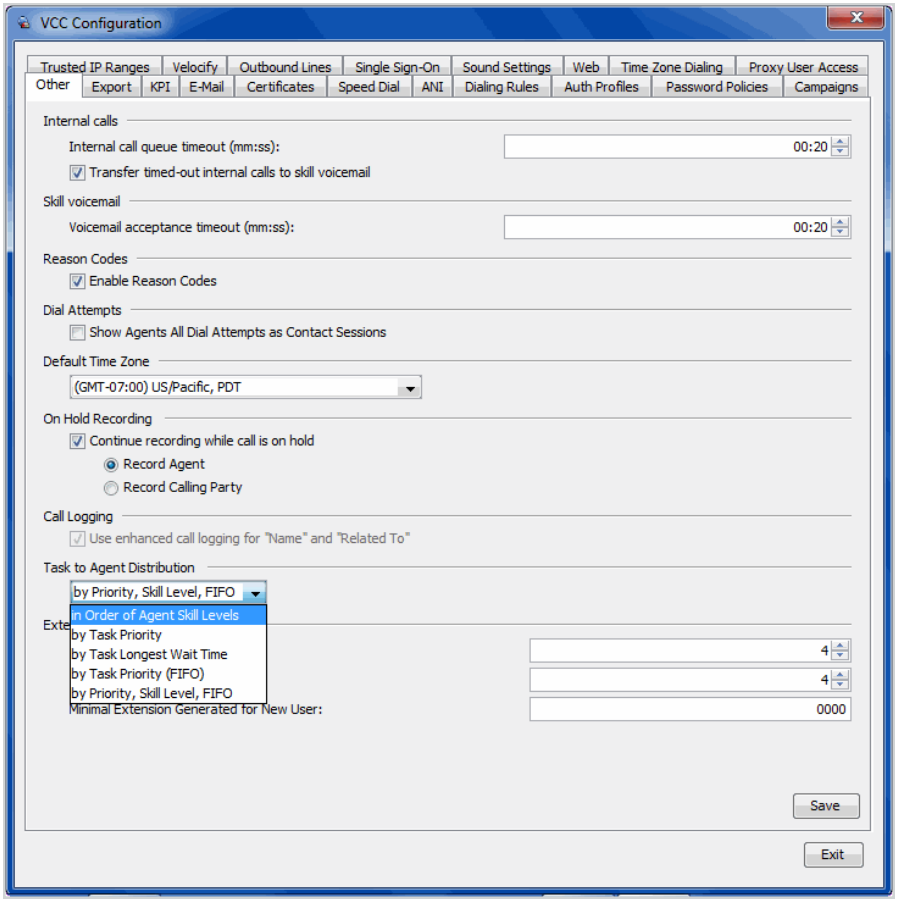
This feature applies to the Salesforce Open CTI and Plus adapter CRM integrations. For more information, see Open CTI for Salesforce Administrator's Guide and Plus Adapter for Salesforce Administrator's Guide.

This feature enables agents to edit contact records when processing calls. Agents can associate related objects, such as cases or opportunities, to contact records in the call log.



Setting the Distribution of Interactions

You can specify how tasks are assigned to agents when tasks are waiting in queue for agents to handle them.



Order of Agent Skill Levels. (Default) Agent queues skill levels are given for each skill that is assigned to an agent. Skill level represents the agent's proficiency at the

assigned queue and is similar to priority, with level = 1 being the highest priority. Queue priority is determined by the order in which queues are listed on the agent's properties. For more information, see **Assigning Users to Queues**. When agents are available, interactions are distributed by using queue priority. Use this task distribution to have tasks assigned to your agents for which they are the most skilled. Tasks are distributed by using these criteria, in the following order:

Call #	Queue, Skill Level	Queue Order	Task Priority	Waiting Time	Delivery Order
1	Sales, 1	1	70	10:00	1
2	Sales, 1	1	70	9:00	3
3	Support, 2	2	70	8:00	5
4	Support, 2	2	60	7:00	6
5	Billing, 1	3	70	6:00	2
6	Billing, 1	3	60	5:00	4

1. Queue rotation is used for multiple queues waiting for the same skill level. Tasks are distributed in consecutive order: *Sales - Skill Level_1, Support -Skill Level_1, ...Queue_N-Skill Level_1*. Agent skill level is distributed in ascending order. Call#1 has been waiting the longest for the highest skill level and is delivered first.
2. Queue order in agent skills list. This queue order determines the queue rotation described in step 1.
3. Task priority is distributed in descending order. Higher priority tasks are distributed first, after skill level distribution is considered.
    - Task priority, in descending order, is secondary in this selection.
    - Queues are chosen consecutively in this selection.
    - Call#5 is the second call delivered.
    - Call#2 and Call#6 are each waiting for the highest skill level and are distributed in order of queue priority, consecutively.
4. Waiting time is considered only after agent skill level and task priority and is distributed in descending order.
    - Consecutive queue selection continues for skill level = 1.
    - Call#3 and Call#4 are waiting for skill level = 2 and are distributed to an available agent after all calls for skill level = 1 are distributed.

Task Priority. When no agents are available, interactions with the highest priority among all queues are assigned to agents. Use this distribution to distribute tasks in order of business value, or task priority, while still considering the agent skill level and skills list order. Tasks are distributed using the following criteria, in this order:

Call #	Queue, Skill Level	Queue Order	Task Priority	Waiting Time	Delivery Order
1	Sales, 1	1	70	10:00	1
2	Sales, 1	1	70	9:00	3
3	Support, 2	2	70	8:00	4
4	Support, 2	2	60	7:00	6
5	Billing, 1	3	70	6:00	2
6	Billing, 1	3	60	5:00	5

1. Task Priority: Tasks are distributed in descending order. Higher priority tasks are distributed first.
2. Agent Skill Level: Tasks are distributed in descending order of agent skill level. Queue rotation is used for tasks waiting for the same skill level.
3. Queue Rotation: Queue rotation order is related to skill configuration, not necessarily to any display order.
4. Waiting Time: After task priority, agent skill level, and queue rotation are considered, tasks are distributed in descending order of longest waiting time.

Task Longest Wait Time. When no agents are available, interaction priority increases with the waiting time. Use this task distribution when all tasks are of equal business value and queue priority or agent skill level are not a consideration. Tasks are distributed purely by task waiting time.

Call #	Queue, Skill Level	Queue Order	Task Priority	Waiting Time	Delivery Order
1	Sales, 1	1	70	10:00	1
2	Sales, 1	1	70	9:00	2
3	Support, 2	2	70	8:00	3
4	Support, 2	2	60	7:00	4
5	Billing, 1	3	70	6:00	5
6	Billing, 1	3	60	5:00	6

1. Distribution order is FIFO (first in, first out) across all queues.
2. Task priority and agent skill level are ignored by the ACD.
3. Queue order in agent skills list is ignored by the ACD.
4. Task priority that is set in the campaign profile and increased or decreased in the skill transfer module is ignored by the ACD.

Task Priority (FIFO). When no agents are available, interactions with the highest priority in queue among all queues are delivered to agents in the order of their arrival: first in, first out. Use this to distribute tasks purely in order of their business value, or task priority. Tasks are distributed by using the following criteria, in this order.

Call #	Queue, Skill Level	Queue Order	Task Priority	Waiting Time	Delivery Order
1	Sales, 1	1	70	10:00	1
2	Sales, 1	1	70	9:00	2
3	Support, 2	2	70	8:00	3
4	Support, 2	2	60	7:00	5
5	Billing, 1	3	70	6:00	4
6	Billing, 1	3	60	5:00	6

1. Distribution order is FIFO (first in, first out) by task priority across all queues.
2. Agent skill level ignored by the ACD.

Priority, Skill Level, FIFO. When no agents are available, interactions are distributed to agents in this order: task priority > skill level > first in, first out. Use this to route your queued interactions to the agent best able to handle those interactions first. This distribution eliminates consecutive queue distribution associated with alternate distribution algorithms. Tasks are distributed by using the following criteria, in this order.

Call #	Task Priority	Queue, Skill Level	Wait Time	Delivery Order
1	60	Sales, 5	10:00	5
2	60	Sales, 5	9:00	6
3	70	Support, 3	8:00	1
4	60	Billing, 5	7:00	7
5	60	Billing, 5	5:00	8
6	65	Receiving, 1	3:00	2
7	60	Shipping, 2	2:00	3
8	60	Shipping, 2	1:00	4

1. Distribution order is FIFO (first in, first out) by task priority across all queues.
2. Agent skill level is considered after task priority.

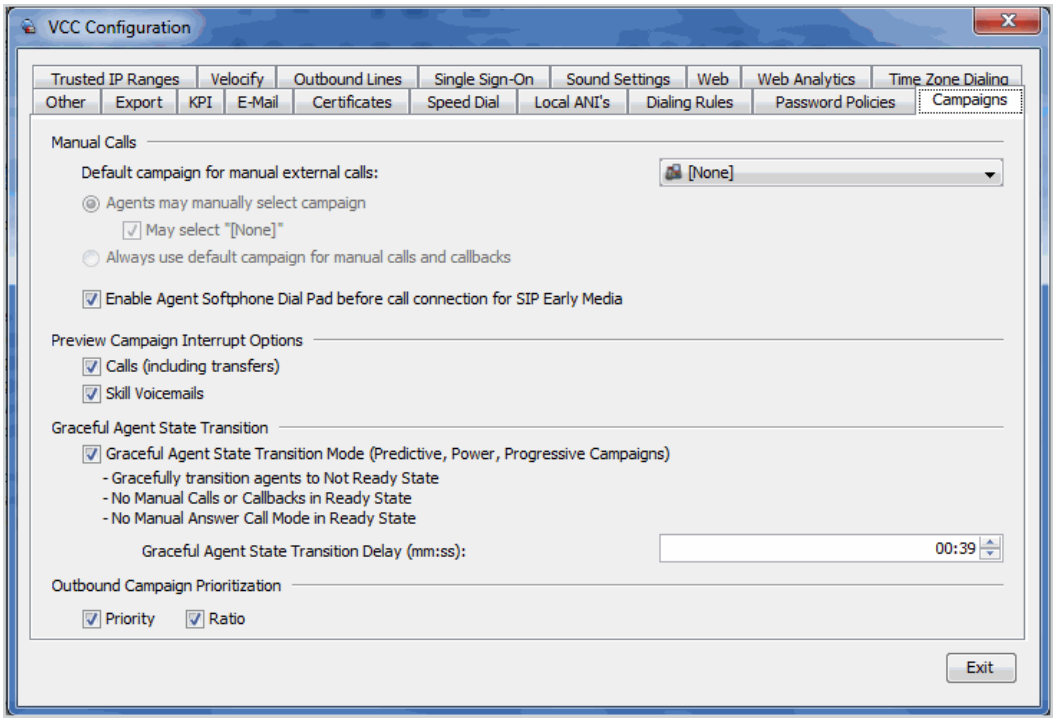
Configuring User Extensions

This global setting applies to user properties and IVR routing. To set the minimum and maximum extension length enter a number between one and six. The minimum extension generated must comply with the extension length set above.


Extensions Configuration
Minimal Extension Length:
4
Maximal Extension Length:
6
Minimal Extension Generated for New User:
0001

Defining Global Campaign Settings

You can define global settings for your campaigns in the Campaigns tab.



Associating Manual Calls with a Campaign

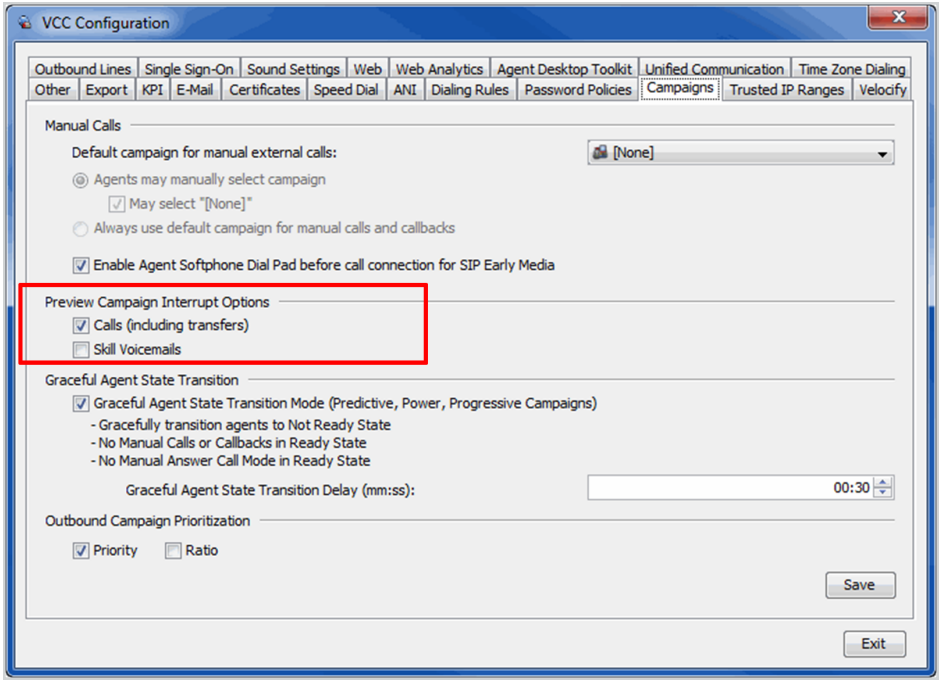
You can associate manual calls with a specific campaign. You can enable your agents to manually define a campaign or you can specify a single campaign to be used for manual external calls.

Default campaign for manual external calls	Campaign to use when agents start manual calls to external numbers.
Agents may manually select campaign	When making calls, agents may change the default campaign and make calls not associated with a

	campaign.
Always use default campaign for manual calls	If you choose this option, agents may not make manual calls from campaigns other than the default campaign.
Enable Agent Softphone Dial Pad before call connection for SIP Early Media	The dial pad needs to be enabled for a call in the PROCEEDING state. Agents may need to dial a number that requires interaction with an IVR script. Some of these numbers use SIP Early Media, which means that the third party establishes an RTP stream with VCC but does not change the call state from PROCEEDING to CONNECTED.

Setting Options to Interrupt Campaign Preview

In preview campaigns, you can specify what type of incoming calls can interrupt an agent who is previewing a contact record. The preview interrupt feature enables agents to take calls that may be more important than previewing the current contact record.



Once the agent assigns a disposition to the call or skill voicemail, the contact record is again opened for the agent to continue the previous preview task. All timers related to that preview task are reset to zero.

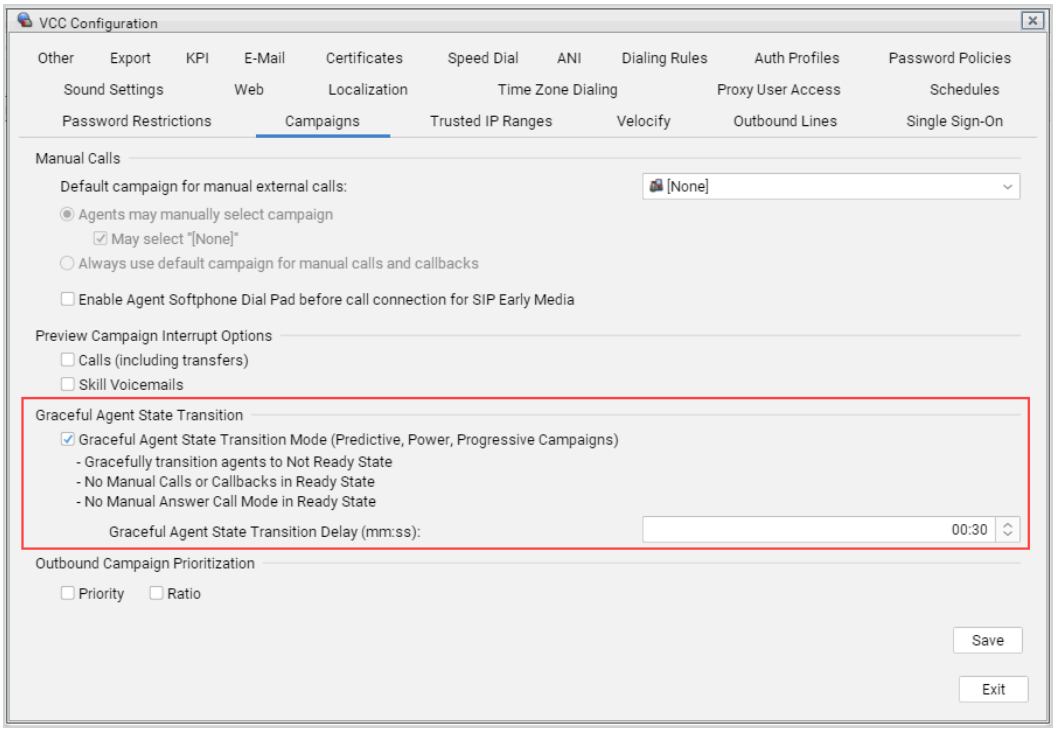
You can define preview interrupt options at the Domain level or at the campaign level. To configure preview interrupt options at the domain level, select **Actions > Configure** and open the **Campaigns** tab. See Campaign Administrator's Guide.

Preview Interrupt Options	
Calls (including transfers)	Allows incoming calls, including calls transferred from other agents or campaigns, to be presented to an agent who is currently engaged in a contact preview task.
Skill Voicemails	Allows skill voicemail to be presented to an agent who is currently engaged in a contact preview task.

To monitor how interrupted calls are affecting Preview campaigns, run the Agent Preview Mode Interrupt Summary from the list of standard reports.

Graceful Agent State Transition Delay

This feature is a global setting that applies to outbound campaigns running in predictive, power, or progressive mode that are used in Agent Desktop Plus and Plus CRM integrations. This feature enables you to prevent agents from abruptly becoming unavailable to take calls after the agents select Not Ready.



Dialing Process

The dialer makes calls based on the number of agents in ready state in each running campaign. Therefore, when agents change to Not Ready, the number of calls made by the dialer exceeds the number of agents available to receive the calls. As a result, some calls may be abandoned. If too many calls are abandoned, compliance issues may occur.

Transition Delay

You can set a 1- to 59-second delay that is applied when agents select Not Ready after setting a call disposition. During that interval, agents are placed in a pending Not Ready state. In their application, agents can see that they are still ready to accept calls, but these options are disabled:

- Making manual calls and callbacks
- Manually answering outbound calls

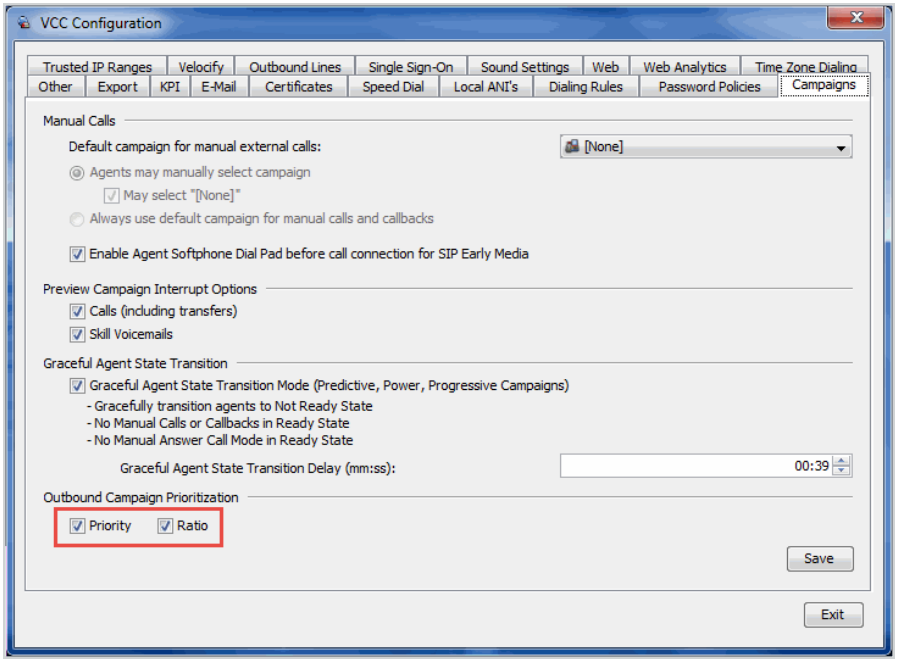
The dialer continues to route the outbound calls that were already dialed to the original number of agents. Agents in pending Not Ready state receive only these outbound calls already in transit, but the dialer will not place additional calls for these

agent. When the delay expires, these agents are set to Not Ready and no longer receive outbound calls.

Priority and Dialing Ratio for Outbound Campaigns

You can manage the priority and dialing ratio of outbound campaigns based on the business value of each campaign. For example, you might want to spend more time and resources on Campaign A than Campaign B if Campaign A is currently yielding better results.

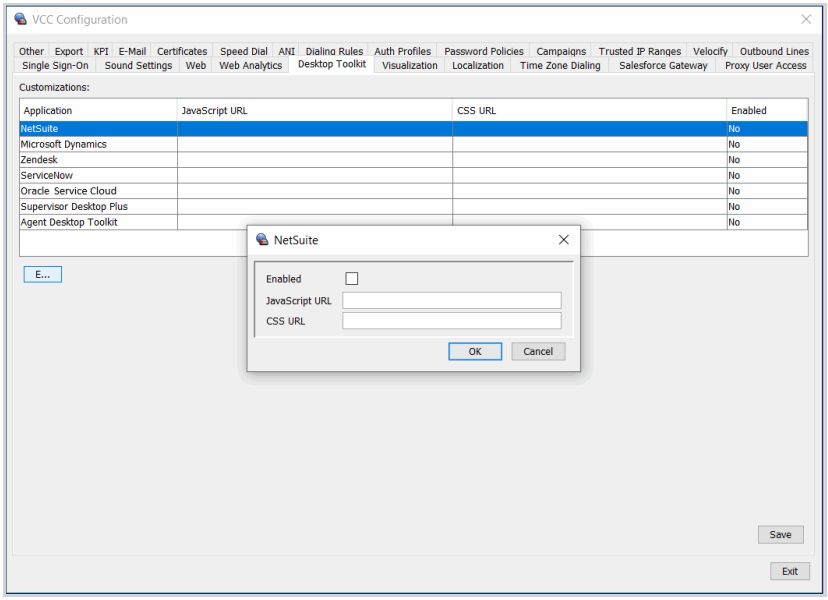
Outbound campaigns may be assigned a dialing priority, dialing ratio, or both. To configure campaign priority and/or ratio, open the **Campaigns** tab. For more information, see the Campaign Administrator's Guide.



Enabling Desktop Toolkit Customizations

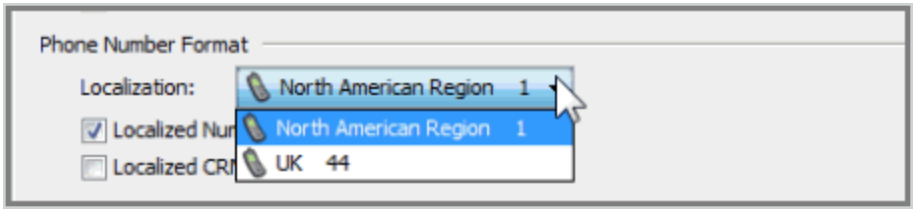
You can control your customizations in a single tab. To specify URL listings for your integrations, follow these steps:

1. In the configuration menu, select the **Desktop Toolkit** tab.
2. Set the **Enabled** checkbox, as applicable.
3. Enter the **JavaScript URL**.
4. Enter **CSS URL**.
5. Click **OK**.
6. Click **Save**.



Using Dialing Lists in E164 Format

If your domain is enabled to use E164 format for international phone numbers, your agents must enter up to 15 digits, starting with the plus (+) sign and the country code for all inbound and outbound calls made by the dialer or manually. If your domain is not enabled, your agents must enter 10 digits to conform to the North American Numbering Plan.



The format is used to route calls, process lists, and display numbers in your applications and reports. When you upload a list, all non-numeric characters, such as dots, dashes, spaces, and parentheses, and the country prefix are removed. Numbers are stored in the format, starting with the plus sign.

You may also configure in the VCC a national phone number format. In this case, you can upload lists that contain numbers in format, in your national format, or both. If you do not specify a format, the VCC uses the format for all numbers. For example, if you operate in the UK, these numbers are processed as follows:

Phone number format	How the number is processed
International format	**1** Belgium phone number is added to a list: **00**32.20.3456.7899 **2** Phone number is processed in VCC: International prefix (**00**) and non-numeric characters are removed. Plus sign is added. **3** Stored number: **+**322034567899
National format	**1** UK phone number is added to a list: **0**2034567899 **2** Phone number is processed in VCC: National prefix (**0**) and non-numeric characters are removed. **UK** country code and the plus sign are added. **3** Stored number: **+44**2034567899
No specified format	Number stored in format.

Configuring International Service with Five9 Global Voice

Five9 Global Voice provides international calling with regionally specific skills, IVR scripts, and campaigns configured to provide continuous coverage and/or additional agent capacity for overflow coverage. Domains configured for international dialing may be further subdivided into regional contact centers using Five9 Global Voice.

Five9 Global Voice currently consists of four regions: Brazil (US and EU domains), Ireland (US domains only), Japan (US and EU domains), and Australia (US and EU domains). Calls that originate in one global region and end in another region are subject to latency, which introduces call quality problems, such as long delays. You can

save your recordings to a Global Voice Point of Presence (PoP) so that your recordings stay in your geographic region.

Planning Your Five9 Global Voice Implementation

To determine your specific use and needs, the following guidance is offered.

Understanding Your Call Patterns

When planning your contact center, be sure to optimize your calling patterns to eliminate these delays. International dialing is augmented by defining calling regions to subdivide your global coverage service area. Segmenting your call patterns to identify local, or regional, calling areas also helps to overcome any latency issues often associated with international dialing.

Determining Your Business Needs

A best practice is to classify your calls by region, which means that you route calls to the agents nearest to the call origin or termination. For example, your callers from Japan would talk to agents in Japan, and your Australia region callers talk to agents in Australia. To accomplish this, you need local numbers, regional station IDs, and campaigns configured to route regions calls to local numbers.

Planning for Overflow Call Traffic

To accommodate peak hours, off hours, and business continuity, you may want agents in one region to back up agents in another region for uninterrupted support or overflow calls. You can define an alternate region as a backup for your excess call traffic. For example, 100 Japanese-speaking agents can process from Japan while 10 Japanese-speaking agents in Australia are available to receive calls when all agents in Japan are busy. To reduce call delays, remember the distance that the voice must travel.

Five9 Global Voice Requirements

Contact your Five9 representative to determine your specific needs and readiness for Five9 Global Voice.

Requirement	Description
Domain	Must be enabled for your domain.
Station IDs	Assigned to specific agents in each of your defined regions.
IDID/ITFN	International Direct Inward Dialing numbers or International Toll-Free Numbers assigned to your regional campaigns.

Configuring Five9 Global Voice

After your domain is enabled for international dialing and has been assigned regional Station IDs, configure your domain for in-region calling.

> **Note**
> To easily identify your global agents, queues, IVRs, and campaigns, Five9 recommends that you add the region to the naming convention, for example: JPN_*username* and AUS_*region*.

1. Assign regional station IDs to the agents in your defined regions to staff your campaigns and support your call patterns.

   For example, define agents that will connect to Sydney, Tokyo, or both regions.

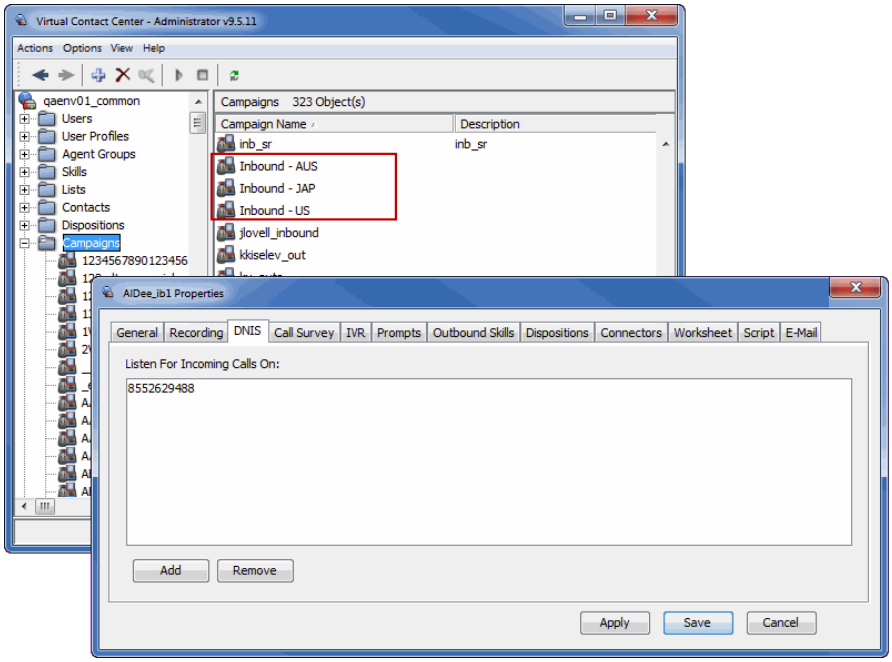
2. Create campaigns and campaign profiles for specific regions.

   See **Managing Automatic Number Identification (ANI)**.

3. Assign the new regional IDID or ITFN to these campaigns.

4. Customize campaigns and IVR scripts specific to regions to perform these actions:
   a. Play local announcements.
   b. Use local in-region IVR.
   c. Enable local regional inbound and outbound calls.

d Assigns local in-region agents with skills to a campaign.



5 Configure your queues and skill levels to optimize regional calling priorities (see **Adding Users to Skills**).

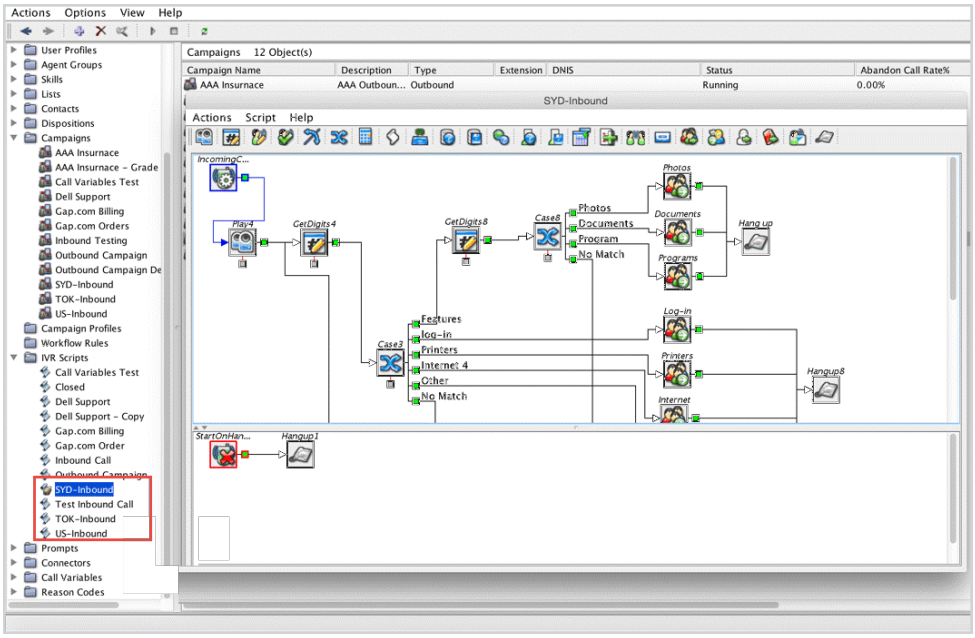
Skills can be used to associate a user to a region or language, for example: AUS skill to be used in Australia, JAP can be used for Japanese language, and so on. Configure skills and skill levels to provide continuous coverage or regional backup.

- Skills and skill levels should support in-region campaigns to define and map agent availability and language skill.
- Agents in their primary region are configured with the highest priority skill set to answer that call.
- Agents in the alternate region are configured with a lower priority skill set.

6 Create or assign the users to staff your designated campaigns and support your Global Voice calling patterns.

7 Create IVR scripts as you do today.

Associate these IVR scripts with a specific campaign in a specific region, containing any regional attributes necessary.



Enabling Access to the REST API

This optional section applies to you only in these cases:

- You use the REST API for Plus applications.

  and

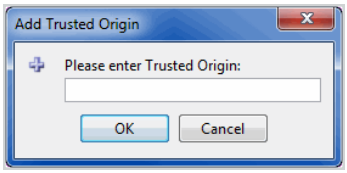
- You have a custom integration configured by Professional Services or with a third party.

To ensure that browsers do not restrict cross-origin requests, add your trusted URLs to your VCC configuration so that your application can access all Five9 resources, including the REST API.

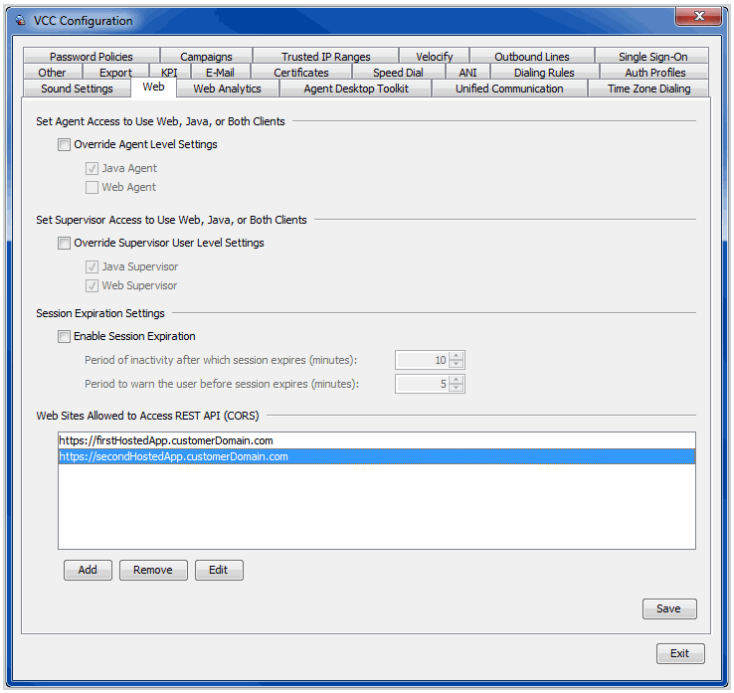
1. Select the **Web** tab.
2. Click **Add** and enter one explicit URL for each custom integration that you host, for example:

   `https://firstHostedApp.customerDomain.com`

   `https://secondHostedApp.customerDomain.com`



In most cases, you would add one or two URLs. You may not enter wildcards.

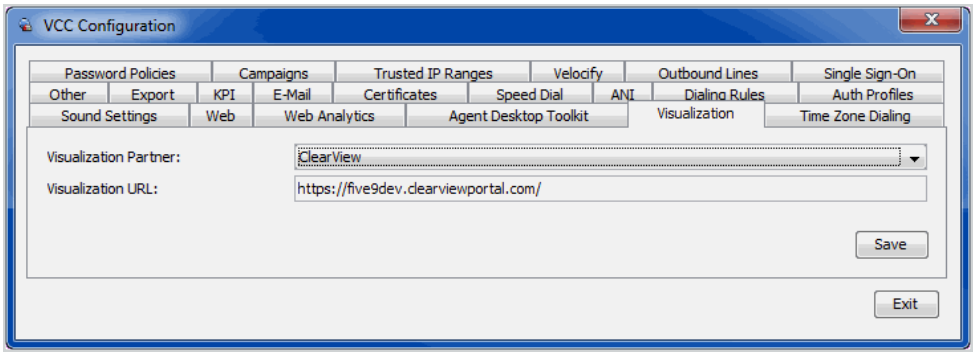


Enabling Performance Dashboard

This optional section applies to you if you are enabled for Five9 Performance Dashboard. The URL enables you to access the dashboards.

1 In the configuration menu, select the **Visualization** tab.

2 Enter the URL of the partner, and click **Save**.



User Accounts

Using WebRTC for Audio Communication
Installing and Managing the Five9 Softphone for Plus Applications
Managing User Definitions
Assigning User Roles and Permissions
Assigning Users to Queues
Defining User Profiles
Managing Agent Groups
Managing User Passwords and Voicemail PINs
Managing Voicemail
Managing Voicemail Greetings
Managing User Callbacks
Managing User Recordings
Managing Canned Reports
Communicating With Users

You identify each user by name, email address, and one or more roles. The user name is the login ID. The roles determine which applications users can access. Users can have one or more roles.

You can organize users with agent or supervisor roles into skill groups and agent groups and assign those groups to specific campaigns. Create user profiles to enable rapid configuration of users when assigning roles and skills and when defining contact record layouts.

Using WebRTC for Audio Communication

If your domain is enabled for WebRTC (Web Real-Time Communication), your Five9 Plus applications users can establish audio communication through their browser with no need to install a softphone or an extension. WebRTC station IDs are interchangeable with softphone station IDs. For example, if an agent connects using 5432 as their softphone station ID, that same station ID may be used when that agent connects using WebRTC. For more information about using WebRTC with Five9 Plus applications, see the Technical Requirements Reference Guide.

> **Note:** Tablet users must use WebRTC or PSTN.

Installing and Managing the Five9 Softphone for Plus Applications

This section provides instructions to prepare and install the softphone in standard implementations.

Recommendations and Prerequisites
Installing the Five9 Softphone
Repairing a Softphone Installation
Uninstalling the Five9 Softphone
Updating the Software
Downloading Software Versions for Early Access

Recommendations and Prerequisites

- Five9 recommends installing one softphone per workstation (per machine), although the softphone can be installed for each user account on the workstation (per user).
- When you ***manually*** install the softphone, Five9 recommends uninstalling the softphone before you install the new version to ensure that only the latest version of the softphone exists on the machine. For detailed steps, see **Uninstalling the Five9 Softphone**.
- To verify that agent workstations meet the technical requirements to use Five9 products, see Workstation Requirements for Web-Based Applications in the Technical Requirements Reference Guide.
- On each workstation, ensure that port 8083 on localhost is not used by any other applications. For detailed steps, see Web Browser Proxy Configuration in the Technical Requirements Reference Guide.
- Configure your HTTP proxy to bypass port 8083 websocket requests. For detailed steps, see Web Browser Proxy Configuration in the Technical Requirements Reference Guide.

Installing the Five9 Softphone

There are three options to install the softphone for agents and supervisors:

- **Single workstation deployment**: Users install the softphone and browser extensions on individual workstations (may require administrative permissions). When Five9 releases a new version of the softphone, each workstation automatically updates.
- **Group deployment**: IT deploys the softphone using administrator tools to ensure consistent implementation across many workstations.
- **Virtual desktop deployment**: Users use virtualization client applications (such as Citrix or VMWare) to run applications. You configure the softphone as part of the virtual setup on both the agent workstations and the virtual deployment infrastructure (the remote server). For more information on installing and managing the softphone in virtual desktop environments, see Virtual Desktop Configuration Administrator's Guide.

Option 1: Installing the Software on a Single Workstation

The simplest method to deploy the softphone on a single workstation is for agents and supervisors to install the browser extension and softphone for the specific logged-in user (per user) on their workstation.

Alternately, IT or supervisors can install the browser extension and softphone on each workstation. When installing the softphone on a single workstation, Five9 recommends installing for all user accounts on the workstation (per machine), which requires administrative permission.

Step 1: Installing Browser Extensions

You must install the Five9 softphone browser extension before beginning softphone installation. This is not required when using the WebRTC station type.

For detailed instructions, see:

- Installing Chrome or Edge Browser Extensions
- Installing Firefox Browser Extensions

Step 2 (Windows): Installing the Softphone

To install the softphone using the Windows command line interface:

Determine whether you will install the softphone for all users on the workstation (per machine) or for the logged in user (per user).

1. To download the Windows installation file:
   a. Log in to Five9 and select **Tools & Add-Ons** on the Company Portal page.
   b. Under Installing the Softphone, select **follow these steps**.
   c. Select **Windows platform** to download the installation file to your workstation.
2. Open a command prompt using one of these methods:
   - To install for all user accounts on the workstation (recommended), open the command prompt using the Run as administrator option and enter the following command:

     ```
     msiexec /i Five9SoftphoneService.msi ALLUSERS=1
     ```

   - To install for the logged-in user only, open the command prompt and enter the following command:

     ```
     msiexec /i Five9SoftphoneService.msi
     ```

   The installation program installs the softphone.

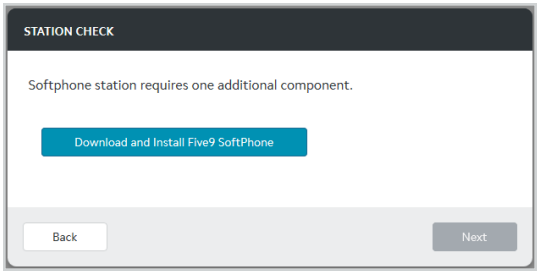
Note

Available command line options for the MSIEXEC utility are:

- `/i` = install the package
- `/x` = uninstall the package
- `/qn` = no UI during the installation process

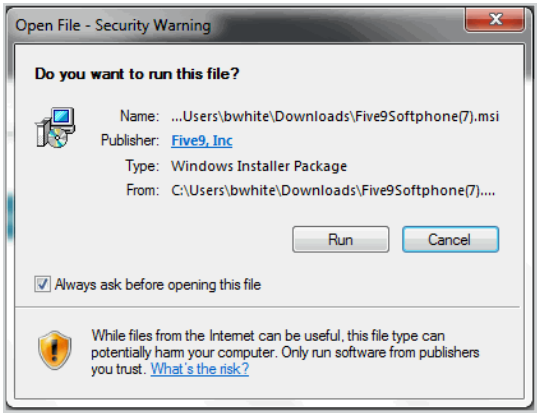
To install the softphone for the logged-in user with the Windows installation wizard:

1 In the agent application, select **Download and install the Five9 Softphone**.

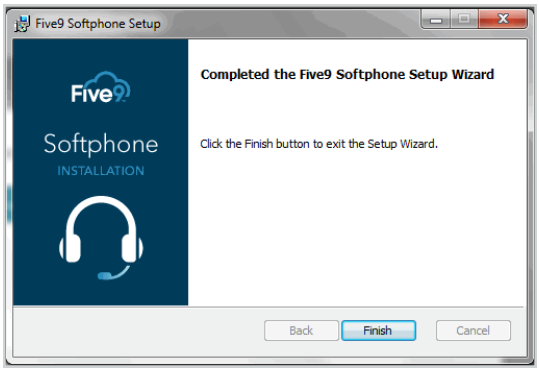


> **Note:** The **Five9Softphone.msi** file may appear in your designated browser downloads folder.

2 Double-click the MSI file and select **Run** in the Open File window.



This setup wizard displays a completed notification.



3 Select **Finish**.

The Station Check page indicates that all extensions are installed. Activation is automatic.

Step 2 (macOS): Installing the Softphone

To install the softphone using the macOS command line interface:

1. To download the macOS installation file:
   a. Log in to Five9 and select **Tools & Add-Ons** on the Company Portal page.
   b. Under Installing the Softphone, select **follow these steps**.
   c. Select **Mac platform** to download the installation file to your workstation.
2. Attach the DMG file with this command:

   `hdiutil attach <`***path-to-Five9SoftphoneService.dmg***`>`

   Example

   If the file is in the current directory, the command and its output are as follows:

   Command: `hdiutil attach Five9SoftphoneService.dmg`

   Output:

   ```
   expected CRC32 $228E6516
   /dev/disk2      GUID_partition_scheme
   /dev/disk2s1    Apple_HFS    /Volumes/Five9 Softphone
   Service Installer
   ```

3. Locate the line in the output that contains `Apple_HFS`. Make note of the following:
   - The ***disk location*** precedes `Apple_HFS`, such as `/dev/disk2s1`.
   - The ***path*** follows `Apple_HFS`, such as `/Volumes/Five9 Softphone Service Installer`.
4. Determine the ***flag*** values to use in the command:
   - To install for the current user, use: `FIVE9_SOFTPHONE_INSTALLER_SILENT_MODE=true`
   - To install for all users on the workstation, use: `FIVE9_SOFTPHONE_INSTALLER_SILENT_MODE=true FIVE9_SOFTPHONE_INSTALLER_SYSTEM_SPACE_MODE=true`
5. Construct the command by combining these elements:

```
<flags> "<path>/double click to open.app/Contents/MacOS/applet"
```

Example

Complete command syntax:

```
FIVE9_SOFTPHONE_INSTALLER_SILENT_MODE=true FIVE9_SOFTPHONE_
INSTALLER_SYSTEM_SPACE_MODE=true  "/Volumes/Five9 Softphone
Service Installer/double click to
open.app/Contents/MacOS/applet"
```

6 Run the command to install the softphone.

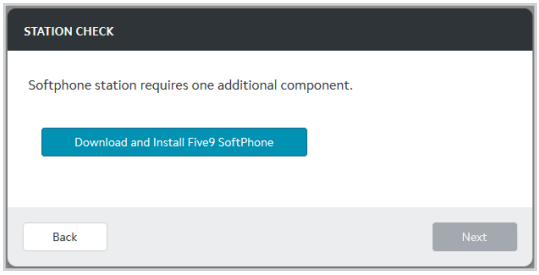
7 Detach the DMG file using the disk location noted previously:

```
hdiutil detach <disk location>
```

To install the softphone for the logged-in user with the macOS installation wizard:

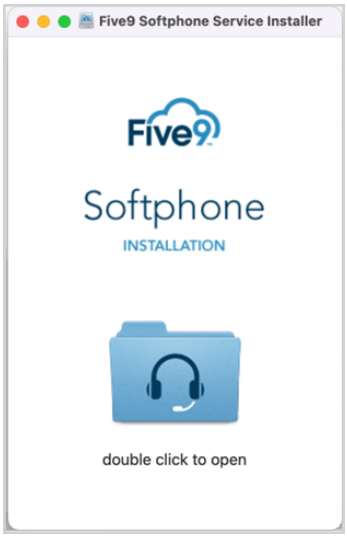
With the macOS installation app, you can select an option to install the softphone for all users on the workstation (per machine) or for the logged-in user (per user).

1 In the agent application, select **Download and install the Five9 Softphone**.



Note: The **Five9Softphone.dmg** file may appear in your designated browser downloads folder.

2 Double-click the DMG file and then double-click the icon in the Finder window.



3 In the installation wizard, select the appropriate option.

- **For me only** installs the softphone for the logged-in user.

  > **Important:** If you are prompted that the installer applet needs access to control the Finder app, select **OK**. The Five9 installer needs this permission to update the Home folder when installing the softphone for the logged-in user.

- **For all users** installs the softphone for all users on the workstation.

The macOS installer removes any currently installed softphones and installs the new version.

Option 2: Installing the Software in Group Deployment

To ensure standard implementation across many workstations, administrators can deploy the browser extension and softphone across groups using automated methods.

> **Important**
>
> These instructions apply to using automation to deploy the software to user workstations. The process to deploy the software in a virtual desktop environment is similar, but the commands and parameters differ. For information on deploying the software in a virtual desktop environment, see the Virtual Desktop Configuration Administrator's Guide.

Considerations for Group Deployment

- If you use automation techniques to deploy the softphone using the command line to users who have ***limited permission to update their workstation***, the softphone will not automatically update when a new version is released. You must use automation to first uninstall the softphone for all users before deploying the new version. See **Uninstalling the Five9 Softphone**.
- Before using automation, ensure that you fully test the process to install and uninstall using the command line.
- Five9 tests softphone installation with the command line. However, each customer deployment using automated tools and scripts is unique. Five9 Customer Support can assist you with issues about the installer, but cannot support or troubleshoot your network or implementation.

Downloading Files

To download the softphone and browser extension files:

1. Log in to Five9 and select **Tools & Add-Ons** on the Company Portal page.
2. Under Installing the Softphone, select **follow these steps**.
3. If your users plan to use the softphone with Chrome, Edge, or Firefox, download the appropriate browser extensions.
    - For Chrome and Edge:
        a. Select **Chrome/Edge extension** to open the Chrome Web Store page.
        b. Make note of the extension ID in the URL: `https://chromewebstore.google.com/detail/five9-softphone-extension/<extensionID>`
    - For Firefox, select Firefox extension to download the Firefox extension file.
4. Download the Windows or Mac softphone installer.

Installing the Browser Extension in Group Deployments

Before you deploy the softphone, you must install or deploy the install browser extensions. If the browser extension is not available when you deploy the softphone, your agents will receive a warning when they log in the first time after the installation. The warning directs users to contact their administrator to finish the installation.

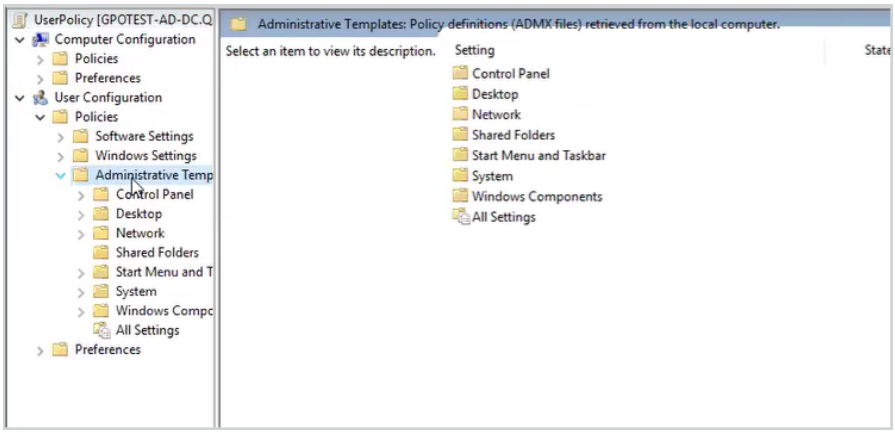
This example illustrates deploying the Google Chrome browser extension using Microsoft's Group Policy Object (GPO). You can use similar methods to deploy other browser extensions or to deploy using other administration tools.

There are two options for deploying the Chrome browser extension:

- Installing as a *force-installed* extension prevents users from enabling or disabling the browser extension in their browser.
- Installing using *extension management settings* gives users the option to enable or disable the browser extension.

Follow these steps:

1. Download and install the Google Chrome policy templates you need for deployment using GPO.
   a. Download the Google Chrome group policy template: https://dl.google.com/dl/edgedl/chrome/policy/policy_templates.zip. Then extract the compressed zip file on your local workstation.
   b. To open the Group Policy Management Console, in the Windows search bar, type **gpmc.msc** and press Enter.
   c. In Group Policy Management, under **User Configuration**, expand **Policies**.

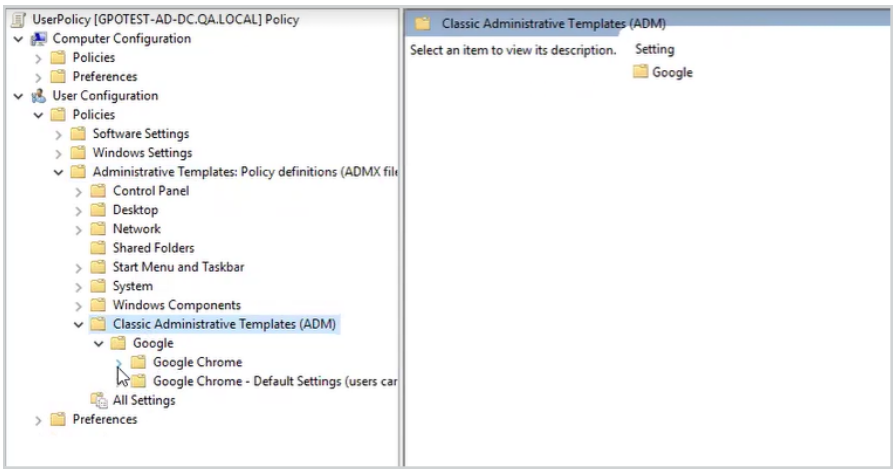


   d. Right-click **Administrative Templates** and select **Add/Remove Templates**.
   e. Select **Add**.

f Browse to the location of the extracted administrative templates, and select **policy_templates\windows\adm\en-US\chrome.adm**, and then click **Open**.

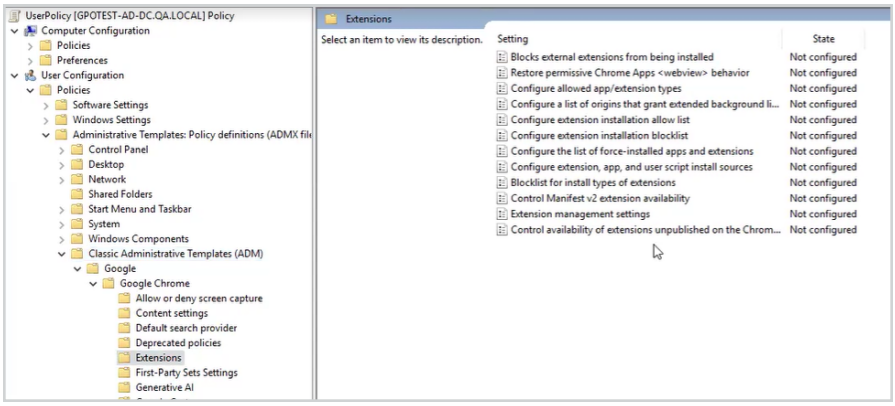
g In Add/Remove Templates, click **Close**.

The Classic Administrative Templates (ADM) folder appears in the list.



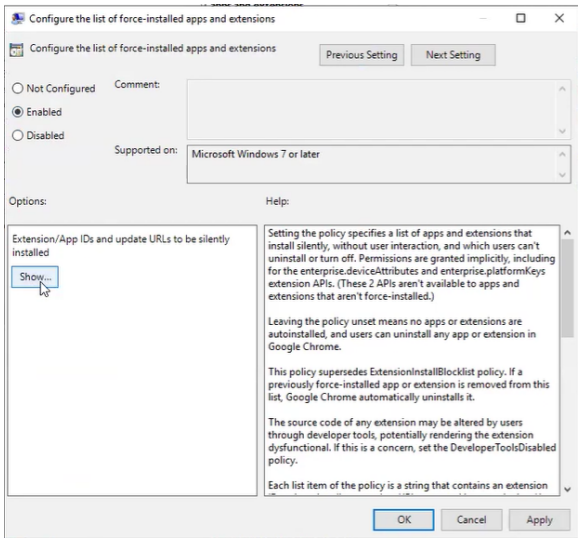
2 Set up the template for your users.

a Under **Classic Administrative Templates**, expand **Google**, then **Google Chrome**, and select **Extensions**.



b In the Setting list, double-click **Configure the list of force-installed apps and extensions**.

c Select **Enabled**, and in the Options list, select **Show**.



d In **Value**, enter the extension ID for the Five9 Google Chrome browser extension previously retrieved in **Downloading Files**, such as **apdkclopegaflhehflfdieginkoiejjj**. Then click **OK**.

> **Note**
>
> To install the browser extension so that users can disable the browser extension, use the Extension management setting option instead:
>
> 1. Select **Extensions** and open **Extension management settings** in the Setting list.
> 2. Select **Enabled**.
> 3. In the Options pane, in **Extension management settings**, enter the extension ID n and specify **normal_installed** as the installation mode:
>
>   `{"<extensionID>": {"installation_mode": "normal_installed"}.`
>
> 4. Click **OK**.

The extension is enabled for all users, and is available when each workstation refreshes the updated group policy. The extension is available when they open Chrome.

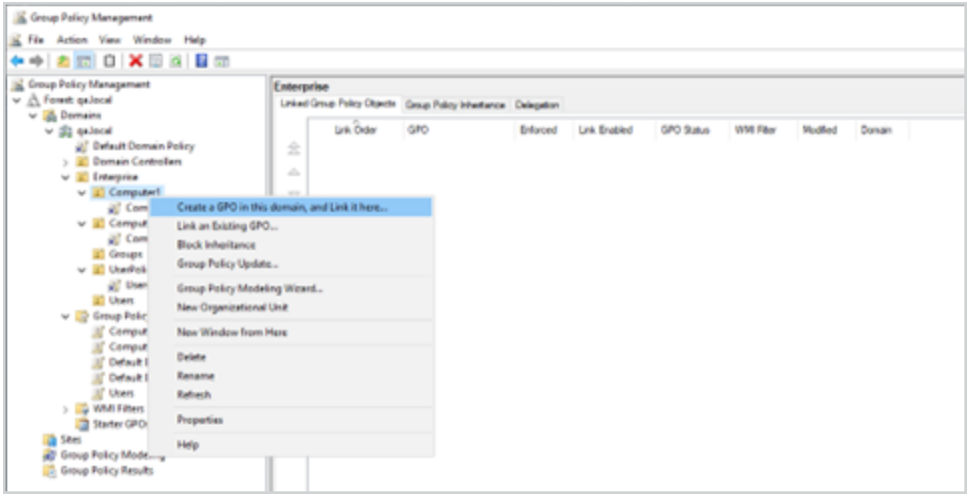
Installing the Softphone in Group Deployment on Windows

There are numerous tools for deploying software across multiple workstations, and you may choose to deploy the software for a specific user (per user) or for all users on the workstation (per machine). See **Considerations for Group Deployment** for important limitations.

> **Note**
>
> For information on uninstalling the softphone using group deployment, see **Option 2: Uninstalling in Group Deployment**. For information on upgrading the softphone, see **Updating the Software**.

This example illustrates installing the softphone on a per-machine basis using Microsoft's Group Policy Object (GPO).

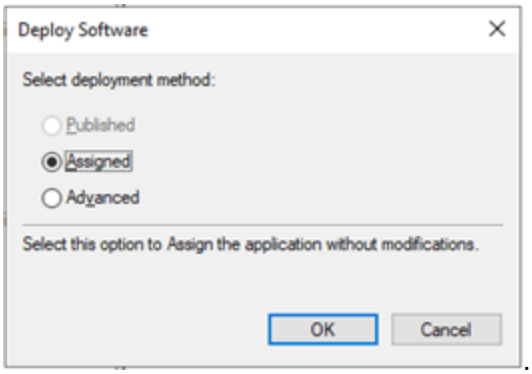
1. Create a shared folder on the network accessible to the workstations where you will install the softphone, and copy the MSI package to the shared folder.
2. In Group Policy Management, create a GPO and link it to the computers organizational unit where you will push the softphone.



3. Under Group Policy Objects, right-click the new GPO and select **Edit**.
4. Create a deployment package:
   a. For all users on each workstation (per machine), under **Computer Configuration**, expand **Policies**, then **Software Settings**, then **Software installation**. Select **New** > **Package**.

b For each user (per user), under **User Configuration**, expand **Policies**, then **Software Settings**, then **Software installation**. Select **New** > **Package**.

5 Select the softphone installation file **Five9Softphone.msi** from the shared network folder. The Deploy Software window displays.



6 Select the option to deploy the software:

- **Assigned**: The application automatically installs on the workstation and is available to all users (per machine installation).
- **Published**: The application appears in the Add/Remove Programs app on each workstation.

> **Note:** The Published option is only supported when installing the software for each user on the workstation (per user).

Important

If a user has previously installed the softphone on their workstation, the script to install the softphone for all users per machine displays an error: "There is at least one version of the same product installed to user space for another user."

You must uninstall the softphone on that workstation and execute the script again to install for all users. For information on uninstalling the softphone, see **Uninstalling the Five9 Softphone**.

Installing the Softphone in Group Deployment on macOS

This example provides instructions for creating a script to deploy the softphone across mulitple macOS workstations. See **Considerations for Group Deployment** for important limitations.

To install the Five9 softphone for users on macOS, create a script in the language that you prefer, such as bash. Use this script in your group deployment system to deploy the softphone on multiple macOS workstations.

Important

In this example, paths that contain spaces are in quotes to escape the spaces. Refer to the language that you use for the correct handling of spaces.

1. Attach the DMG file with this command:

   `hdiutil attach <`***path-to-Five9SoftphoneService.dmg***`>`

   Example

   If the file is in the current directory, the command and its output are as follows:

   Command: `hdiutil attach Five9SoftphoneService.dmg`

   Output:

   ```
   expected CRC32 $228E6516
   /dev/disk2      GUID_partition_scheme
   /dev/disk2s1    Apple_HFS    /Volumes/Five9 Softphone
   Service Installer
   ```

2. Locate the line in the output that contains `Apple_HFS`. Make note of the following:
   - The ***disk location*** precedes `Apple_HFS`, such as `/dev/disk2s1`.
   - The ***path*** follows `Apple_HFS`, such as `/Volumes/Five9 Softphone Service Installer`.
3. Determine the ***flag*** values to use in the command:
   - To install for the current user, use: `FIVE9_SOFTPHONE_INSTALLER_SILENT_MODE=true`
   - To install for all users on the workstation, use: `FIVE9_SOFTPHONE_INSTALLER_SILENT_MODE=true FIVE9_SOFTPHONE_INSTALLER_SYSTEM_SPACE_MODE=true`
4. Construct the command by combining these elements:

   `<flags> "<path>/double click to open.app/Contents/MacOS/applet"`

Example

Complete command syntax:

```
FIVE9_SOFTPHONE_INSTALLER_SILENT_MODE=true FIVE9_SOFTPHONE_
INSTALLER_SYSTEM_SPACE_MODE=true  "/Volumes/Five9 Softphone
Service Installer/double click to
open.app/Contents/MacOS/applet"
```

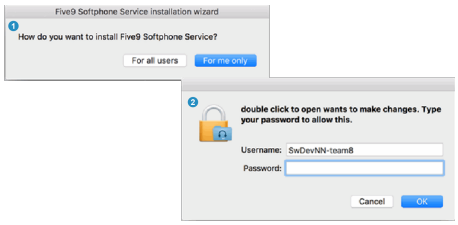
5 Run the command to install the softphone.

6 Detach the DMG file using the disk location noted previously:

```
hdiutil detach <disk location>
```

Example

This is an example of the macOS installer with the system and user space options (top figure) and the password window (bottom figure).



1 Administrators see the system space option.

2 Other users do not see this option. The softphone is installed to user space.

Option 3: Installing the Software in Virtual Desktop Deployment

There are many important considerations and configurations required to installing the browser extension and softphone in virtual desktop environments. See Virtual Desktop Configuration Administrator's Guide for details.

Repairing a Softphone Installation

If you have any issues while installing or uninstalling the softphone on a workstation, use the command line repair option with the softphone installer.

1 Open a command prompt ***with administrator privileges***.

2 Enter either of these commands to restore the softphone to proper function.

```
msiexec /famus Five9SoftphoneService.msi
msiexec /famus {7EAF6F71-FE39-40E6-B15A-21D76E96BE40}
```

If the issue persists, see Using the Clean-Up Batch File to Remove Old Softphone Files.

Uninstalling the Five9 Softphone

Use these instructions to uninstall the softphone.

Considerations for Uninstalling the Softphone

- By default, the softphone installs with the auto-update feature enabled. The softphone automatically updates on release of a new version.
- Agents and supervisors with ***write permission*** on their workstation do not need to uninstall the current Five9 softphone on release of a new version. This is true regardless of whether the softphone was installed using the single workstation option or group deployment option.
- If agent and supervisor workstations are not configured with write permissions, the softphone auto-update feature will not work. You must uninstall the softphone for all users on release of a new version. You can then deploy the new version regardless how the previous version was installed (single workstation or mass/group deployment)

> **Note:** In some cases, new functionality in a softphone release may require that you uninstall the previous softphone from all workstations before installing the version. When that is required, Five9 will provide specific instructions.

Using the Clean-Up Batch File to Remove Old Softphone Files

In some cases, repeated installation of the softphone on a workstation may leave obsolete entries in the Windows Registry. These obsolete entries may cause group deployment scripts to fail with a message, "Product already installed."

Five9 installs a batch file for removing the softphone files, folders, and registry entries from a workstation. The batch file is installed in the %TEMP% folder of the workstation.

The clean-up batch file does the following.

- Stops any running softphone processes.
- Removes Five9 softphone folders.

- Removes Five9 softphone entries from the Windows Registry.

You can run the batch file for the logged-in user (per user) or for all users on the workstation (per machine).

> **Note**
> When you uninstall the softphone using the MSI installer in a command line, the installer automatically executes the clean-up batch file to remove any obsolete files remaining on the workstation.

To run the clean-up batch file:

1. Open a command prompt ***with administrator privileges***.
2. Change to the %TEMP% directory where the clean-up batch file was installed.
   ```
   cd %TEMP%
   ```
3. Run the clean-up batch file:
   - For all users on the workstation:
     ```
     softphone-cleanup.bat ALLUSERS
     ```
   - For a specific user on the workstation:
     a. Determine the security identifier (SID) of the user from which you want to remove the softphone:
        - Retrieve the SID of the *logged-in user*:
          ```
          whoami /user
          ```
        - Retrieve the SID of *a specific user*:
          ```
          wmic useraccount where Name='{username}' get SID
          ```
     b. Enter the following command.
        ```
        softphone-cleanup.bat {username} {SID}
        ```

Option 1: Uninstalling from a Single Workstation

To uninstall the softphone on a workstation, use Windows Control Panel or use the following commands in a command prompt.

1. Open a command prompt ***with administrator privileges***.
2. Enter this command to uninstall the softphone.

```
msiexec /x Five9SoftphoneService.msi
```

Option 2: Uninstalling in Group Deployment

If you use automation techniques to deploy the softphone using the command line to users with limited permission to update their workstation, the softphone will not automatically update when a new version is released. You must use automation to uninstall the softphone for all users before deploying the new version.

Uninstalling the Softphone in Group Deployment on Windows

This example illustrates uninstalling the softphone on a per-machine basis using Microsoft's Group Policy Object (GPO).

1. In Group Policy Management, locate the GPO used to install the softphone.
2. Locate the deployment package created under Group Policy Objects:
    a. For a deployment package for all users on each workstation (per machine), under **Computer Configuration**, expand **Policies**, then **Software Settings**, then **Software installation**.
    b. For a deployment package for each user (per user), under **User Configuration**, expand **Policies**, then **Software Settings**, then **Software installation**.
3. Select the software installation container that contains the package.
4. Right-click the program, point to All Tasks, and then select **Remove**.
5. When prompted, select an option to immediately uninstall the software or to allow users to continue to use the software.
6. Select **OK** to uninstall the package.

Uninstalling the Softphone in Group Deployment on macOS

To uninstall the Five9 Softphone Service from macOS for all users, mount DMG and run an uninstall script:

```
# /Volumes/Five9\ Softphone\ Service\ Installer/.content/uninstall.sh
```

Option 3: Uninstalling in Virtual Desktop Deployment

For details on uninstalling the softphone in a virtual desktop environment, see Virtual Desktop Configuration Administrator's Guide.

Updating the Software

This section describes what happens when Five9 releases new softphone and browser extension versions.

> **Note:** For information on updating the softphone in virtual desktop environments, see Virtual Desktop Configuration Administrator's Guide.

Updating the Five9 Softphone for a New Release

Automatic Softphone Installation

When Five9 releases a new version of the softphone, the new version automatically installs the next time the agent logs into their station. If there is an issue with the updated softphone, update messages may display in the browser on log in. Any failure in the migration to the new softphone requires manual installation. See **Installing the Five9 Softphone**.

> **Note:** To manually install the update, Windows users must first uninstall the Five9 softphone through Settings > Apps.

> **Important:** Security software may prevent automatic softphone updates. In this case, the softphone must be manually installed.

Softphone updates happen in the background at the agent's next login. If any failure occurs during the download or unpacking of the softphone update, this process repeats at the next login attempt until successful. The next agent login presents the new softphone version.

> **Note**
>
> If the agent has the **User Cannot Install Softphone** permission enabled in their user properties, a **Contact Your IT** message displays.

Updating the Softphone Manually

To manually install the update, Windows users must first uninstall the old softphone version using the command line:

1. Open a command prompt ***with administrator privileges***.
2. Uninstall the softphone:

   ```
   msiexec /x Five9SoftphoneService.msi
   ```

3. Install the new softphone. See **Option 1: Installing the Software on a Single Workstation**.

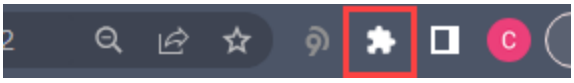
Updating the Chrome and Edge Browser Extensions

When Five9 releases a new browser extension version for Chrome and Edge, agents can update their browser to use the new extension. To install a new version of the Five9 browser extension for Chrome or Edge, agents must remove the existing extension and then install the new extension on their next log in (see also, **Installing and Managing the Five9 Softphone for Plus Applications**).

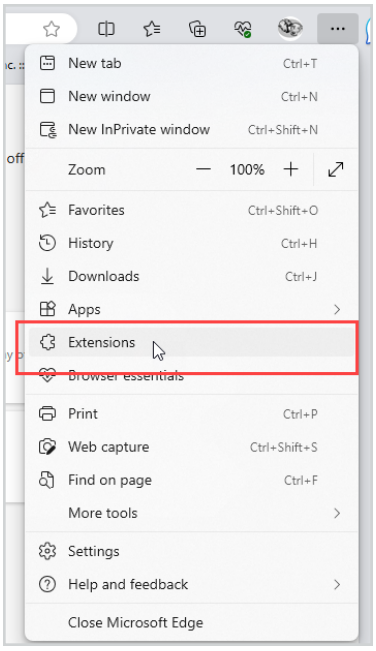
> **Important:** Five9 recommends that you plan the update to the new Chrome and Edge browser extension before early 2024, when Google discontinues support for the current Chrome extension manifest version (V2).

Removing Five9 Softphone Browser Extensions

In Chrome, select the Extensions icon, where you can remove the extension or access all installed browser extensions.



In Edge, select Extensions from the Settings and more menu to manually remove the browser extension.



After you remove the extension, log into Five9 to install the new browser extension (see **Installing and Managing the Five9 Softphone for Plus Applications**).

Updating the Firefox Browser Extension

When Five9 releases a new version of the browser extension, a button displays in the adapter on log in. The agent installs the update by selecting **Download**. Agents do not need to remove the old browser extension. If the browser contains old extensions, the installation window automatically displays the new extension.

Downloading Software Versions for Early Access

When Five9 prepares a new version of the softphone or browser extension for release, IT personnel and administrators may need to download the next version of the software in advance for testing in their environment and to prepare for deployment. Early access to the next software version is especially important for customers who use group deployment techniques to install software.

The Tools & Add-Ons page on the Five9 Customer Portal provides a section to download the browser extensions and installer files that support the next release.

1 Login to the Five9 Company Portal and select **Tools & Add-Ons**.

2 Under Next Version of the Softphone, select **follow these steps** to display links and instructions.

3 Use the links to download the installation files for the browser versions and workstation operating systems that you support.

Note

After Five9 releases the new version of the softphone or browser extension, clicking the links in the **Next Version of the Softphone** section of the Tools & Add-Ons page downloads the current files.

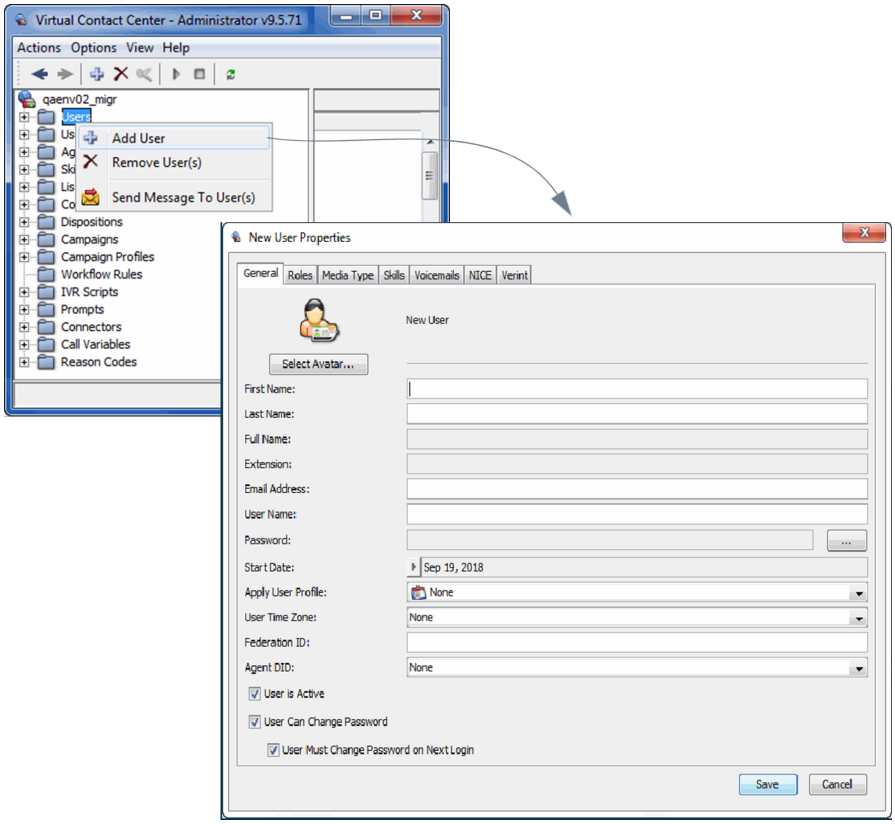
Managing User Definitions

User configuration may contain a password, user profile, queue membership, roles, and permissions. Before creating users, be sure to create the user profiles, agent groups, and queues that you will add to the user definitions. The number of users that you can add, regardless of the role, is determined by your license.

Adding Users
Duplicating Users
Removing Users
Accessing User Properties

Adding Users

In the navigation pane, right-click **Users**, and select **Add User**.



Field	Definition
First Name	First name of the user
Last Name	Last name of the user
Full Name	Automatically populated from First Name and Last Name fields.
Extension	Number automatically assigned the first time that you save the user's properties. You can change the number to any unique four digits.
Phone Number	This field is no longer used.
Email Address	Email address required for voicemail notification and announcements.
User Name	Login ID for the VCC. User names are case sensitive and must be unique across all Five9 domains. To ensure a unique user name, use the email address, which is populated when you type the email address. You can also use a different format,

Field	Definition
	such as <first name last name> or <first initial last name>. Do not use these characters: ' * \ ' ~ & % # , ! I () ^ / \ < > : ; ? [ ] { } + = and any non-Latin symbols.
Password	Default password populated when you type the email address. However, you cannot save a user with the default password and without the User Can Change Password option. To change the password, click the dotted button, and enter a password.
Start date	Start date field is used in reporting to enable analysis of agent performance. Click the arrow icon to select the agent's start date. The Start date does not affect the ability of the agent to log in.
Apply User Profile	Optional user profile. If you assign a predefined profile, the roles and skills for this user are taken from the user profile properties.
User Time Zone	Date and time fields displayed to users. You may choose a time zone or let the system detect the user's time zone.
Unified Communication ID	This field is no longer used.
Federation ID	User name or ID used for single sign-on.
Agent DID	DNIS assigned directly to an agent. Any unassigned DNIS may be assigned to an agent. Calls to this DNIS are treated as agent-to-agent calls.
Locale	If your domain is enabled for multiple languages, you can change the language displayed in the user applications to any language supported in your domain. This value overrides the value selected by the agent. The Administrator, Supervisor, and Reporting roles can override the default locale.
User is Active	Enables users to log into Five9 applications. Inactive users appear in reports. Deleted users appear in some reporting data as [Deleted].
User Can Change Password	Enables the user to change the password. Overwrites your domain setting (Configure > Password Policies > Users Can Request New Password on Login Page). Enabled by default. Without this permission, users cannot see the Security Settings tab in My Settings and are not prompted to select or update their security questions when they log in.
User Must Change	If the previous option is enabled, you can force the user to

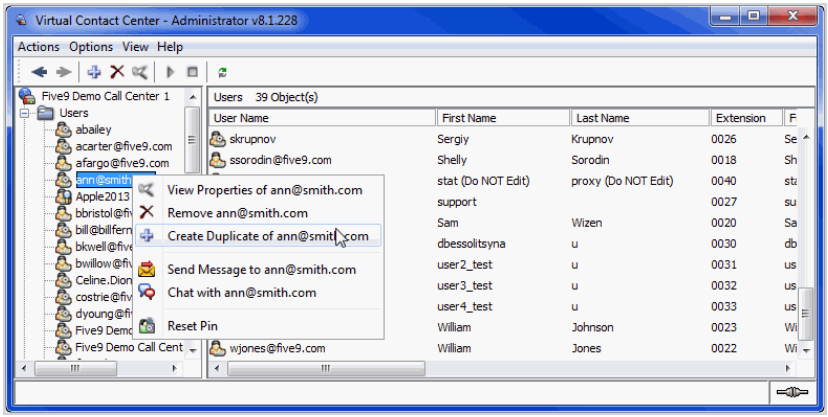
Field	Definition
Password on Next Login	change the password at the next login. Enabled by default.
User Can Access Billing Tab	Whether users can see the Billing tab after logging into the Five9 account.

Duplicating Users

1 In the navigation pane, select the user that you want to duplicate.

2 Right-click the user, and select **Create Duplicate**.

The properties are copied to a new object called <*original object name*> - Copy. The duplicate property window opens. The Roles, Skills, Callbacks, Voicemails, and Recordings tabs are copied.



3 Enter the information for the duplicate.

4 Assign an extension and start date.

Removing Users

When users leave your organization, change the account password to ensure that the person cannot access the Five9 application remotely.

Five9 recommends that you disable users instead of deleting them because if you delete a user, you lose all data attached to that user. After you have retrieved all data and followed up on any outstanding items, you can delete the user. You may also wait

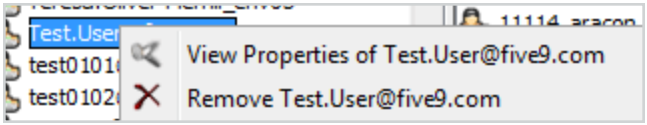
until your 60-day data retention period is reached so that the data is deleted automatically.

To deactivate a user, disable **User is Active** in the General tab of the User Properties screen. To remove users from a skill group, see Managing Skill Group Users.

Deleting a Single User

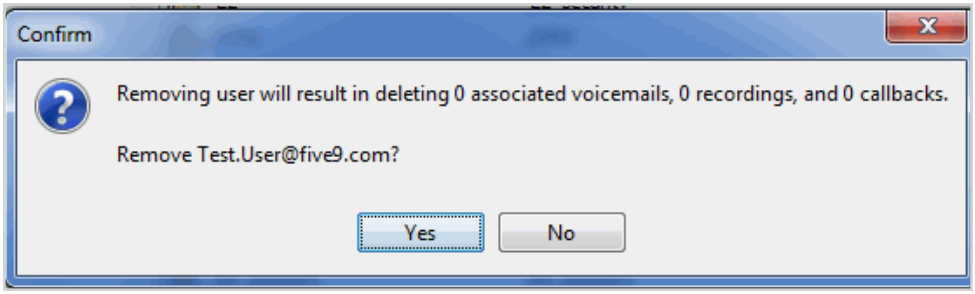
To delete an account with all associated records, follow these steps.

1. Right-click a user name, and select **Remove** *username*.



2. Click **Yes**.

   A confirmation message shows the number of voicemail messages, recordings, and callbacks that are removed with the user.

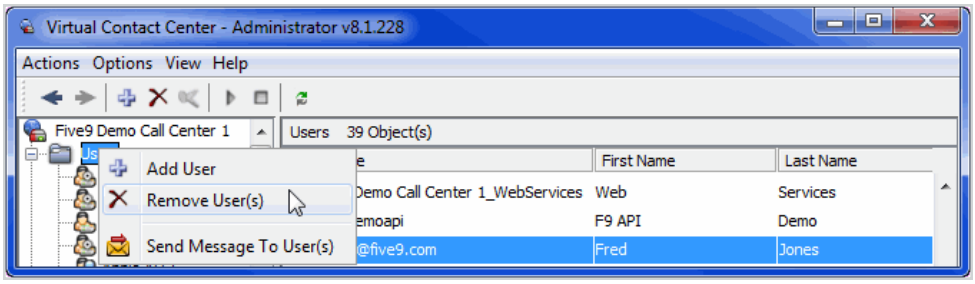


3. Click **Yes** to confirm that you want to delete the user.

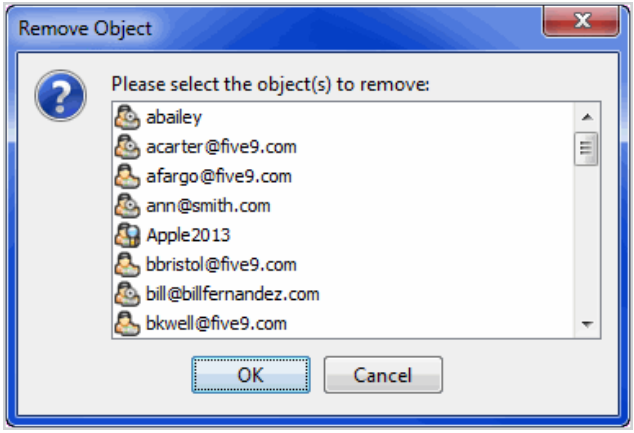
Deleting Multiple Users

Follow these steps.

1 In the navigation pane, right-click **Users**, and select **Remove Users**.



2 Select one or more users.



3 Click **OK**, and **Yes to all** to remove the selected users.

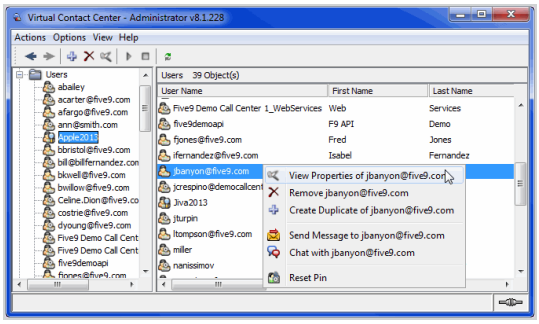
Accessing User Properties

Follow these steps.

1 In the navigation pane, click **Users**.

2 Double-click the a user in the list, or right-click on a user in the list and select

View Properties.



Assigning User Roles and Permissions

The roles assigned to users determine which Five9 applications they can access. Each user must have at least one role. Agent is the default role. For each role that you assign, you need to define the permissions for the tasks each user is allowed to perform in the assigned role.

> **Note:** The usage for an API Only User is comparable to a user created in our admin tools where API access was granted using legacy permissions. See User and User Details in Administrator Console Administrator's Guide

You can change assigned roles at any time and define permissions for individual users in the **Roles** tab of the **User Properties** window.

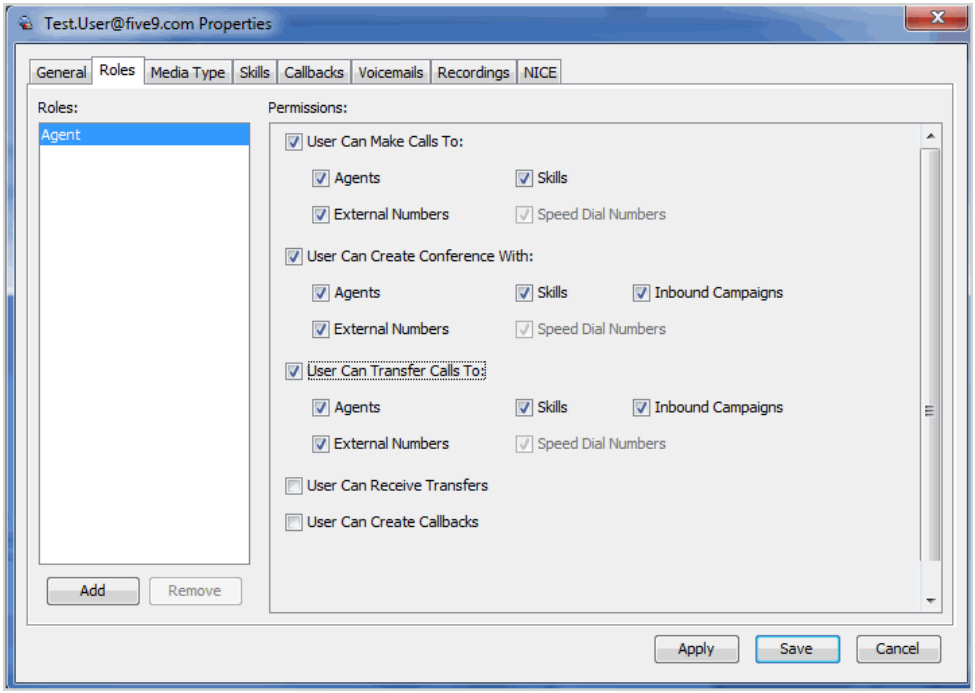
Define permissions for user profiles in the **User Profile Properties** window. If you assign a user to a user profile, the Roles tab is disabled for that user in the **Users** > **User Properties** tab. See **Defining User Profiles** for details.

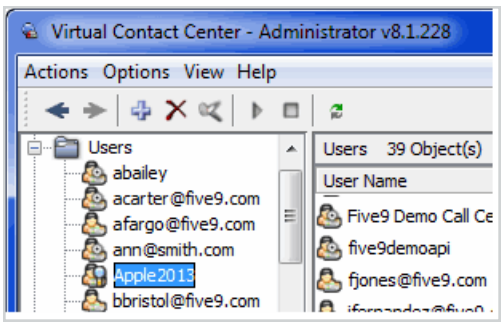
The available permissions depend on the selected role. See **Accessing User Properties**.

Role	Description
Administrator	Sets up the Virtual Contact Center (VCC) and manages daily operations.
Supervisor	Manages agents and campaigns from the Five9 Supervisor application. Supervisors can monitor logged-in users, agent status,

Role	Description
	chat sessions, campaigns, and run reports.
Contact Records Manager	Can use the Web2Campaign API. This role has only the permission Can Access W2C.
Agent	Processes calls and text interactions from the Five9 Agent application.
Reporting	Runs reports in the Reports portal.

1 To display the list of possible roles and assign additional roles to a user or user profile, click **Add** in the **User Profile Properties** window.





2 Select one or more roles and click **OK** to add roles to a user or user profile.

The selected roles immediately appear in the list. Users with multiple roles can use the same login account for all applications.

3 For each role, check all permissions that you want to enable for the user.

- Agent Permissions
- Supervisor Permissions
- Administrator Permissions
- Contact Records Manager Permission
- Reporting Permissions

Agent Permissions

Important

Agents who log into a PSTN station or forward calls between sessions may incur high long-distance fees. Therefore, be sure to give permission only to the appropriate users.

Primary Permission	Secondary Permission	Description
User can access Agent applications	Java client Web client	Can access either or both agent applications.
User can make calls to		Can dial calls manually and make callbacks (see below for information on callbacks).
	Agents	Can call specific agents.
	External Numbers	Can call external numbers, including predefined speed-dial numbers. External Numbers and Speed Dial Numbers options are mutually exclusive; you can't select both options. **Note:** If you don't want agents to connect to external numbers in general but do want agents to connect to specific external numbers defined as speed-dial numbers, select **Speed Dial** and ensure that **External Number** isn't

Primary Permission	Secondary Permission	Description
		selected.
	Skills	Can call into specific queues.
	Speed Dial Numbers	Can call predefined speed-dial numbers. Speed-dial numbers can include preset external numbers. If Speed-Dial Numbers is checked, External Numbers cannot be checked.
User can create conference with		Can add a conference participant to a call.
	Agents	Can create conference calls with agents.
	Inbound Campaigns	Can create conference calls in inbound campaigns.
	Skills	Can create conference calls by using skill groups.
	External Numbers	Can create conference calls with external numbers, including predefined speed-dial numbers. External Numbers and Speed Dial Numbers options are mutually exclusive; both options cannot be checked. **Note:** If you do not want agents to connect to external numbers in general, but do want agents to connect to specific external numbers defined as speed-dial numbers, de-select the **External Number** box, and select the **Speed Dial** box.
	Speed Dial Numbers	Can add speed-dial numbers to conference calls. Speed-dial numbers can include preset external numbers. If Speed-Dial Numbers is checked, External Numbers cannot be checked.
User can transfer calls to		
	Agents	Can transfer calls to agents.
	Inbound Campaigns	Can transfer calls to inbound campaigns.

Primary Permission	Secondary Permission	Description
	Skills	Can transfer calls to skill groups.
	External Numbers	Can transfer calls to external numbers, including predefined speed-dial numbers. External Numbers and Speed Dial Numbers options are mutually exclusive; both options cannot be checked. **Note:** If you do not want agents to connect to external numbers in general, but do want agents to connect to specific external numbers defined as speed-dial numbers, disable the **External Number** box, and select the **Speed Dial** box.
	Speed Dial Numbers	Can transfer calls to predefined speed-dial numbers. Speed-dial numbers can include preset external numbers. Ensure that External Numbers isn't selected.
User can receive transfers		Can receive transfers from other agents.
User can create callbacks		Can create callback reminders for customers who were contacted during the user's session. User Can Make Calls permission isn't required.
User can configure automatic answer settings		Can disable the auto-answer options in the Agent application, which forces agents to manually answer calls by clicking Accept. This permission is enabled by default and doesn't affect the Hang-up Phone When Call Ended setting in the softphone options. **Important:** For outbound calls placed by the dialer, instruct your agents to never disable automatic answer because the time allowed to answer the call expires before agents can answer.

Primary Permission	Secondary Permission	Description
	User can reject ringing calls	When auto-answer is disabled, agents can decline incoming calls by pressing Reject.
User can process skill voicemail messages		Can process voicemail messages sent to a skill group. See **Managing Skill Voicemail Messages**.
	User can delete skill voicemail messages	Can delete messages.
User can transfer voicemail messages		Can transfer messages to another user or skill group.
User can record calls		Can record calls or a portion of a call. See **Managing User Recordings**.
User can send messages		Can send messages to Agents, Administrators, or Supervisors.
User can create chat sessions		Can start a chat session with other Agents, Administrators, or Supervisors.
User cannot remove contact data		Prevents users from deleting contact records. In most cases, it is best to select this for all agents.
User cannot edit contact record session notes		Prevents users from changing contact record notes.
User can enable call forwarding		Can enable call forwarding.
User can add numbers to DNC list		Can add numbers to the DNC list either directly or by using a disposition.
User can manually dial numbers in the DNC list		Can manually call the numbers in the DNC list. For more information about enabling DNC-related permissions for agents, see **Managing Do Not Call (DNC) Lists**.

Primary Permission	Secondary Permission	Description
		Note: The system restricts an agent who doesn't have this permission from dialing a number in the list, it displays a message when a restricted agent attempts to make a call.
User can select system disposition named Recycle		Applies to outbound dialing. Enables the agent to recycle a number back into the queue to be dialed again when the number comes up.
User can play audio files to callers		Can play recorded messages while on call or leave standard recorded messages to answering machines (the Play Audio File button).
User can wrap up call		Can end a call and assign a disposition afterward. Without this permission, agents can end a call only by setting a disposition.
User can place call on hold		Can place a call on hold.
User can park call		Can park a call.
User can skip contact records in Preview Dialing mode		Can skip preview records. Disabled by default. See also, Preview Dialing in Campaign Administrator's Guide.
User can manage availability by skill		Can select queues when logging in.
User can browse web in embedded browser		Can use the embedded browser located as a tab on the Current Call screen in the Agent application. This permission enables agents to open any URL. This permission is not required to use a connector in the browser tab.
User can change screen pop preview		Can control the appearance of the pop-up preview window.

Primary Permission	Secondary Permission	Description
preferences		
User must pick Salesforce object For interaction log		Applies only to Salesforce integrations. Required to associate all calls with a Salesforce object, such as an account or lead.
User cannot manually install softphone		Cannot install and update the softphone. When the permission is enabled, you must install and update the softphone for users.
User can select display language		If your domain is enabled for localization, user can change the language displayed in their VCC applications to any language supported in your domain. Disabled by default.
User can display missed calls		Can view, return, and schedule reminders for calls missed during the current logged-in session. Enabled by default.
User can transfer chat interactions to	Agents Skills	Visible if you are enabled for chat interactions in Agent Desktop Plus. Can transfer chat interactions to another agent or to a group of agents (queue).
User can transfer email interactions to	Agents Skills	Visible if you are enabled for email interactions in Agent Desktop Plus. Can transfer email interactions to another agent or to a group of agents (queue).
User can create chat conference with	Agents	Visible if you are enabled for chat interactions in Agent Desktop Plus. Can create chat conferences with another agent or a group of agents (queue).
User can transfer social interactions	Agents Skills	Visible if you are enabled for social interactions in Agent Desktop Plus. Can transfer social interactions to another agent or to a group of agents (queue).
User can search email interactions	Only for assigned skills. Only that have ever been assigned to the user.	Visible if the agent is enabled for email interactions in Agent Desktop Plus. Allows agents to search email interactions and lock interactions that show in the search results. Five9 recommends that you enable this for all agents so they can use it rather than the Text

Primary Permission	Secondary Permission	Description
	User can lock open interactions in search results	Channel Filters settings.
User can receive notifications about supervisor monitoring		Can receive audible notification of Supervisor monitoring event.
User can download and save email messages		Can download email interactions as a file.
User can unlock email interactions routed automatically		Enabled by default. Can unlock email interactions that were assigned in AID mode.
User must use latest interface in integrated adapters		Enables responsive UI for user, if the associated adapter supports responsive UI. User can't select Classic design with this option enabled.
User can add/remove mobile numbers from SMS opt-in list		User can place a mobile number on or off of the Opt-in List.
User can send messaging attachments		Enables user to attach files and images to chat and SMS messages.

Supervisor Permissions

Important

Supervisors who log into a PSTN station or forward calls between sessions may incur high long-distance fees. Therefore, be sure to give permission only to the appropriate users.

To use the Statistics Web Services, users must have the Supervisor role. Set the appropriate permissions for each user.

Primary Permission	Secondary Permission	Description
User can access the Supervisor application	Java client Web client	Can access either or both supervisor applications. Users will see the link for only the selected client in the Five9 Portal.
User can execute Web API requests		Can execute Statistics Web Services API requests. This permission is enabled for existing users and is disabled by default when creating new users. Additional permissions may be required for specific object classes.
User can view user details		Can view the Users tab of the Supervisor application, which shows the login information.
User can view agents data	User can view	Can monitor agent status and view agent statistics and ACD queues.
	User can edit agent skills	Can add and remove skills and change skill levels for agents that the supervisor can view.
	User can review voice recordings	Can access voicemail messages and recordings associated with each agent that the supervisor can access.
	User can monitor calls	Can listen to agents' calls.
	User can barge into calls	When monitoring calls, can speak with customers.
	User can	When monitoring calls, can speak to agents

Primary Permission	Secondary Permission	Description
	whisper to agents	without the customer hearing the supervisor.
	User can monitor idle agents	• **Enabled**: When monitoring calls, the supervisor can monitor and listen to the agent's voice, including the time between active calls. • **Disabled**: When monitoring calls, listen mode is disabled between active calls. **Important:** You are responsible for complying with all privacy laws and regulations that govern your use of the contact center service, including that you may be required to notify agents that this monitoring feature is enabled and in use.
	User can monitor manual outbound calls	Can monitor outbound calls made manually by agents. Supervisor view is determined by agent group and skill filter settings.
	User can monitor email interactions	Can view agents' active email interactions.
	User can transfer email interactions	Can transfer email interactions to another user.
	User can monitor chat interactions	Can monitor agents' active chat interactions.
User can view station data		Can view station IDs assigned to your domain.
User can view internal message data (Java only)		Can view active internal messaging sessions.
User can view campaign details		Can view the Campaigns tab, which contains campaign status information and statistics.

Primary Permission	Secondary Permission	Description
	User can start campaigns	Can start outbound and autodial campaigns.
	User can stop campaigns	Can stop outbound and autodial campaigns.
	User can reset campaigns	Can reset outbound and autodial campaigns.
	User can reset campaign dispositions	Can start and stop campaigns, reset campaigns and dispositions, and reset the dialing list position for outbound and autodial campaigns.
	User can reset list position	Can reset the dialing list position for outbound and autodial campaigns.
	User can reset abandoned calls rate in available campaigns	Can reset the dialer's dropped call percentage for outbound and autodial campaigns.
User can view text data		Can view and log into the Text Details tab, which provides access to the Five9 Chat and Email.
User can view all skills data		If enabled, supervisors have complete access. Otherwise, supervisors have access only to the Agent Statistics and Agent State for their assigned skills.
User can view all agent groups data		Can access all agent groups. Otherwise, supervisors have access only to the Agent Statistics and Agent State for their assigned agent groups.
User can access Excel dashboard menu (Java only)		Can access the Five9 dashboard menu. Any dashboard created before disabling this permission is still available.
User can view call charges		Can see information about call charges: • Agents tab > Agent Statistics > Call Charges • Campaign tab > Campaign Statistics > Call Charges
User can		Can select and rename data fields in the Supervisor Plus application.

Primary Permission	Secondary Permission	Description
manage data fields		
User can select display language		Can localize UI presentation for language.
User can manage compliance data		Can search, filter, and delete personal user data in the application Compliance tab.

Administrator Permissions

Users with all administrator permissions can edit other administrator users and can assign limited permissions to other administrators. Administrators with limited permissions can access the properties of other users who have the administrator role and give the administrator role to other users.

Important

To use the Configuration Web Services, users must have the Administrator role. Be sure to set the appropriate permissions for each user.

Full Access Permissions

Primary Permission	Secondary Permission	Description
User can access Java VCC Administrator application		Can access Administrator application. Users will see the link for only the selected client in the Five9 Portal.
User can use Administrator Services		Can run Configuration Web Services API requests.
All administrators permissions (User can edit other administrator users)		Full access to all roles, permissions, and users in the administrator application.

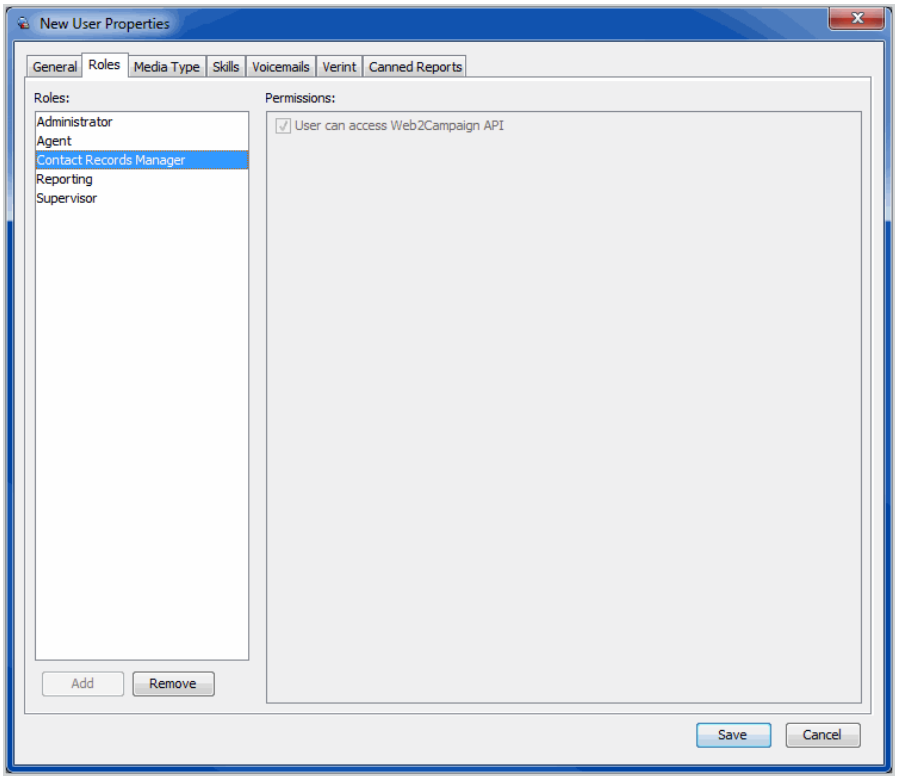
Limited Permissions

Primary Permission	Secondary Permission	Description
User Can Access VCC configuration, and can set default ANI		Can change the VCC Configuration (Actions > Configure) and the domain's default ANI from the Actions menu.
	User can edit trusted IP addresses	Can edit the trusted IP ranges in the VCC configuration.
	User can edit e-mail list for maintenance notifications	Can edit the list of recipients of maintenance notifications that apply to the domain.
User can manage users, except administrator users		Depending on the permissions selected below, can see and edit users, user profiles, and skill and agent groups.
	Users and user profiles	Can see and edit other users (except other administrators) and user profiles.
	Skills	Can see and edit the Skills folder.
	Agent groups	Can see and edit the Agent Groups folder.
User can manage campaigns		Can edit campaign properties and perform other campaign-related actions, according to the permissions below.
	Start and stop campaigns	Can start, stop, and force stop campaigns.
	Reset, update, and schedule updates for dispositions	Can manage dispositions in campaigns.
	Reset campaigns	Can reset campaigns.
	Reset list position	Can reset the list position.
	Edit, create, and delete campaigns	Can add, delete, and edit campaign properties.
	Edit email list for	Can edit the list of recipients of

Primary Permission	Secondary Permission	Description
	maintenance notifications	maintenance notifications that apply to campaigns.
User can manage lists, contact records, and DNC list		Can manage contact record, depending on the permissions below.
	Calling lists	Can create and delete dialing lists and perform list-related actions, such as updating lists.
	Contact records	Can manage contacts and perform related actions, such as updating contact records.
	DNC list	Can add numbers to and remove numbers from the Do Not Call list and check the DNC list for numbers.
User can edit IVR scripts		Can add, remove, and edit IVR script properties.
User can edit campaign profiles		Can add, remove, and edit campaign profiles properties.
User can edit connectors		Can add, remove, and edit connector properties.
User can edit dispositions		Can add, remove, and edit disposition properties.
User can edit prompts		Can add, remove, and edit prompt properties.
User can edit reason codes		Can add, remove, and edit reason code properties.
User can edit workflow rules		Can add, remove, and edit workflow rules.
User can edit variables		Can add, remove, and edit call variable properties and call variable groups.
User can edit export destinations		Can add, remove, and edit export destinations set at the domain configuration or campaign level. Enabled by default.

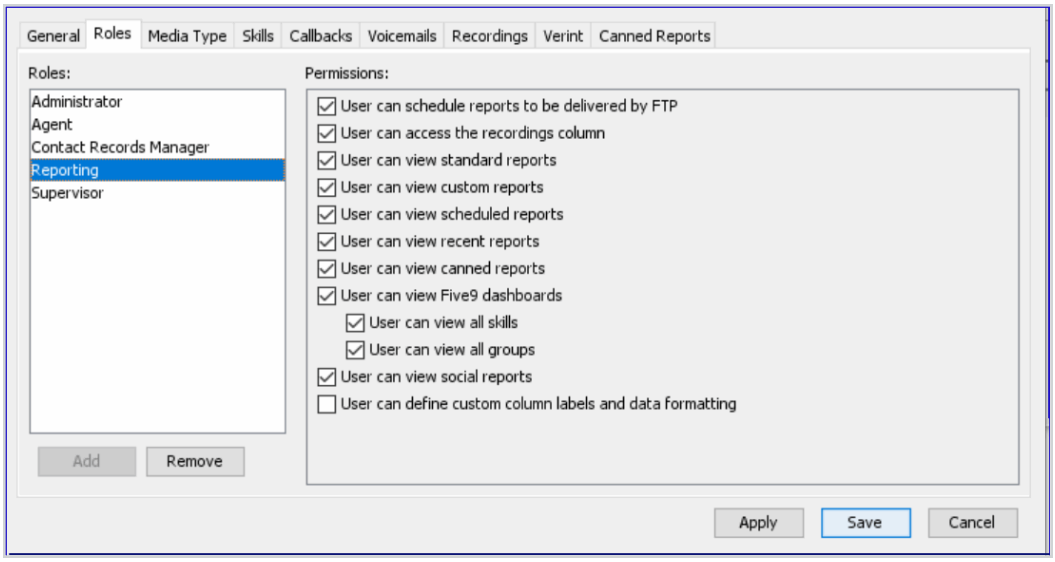
Contact Records Manager Permission

Users with contact records manager permissions can access the Web2Campaign API.



Reporting Permissions

Users with reporting permissions can run reports in the Dashboards and Reports Application. Users who need access to Dashboards must be given explicit permission. Supervisors are able to see only the dashboards and run reports for their assigned campaigns and skills.



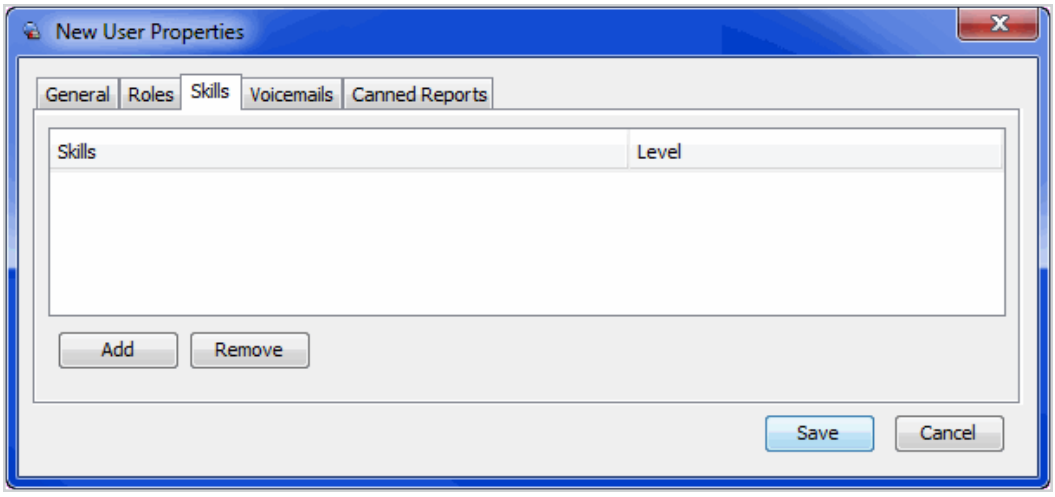
Primary Permission	Secondary Permission	Description
User can schedule reports to be delivered by FTP		Can schedule reports to be delivered by email or FTP delivery several times each day. Can send email reports to several addresses.
User can access the recordings column		Can access only the Recording column and links to recordings. Enabled by default.
User can view standard reports		Can access the reports that contains the major categories of data.
User can view custom reports		Can access the customized standard reports and custom reports.
User can view scheduled reports		Can access the reports scheduled by users.
User can view recent reports		Can access the recently generated, exported, or scheduled reports.
User can view		Can access the Canned Reports, which can be run only

Primary Permission	Secondary Permission	Description
canned reports		by users with the reporting role.
User can view Five9 dashboards	User can view all skills	Can access Five9 dashboards to view and run dashboard reports and view Key Performance Indicators (KPIs) for the contact center.
	User can view all groups	By default, supervisors with permission to view dashboards can see only the dashboards for the skill and groups to which they belong. If a user should have permission to see all skills or groups, check the box for that specific permission.
User can view social reports		Can access social reports (chat, email, and social) only if you are licensed for text channels.
User can define custom column labels and data formatting		Can fully customize report labels and display column formatting.

Assigning Users to Queues

Queues contain the interactions that agents can process and the tasks that agents can perform in a campaign. In the Skills tab of the agent's properties, you assign queues to the agent. The Level option represents the priority of the queue for this agent. Level 1 is the highest priority. Different agents may be assigned the same queues, but the priority for each agent may be different. For example, when interactions are routed to agents who are assigned the same queues, agents who have the highest Level (priority) may receive interactions first, depending on the distribution method that is selected. Note that other factors can affect how interactions are routed. For a description of these factors, see **Setting the Distribution of Interactions**.

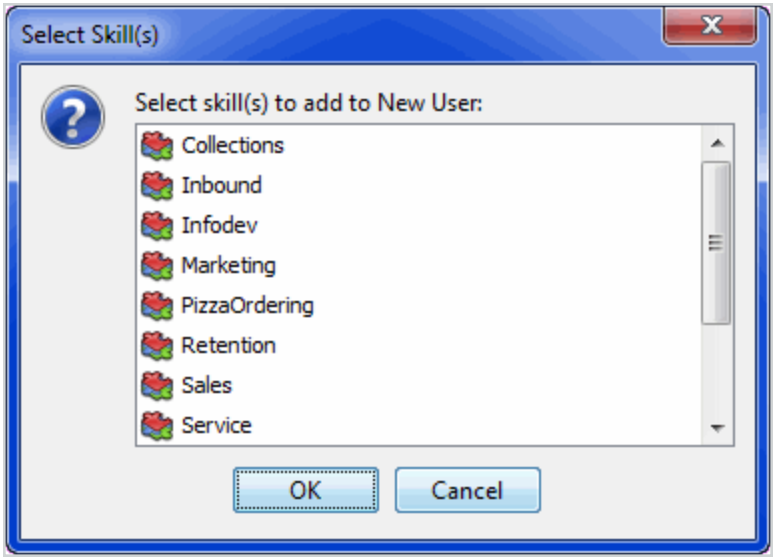
Selecting Queues for Agents



1 Click **Add t**o assign a user to one or more queues.

Queues organize your agents and supervisors according to tasks and responsibilities. You can also add agents to a queue from the Properties window of the queue.

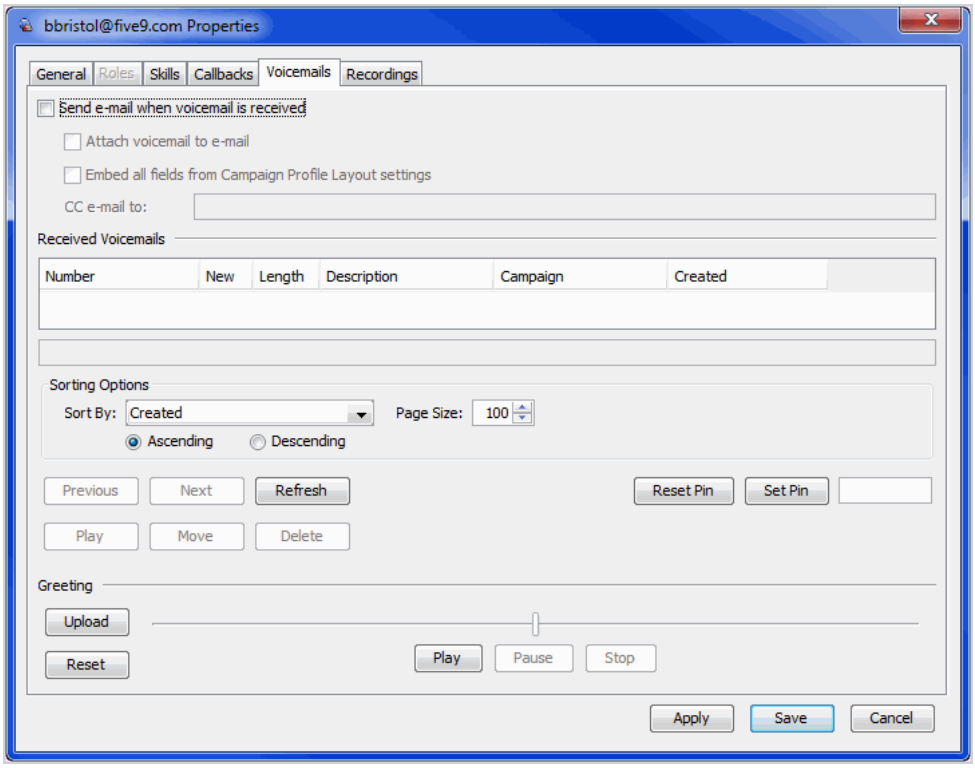
2 Select one or more queues to assign to an agent.



3 Click **OK**.

4 Select the **Voicemails** tab to define how a user can interact with voicemail messages.

See Managing User Passwords and Voicemail PINs and Managing Voicemail Greetings.



5 If you have assigned the reporting role, click the **Canned Reports** tab.

See also, Managing Canned Reports.

6 To save the new user, click **Save**.

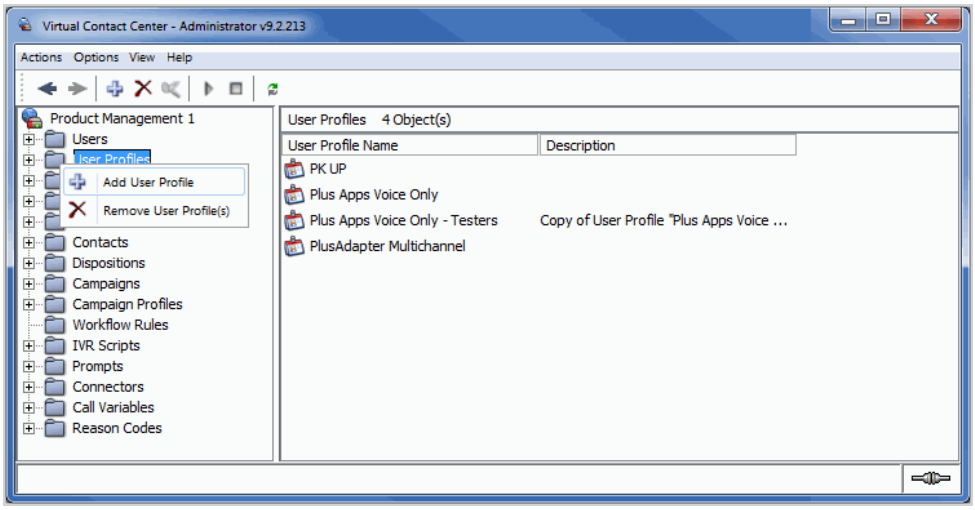
Defining User Profiles

User profiles enable you to create and assign specific user options, such as roles, permissions, and skills, to groups of users. Additionally, they enable you to control the default field layout and contact record search conditions for group members.

Assigning a user profile overwrites any previously configured roles, permissions, and skills options for users. You can also assign a user to a user profile in the user properties (see Accessing User Properties).

Adding User Profiles

1 In the navigation pane, right-click User Profiles, and select **Add User Profile**.



2 Configure the properties as for a new user.

See Adding Users.

Tab	Actions or Definitions
General Tab	Enter the name and description of the user profile and list of members. Click **Add** to assign the profile to users. Click **Remove** to remove a user from the list. **User Time Zone:** Date and time fields displayed to users. You can choose a specific time zone, or you can let the system detect the user's time zone. **Locale:** If your domain is enabled for multiple languages, you can change the language displayed in the user applications to any language supported in your domain. This value overrides the value selected by the agent. The Administrator, Supervisor, and Reporting roles can override the default locale.

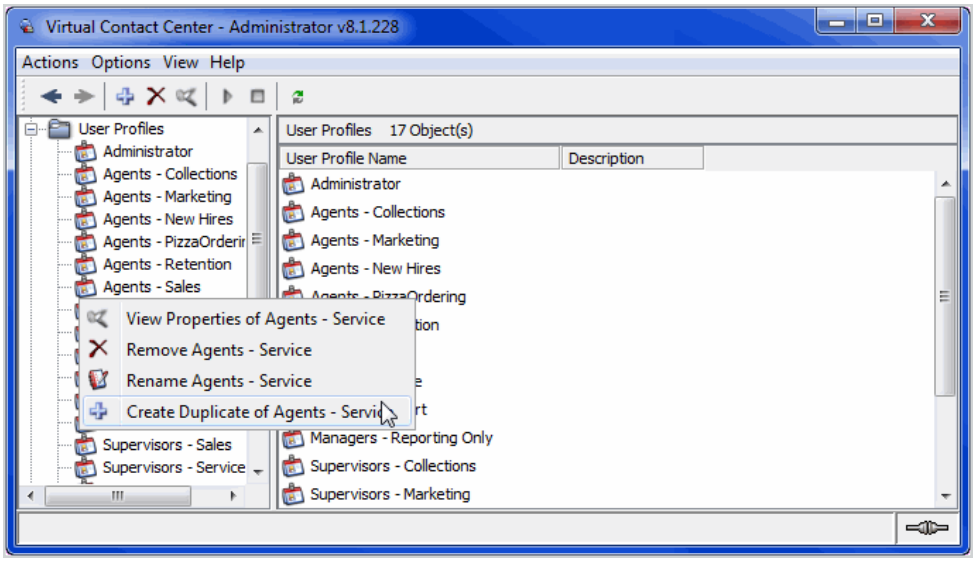
Tab	Actions or Definitions
Roles	Assign or remove roles and permissions. See **Assigning User Roles and Permissions**.
Media Type	See **Setting the Media Types for Text Channels**.
Skills	Manage skill groups. Enabled only for users with the agent or supervisor roles. See **Managing Skill Group Users** and **Accessing User Properties**.
Layout	Select contact fields and variables shown to agents and which fields they can edit when handling calls for a campaign associated with the profile. You can control how the fields are displayed by configuring the width of the fields, you can move fields up or down, and you can preview the layout. See **Configuring a Campaign Profile Layout**. User profiles do not allow you to show call variables as part of the layout because agents in a user profile may work with various campaigns. Different call variables may apply to each campaign.
	Allow User to View/Edit the Following Fields Only: users assigned to the profile can access only fields listed in the Data Fields table. If this option is disabled, the default global contact field options apply.
	Add, Edit, and Delete: manage contact fields in the profile.
	Up and Down: arrange fields in the table. The order determines the display order of the fields in the agents' desktop.
	Preview: preview the contact field layout.
	Show Contact Record Sessions Posted by Other Users: users assigned to the profile can access all information about previous calls from other users, including their notes, in the Contacts tab of the agents' desktop.
	Users Can Perform Lookup: users assigned to the profile can search contact records in the Contacts tab of the agents' desktop. In the following field, you can also limit the accessible lookup data by configuring the Record lookup Condition.
	Contact Record Lookup Condition: filter the results that the users receive when searching for a contact record. Click Edit to access the Condition pop-up dialog, where you can configure one or several criteria and link them by logical operators (OR/AND).

Duplicating User Profiles

Follow these steps.

1. In the navigation pane, select the profile that you want to duplicate.
2. Right-click the user, and select **Create Duplicate**.

   The properties are copied to a new object called <original object name> - Copy. The duplicate property window opens. The roles, skills, permissions, and layout configuration are copied.



3. Enter the information for the duplicate profile.

Setting the Media Types for Text Channels

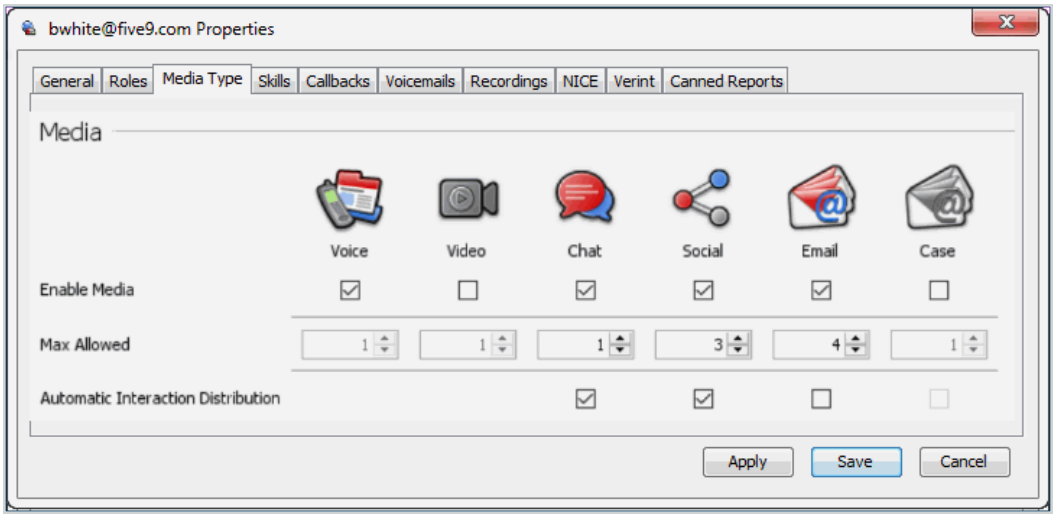
If your contact center is using text channels and the implementation is complete, you see the Media Type tab in the Properties tab. Some configuration is required in VCC and some in the Text Channel server. Use the Media Type tab to define which types of interactions each user may have with contacts.

For each user, you can define the allowed types of interactions. Depending on their assigned skills, agents can interact with your customers through voice and any combination of text channels. Agents respond to incoming requests coming from email, chat, or social tools, such as Facebook and Twitter. Text channels are available only with inbound campaigns. Voice interactions can be configured for inbound and

outbound campaigns. If your domain is enabled for Five9 Engagement Workflow, this media type panel also enables you to select Salesforce Chat and Case media types for interaction routing.

Important

To route Salesforce cases to agents, enable Chat and Case media types.



If your contact center uses text channels in addition to voice, specify which of the channels each agent can use and the maximum number (**Max Allowed**) for each type of interaction that the agent can have at any time. In this example, the agent is allowed to engage in all media channels.

If Intelligent Routing is enabled, incoming requests are automatically presented to the agent to accept or reject until the specified maximum number is reached. If Intelligent Routing is disabled, the agent can select interactions manually (or *cherry pick*) from the queue. In this example, Social is not enabled so the agent may select a new social request from the media queue if the agent has not reached the task limit.

Managing Agent Groups

Creating agent groups enables you to simplify user configuration. Users can be grouped by skills, their role in a campaign, or other designation. Only users assigned the agent or supervisor roles may be added to agent groups.

Supervisors can filter agents based on groups. In the **Agents** tab of the Supervisor application, select

View > Filter Agents by Groups > Individual Groups > Group Name

or

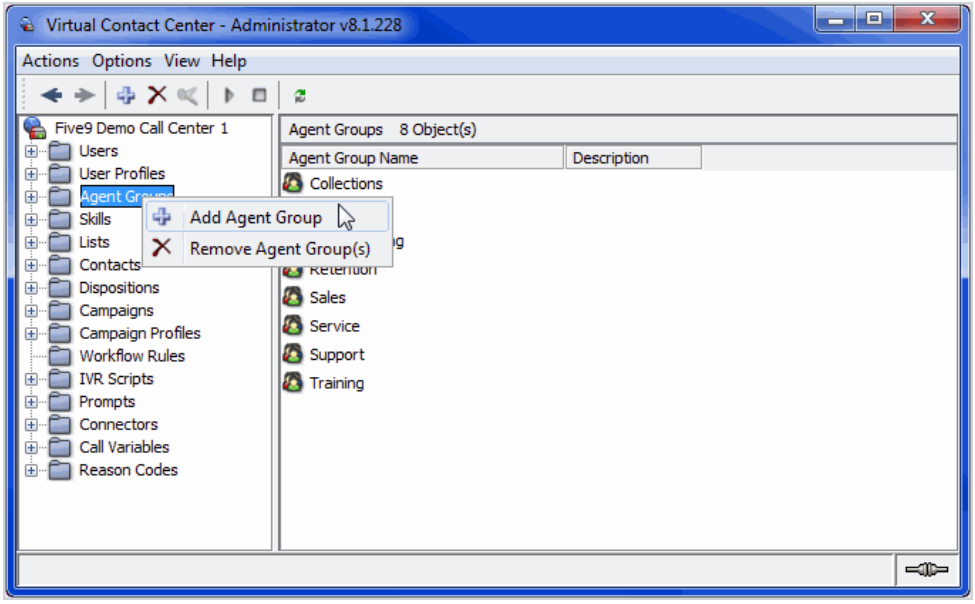
View > Filter Agents by Groups > All Groups.

Supervisors might not have permission to see all skills and all agent groups. Supervisors can broadcast a message to groups and skills to reach all agents with the definitions in common.

Agent groups appear in agent reports. For example, reports can show how effectively supervisors manage the groups by running a report that shows which agent group occupancy is higher (which supervisor is more effective in keeping the agents busy).

Creating Agent Groups

1 In the navigation pane, right-click Agent Groups, and select **Add Agent Group**.



2 Name and describe the group.

3 To add users to the group, click **Add**.

4 Click **Save** to save the user definition.

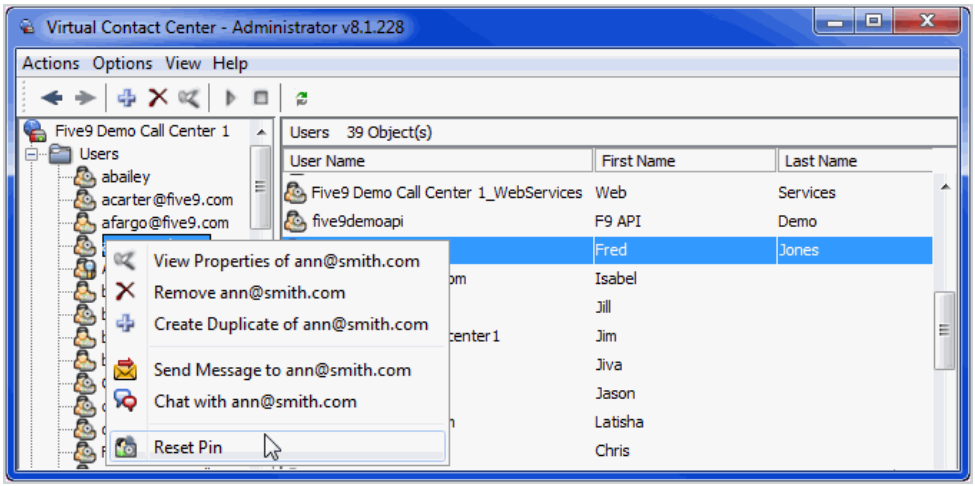
Duplicating Agent Groups

When you copy an agent group, all agents in the original group are copied to the new group.

1 In the navigation pane, select the agent group that you want to duplicate.

2 Right-click the group, and select **Create Duplicate**.

The properties are copied to a new object called <original object name> - Copy. The duplicate property window opens.



3 Enter the information for the duplicate.

Managing User Passwords and Voicemail PINs

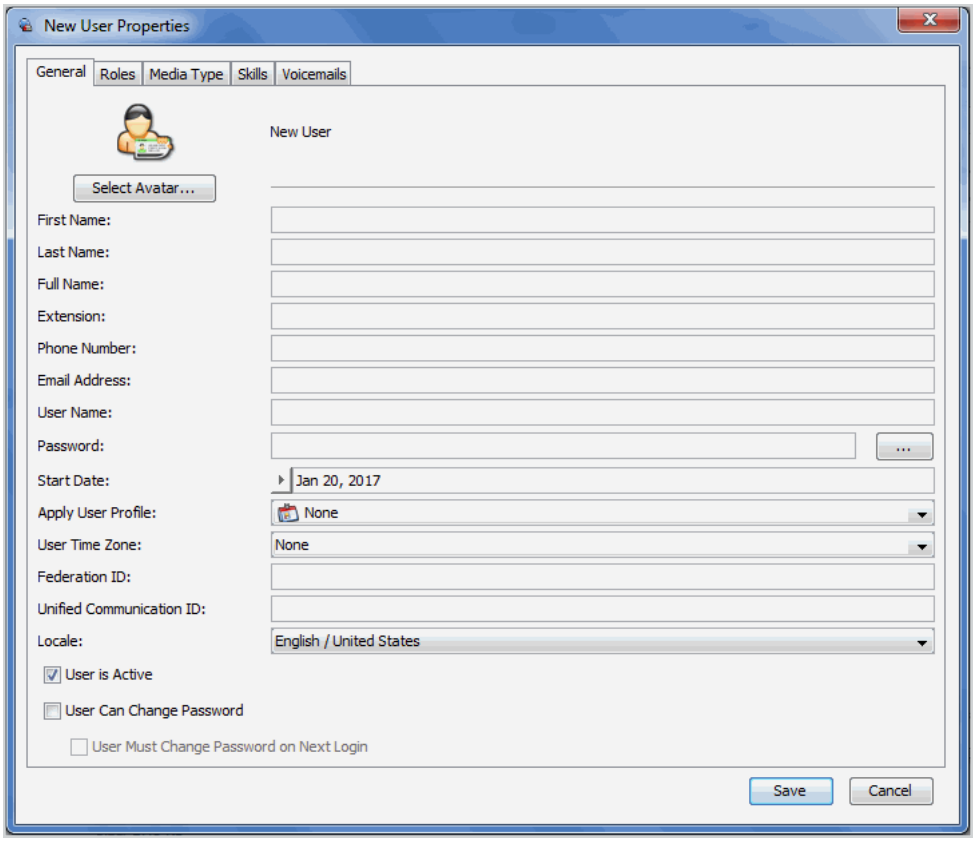
Passwords must meet the specified requirements. For example, passwords cannot match the user name. See also **Defining Single Sign-On Identity Providers**.

Changing Passwords

Follow these steps.

1 Double-click the user, or right-click and select **View Properties**.

2 To change the password, click the dotted button.



3 Type a new password.

The password must contain at least six characters.

Your current and maximum character count is shown as you enter a password. The **Update** button is enabled once the password requirements are met.

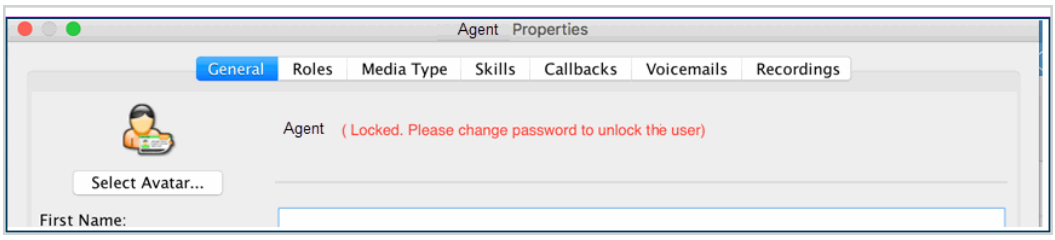
4 Click **OK** and then **Save** or **Apply** to save your changes.

Note

Your current and maximum character count is shown as you enter a password. The **Update** button is enabled once the password requirements are met.

Unlocking Users

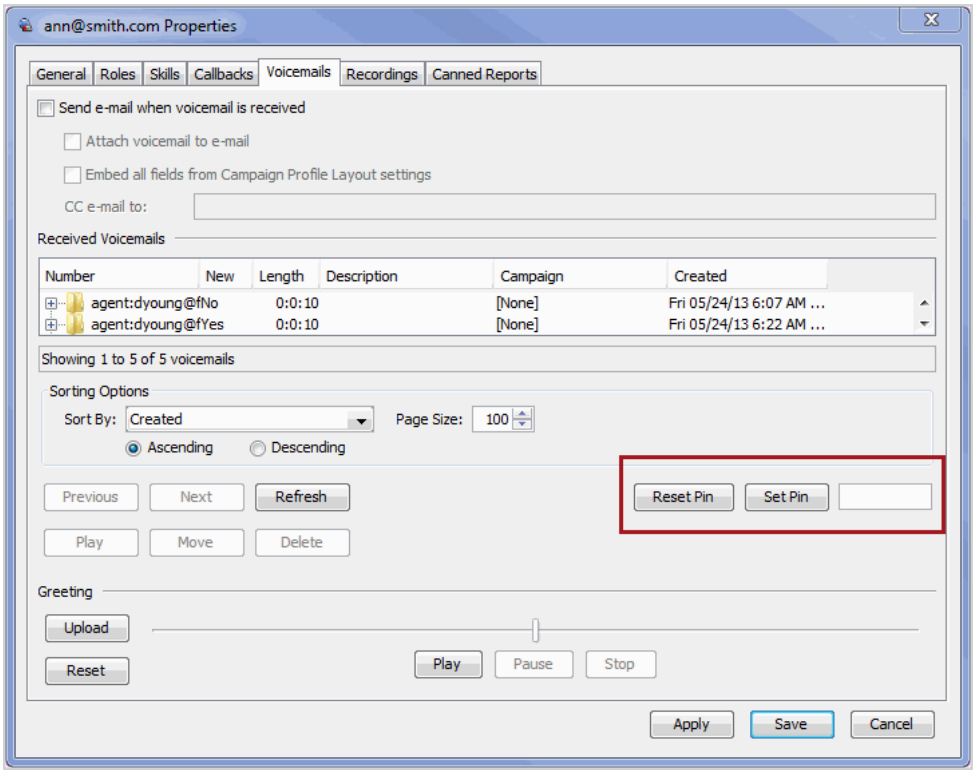
User accounts can be locked when the maximum allowed number of incorrect login attempts is reached. You can identify locked-out users by viewing the user properties, shown below.



Locked-out users must contact you to reset the password.

To unlock users, follow these steps:

1. Access the user properties.
2. Change the password to a temporary password.
3. Check **User Can Change Password** and **User Must Change Password On Next Login**.



4 After the changes are complete, click **Save** or **Apply**.

Managing Voicemail

Agents can receive messages when they are not available to answer calls or when calls are transferred. Messages are WAV files that are transferred to users by using Java RMI, which uses encryption.

Important

No email notification is sent until an email to receive error messages is configured in **Actions > Configure > Email**.

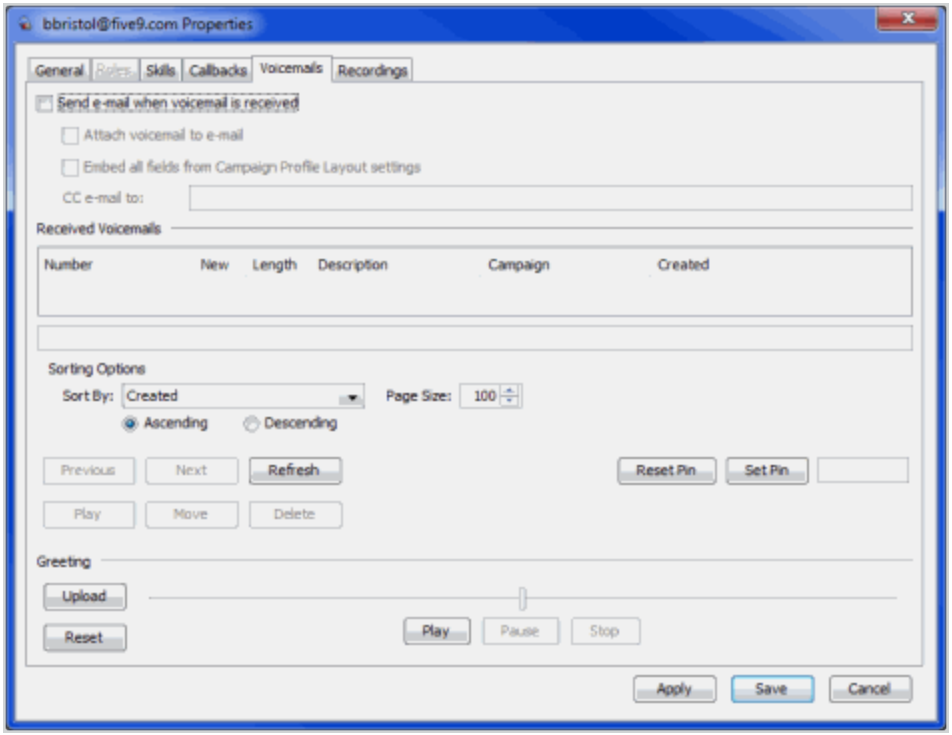
Accessing Voicemail Messages
Enabling Voicemail Notification
Transferring Messages
Listening to Voicemail Messages
Resetting PINs

Accessing Voicemail Messages

1 Double-click a user name, or right-click and select **View Properties**.

2 Select the **Voicemails** tab to define summary information about messages:

- **Number:** Phone number of the person who left the message. If the message is the result of an internal call, this column contains the user name of the caller, for example: `agent:egrace`.
- **New:** Whether the file is new.
- **Length:** Length of the message in hours:minutes:seconds.
- **Description:** Message.
- **Campaign:** Associated campaign. If the message is not associated to a campaign, [None] is displayed.
- **Created:** Creation date and time of the message.



Enabling Voicemail Notification

In the **Voicemails** tab of the user's properties, define these options:

Send email when voicemail is received	Send a notification email to the user for each message received.
Attach voicemail to email	Attach a WAV file of the voice message to the email. Therefore, users do not need to log in to agent or administrator applications to listen to messages, which can be played with any computer media player. See **Defining Email Notifications** and **Managing Skill Voicemail Messages**.
Embed all fields from Campaign Layout settings	Include the additional data about the call in the email. Recipients do not need to go to the agents' desktop. Define in the Layout section of the campaign properties the data to send in the email notification. The format of the data must be easy to parse by a script or program. Place each field-value pair on a separate line and delimit the field and data with a colon followed by a comma (:.)

	Example Campaign Layout Settings:
	`$FIELDS: START`
	`Primary: 011119252012078`
	`Call.ANI: 011119252012078`
	`Call.DNIS: 9254183250`
	`Call.type: 2`
	`$FIELDS: END`
	Example email:
	`Dear <firstname> <lastname>,`
	`You have received a new message from 011119252012078 Thu Aug 02 15:20:08 PDT 2012`
	`$FIELDS: START`
	`Primary: 011119252012078`
	`Call.ANI: 011119252012078`
	`Call.DNIS: 9254183250`
	`Call.type: 2`
	`$FIELDS: END`

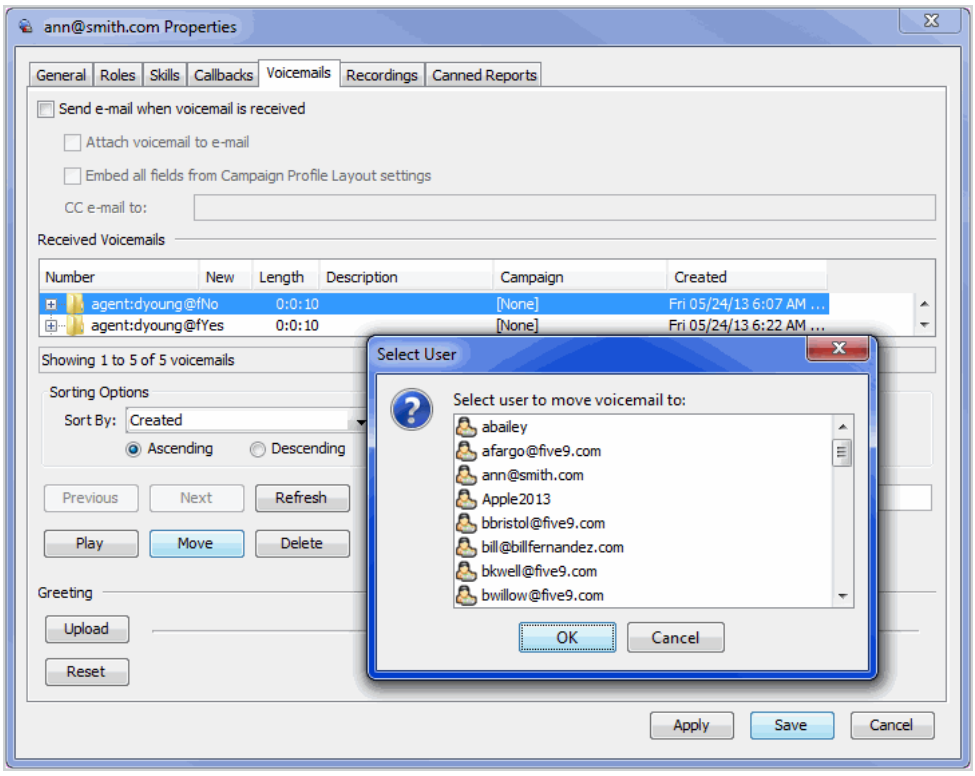
CC e-mail to:	Email address of up to five recipients. Separate the addresses with commas.

Click **Save** or **Apply** to save your changes.

Transferring Messages

You may assign voicemail messages to other users.

1. In the **Voicemails** tab of the user's properties, select one or more messages.
2. Click **Move**.
3. Select a user recipient.



4. To move the message from the sender's to the recipient's list, click **OK**, and **Yes**.

Listening to Voicemail Messages

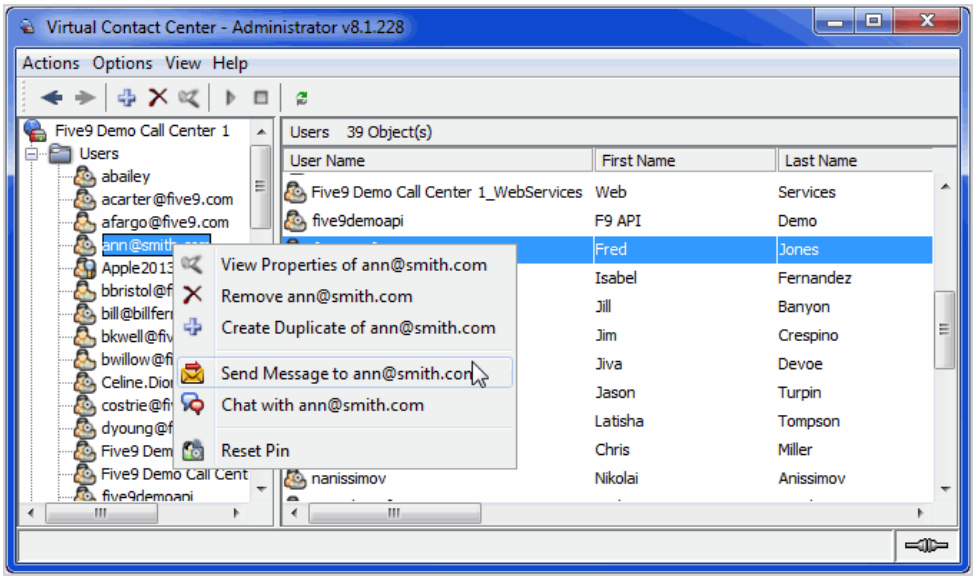
The message is played in your default media player.

1. In the **Voicemails** tab, select a message.
2. Click **Play**.
3. To delete messages, select one or more messages.
4. Click **Delete**, and **Yes**.

Resetting PINs

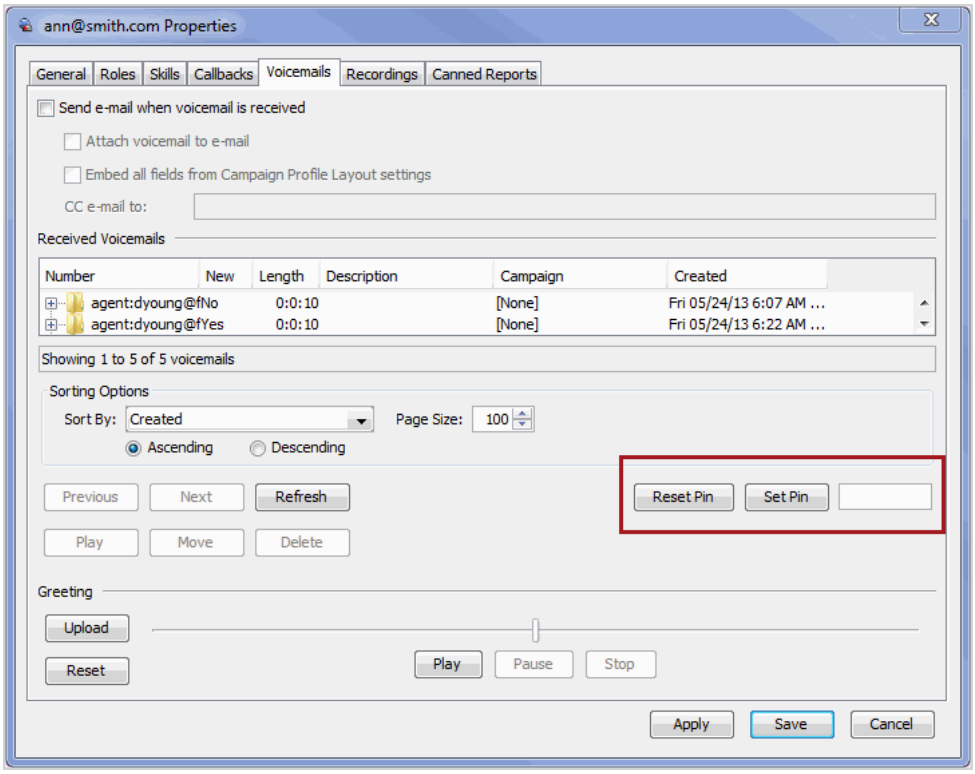
When you access voicemail through your phone, a secure Personal Identification Number (PIN) is required to access the voicemail storage box. The PIN is a string that can contain up to eight digits ["0. . 9"]. The field is empty for new users. Agents can set or change their PIN only by calling a dedicated phone number. The extension number and the PIN enable agents to listen their new and saved messages.

- In the navigation pane, right-click **Users**, and select **Reset Pin**.



- Alternately, you can set the PIN in the Voicemail tab of the User Properties screen. Click **Reset Pin** in the Voicemails tab of the user properties. See also

[Managing User Passwords and Voicemail PINs](#).



The message says that the PIN of the user has been successfully reset. Click **OK**. If you reset the PIN, the user will be prompted to set a new PIN next time they log into voicemail.

Managing Voicemail Greetings

A greeting is a message played to callers when a call redirects to the voice mailbox because the agent didn't answer. You can configure greetings for skill and personal messages. For more information about skill mailbox greetings, see [Managing Skill Voicemail Greetings](#).

If your agents have a personal voice mailbox, you may upload a personalized greeting for each agent to replace the default greeting. Five9 recommends that you use personalized greetings if you transfer calls directly to agents in your IVR scripts or if agents transfer calls to other agents. Agents can record their greetings by calling a number added by the administrator to the campaign and may upload custom greetings.

You may also use the Voice Input module in an IVR script. See also Interactive Voice Response (IVR) Administrator's Guide.

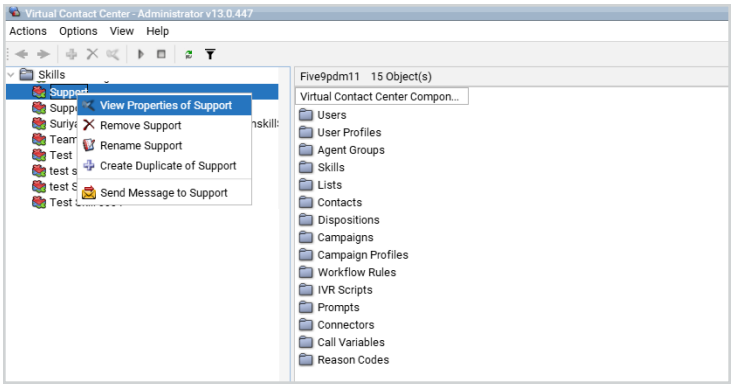
If you or the agent resets the greeting, the system deletes the uploaded greeting and uses the default greeting instead.

The supported format for new files uploaded to the system is WAV audio, ITU G.711 mu-law, mono 8000 Hz. In some applications, it's also listed as CCITT u-Law, 8.000 kHz, 8 bit, Mono, 7 kb per second. See **Managing Voice Prompts**.

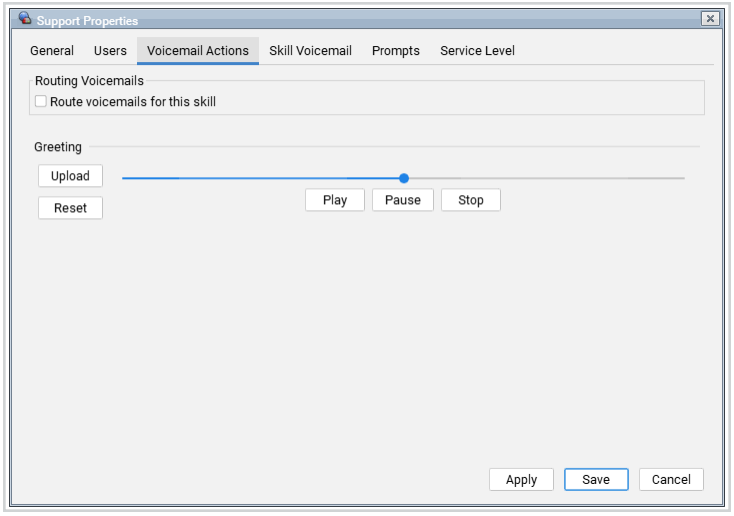
Uploading Greetings

The last uploaded file overwrites the earlier one. The files that you upload don't have priority over those uploaded by agents.

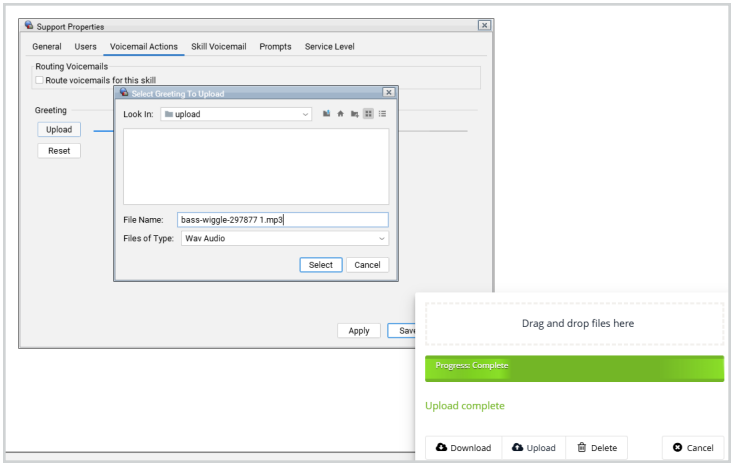
1 In the Administrator Application, expand the **Skills** folder on the left navigation pane, right-click **Support**, and then select **View Properties of *[Skills name]***.



2 In the **Voicemail Actions** tab of the Support Properties, select the **Upload** button.



3 Browse to the Wav Audio file and then click the **Select** button.



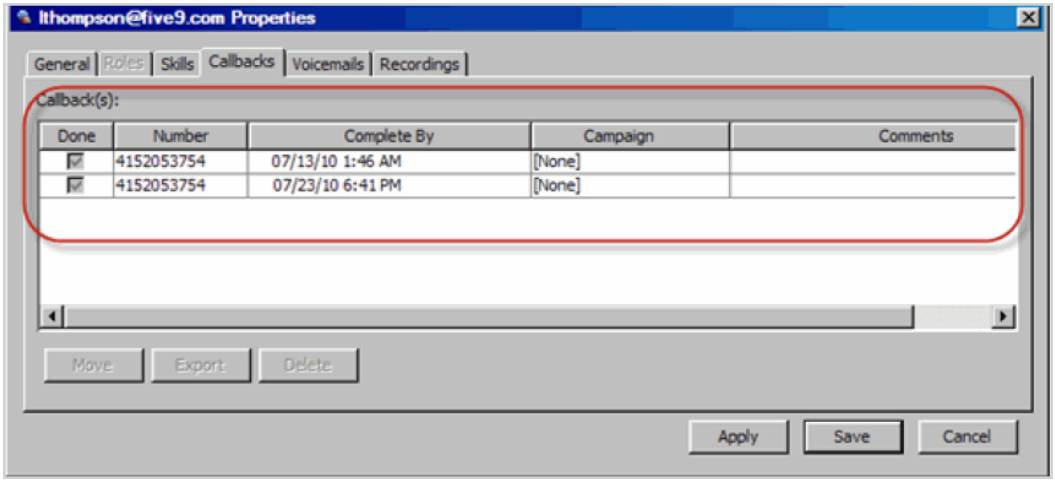
Listening to Greetings

In the **Voicemails** tab, click **Play**. The process can take some time. The system enables the **Pause** and **Stop** buttons.

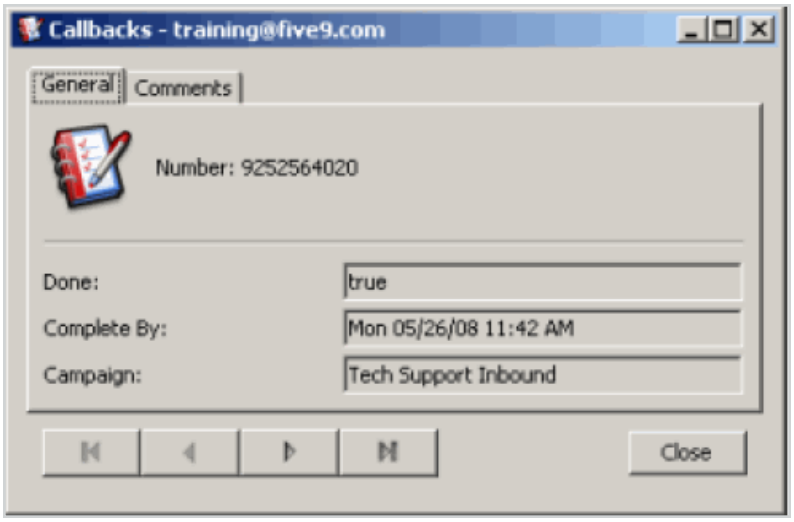
Managing User Callbacks

The Callbacks tab appears in the user's properties after the user has been created. Agents can schedule a date and time to return a call and can receive reminders of the scheduled callbacks. The callback list shows this information:

Done	Whether the call has been returned.
Number	Phone number to call.
Complete by	Date and time of the scheduled callback.
Campaign	Campaign associated with the callback.
Comments	Text entered by the agent about the callback.



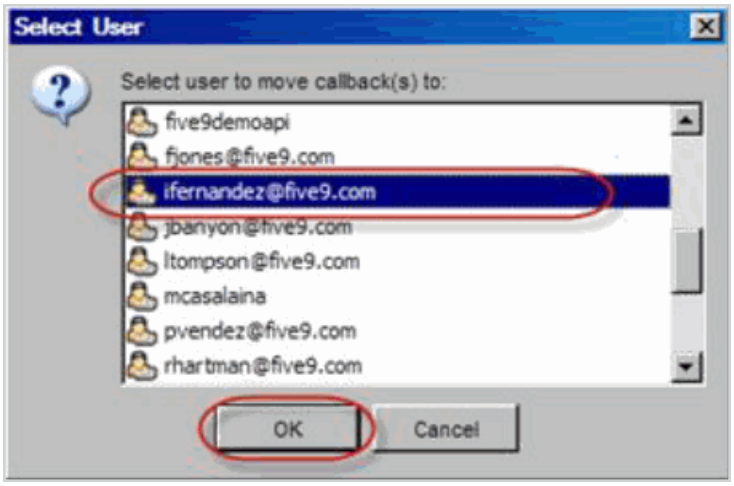
To see the details of a callback, double-click the callback.



Transferring Callbacks

Follow these steps.

1 To transfer scheduled callbacks, select a callback and click **Move**.



2 Select a user, and click **OK**.

3 Click **Yes**.

Exporting Callbacks

The callback data are exported as a CSV file. The first row in the file contains the names of the fields.

1. Select callbacks.
2. Click **Export**.
3. Select a folder, and click **Export**.

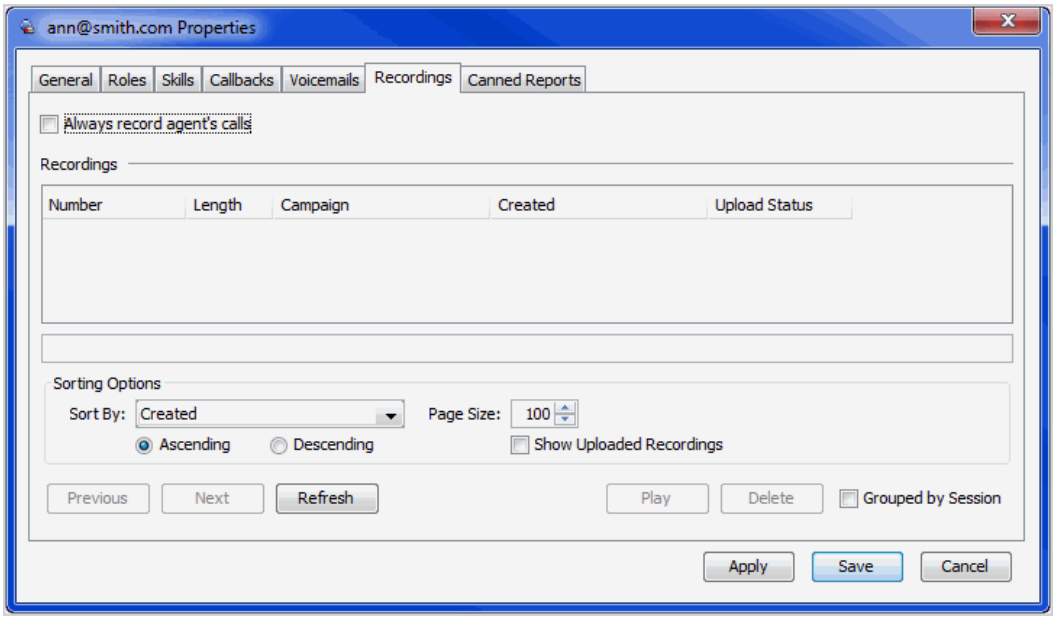
Managing User Recordings

The Recordings tab appears in the user's properties after the user has been created. Recordings are WAV files containing the agent's conversations during call sessions.

The default maximum call recording length is one hour for each call. To increase the maximum recording length to up to three hours, contact your Five9 support representative. By default, the number of simultaneous call recordings is limited to 20% of the provisioned agent seats.

The recorded calls are listed in the Recordings tab:

Number	Phone number associated with the call.
Length	Length of the recording (hours:minutes:seconds).
Campaign	Campaign associated with the call.
Created	Creation date and time of the recording.
Upload Status	Upload status of the recording.



You can sort recordings as follows:

Sort By:	Sort Criteria
Number	Phone number associated with the call.
Length	Length of the recording.
Campaign	Campaign associated with the call.
Created	Creation date and time.
Ascending or Descending	Ascending or Descending order
Page Size	Number of the recordings per page.
Show Uploaded Recordings	If checked, the uploaded recordings are shown.
Grouped by session	Groups recordings by calls. Some calls can have multiple recordings.

To always record the agent's calls, check **Always record agent's calls**.

To listen to a recording, select the recording and click **Play**. The recording is played with your default media player.

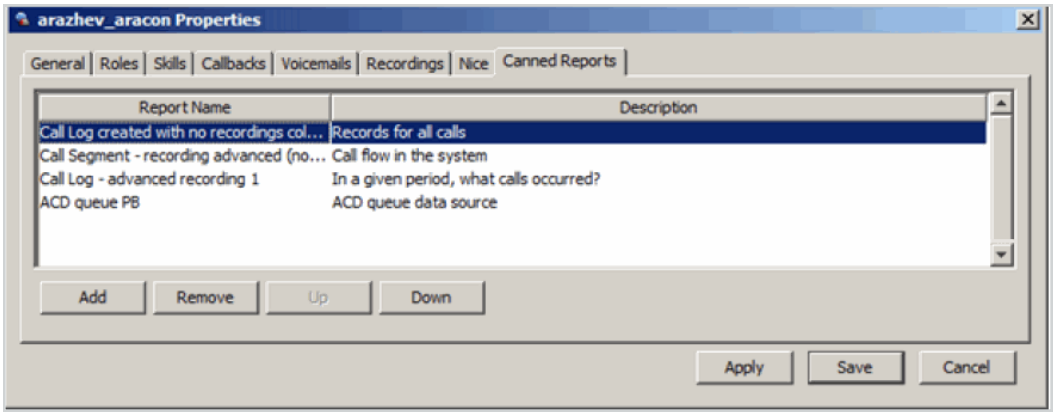
To delete a recording, click **Delete**, and **Yes**.

Managing Canned Reports

Canned reports can be configured only for users with the reporting role. The **Canned Reports** tab is not visible unless users have the reporting role. Users with Canned Reports access are allowed to run a limited set of reports, with no ability to create, modify, or schedule reports. Users of Canned Reports can specify only the date range before running the reports. These users cannot access reports that were not configured for them.

If you try to save a modified custom report that has been assigned to at least one user as a canned report, you receive a warning. *Changing the Canned Report will deny the assigned user access to the report*. To avoid this issue, save the report under a different name.

You can add, remove, and change the order of canned reports in this tab.

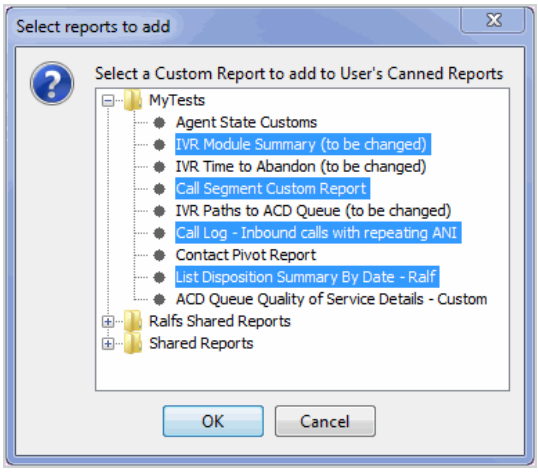


Adding Canned Reports

Follow these steps to add a canned report to a user. You can select from the list of custom reports.

1 Click **Add**.

2 Open each folder, and select the reports.



3 Click **OK**.

4 To sort the report in the list, use the **Up** and **Down** buttons.

The reports in this menu have the same order as the reports in the Reporting Portal.

5 Click **Save** or **Apply**.

Removing Canned Reports

1 Select one or more reports.

2 Click **Remove**.

3 Click **Save** or **Apply**.

Communicating With Users

You can communicate with your agents in real time by sending messages to individual users, creating a chat session with one or more users, and broadcasting messages to all logged-in users.

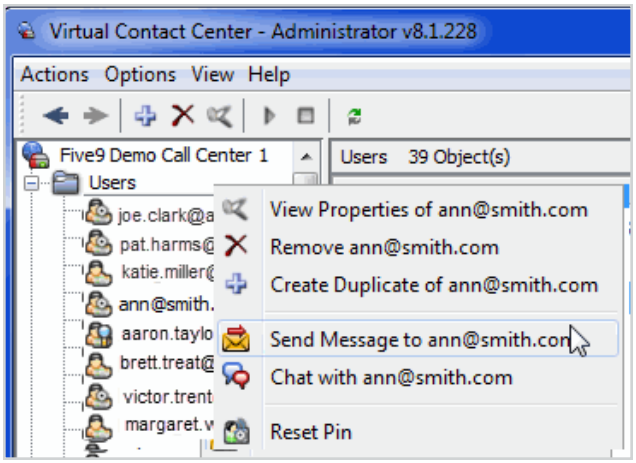
Broadcast messages are one-way communication; users cannot reply.

Use the instant message to have an interactive chat session with an individual agent, or all agents in a skill group. See **Communicating With Skill Group Members**.

Sending Instant Messages to Individual Users

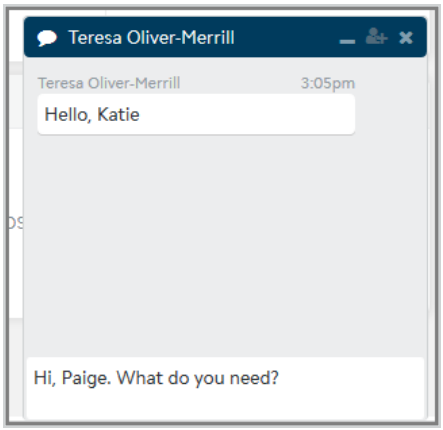
You can send messages only to users who are currently logged in.

1 Right-click a user name, and select **Send Message To User**.



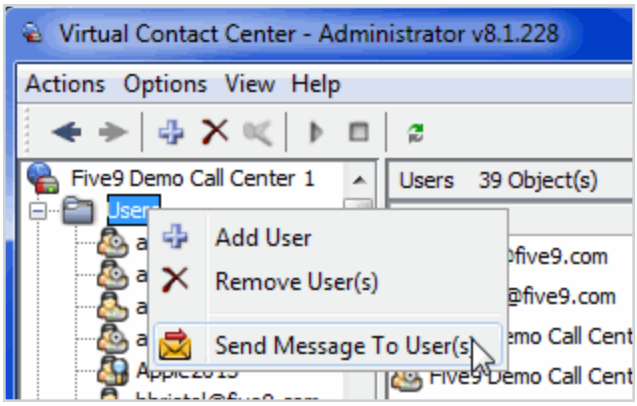
2 Type your message in the window, and click **OK**.

The message you send appears on user's screen as a popup window.

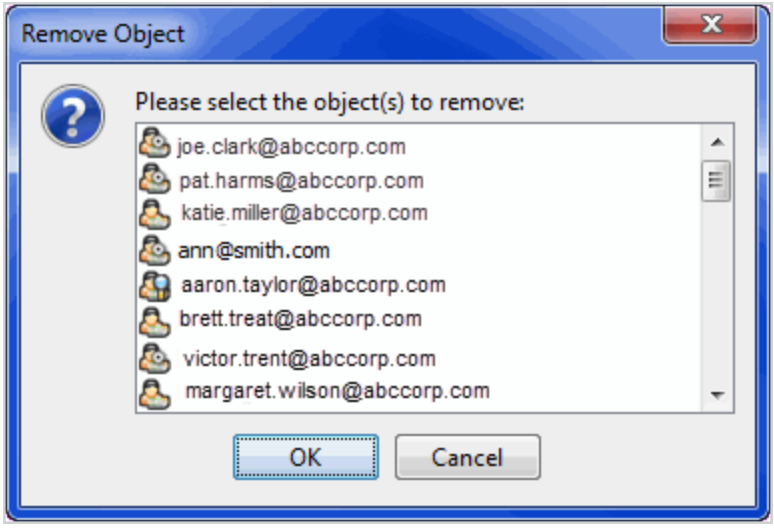


Sending Messages to Multiple Users

1 In the navigation pane, right-click **Users**, and select **Send Message to User(s)** to select the users to receive your message.



2 Select one or more users.



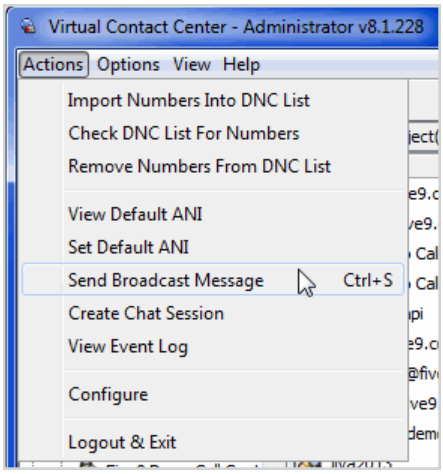
3 Click **OK**.

4 Type your message in the Message field, and click **OK**.

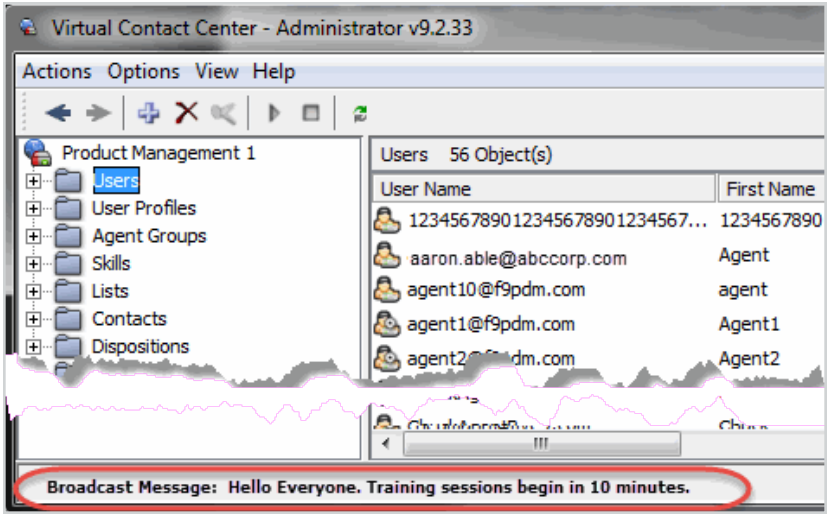
Broadcast Messages to All Users

The broadcast message appears in the footer status area on the screens of all Five9 users currently logged in.

1 Select **Actions > Send Broadcast Message**.



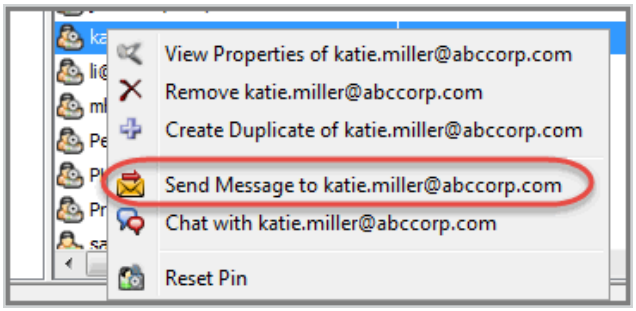
2 Type your message in the message field, and click **OK**.



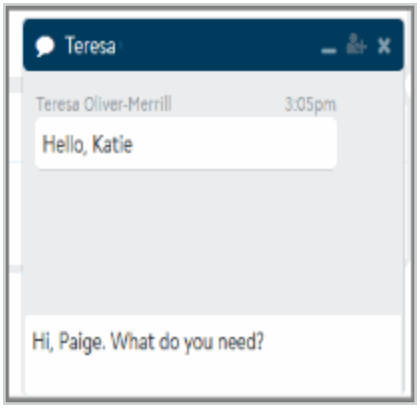
Chatting with a Single User

You can create a session from the navigation pane or from the main window.

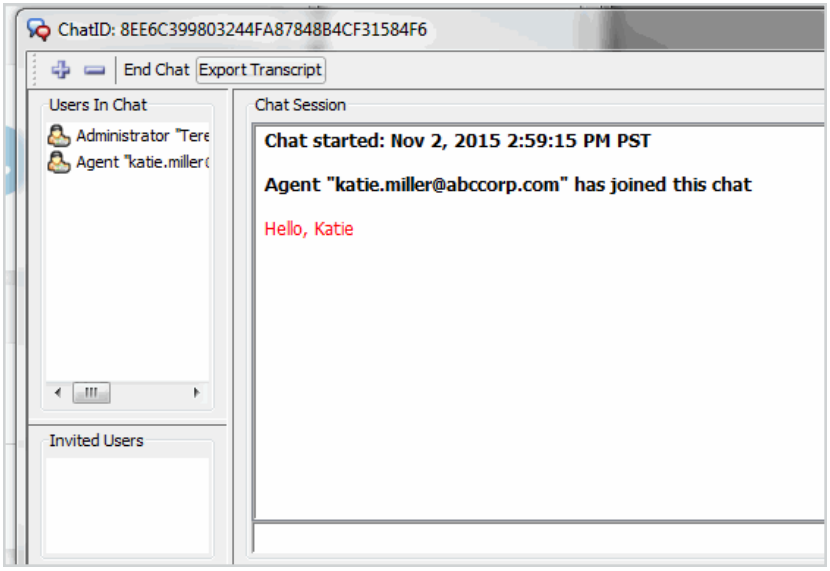
1 Right-click a user name, and select **Chat**.



2 The user you select receives a chat invitation.



3 You will receive a notice that the user has joined the chat.



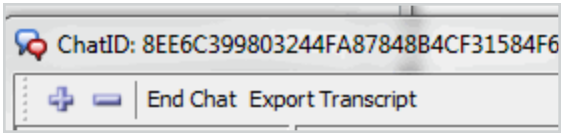
4 Exchange messages by typing in the box at the lower section of the screen and pressing **Enter**.

Chat text appears in the main section of the screen.

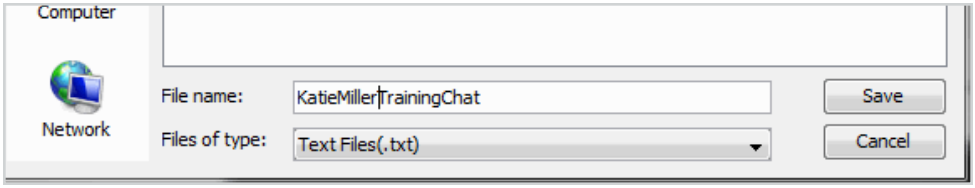
Exporting the Internal Message Transcript and Ending the Chat Session

You can export the internal message transcript and save it as a text file on your computer.

1 Click **Export Transcript** in the window header.



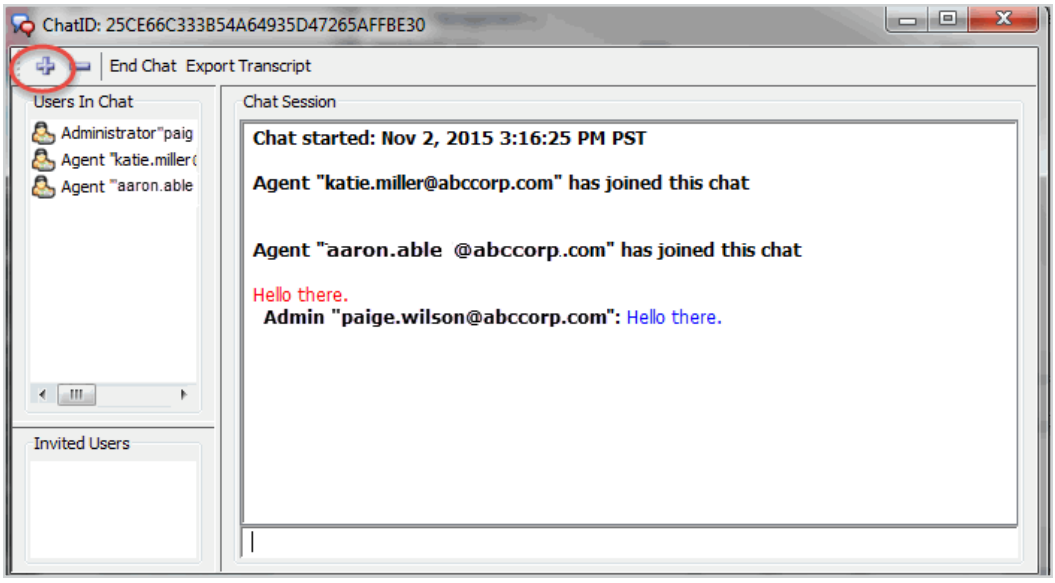
2 Specify a name for the text file when prompted.



3 To end the chat, click on **End Chat** in the window header. When prompted to confirm, click **Yes**.

Inviting Additional Users to a Chat Session

To invite additional users to a chat session, click on the plus sign (+) in the chat window header. Select the users for the chat from the list of users currently logged in.


ChatID: 25CE66C333B54A64935D47265AFFBE30
End Chat
Export Transcript
Users In Chat
Administrator"paig
Agent "katie.miller(
Agent "aaron.able
Invited Users
Chat Session
Chat started: Nov 2, 2015 3:16:25 PM PST
Agent "katie.miller@abccorp.com" has joined this chat
Agent "aaron.able @abccorp.com" has joined this chat
Hello there.
Admin "paige.wilson@abccorp.com": Hello there.

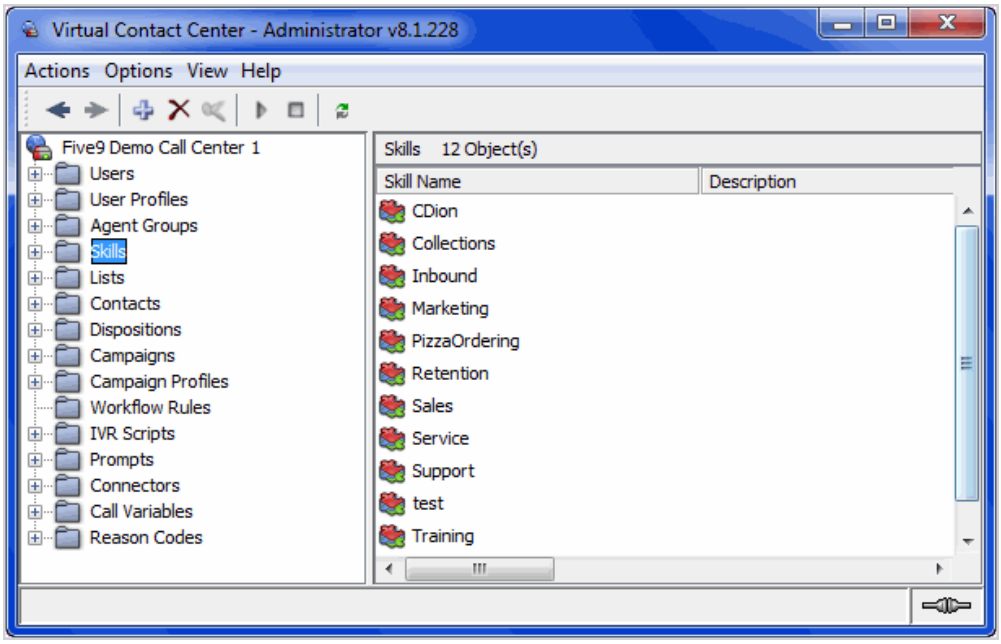
Skill Groups

Managing Skill Groups
Accessing Skill Group Properties
Managing Skill Group Users
Removing Skill Groups
Routing Voicemail Messages to Skill Groups
Managing Skill Voicemail Messages
Managing Skill Voicemail Greetings
Managing Audio Files for Skill Groups
Managing Skill Group Service Levels
Communicating With Skill Group Members

Skill groups organize users who have the agent or supervisor role into groups assigned to the call queues that are part of campaigns. Users can be assigned to multiple skill groups; campaigns can have multiple skill groups.

- Outbound campaigns: Calls initiated by the VCC dialer are routed to agents by their skill group assignments. The skill assignment is under the Skills tab of the campaign properties.
- Inbound and autodial campaigns: Calls are routed to agents who are assigned to the skill groups listed in the Outbound Skills tab of the inbound campaign properties.

For information about adding skill groups to campaigns, see *Configuring Skills* in the Campaign Administrator's Guide.

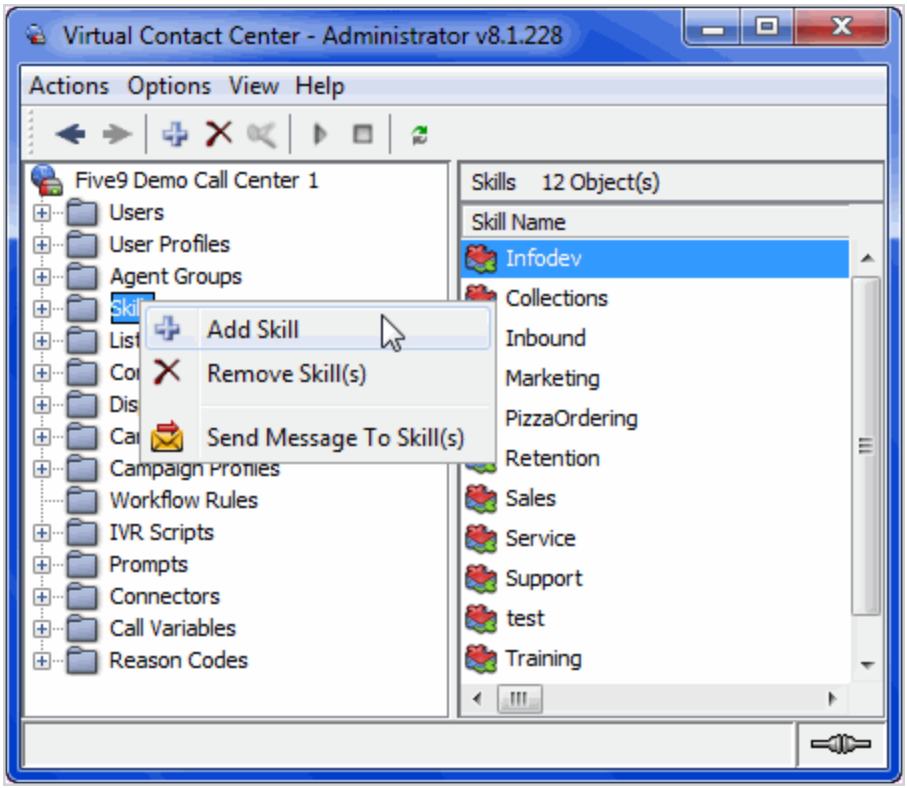


You can add, modify, and remove skill groups. You can also send a message to all the agents in a skill group.

Managing Skill Groups

Adding Skill Groups

1 Right-click Skills, and select **Add Skill**.



2 Name your new skill group.

3 Click **OK**.

4 To modify the properties of the new skill group, double-click the skill group, or right-click and select **View Properties**.

Duplicating Skill Groups

1 Right-click a skill group name, and select **Create Duplicate**.

All properties, except for skill voicemail messages, are copied to a new group called <original object name> - Copy. The property window of the duplicate opens.



2 Edit as needed.

Renaming Skill Groups

1 Right-click a skill group name, and select **Rename**.
2 Click **OK**.

Accessing Skill Group Properties

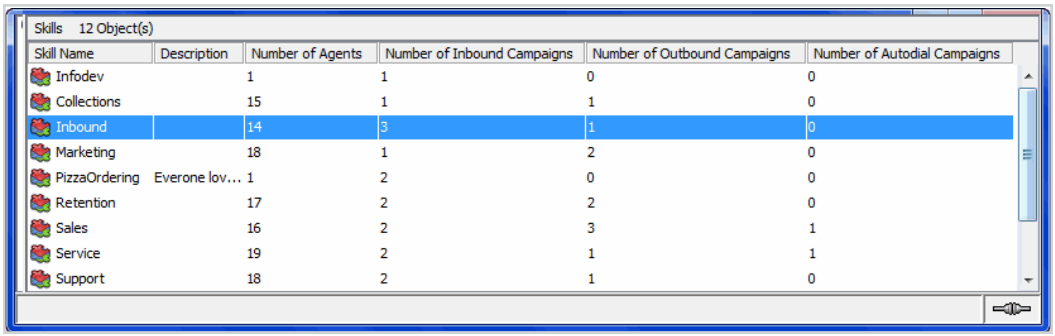
Double-click a skill group name, or right-click, and select **View Properties** to define or modify skill group properties.

Tab	Action or Function Description
General tab	Describe the skill group and message of the day for the group members. For more information about the message of the day, see **Communicating With Skill Group Members**.
Users tab	Add or remove users to or from the skill group. You can set up skill levels (priorities). For more information, see **Managing Skill Group Users**.

Tab	Action or Function Description
Voicemail Actions tab	Enable routing of voicemail messages to agents. Skill messages are delivered to agents only if the Skill Group Voicemail Routing option is enabled. For more information, see **Routing Voicemail Messages to Skill Groups**.
Skill Voicemail tab	View, play, and manage messages for a certain skill group. For more information, see **Managing Skill Voicemail Messages**.
Prompts tab	Configure skill audio files. For more information, see **Managing Audio Files for Skill Groups**.
Service Level tab	Define skill-level overrides for key performance indicators.

Save changes on each tab.

All properties assigned to the skill group appear in the main pane:



Managing Skill Group Users

Assigning Users to Skill Groups

You can assign users to skill groups in many ways. Only users with the agent or supervisor roles can be assigned to skill groups.

Assigning Skills to User Profiles

See **Defining User Profiles**.

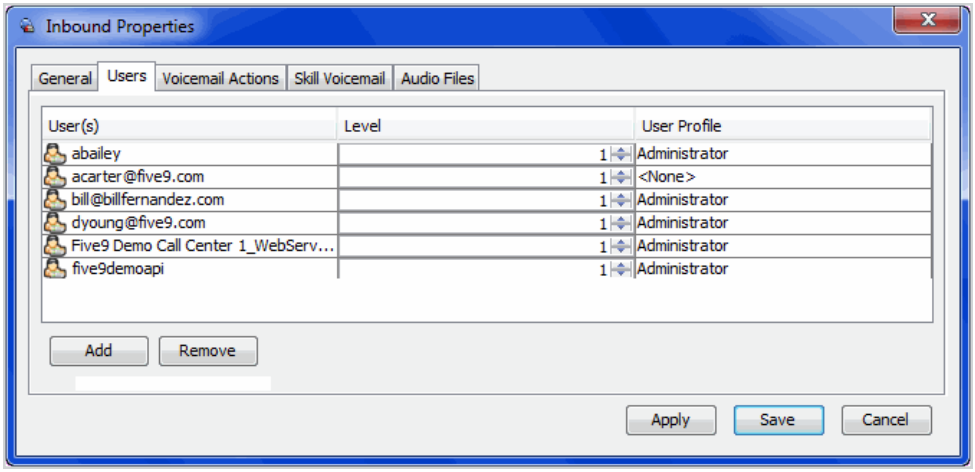
Adding Users to Skills

You can add only users who do not have a user profile.

1 Open the skill group properties.

2 Click the **Users** tab.

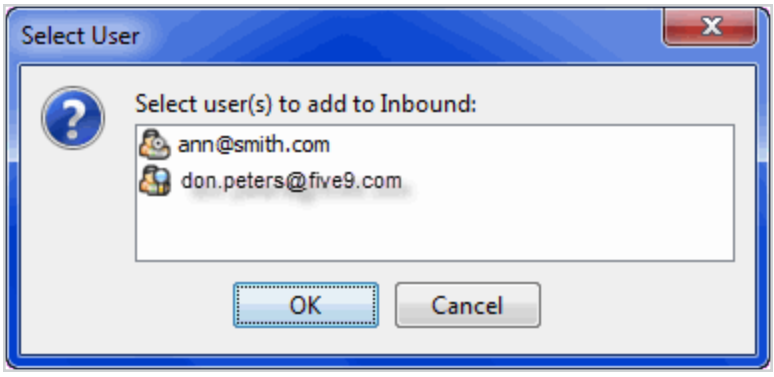
This tab contains the agents members of the skill group.



3 To add the user to the skill group, click **Add**.

4 Select the users to add to this skill group.

Only users who do not belong to user profiles are listed. To add or remove skills to users who have a user profile, edit the properties of the user profile.



5 Click **OK** to add the users.

6 To change the priority in the Level column, use the **Up** and **Down** arrows.

The Level determines the agent's priority in receiving calls sent to this skill group. Level 1 is the highest priority. Agents with higher ranking receives calls first. Users assigned to several skill groups may have a different priority level for each skill.

7 Click **Save**.

Assigning Skill Groups from the Properties of the User Account

See **Accessing User Properties**. Only users who do not belong to user profiles are listed. To add or remove skills to users who have a user profile, edit the properties of the user profile.

1 Open the User Properties window.

2 Click the Skills tab.

The Skills tab shows the skill groups to which the user belongs.

3 To assign the user to a skill group, click **Add**.

4 Select the skills to assign to the current user.

5 Click **OK**.

6 Define level options for the users.

The Level determines the agent's priority in receiving calls sent to this skill group. Level 1 is the highest priority. Agents with higher ranking receives calls first. Users assigned to several skill groups may have a different priority level for each skill.

7 To change the priority, use the **Up** and **Down** arrows.

8 Click **Save**.

Removing Users from Skill Groups

Removing Skill Groups Using User Profile Properties

This is the only option for users who have a profile. The skill groups are automatically removed from all users who belong to the profile. For more information, see **Defining User Profiles**.

Removing Users Using the Skill Properties Window

You can remove only users who do not have a user profile.

1. Open the skill group properties.
2. Click the **Users** tab.
   This tab contains the agents members of the skill group.
3. Select users.
4. Click **Remove** and **Yes**.

Removing Skill Groups in User Properties Window

You can remove only users who do not have a user profile.

1. Open the User Properties window.
2. Click the Skills tab.
   The Skills tab shows the skill groups to which the user belongs.
3. Select users.
4. Click **Remove** and **Yes**.

Removing Skill Groups

When you delete skill groups, you lose reporting information about those skill groups. You do not lose the reporting data, but the reports show **Deleted** as the name of deleted skill groups.

Deleting a Single Skill Group

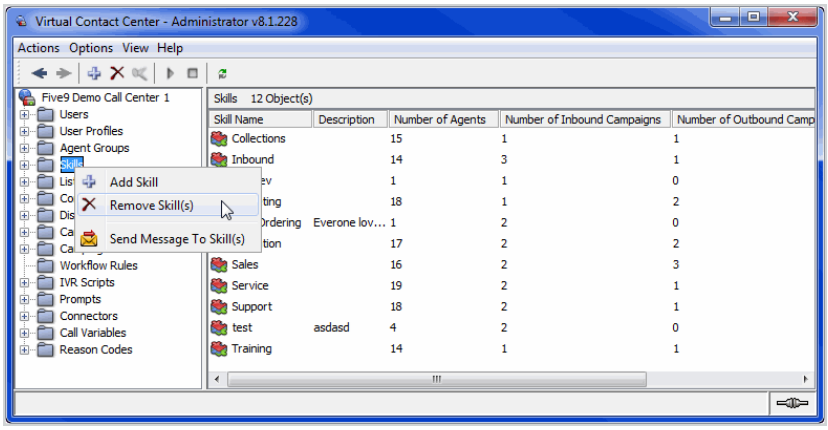
1 Right-click a skill group name, and select **Remove Skill Group**.

2 Click **Yes**.

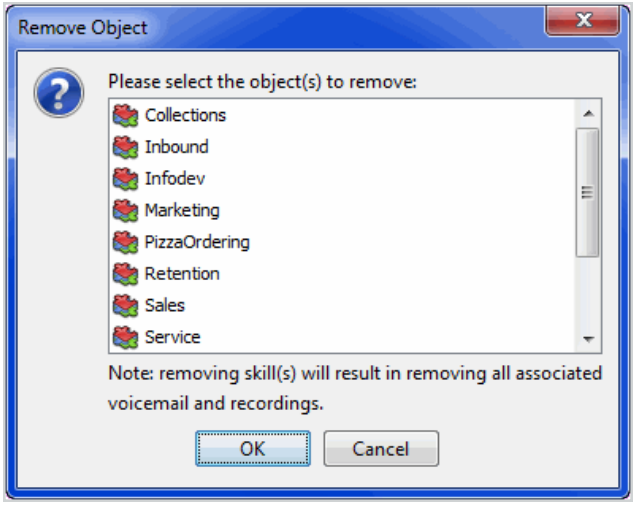
Deleting Multiple Skill Groups

Follow these steps.

1 In the navigation pane, right-click **Skills**, and select **Remove Lists**.



2 Select one or more skill groups.



3 Click **OK**, and **Yes to all** to save changes.

Routing Voicemail Messages to Skill Groups

Agents can control their availability to receive messages. Supervisors can monitor the progress of the voicemail queue at any time. You enable the routing option in the **Skill Properties** window. See also the *Skill Transfer Module* in the Interactive Voice Response (IVR) Administrator's Guide.

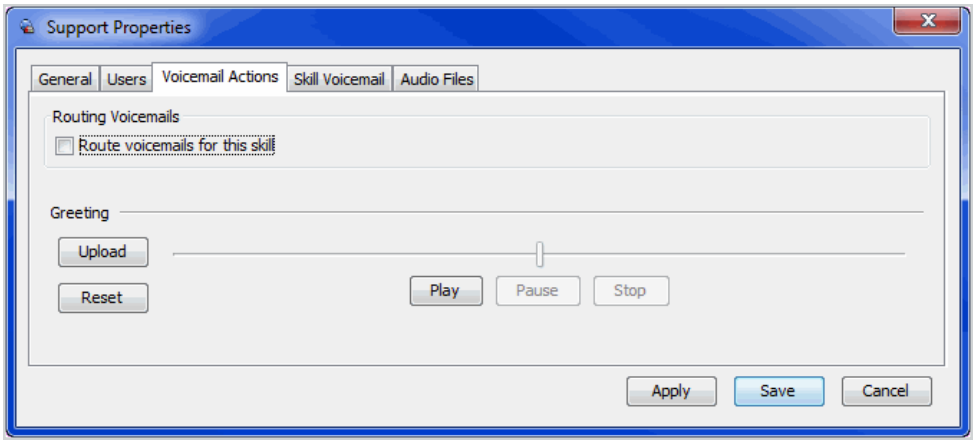
Message Routing Options

Route voicemails for this skill Option enabled: messages for the skill group are automatically delivered to the skill group agents who have the Ready for Voicemail status. If routing is not enabled for a skill group, its voicemail messages accumulate but are not delivered to agents.

Route voicemails for this skill Option disabled: administrators or supervisors can still manage skill group messages. See **Managing Skill Voicemail Messages**.

To specify the timeout, see **Defining Settings for Agent Desktop Plus** and the properties of the Skill Transfer module.

1. In the skill group properties, click the **Voicemail Actions** tab.
2. Check **Route Voicemails for this Skill**.



Managing Skill Voicemail Messages

Voicemail is used to transfer and store telephone messages to agents and or skill groups. Each skill group can be configured to receive messages. Administrators and supervisors also have access to the skill messages. Voicemail files are transferred to users by using Java RMI, which is securely encrypted.

Typical skill messages originate from IVR modules (Voicemail Transfer or Skill Transfer), internal calls to a skill group when no agents are available, and transferred personal or other skill group messages.

Skill messages are delivered only to agents who have permissions to process them and whose status is VMReady. Administrators may give to agents these permissions:

- User Can Process Skill Voicemails
- User Can Delete Skill Voicemail Messages
- User Can Transfer Skill Voicemail Messages

Supervisors can monitor the distribution of messages. They may also force agents to be ready or not ready to receive messages.

Messages are delivered to agents only if **Route Voicemails for This Skill** is enabled in the skill properties. If this option is disabled, the skill group accumulates messages, but they are not routed to agents. In this case, only administrators and supervisors can process the messages.

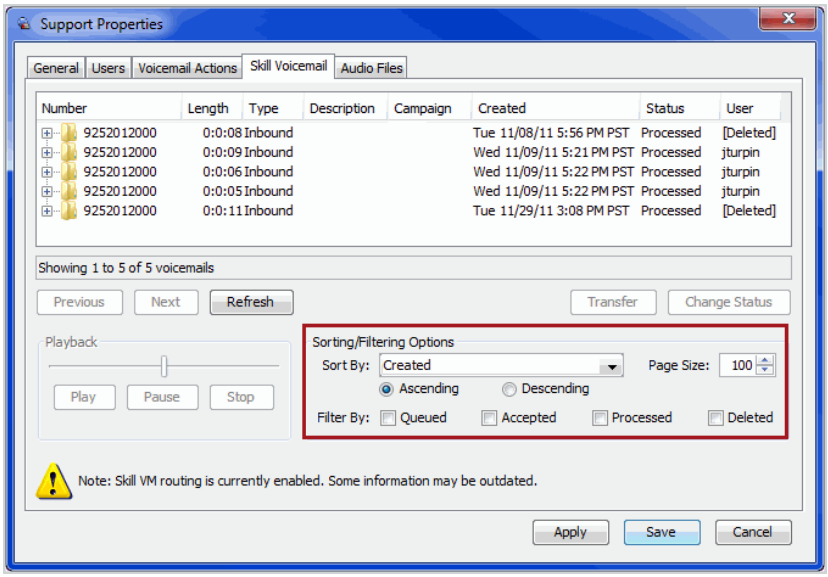
Note

If **Route Voicemails for This Skill** is enabled in the Voicemail Actions tab, changes might overlap while messages are routed to agents.

Accessing Skill Voicemail Messages

1. Open the skill group properties.
2. Click the **Skill Voicemail** tab.

   This tab contains the description of the skill voicemail. The display can span several pages. The total number of voicemails appears below the table.



Customize the Voicemails Display

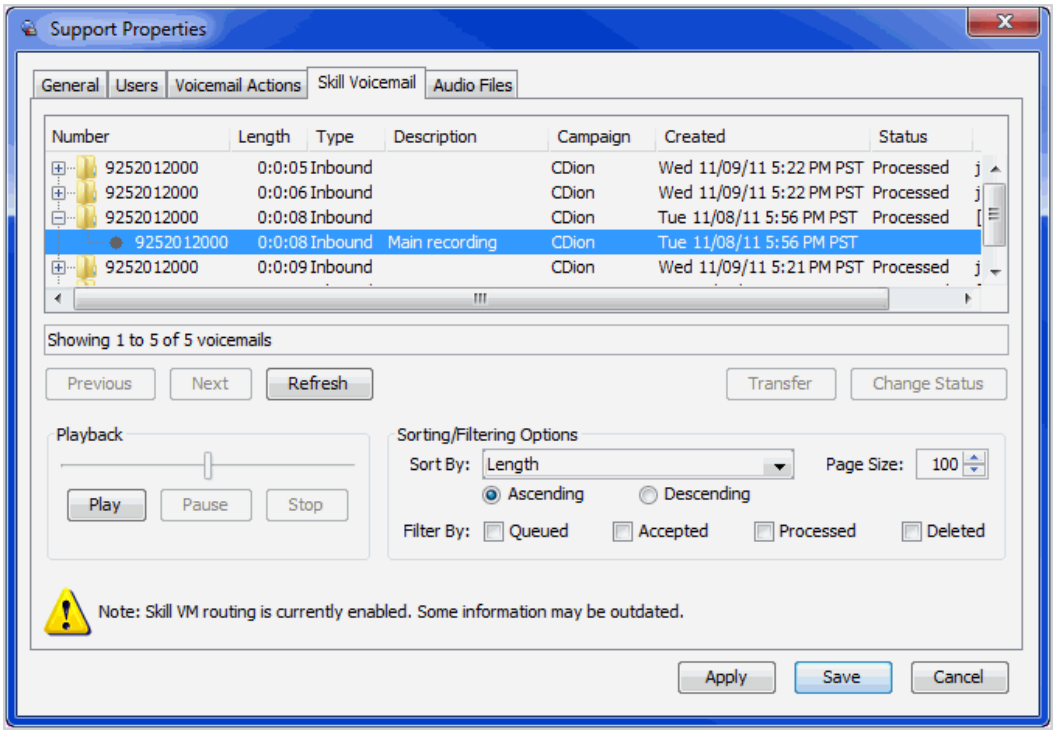
Page Size	Specify the number of records that appears on each page
Select a Sort Option	Choose the sorting option from the drop-down menu. sort by Creation Date, Number Description, status, Campaign, or Length.
Rearrange Columns	Click and drag the column headings left or right. With this method, the sort order is applied only to the messages shown on the current page.
Filter the List	Select the filtering option by message status: Queued, Accepted, Processed, or Deleted.

After applying the options, click **Refresh** to see the changes.

Processing Voicemail Messages

Messages may contain multiple recordings if an IVR Script is configured to send several voice recordings to a mailbox. In this case, all recordings appear under the same folder in the table.

To see the recordings, open a folder and select a recording.



Play a Voicemail Message

Click **Play** in the Playback section of the screen to play the selected message.

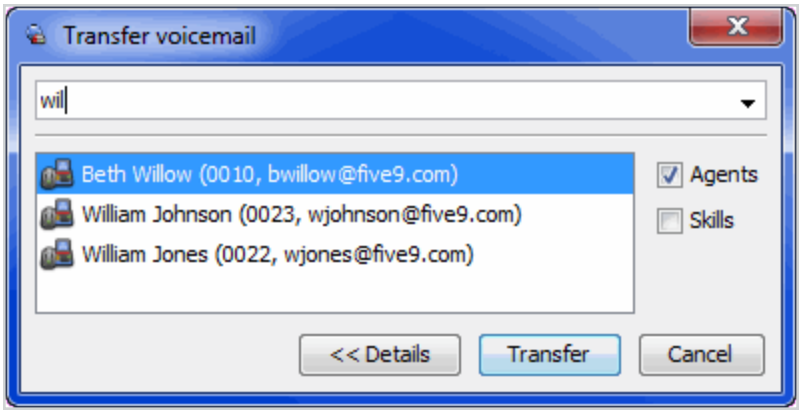
Use the slider to jump to various parts of the message. Use the Pause and Stop buttons to control the message playback.

Transfer a Voicemail Message to Another User

Select a voicemail folder and click **Transfer**.

Check **Agents** or **Skills** to display the appropriate group of names to which you can transfer the message.

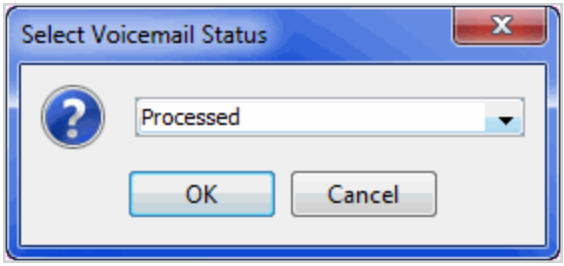
To narrow the search results, start typing a name in the search box.



Select a name from the list and click **Transfer**.

Change the Status of a Voicemail Message

You can change the status of a message at any time. You can also revert a Deleted message to Queued and deliver the message to agents. Click **Change Status** and select the status you want to apply to the message.



Click **OK** to save the status change.

Managing Skill Voicemail Greetings

A greeting is a message that is played to callers before a call reaches skill group voicemail box. Greetings can be set for skill and user voicemail. See Managing Voicemail Greetings.

To use a voicemail greeting, record a greeting as for prompts or agent voicemail greetings. The requirements for the audio files used as voicemail greetings are the

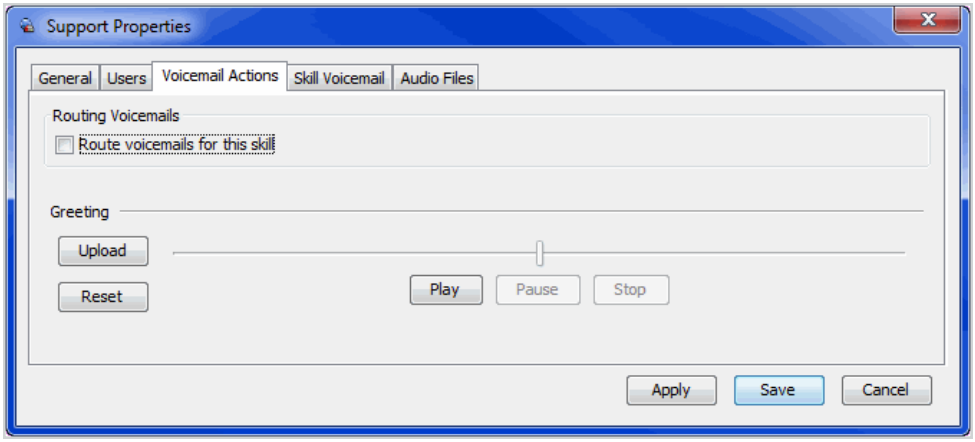
same as for prompts. The supported format for new files uploaded to the system is WAV audio, ITU G.711 mu-law, mono 8000 Hz. In some applications, it is also listed as CCITT u-Law, 8.000 kHz, 8 bit, Mono, 7 kb/sec. To record greetings, see **Managing Voice Prompts**.

When you reset a greeting, the uploaded greeting is replaced by the default voicemail greeting.

Uploading Voicemail Greetings

The last uploaded file overwrites the previous one.

1. Open the skill group properties.
2. Click the **Voicemail Actions**tab.



3. Click **Upload**.
4. Browse to a WAV file on your computer, and click **Select**.

Listening to Voicemail Greetings

To play a greeting, in the **Voicemail Actions** tab, click **Play**. Pause and Stop the recording as needed.

Managing Audio Files for Skill Groups

Skill group audio files are whisper prompts for call announcement and prerecorded messages assigned to a skill group that can be played by agents while on a call.

Audio Files for Agent Use

Audio files can be used by agents for things such as playing a legal disclaimer that must be read precisely or leaving a message on an answering machine. You can add up to 20 files to a skill as files available for agent use.

Audio Files for Whisper Announcement

An audio file may be used for call announcement, otherwise known as whisper, that is played on call connection. These whisper announcements prepare the agent for what type call is arriving, such as "Sales call" or "Support call". Only one whisper prompt may be associated to a skill; a whisper prompt associated to a skill overrides a whisper prompt set at the campaign level.

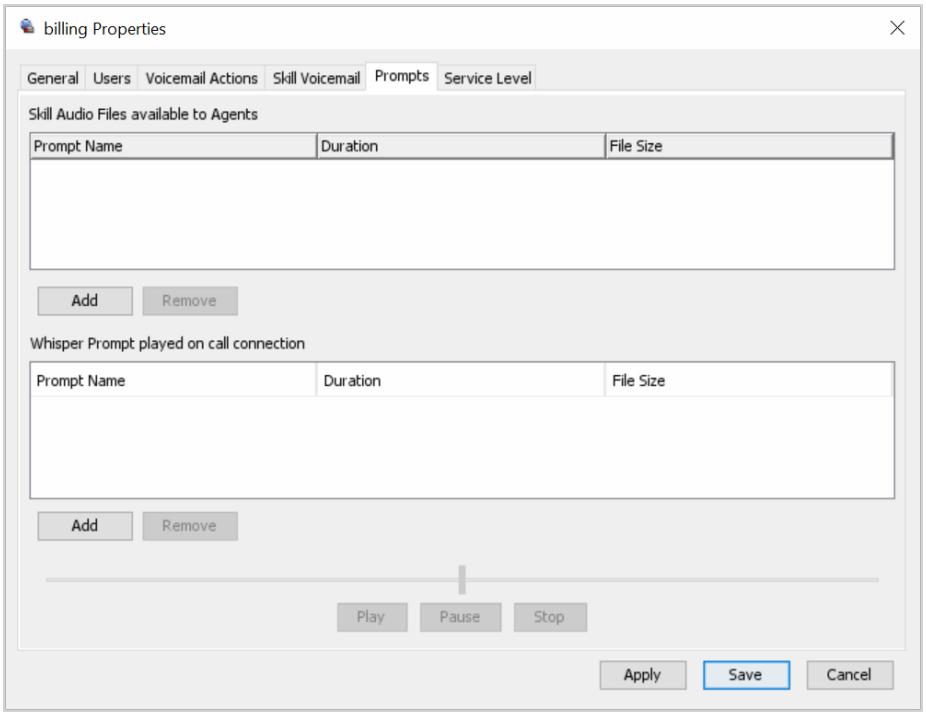
See also **Managing Voice Prompts** and **Text to Speech**.

Adding Skill Audio Files

To associate prompts with a skill, follow these steps.

1 In the skill group properties, click the **Prompts** tab.

2 Click **Add** for your desired audio file upload.



3 Select one or more prompts.

4 Click **OK**.

Removing Skill Audio Files

1 Select one or more prompts.

2 Click **Remove**.

3 Click **OK**.

Managing Skill Group Service Levels

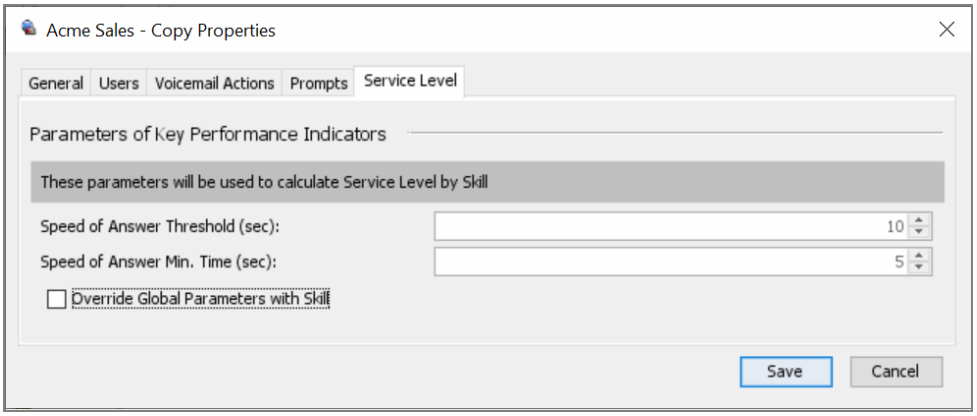
Assigning Service Levels to Skill Groups

You can define Quality of Service (QoS) parameters by skill groups to calculate and report on service level by skill.

Adding KPIs to Skills

1. Open the skill group properties.
2. Click the **Service Level** tab.

   Enter skill-specific service levels for the skill group.



3. Set the **Speed of Answer Threshold (sec)**.
4. Set the **Speed of Answer Min. Time (sec)**.
5. To override the global KPIs, enable **Override Global Parameters with Skill**.
6. Click **Save**.

Communicating With Skill Group Members

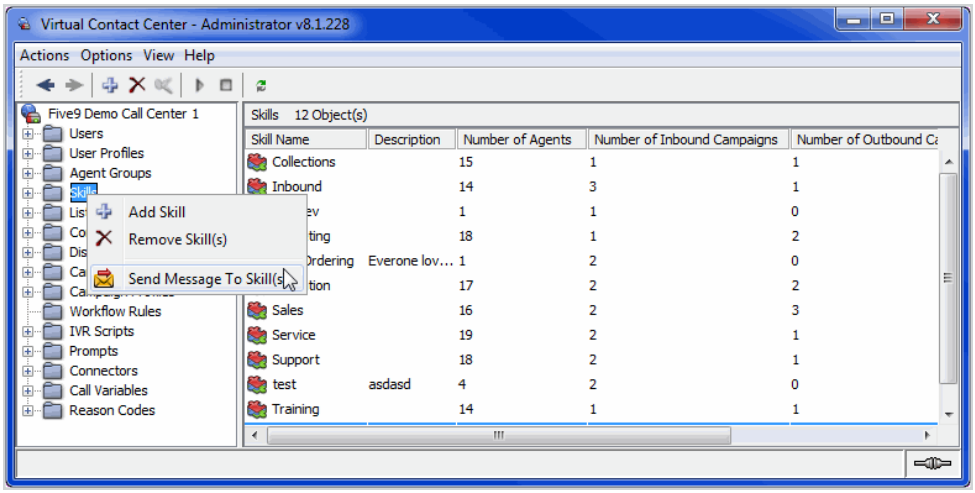
In addition to sending messages to skill groups, you can send individual instant messages to a user, to multiple selected users, or to send a broadcast message to all users. You can also start a chat session with one or more users. See also **Communicating With Users**.

Sending Instant Messages

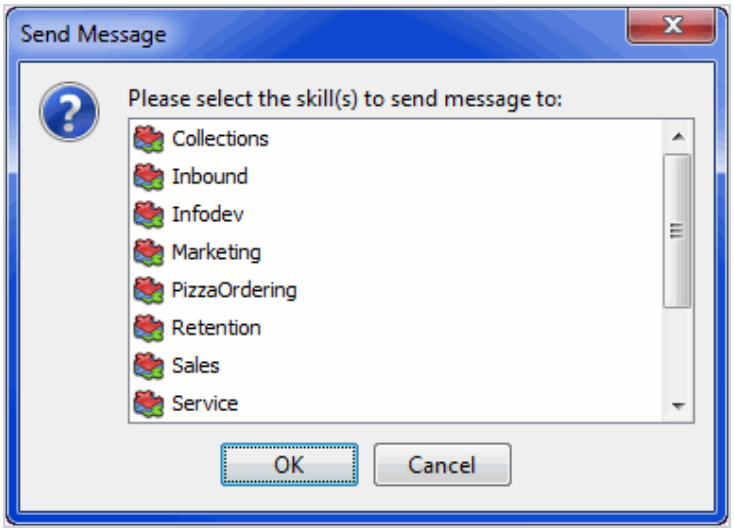
Only users who are logged in can receive messages.

Sending Messages to One or More Skill Groups

1 In the navigation pane, right-click **Skills**, and select **Send Message to Skill(s)**.

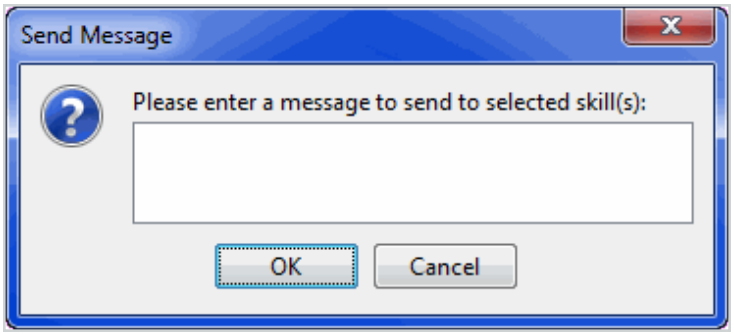


2 Select one or more skill groups.



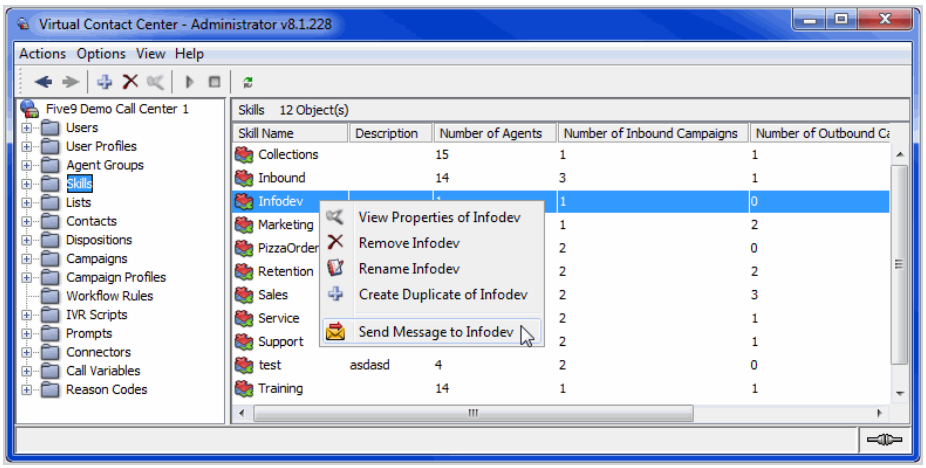
3 Click **OK** to open the message window.

4 Type a message, then click **OK** to send.



Sending a Message to All Members of a Skill Group

1 Right-click a skill group, and select **Send Message to Skill Group**.

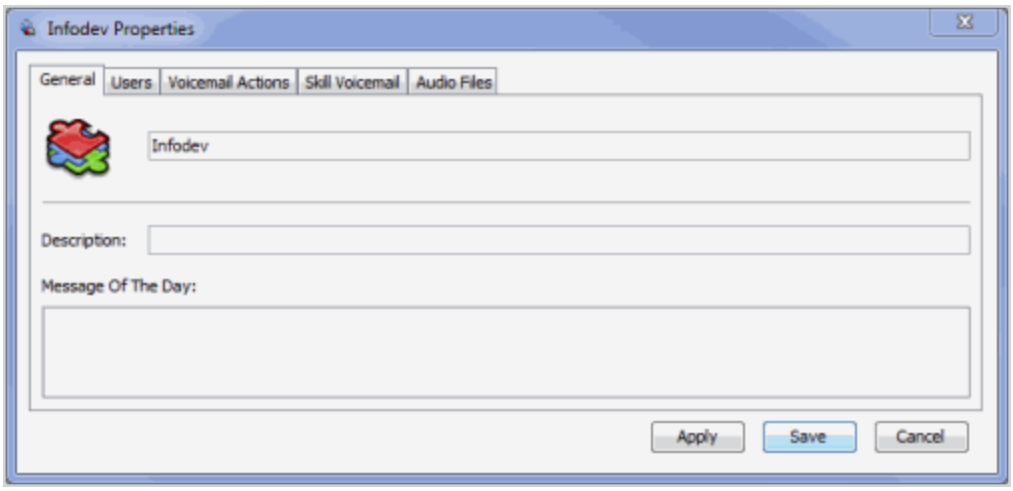


2 Type a message, then click **OK** to send it.

Defining a Message of the Day

The message of the day appears on the Summary page in the Skill Group Messages section of the agent's desktop until it is changed or deleted. A separate message of the day can appear for each skill to which the user is assigned.

In the General tab of the skill group properties, a message. Click **Save** or **Apply**.



Call Lists

Updating Call Lists for Telemarketing Campaigns
Managing the Size of Lists
Understanding Field Mapping and Unique Keys
Creating Call Lists
Importing and Updating Call Lists
Scheduling Call List Updates
Removing Records and Call Lists
Preparing International Dialing Lists
Exporting Call Lists

A call list is a list of records from your contact database. Call lists are used for dialing phone numbers in outbound and autodial campaigns.

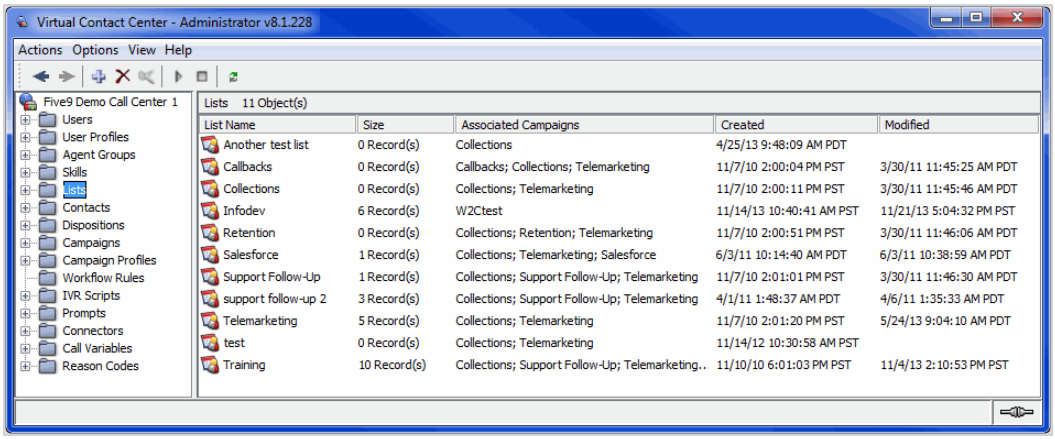
Although a contact record may be added to the Virtual Contact Center (VCC) without being added to a list, a list record cannot be added to a list without also adding a corresponding contact record.

Every contact record includes a number of default contact fields, for example:

- Primary number (number1)
- Alternate number 1 (number2)
- Alternate number 2 (number3)
- First name
- Last name

A contact record must have at least one valid phone number and you may store up to three phone numbers for a contact (fields number1, number2, or number3 of the contact record). You can create custom contact fields. For more information, see **Managing Contact Fields**.

You access Call lists by selecting **Lists** in the navigation pane. All available call lists appear in the main pane.



You can add, update, rename, and remove call lists. You can update a call list manually, by importing a file, or using an API. You can schedule list updates by pulling lists from an FTP server. Updating a list may create or update contact records in the contact database.

You can organize your lists in any order prior to uploading. Unless a different sort order is specified in a campaign profile, the system follows this order while dialing these records for the first time. By default, the dialer processes a list in the uploaded order of the records.

Disposition settings, campaign profiles, and other options may affect the dialing order of list records. The **List Dialing Mode** option in campaign properties defines how the dialer handles the dialing process. You can use a campaign profile to change the dialing order of a call list based on any of the contact fields or filter list records that are dialed in a campaign by adding filters. See **Filtering Contacts**.

You can use work flow rules to automatically reset the dial position to the top of the list based on specified conditions, or manually reset the dial position by right-clicking on the outbound or autodial campaign and selecting **Reset List Position**.

Updating Call Lists for Telemarketing Campaigns

Important

For telemarketing campaigns, you are required to check each list against the appropriate Do Not Call lists before you import a list into Five9.

Lists are not automatically checked against your domain's DNC List during the upload process. Phone numbers in a list are checked against your local DNC list before they are dialed. See also **Managing Do Not Call (DNC) Lists**.

Managing the Size of Lists

When lists are very large, sorting and dialing automatically can slow down list processing. The dialing queue is limited to 20 concurrent calls. If you do not sort the list, the maximum suggested number of records is 500,000. If you sort the list by using more than one field, Five9 recommends that the list not exceed 10,000 records. Smaller lists are quicker to upload; campaigns start faster.

You can process your list for upload at any time. Files larger than 50,000 records will upload in 50,000 increments in the background. Five9 processes 50,000 records from each file in the job queue before returning for another 50,000 records. This is to make certain that upload speeds are not compromised and that all jobs have enough numbers to begin any production campaign. This may cause interruptions to running campaigns as additional 50,000 row increments are uploaded.

To maximize performance, periodically remove from the list all records that are not new or in progress. When records from a list, proceed as follows to avoid losing data:

Prepare a custom report of the leads that you want to remove from the list.

1. Transfer those leads by FTP to a local server.
2. Delete the data from the list.

For more information on removing records from lists, see **Removing Records and Call Lists**.

Understanding Field Mapping and Unique Keys

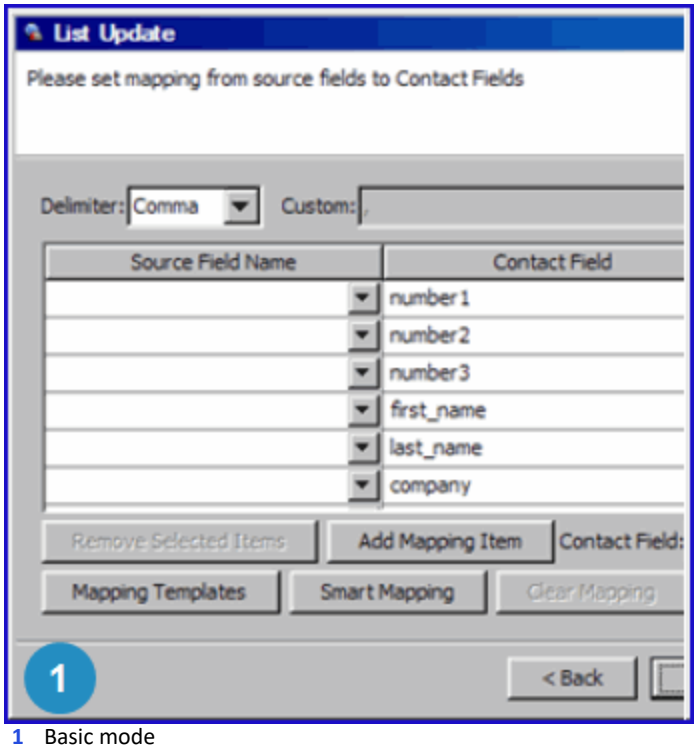
A list that you import may contain duplicate records, and duplicate records may already exist in your contact database. The same contact may appear in multiple lists, so you can have multiple records for the same contact.

If a contact was entered into the database with the same unique key, that one record can point to multiple lists. The unique key enables you to identify and remove duplicate

records so that each record is unique. Records are considered duplicates if the unique key matches more than one contact record.

You set the unique key in the field mapping step of the update wizard.

- In the Basic mode, the unique key is **Number1** (primary phone number). When you encounter duplicates during updates, only the first duplicate record is processed.



1 Basic mode

- In the Advanced mode, the unique key can be set to one or more contact fields. The default unique key is Number1+ first_name + last_name.

  However, in outbound campaigns, you might prefer to use an account number or email address. When multiple contact fields are selected as the key, all fields must match for two contact records to be considered duplicates.

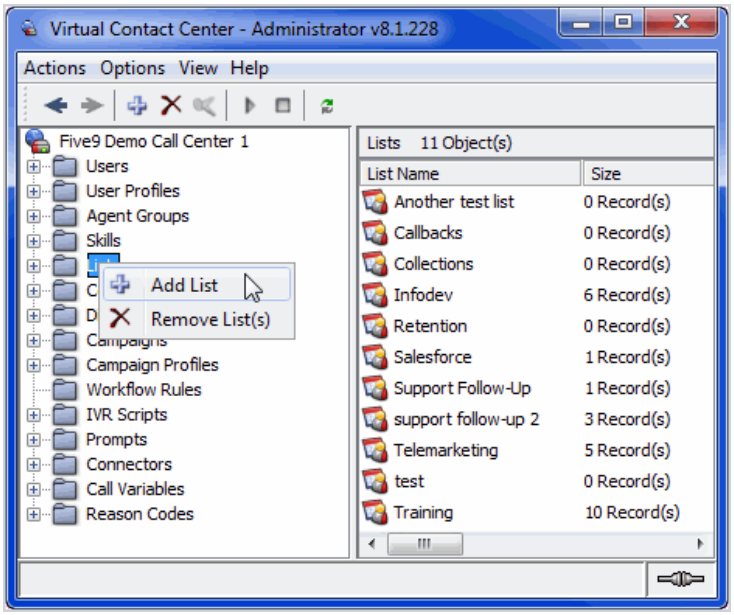
  .

To dial multiple contacts at the same phone number, choose a unique key other than only the phone number, such as the first and last names. In this case, the key might be number1+ first_name + last_name.

Creating Call Lists

To add a contact record, follow these steps.

1 Right-click Lists and select **Add List**.

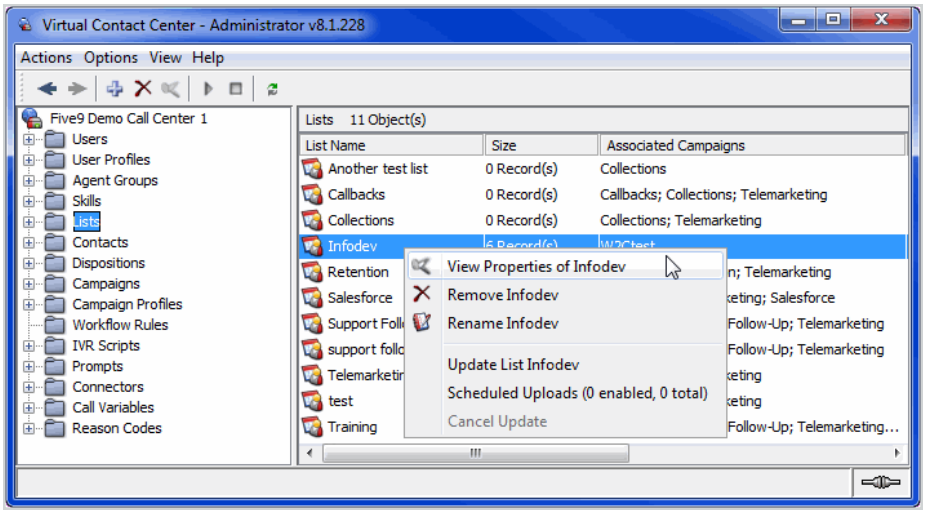


2 Name your list.

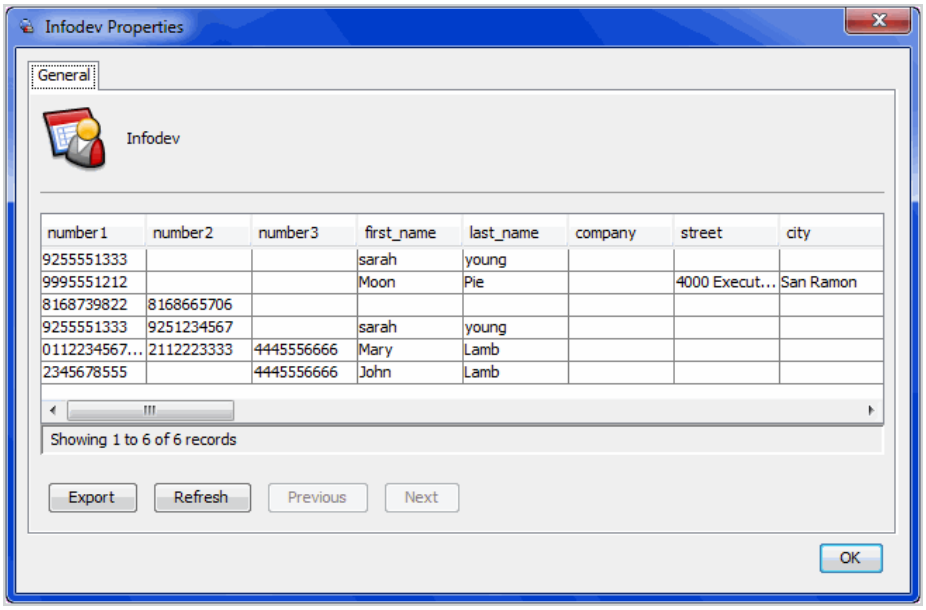
3 To add the list to the system, click **OK**.

You can rename a list at any time. To do so, right-click the list and select **Rename**.

4 To access the properties of the list, double-click the list in the main pane, or right-click and select **View Properties**.



The new list does not contain any data. To add information, you have to update the list by entering records manually, by importing a file, or by scheduling an FTP update. Later, the list records are displayed in the list properties. If the list contains many records, you may browse through multiple pages.



Importing and Updating Call Lists

You need to update call lists to add records to lists and update existing records. You can update lists by importing files or single records, by scheduling an automatic FTP transfer, exporting contacts from reports into lists, or by using an API (see Configuration Web Services).

Formatting a Call List Before you Import
Preparing Your Call List for Importing
Importing a List from a CSV File
Mapping Fields During List Update
Converting a Spreadsheet to CSV Format

Formatting a Call List Before you Import

The most common format for a list is comma-separated values (CSV) list. The other supported options for delimiters are colon, semicolon, or a custom delimiter.

The phone number can contain special characters, such as spaces, dashes, and parentheses, but should be limited to ten digits. For example, (925) 555-1212 is valid, but (925) 555-1212 x123 is not.

International Dialing

If you are dialing international numbers from either the U.S. or Canada, include the exit code 011 in front of each number. The international phone numbers are between 10 and 20 digits long. The format is **011** + *country code* + *phone number*.

All phone numbers must be entered into lists by using the format in which all numbers begin with a plus (+) sign. Numbers can contain up to 15 digits, not including the plus (+) sign.

The VCC dialer automatically includes the plus (+) sign for all outbound calls; the plus (+) sign signals to the carrier that an international number follows, an standard call possibly to another nation without needing to include the originating country's prefix.

If you have lists which are not currently in format, you must convert them before you attempt to use them.

Outbound Telemarketing

If you are conducting outbound cold-call telemarketing, you might need to check your lists against the appropriate state or national Do Not Call lists before you import them into your Virtual Contact Center (VCC).

> **Note**
>
> While Five9 makes no specific recommendations, compliance vendors can assist with list scrubs. For more information, see suppliers, such as Contact Center Compliance.

Preparing Your Call List for Importing

1. Open your list in a spreadsheet application.
2. Be sure your list has a row of column headings.

   You may also use source files without column headings. In this case, in the Field Mapping step of the List Update Wizard, do not check **Has Header**. For files without column headings and when scheduling list updates, use column numbers to map fields.
3. If your list contains fields that are not associated with contact field, add the new field (see **Managing Contact Fields**).

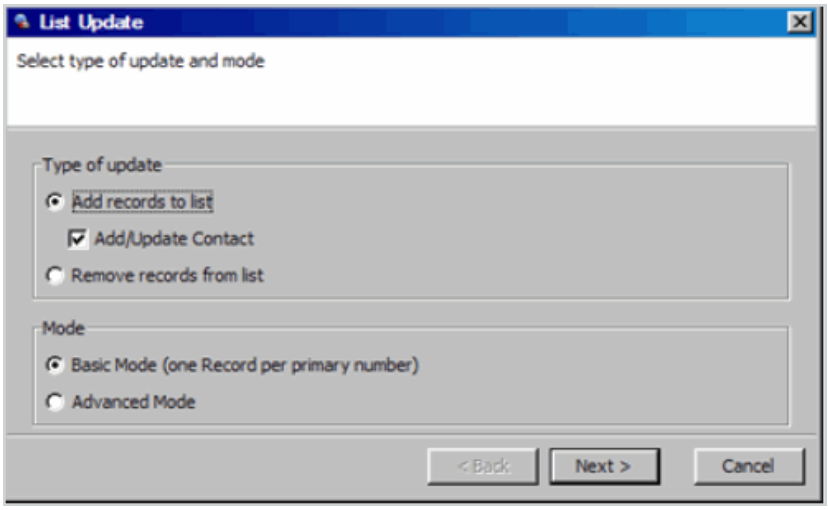
   The field must exist before importing the file, but the names of columns in your file do not need to match the names of corresponding fields in the VCC. If you have fields in your list that you do not want to import into Five9, you can ignore them during the import process.
4. Check the phone number field and other fields for commas.

   If your list shows zero records after the import, the phone number field may not formatted properly, or one of the fields contains a comma.
5. Check your data:
   - If the system encounters duplicate records and invalid phone numbers during the update process, all records may not be imported. Therefore, the VCC list may show fewer records than your original list.
   - The system does not import numbers with fewer than 10 digits and numbers that begin with a 1.
6. Delete any blank columns in the list, unless the blank column is needed.
7. After you import the list, apply a dialing order by using campaign profiles.

Importing a List from a CSV File

Use this method if you already have a list of numbers in a comma-separate file.

1 Right-click a call list, and select Update List.



2 In the wizard, select your **List Update** options.

- **Type of Update**: Add records to list

  New contact records are added if records matching the key fields do not already exist in your contacts. Existing records are also updated with information in your source file. Disabling this option allows only existing contact records that match the values in the key fields to be added to the list. Records with keys that do not match existing records are not added to the list or Contacts.

- **Mode**: Basic Mode

  One record for each primary number. Use only if your contacts have unique primary numbers (`number1` field).

  – Records with keys that do not match records in your contact are added to your list and to the database.

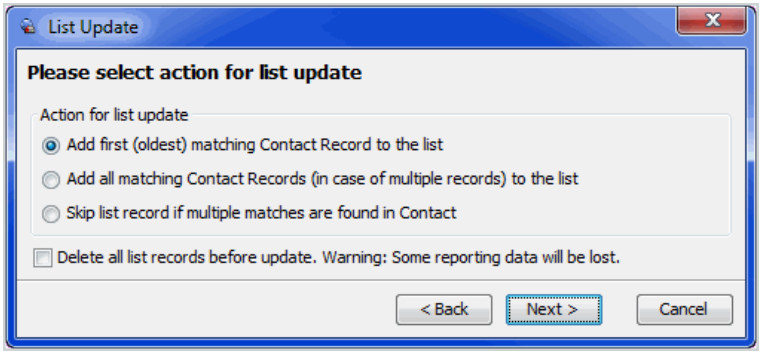
  – Records with keys that match existing records in your contact are updated with the information in the source file. If multiple matches occur in your contact, only the matching record that was created first is updated.

- **Mode**: Advanced Mode

  Multiple unique keys and manually set mapping. The Advanced Mode contains an additional step. The unique key of a record (field mapping step of the wizard) may be changed to any combination of contact fields.

  If you enable **Add records to list**, disable **Update Contact**, and enable **Advanced mode** contacts are not updated. Instead, any records in the source file with keys that do not match any records are not added to the list or to your contacts. However, records with keys that match existing records are added to your list as they appear in your contacts.

  This step appears only if you selected the Advanced mode.



3 Select your **Record Update** options:

- **Add first (oldest) matching Contact Record to the list**: Add only one record to the list if multiple matches are found for a record in the contact.
- **Add all matching Contact Records (in case of multiple records) to the list**: Add all matching records from the contact to the list.
- **Skip record if multiple matches are found in Contact**: If duplicate records are found, skip the record and do not apply any changes to the record in the list. The match is based on the unique key defined on the next step.
- **Delete all list records before update**: Use this option to clear the list before adding new records. This feature removes all records in the list before adding the new records. When enabling this option, reporting data about the deleted list records is lost.

4 Click **Next** to begin adding records.

- If you are using **Advanced Mode**, Add records to list, and Add/Update Contact, you can select the action for contact update.
- If you are using the **Basic mode**, this step is not available.

5 Define how the records are updated:

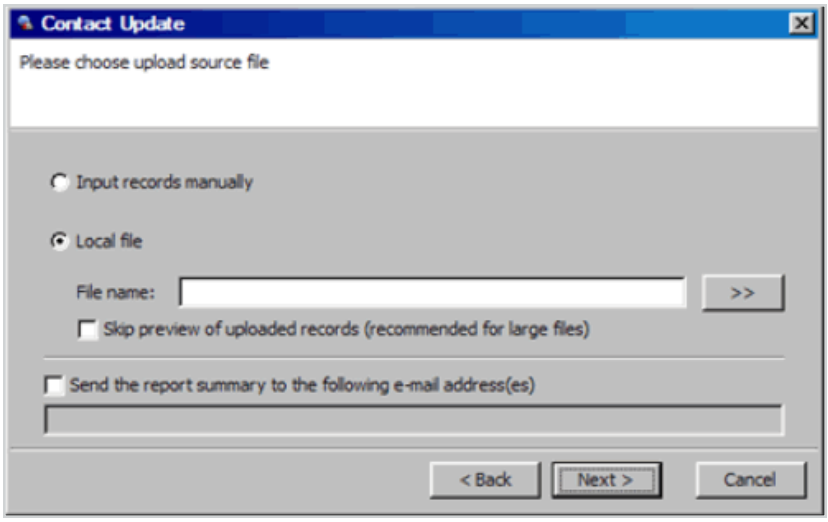
To update records, you must check at least one box.

- Add new record if matching key is not found in Contact - new records are added to your contacts if they are not already found.
- Update existing Contact record(s) with matching key - existing records are updated with the data from the source file.
  - First (oldest) matching record: Only the record that was created first is updated.
  - All matching records (in case of multiple matches): All matching records are updated.
  - Only if single match in Contact: Records are updated only if other matching records are not found.
- Action on data type format error: This setting determines how to treat records with field values that do not conform to data types selected in the Contacts folder.
  - Report as error and skip: The error is reported, and the record is skipped.
  - Leave field blank: The non-conforming field is left blank; the other fields of the contact record are added or updated.

6 Click **Next** to open the **Contact Update** screen.

7 Select either manual import or a file in CSV format.

- Manual import: to edit a number of existing fields or add a few records. You can update the call list by manually entering data in the fields of the table.
- File in CSV format: to add or update large numbers of records. See also **Importing and Updating Call Lists** and **Converting a Spreadsheet to CSV Format**.



8 Optionally, to skip the last step of the wizard, check **Skip preview of uploaded records (recommended for large files)**.

9 Optionally, check **Send the report summary to the following e-mail address(es)**, and enter a comma-separated list of the email addresses.

10 Click **Next** to open the **List Update** screen.

Set Field Mapping from Source Fields to Contact Fields

If you do not select a field for the displayed contact fields, they are not updated.



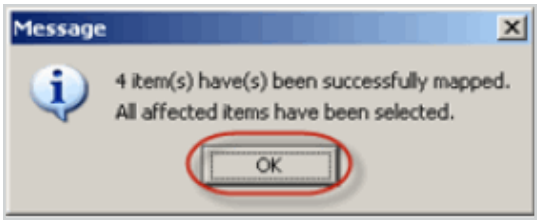
1 From the Delimiter menu, select a delimiter to separate the fields in the file: comma, colon, semicolon, or custom (you select the character(s) used as delimiters in the source file).

2 If the first row in the file contains the column headings with the names of the fields, check **Has header**.

   Column headings are listed in the Source Field Name column menus. Smart Mapping is now enabled.

3 To quickly map fields by using the existing configuration, click **Smart Mapping**.

   The system remembers your last mapping and applies it: the mapped fields are highlighted and a notification message appears.



4 Map the file fields to the contact database fields.

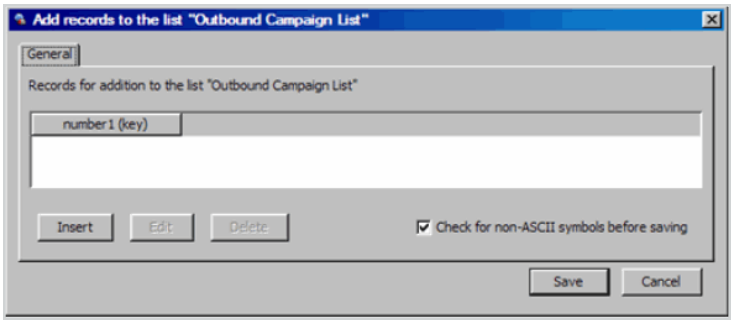
   See Mapping Fields During List Update.

5 When done, click **Finish**.

A message indicates the number of records read from the file. The preview screen shows the records read by the system. The preview screen appears only if the Skip preview of uploaded records (recommended for large files) option was not selected on a previous step.

6 Check the list to make sure all fields are correct.

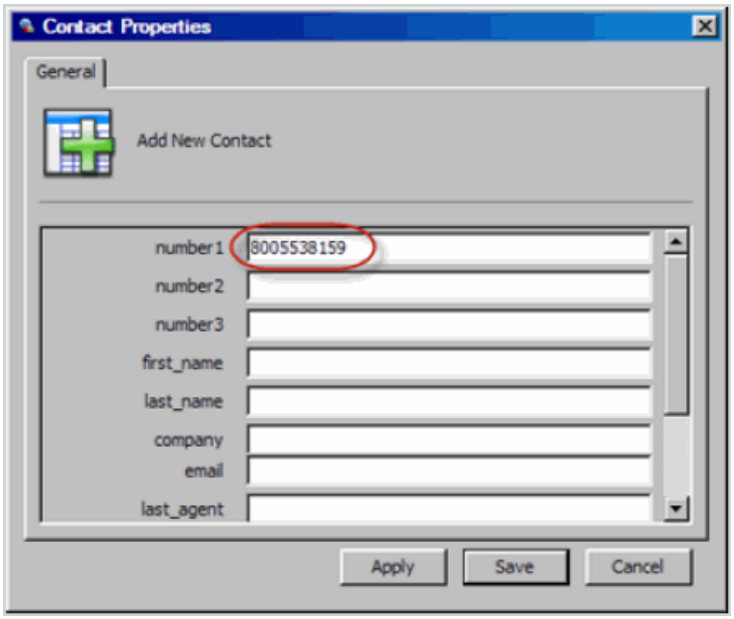
This list contains only the records you are going to import. For the manual update type, the list of records is empty.



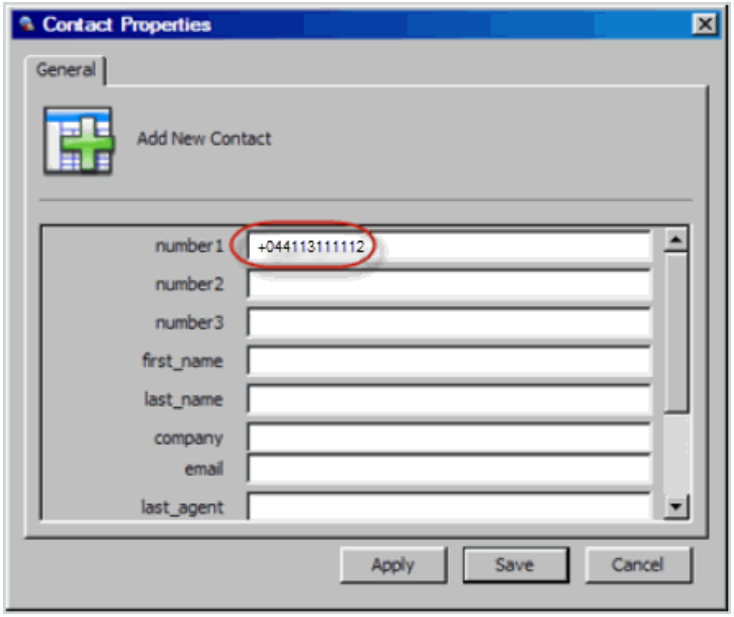
Insert a Record into Your List

1 To insert a record, click **Insert**.

Phone numbers must be either 10 digits for dialing within North America or begin with 011 for International numbers. International numbers length should be no more than 20 digits.

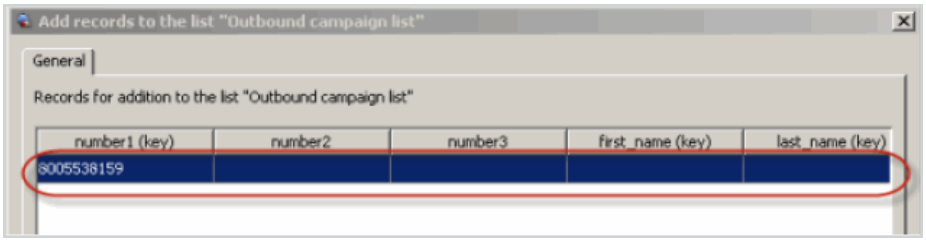


Phone numbers must be entered in standard format beginning with the plus (+) sign. The plus (+) sign indicates to carriers that an international number follows.



2 Enter the key fields to insert into the list and click **Apply** or **Save**.

A new line appears.



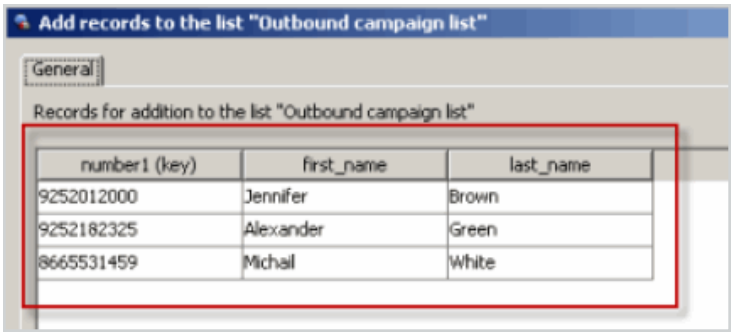
3 To edit data for that record, double-click a row.

Check for Non-ASCII Symbols

This section is optional. To prevent errors, this option checks for non-ASCII symbols entered into any fields. To update large lists more quickly, disable this option.

Add Records to the Database

1 To add the records to the database, click **Save**.



2 Click **Yes**.

3 Click **OK** twice.

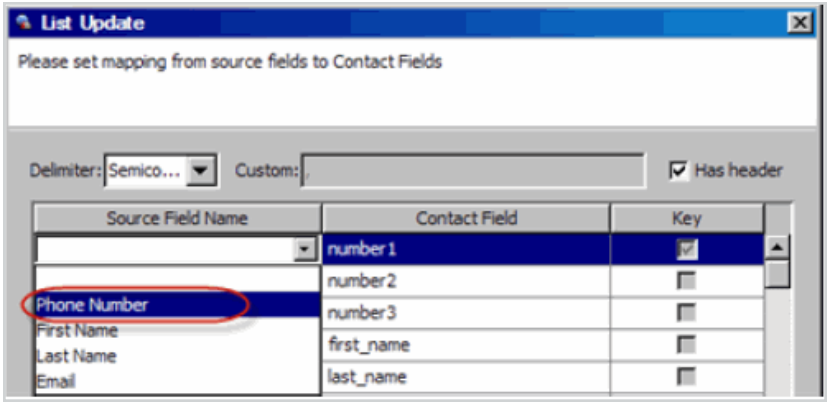
You can see the new number of records for the updated list in the Size column of the list pane. The list is now ready to be added to an outbound or autodial campaign.

Mapping Fields During List Update

Mapping the Source Field Name

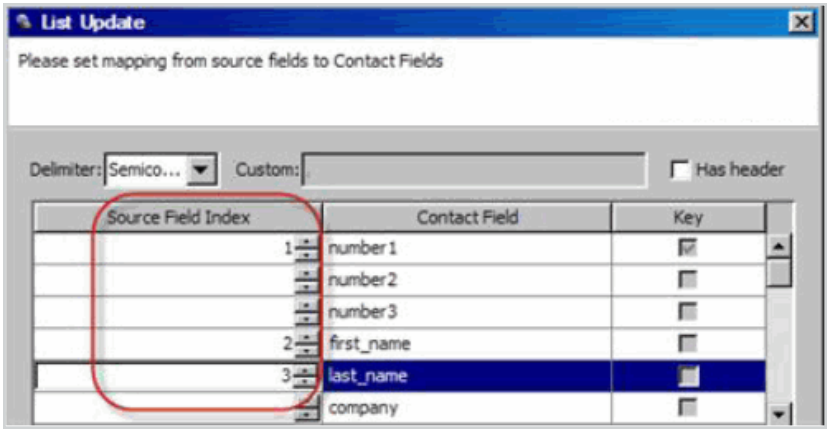
1 In step 14 of the wizard, associate the columns in your file with the fields in the contact database by using the menus under the Source Field Name column.

In this example, we select the Phone Number field from the menu to match the number1 Contact Field.

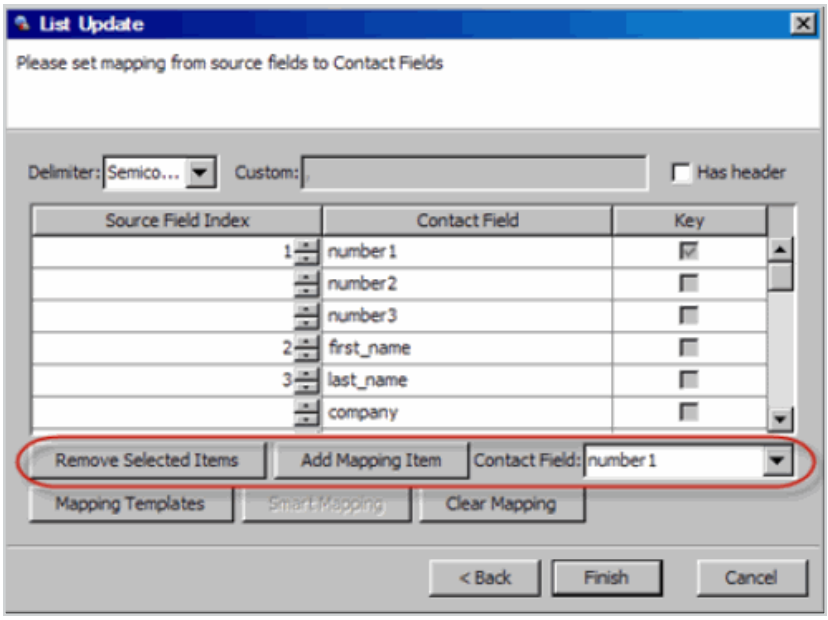


2 If the file does not contain column headings, specify the field order in the file instead. Field number1 is the first field from the left in your file.

The order of the fields in the source file are set using the Up and Down arrows in each Source Field Index field for the Contact Fields that is mapped with columns in your file.



3 To remove fields from the mapping list, optionally click **Remove Selected Items**.



4 **Add Mapping Item** is used to add the fields from the Contact database to the mapping list.

These options are useful to remove contact fields from the mapping list that you do not typically use. For example, if you do not use alternate phone numbers, you can remove the number2 and number3 fields. Removing unmapped fields from the list is not required but can be used for convenience, especially if your system contains many contact fields.

5 To restore the current mapping, click **Clear Mapping**.

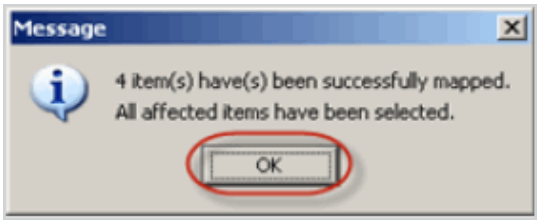
Smart Mapping

1 If the first row in the file contains the column headings with the names of the fields, check **Has header**.

Column headings are listed in the Source Field Name column menus. Smart Mapping is now enabled.

2 To quickly map fields by using the existing configuration, click **Smart Mapping**.

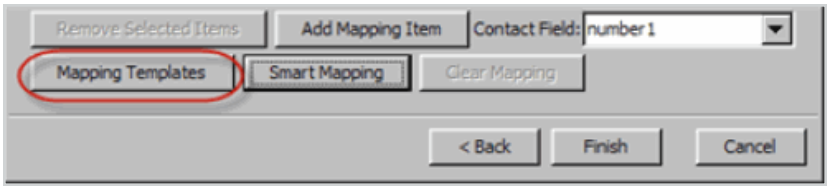
The system remembers your last mapping and applies it: the mapped fields are highlighted and a notification message appears.



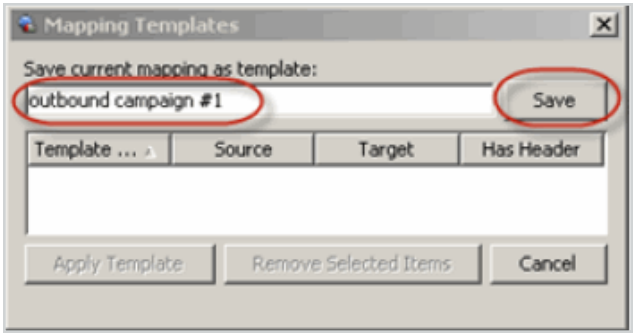
Using Mapping Templates

You can create Mapping Templates to save frequently used mappings.

1 To create or apply a mapping template, click **Mapping Templates**.



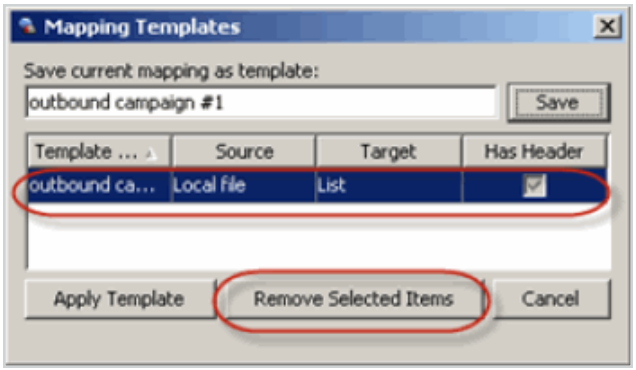
2 Enter a name for the mapping template, and click **Save**.



3 To use a mapping template, select it from the list and click **Apply Template**.

4 To remove a mapping template, select it from the list, and click **Remove**

Selected Items.



Selecting the Fields to Form the Unique Key

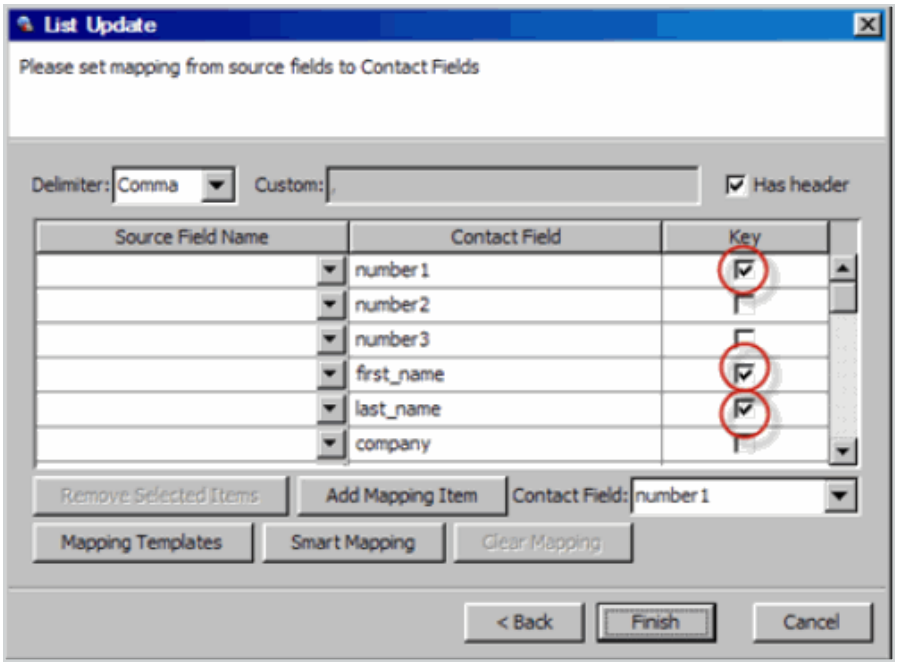
The unique key identifies duplicate records in the contact database and in the list when importing a list. The key enables you to specify how duplicate records are identified.

When updating a contact or a list from a file that contains duplicate records, the first of these duplicate records are processed. Records are considered duplicates if the key matches more than one of the records in the file.

The unique key for outbound campaigns can be a phone number when you want to dial only one contact per number. However, for example, you can create a unique key by combining the phone number, first name, and last name.

To dial multiple contacts at the same phone number, the unique key must be something other than phone number, such as first and last names. Otherwise only one contact record for each phone number are added.

In the Key column, check the boxes next to the fields that you want to use as the unique key. In the Basic Mode, the number1 field is always selected as the key. You can select keys only in the Advanced Mode. By default, the number1, first_name, last_ name fields are selected keys.



Converting a Spreadsheet to CSV Format

To convert a spreadsheet (XLS file extension) to a CSV file, follow these steps. You may need to convert each worksheet separately. After conversion to a different file format, you may lose some of the formatting, data, and other features.

1. Open the list in your spreadsheet application.
2. Select **File > Save As**.
3. Select the **Comma Separated Value (CSV)** file type.
4. Click **Save**.

Scheduling Call List Updates

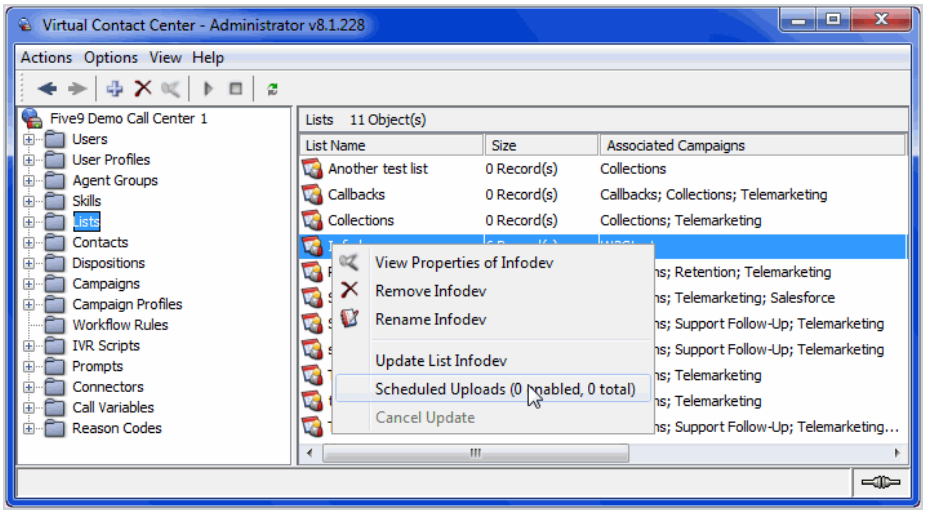
When using a scheduled update, the system pulls a list from an FTP server at a scheduled time and date. If you need to frequently update lists, automate the process by using an FTP server to store the lists and then schedule routine updates according to your needs. You must have an FTP server to use this option. You may want to schedule

list updates to add contacts to new lists and update contacts in existing lists. You can schedule contact record export from reports to call lists.

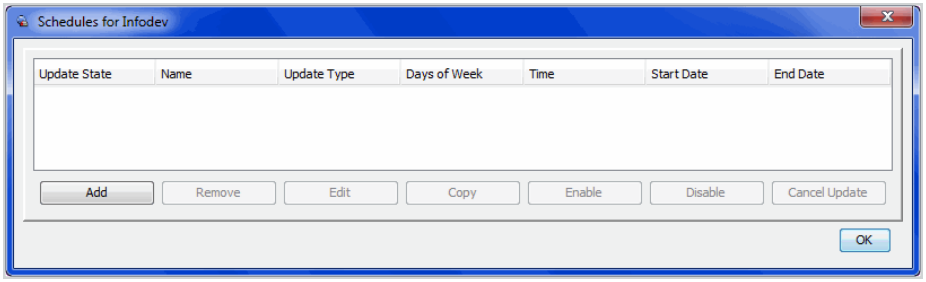
You can add, modify, delete, copy, or disable a schedule at any time.

To create a scheduled update for a call list, follow these steps.

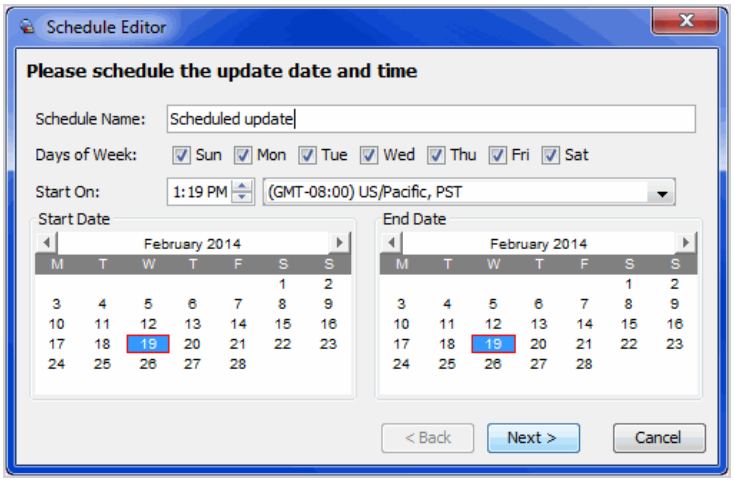
1 Right-click a list name, and select **Scheduled Uploads**.



2 Click **Add** to create a new schedule update.



3 Set the date and time options.



4 Click **Next**.

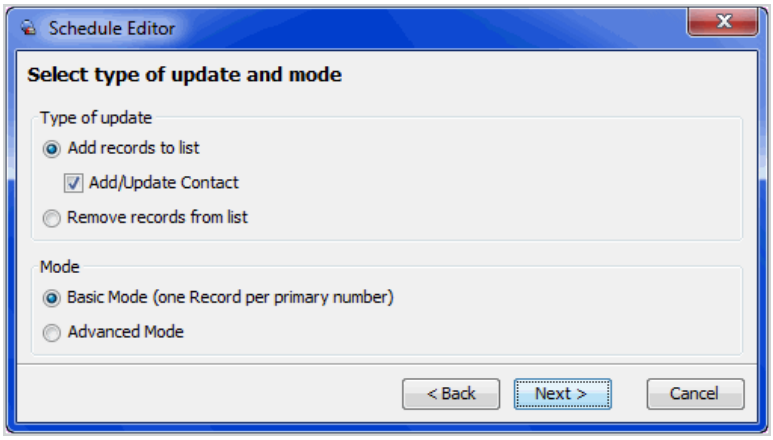
Type of update: Add records to list

- Add/Update Contact - new contact records are added if records matching the key fields do not already exist in your contacts. Existing records are also updated with information in your source file. Disabling this option only allows existing contact records that match the values in the key fields to be added to the list.
- Remove records from list

Mode:

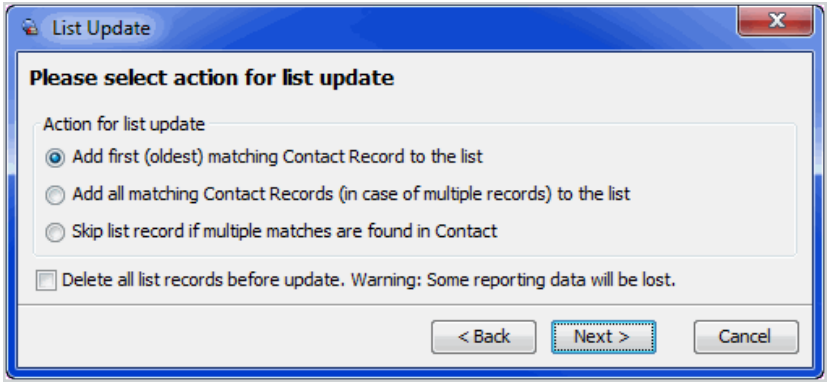
- Basic mode: one record for each primary number. Use only if your contacts have unique primary numbers (`number1` field)
  - Records with keys that do not match records in your contact are added to your database.
  - Records with keys that match existing records in your contact are updated with the information in the source file. If multiple matches occur in your contact, only the matching record that was created first is updated.
  - Advanced mode: multiple unique keys and manually set mapping. See **Understanding Field Mapping and Unique Keys**. The Advanced Mode contains an additional step. The unique key of a record (field mapping step of the wizard) may be changed to any combination of

contact fields.



5 Click **Next**.

This step appears only if you selected the Advanced mode.



6 Select your options:

Adding records to list:

- Add first (oldest) matching Contact Record to the list - Add only one record to the list if multiple matches are found for a record in the contact.
- Add all matching Contact Records (in case of multiple records) to the list - Add all matching records from the contact to the list.
- Skip record if multiple matches are found in Contact - If duplicate records are found, skip the record and do not apply any changes to the record in the list. The match is based on the unique key defined on the next step.

- Delete all list records before update - Use this option to clear the list before adding new records. This feature removes all records in the list before adding the new records. When enabling this option, reporting data about the deleted list records is lost.

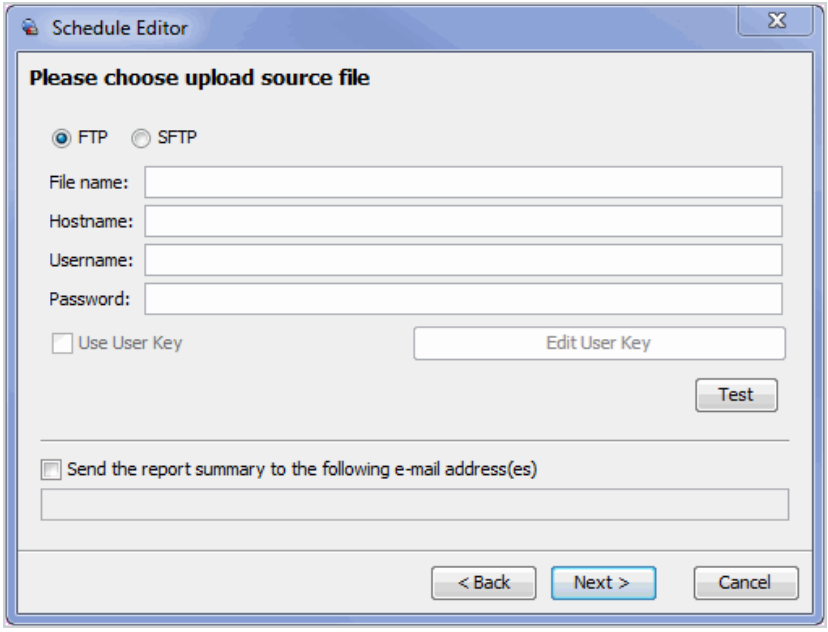
Removing records from list:

- Remove all matching records from list
- Remove all matching list records, and add first (oldest) matching Contact Record to list - Recommended only for cleaning a list with duplicate records.

7 Select your FTP file upload settings.

All fields are required. Verify that the entries are correct to avoid FTP connection problems.

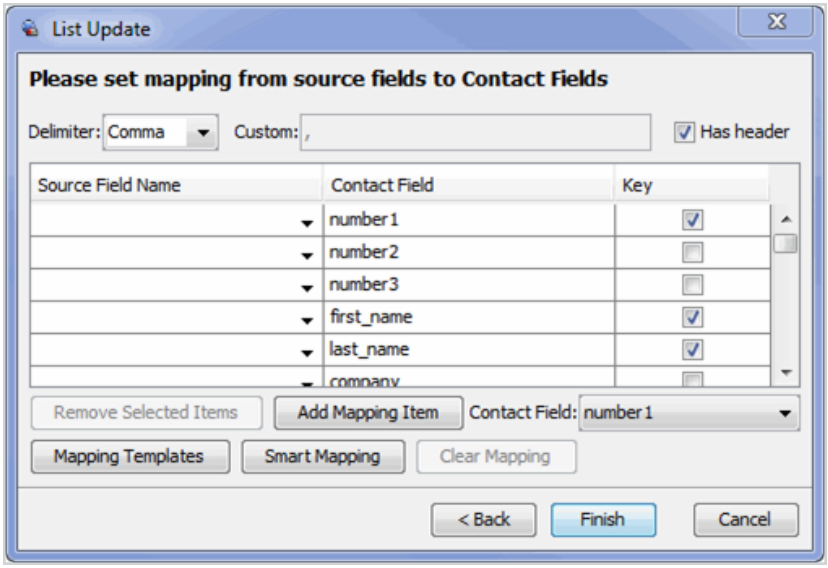
- File name - The name of the file containing the list updates.
- FTP address - The FTP server address.
- Login - The user name that is used to access the FTP server.
- Password - The password that is used to access the FTP server.



8 Optionally, check **Send the report summary to the following e-mail address(es)**, and enter a comma-separated list of the email addresses.

9 Click **Next**.

If you do not select fields for the displayed contact fields, they are not updated.



10 From the Delimiter menu, select a delimiter to separate the fields in the file: comma, colon, semicolon, or custom (you select the character(s) used as delimiters in the source file).

11 If the first row in the file contains the column headings with the names of the fields, check **Has header**.

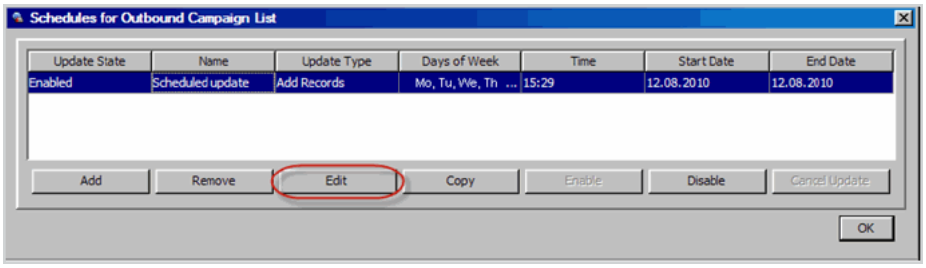
Column headings are listed in the Source Field Name column menus. Smart Mapping is now enabled.

12 Map the file fields to the contact database fields.

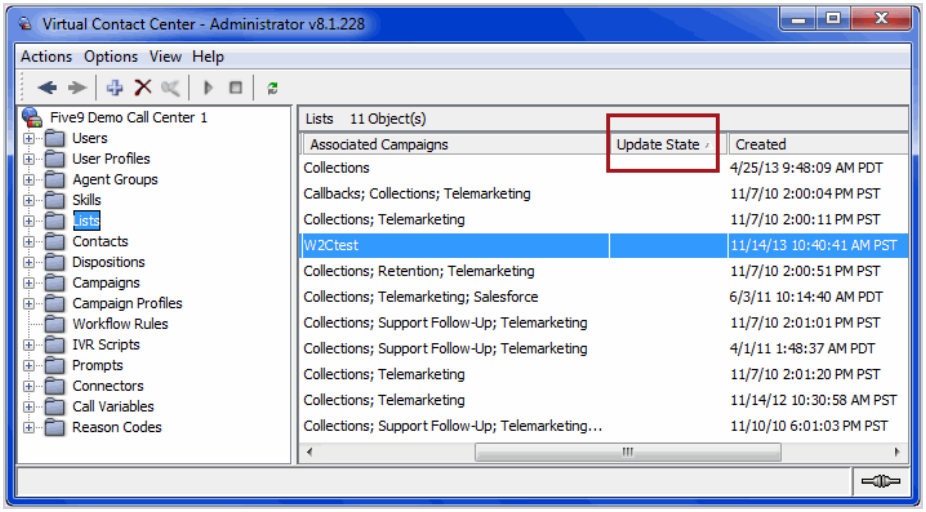
See Mapping Fields During List Update. When the updates occur, fields are mapped by using column position numbers instead of the column headings.

13 When done, click **Finish**.

The new schedule appears in the list of schedules. You can edit or remove the schedule at any time.



The status of the update is indicated in the Update State column of the list.



Removing Records and Call Lists

When deleting list records, you have these options:

- Deleting records by using a CSV file: delete large numbers of records from the list. To use this option, you need to prepare a list of records to delete.
- Deleting records manually: manually enter the key fields of the records to delete.

You can also delete records in the Contacts folder. See **Removing Contacts**.

Removing Records

All records, including duplicates, with keys that match existing records in your contacts are removed from the list, but not from the contact database. Records are deleted only

from the list. To permanently delete contact records from your system, see **Removing Contacts**.

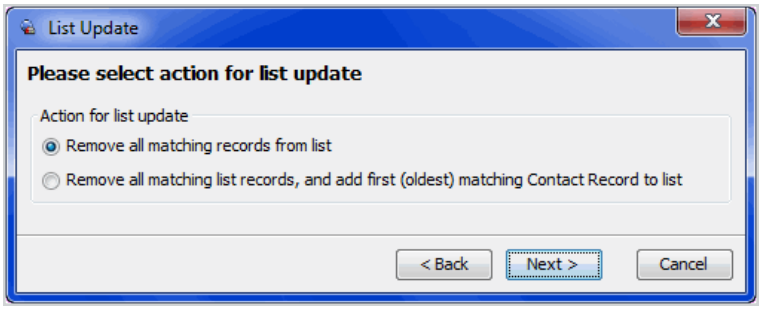
1 Right-click a list name, and select **Update List**.

2 See **Importing and Updating Call Lists** and follow the steps.

a In Type of update, select **Remove records from list**.

b If you select the Advanced mode, choose a record removal option.

- Remove all matching records from list.
- Remove all matching list records, and add first (oldest) matching Contact record to list: Recommended only for clean a list containing duplicate records.



c Follow the rest of the steps in the wizard.

As a result of records removal, the new number of records for the updated list appears in the Lists page. If the number of list records does not change, the phone number field may not be formatted properly, or one of the fields may contain a comma. For more information, see **Formatting a Call List Before you Import**.

Removing Call Lists

Follow these steps.

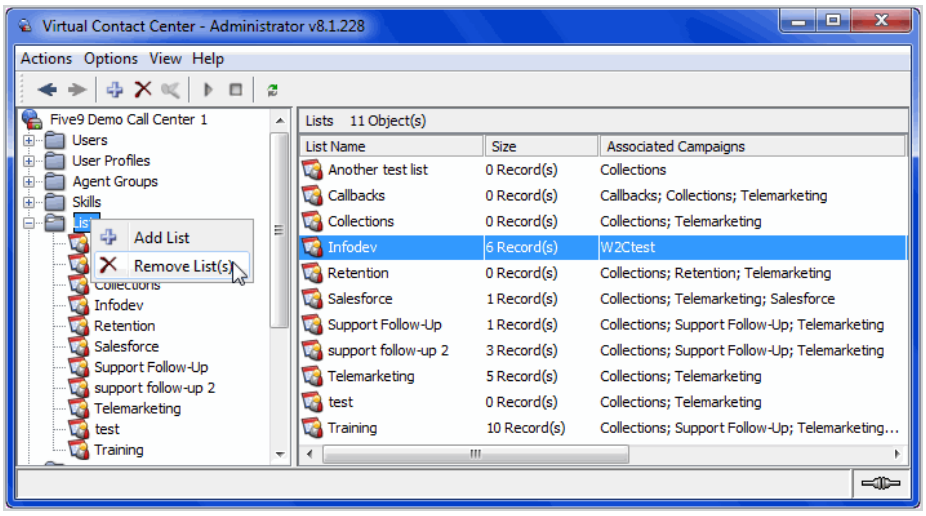
Deleting Single Lists

1 Right-click a list name, and select **Remove List**.

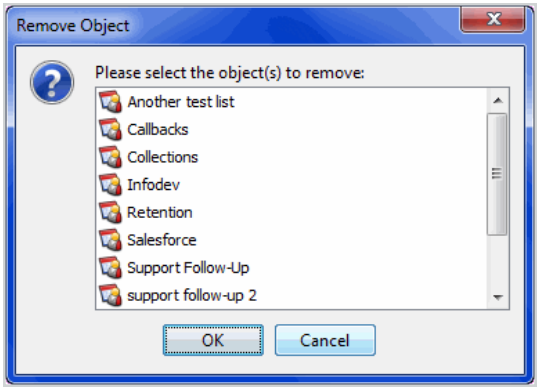
2 Click **Yes**.

Deleting Multiple Lists

1 In the navigation pane, right-click **Lists**, and select **Remove Lists**.



2 Select one or more lists.



3 Click **OK**, and **Yes to all**.

Preparing International Dialing Lists

Outbound calls follow the same default settings as domestic calls. To change dialing hours for a campaign, associate a campaign profile with the campaign. International call rates can change frequently. Currently, over 2,000 international dialing locations exist.

Toll-Free Numbers and International Calls

The origin of your inbound calls determines the type of toll-free numbers that you need. Typically, toll-free numbers cannot receive inbound international calls. Some toll-free numbers are geographically specific; others are country specific.

- **Universal International Freephone Numbers** (UIFN) allow calls between countries participating in the UIFN program. Currently, 65 countries participate.
- **International Toll-free Freephone Numbers** (ITFN) are country specific.
- **Toll-free Numbers for U.S and Canada**

To receive calls from international callers, speak with your account representative about ordering local toll circuits at the Five9 data center:

- Order international toll service from other providers, such as Sprint, AT&T, and MCI, which are forwarded to the Five9 toll circuit.
- Request that your international customers call you at a U.S. local number.

With international calls, ANI delivery is not guaranteed. Generally only about 10% of calls placed or received internationally have a caller ID.

If an error message states that the billing ID cannot be found, you have dialed a number that is currently not supported by the VCC.

Because the Five9 VCC is located in the U.S., you must use the North America Numbering Plan for numbers outside the United States and Canada. International numbers contain a maximum 20 digits, for example: **011442079294765 98**

- U.S. international access code: **011**
- Country code, such as **44**
- National destination code, such as **207**
- Subscriber number, such as **929476598**

Convert your Call List to the Correct Format

If the numbers in your calls list include the country call-out code (011), and you are converting an existing list to conform to international number format, replace the call-out country code (011) with the plus (+) sign. numbers may contain up to 15 digits.

Note

Excel sometimes removes leading zeros (0). Be sure to check your numbers and replace them if necessary.

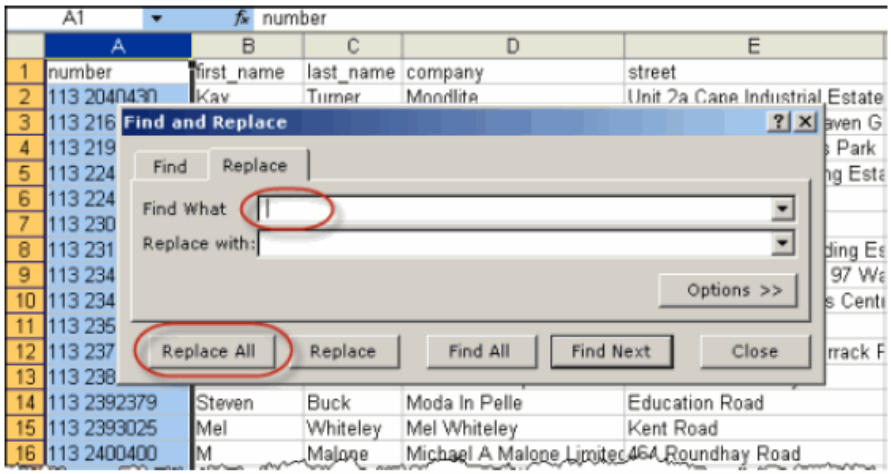
1 Open the call list in your spreadsheet program.

2 Remove leading and trailing spaces in the Phone Number column.

   a To highlight the phone number column, click the column letter.

   b Select **Edit > Replace**.

   c In the Find What text box, press the <Backspace> key to make sure there are no extra spaces and press the <Space Bar> once.



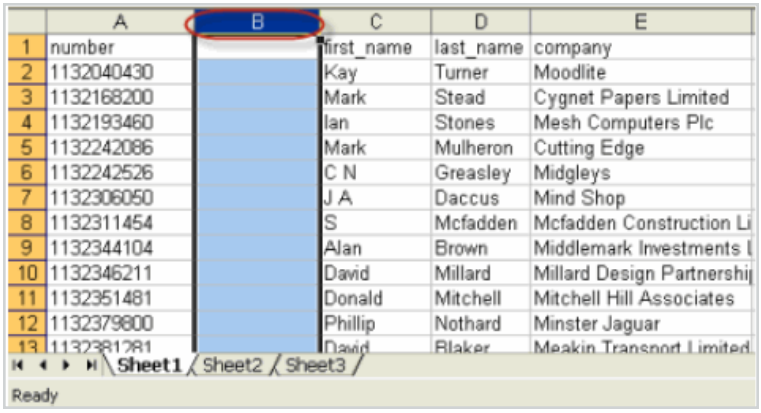
   d Click **Replace All**.

3 Add the international and country codes.

   To facilitate processing, group numbers in the list by country code.

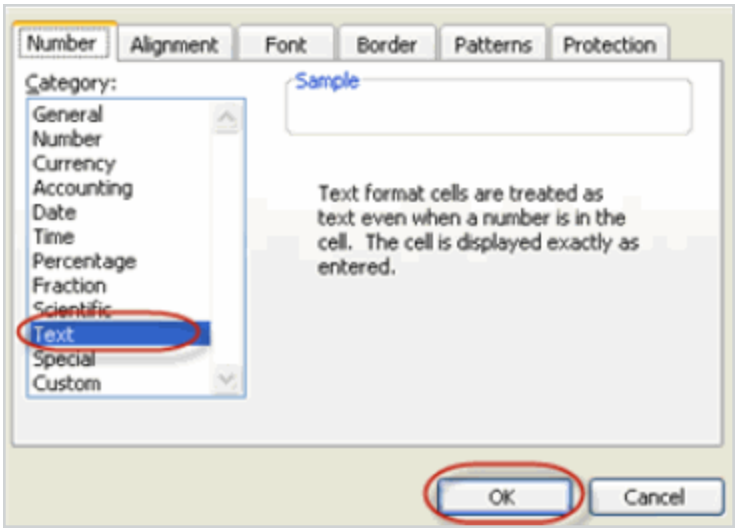
   a Insert a new column to the right of the phone number column.

   b Highlight the new column.



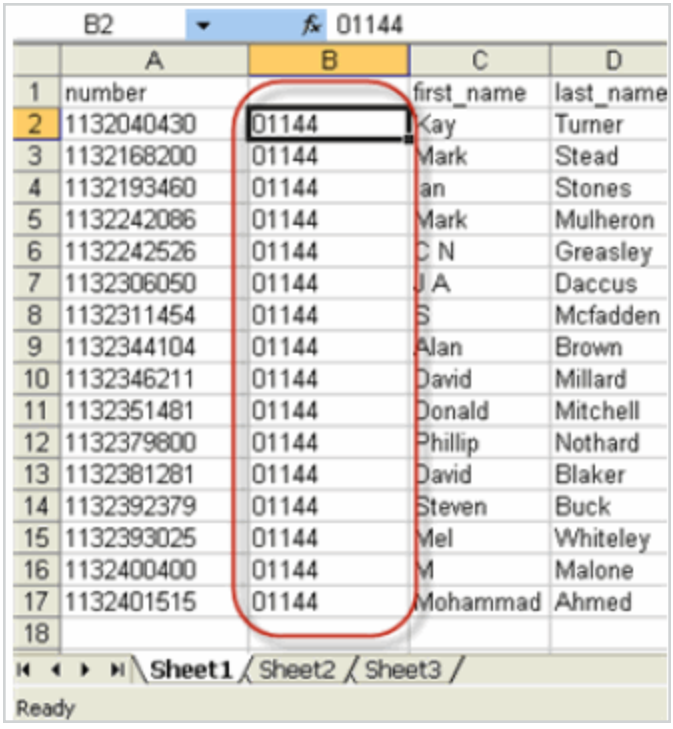
   c Right-click the column heading, and select **Format Cells**.

d In the Number tab, click **Text** and **OK**.



e In the second line below the header line, enter 011 and the country code.

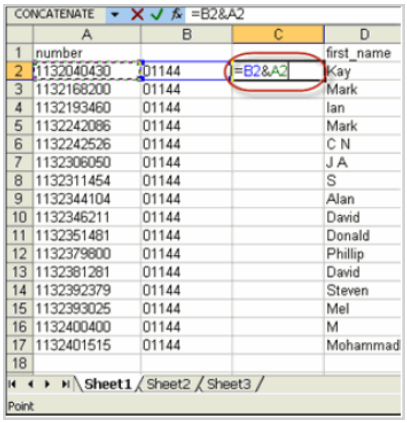
f Copy this value to all the cells below.



4 Combine the codes and number columns.

a Insert another column to the right of the 011+ country code column.

b In the second row, enter this formula: **=B2&A2**



c The new cell now contains 011 + country code + phone number.

d Copy the formula to all the cells in the new column.

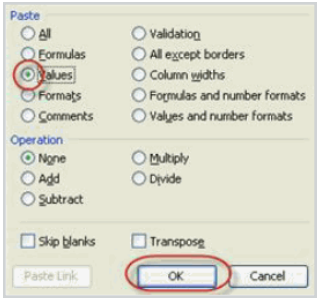
5 Replace the formula with the value or result of the formula.

a Select the column with the combined phone number (the column with the formula).

b Right-click the column, and select **Copy**.

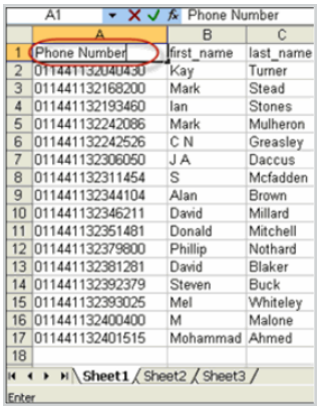
c Right-click the column again, and select **Paste Special**.

d From the Paste Special window, select **Values**, and click **OK**.



e Delete the *original number* and *011+country code* columns.

f Enter a name for the new phone number column in the first line.



g Save the file as CSV format.

If you reopen a file as created above after saving it, the application removes the leading zero in the phone number. It is important to complete all editing before closing the file. You may a text editor to edit the file after saving it.

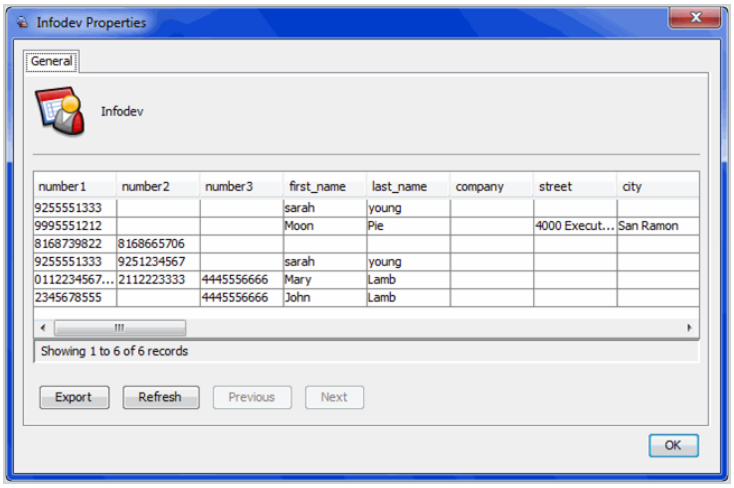
The file can now be uploaded as a list. See **Importing and Updating Call Lists**.

Exporting Call Lists

Follow these steps.

1 Double-click a list, or right-click a list and select **View properties**.

Depending on the size of your list, you may need to wait a few minutes.

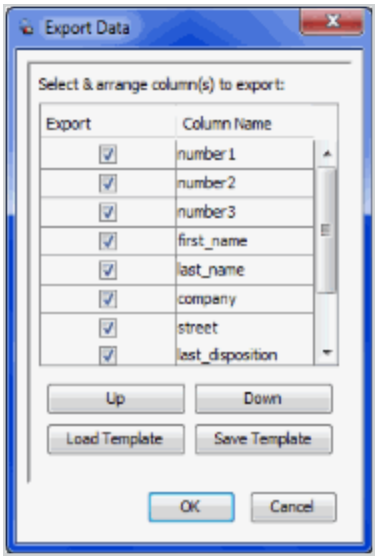


2 To export the list, click **Export**.

3 Save the file on your computer.

4 Click **Save**.

5 Check the boxes of the fields that you want to export.



6 To arrange the order of fields, click **Up** or **Down**.

7 Choose a template:
   - To open an export template, click **Load Template**.
   - To save the current template for future use, click **Save Template**.

8 When done, click **Export**.

   A message with the export results appears.

Contacts

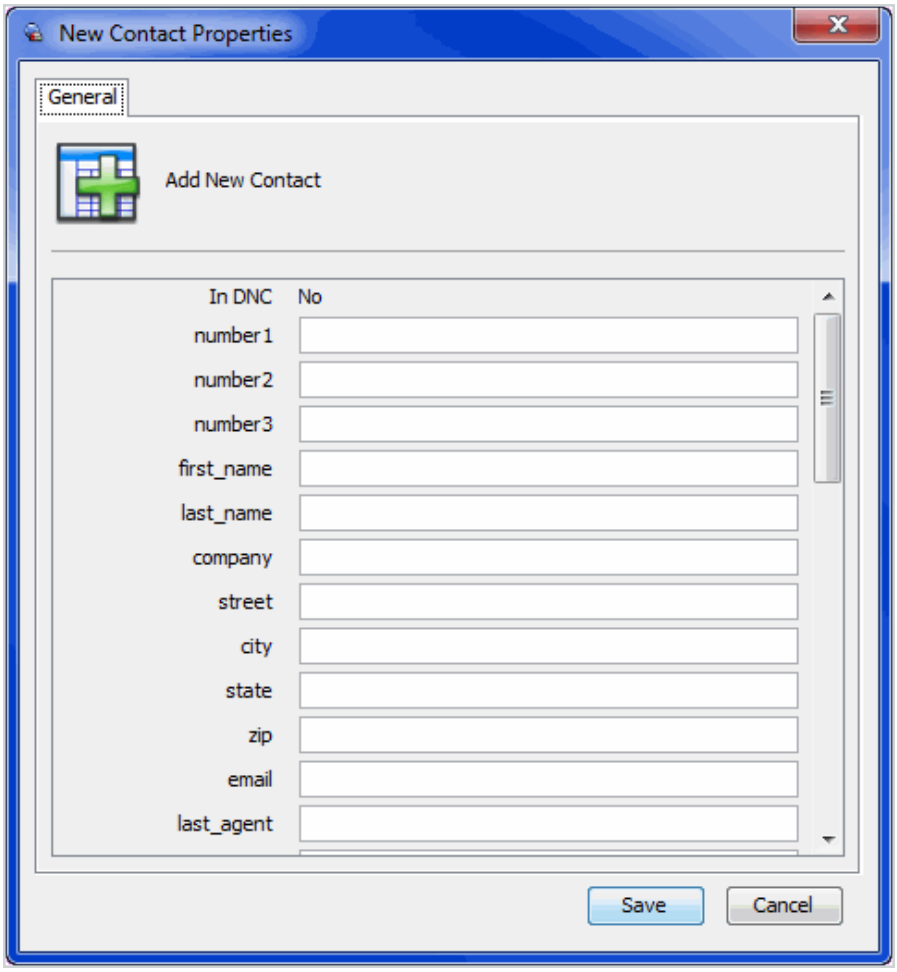
Contact Data Fields
Adding Contact Records
Filtering Contacts
Updating Contacts
Scheduling a Contact Database Update
Removing Contacts
Managing Contact Fields
Data Types

Your Virtual Contact Center (VCC) contacts are stored in a database that you update by importing a list, importing contact records, or updating individual contact records. When a call is connected to an agent, the information for that contact is displayed to the agent.

Contact Data Fields

The contact database has eight default data fields that cannot be deleted, but you can add custom fields as needed. This table describes the default fields:

Number fields	Enter up to three phone numbers for a contact.
first_name	First name of the contact. Text field; up to 250 characters
last_name	Last name of the contact. Text field; up to 250 characters
Company	Company name. Text field; up to 250 characters
Street	Street address of the contact's company. Text field; up to 250 characters
City, State	Text field; up to 250 characters
Zip Code	Text field; up to 250 characters



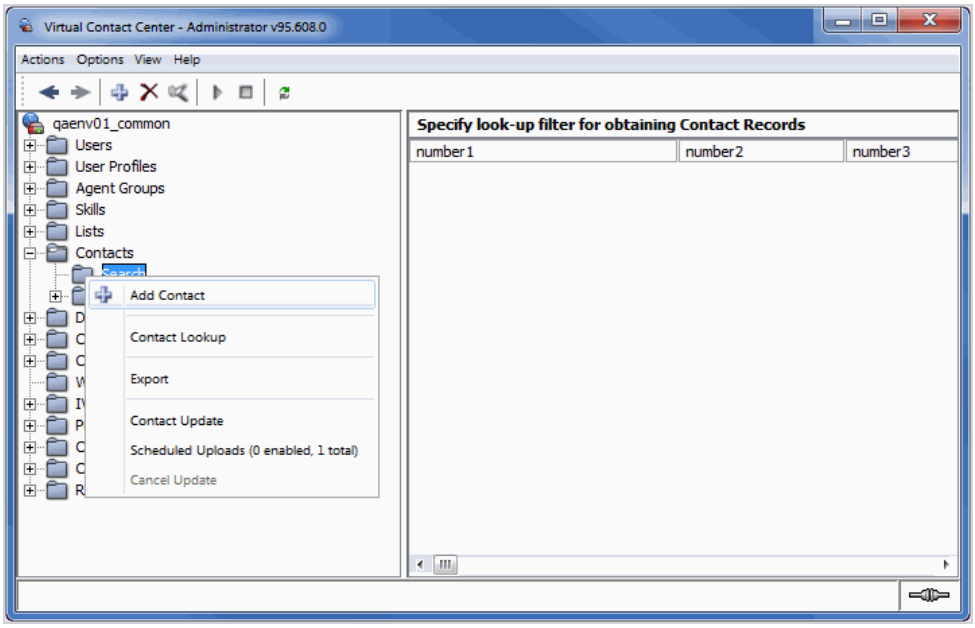
Multiple records can contain the same number.

If your lists or contact records contain one or more fields that do not currently have an associated contact field, add the new field your the Virtual Contact Center (VCC) domain definitions before you update your lists and contact record. You may configure custom contacts fields to accept only certain text formats.

To display records, use the **Lookup Contact Record** function. Contact records matching search criteria appear in the **List** pane on the right. See **Filtering Contacts**. You can use Lists to add, edit, or remove a contact record or work directly in **Contact** folder.

Adding Contact Records

1 Open the Contacts folder, and right-click the Search folder.



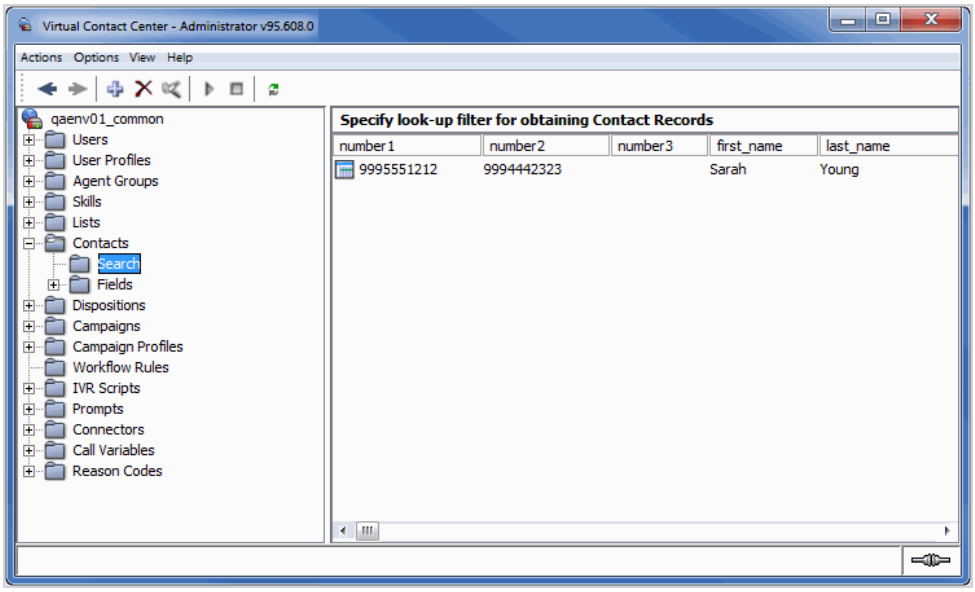
2 Select **Add Contact**.

3 Enter the details of the new contact record.

You can use standard and custom fields.

4 Click **Save**.

A new row appears in the list.

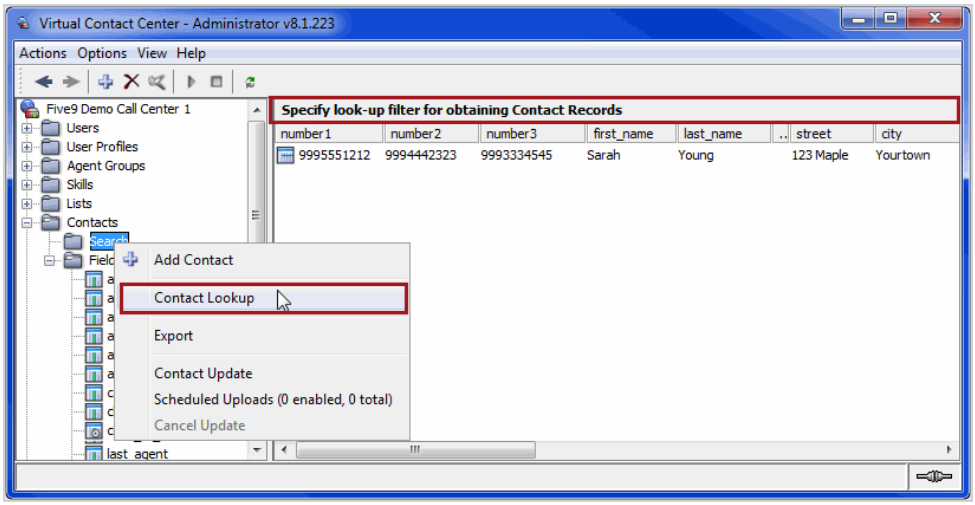


Filtering Contacts

You can see all contact records or only records with specified criteria. The results of a search are limited to 1,000 contact records.

1 Select **Contacts > Search**, and select **Contact Lookup**, or click the line above the fields in the main window.

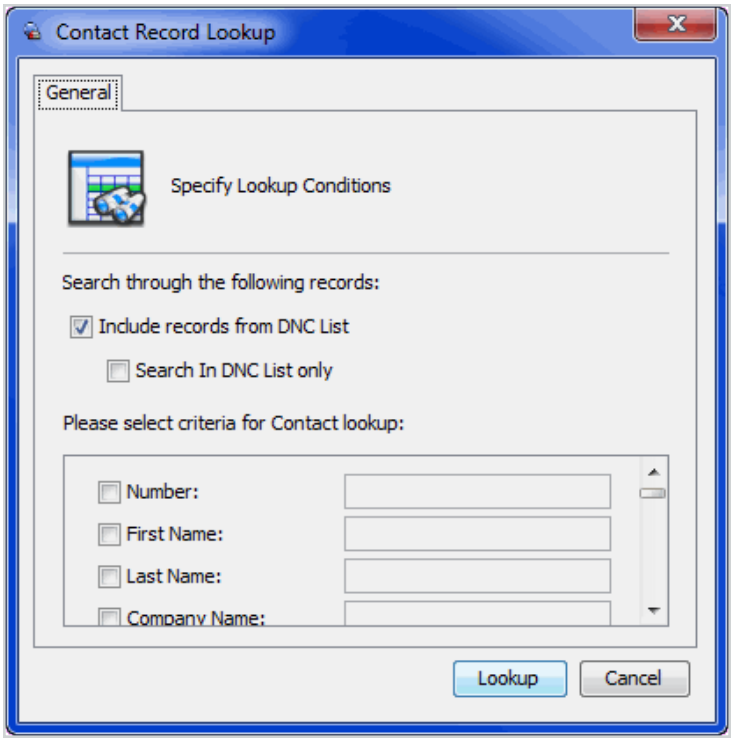
Both options are highlighted in this figure.



2 To define your search options, check the appropriate boxes and enter a value.

To display all existing records, do not define values. To define a subset of all possible characters, use wild cards:

- To match zero or more characters, use the percent sign (%), for example: `%555%` to find 9255572000, 9289235552 or 9234555233.
- To substitute a single character, use underscores (_), for example: to find 1235551234, use `___555____` (3 underscores + 555 + 4 underscores).



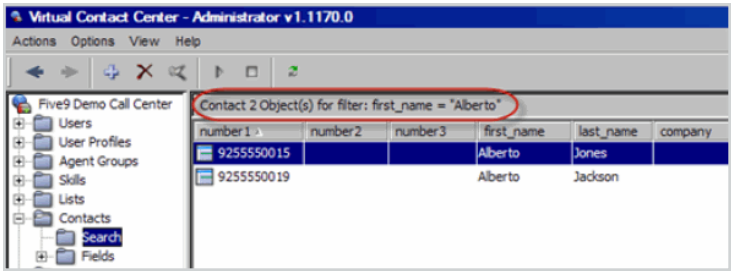
3 Optionally, search the DNC list:

   a To include records with all numbers in the Do Not Call list, check Include records from DNC List.

   b To search only for records that have all numbers in your Do Not Call list, check the Search In DNC List Only options.

4 Click **Lookup**.

   Only complete matches appear. The number of matching records and the filters appear in the line above the columns in the main pane.



Updating Contacts

You can update contact records in many ways:

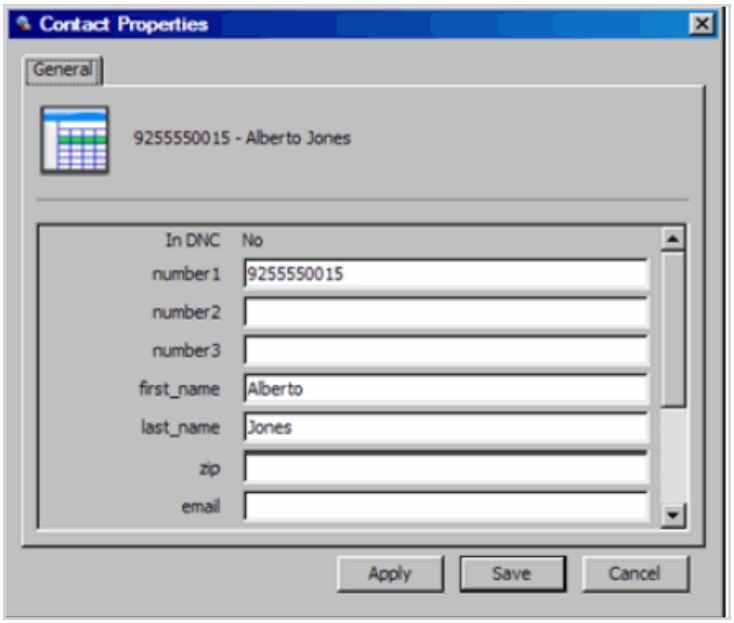
- Editing the properties of individual records
- Importing a file
- Manually editing the table
- Scheduling automatic updates by FTP
- Importing/Updating Call Lists
- Enabling agents to update Contact records

Editing Individual Records

1. Search for the records that you want.
2. Select up to 10 contacts to edit.
3. Double-click a record, or right-click several records and select **Edit Selected Contact Record(s)**.



The properties window appears. If you selected several records, each record appears in a separate window.



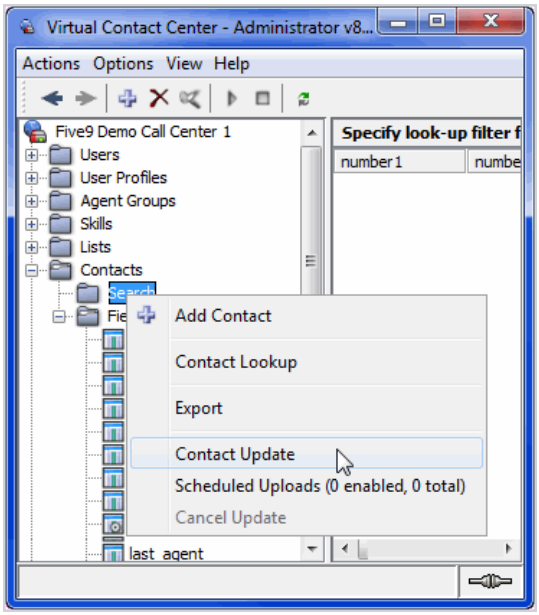
4 Modify the fields.

5 When done, click **Save** or **Apply**.

Importing Data Manually or from Files

Use this method to update your database.

1 Right-click the Search folder, and select **Contact Update**.

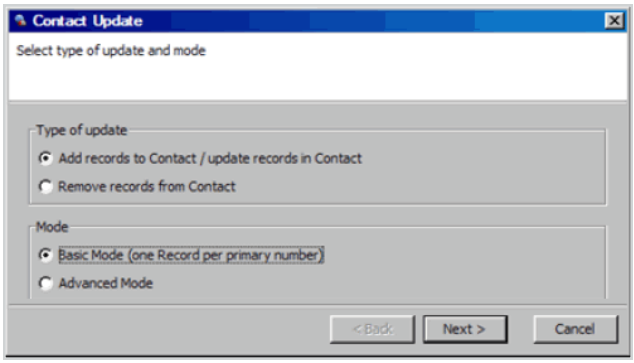


2 In the wizard, select your options.

Type of update: Add records to Contact/update records in Contact

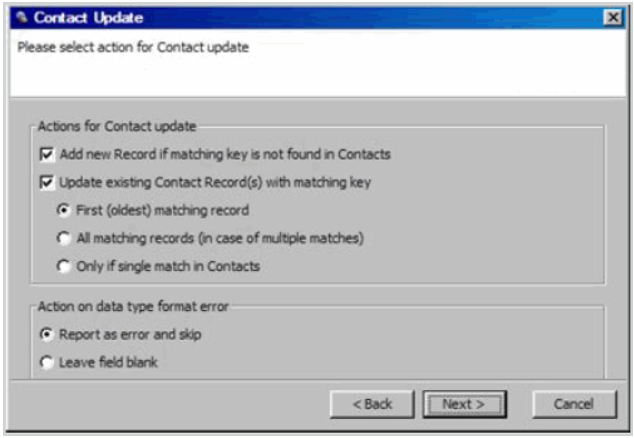
Mode:

- Basic mode: one record for each primary number. Use only if your contacts have unique primary numbers (`number1` field).
  - Records with keys that do not match records in your contact are added to your database.
  - Records with keys that match existing records in your contact are updated with the information in the source file. If multiple matches occur in your contact, only the matching record that was created first is updated.
- Advanced mode: multiple unique keys and manually set mapping. See **Understanding Field Mapping and Unique Keys**. The Advanced Mode contains an additional step. The unique key of a record (field mapping step of the wizard) may be changed to any combination of contact fields.



3 Click **Next**.

This step appears only if you selected the Advanced mode.



4 Select your options:

To update records, you must check at least one box.

- Add new record if matching key is not found in Contact - new records are added to your contacts if they are not already found.
- Update existing Contact record(s) with matching key - existing records are updated with the data from the source file.
  - First (oldest) matching record: Only the record that was created first is updated.
  - All matching records (in case of multiple matches): All matching records are updated.
  - Only if single match in Contact: Records are updated only if other matching records are not found.
- Action on data type format error - This setting determines how to treat records with field values that do not conform to data types selected in the

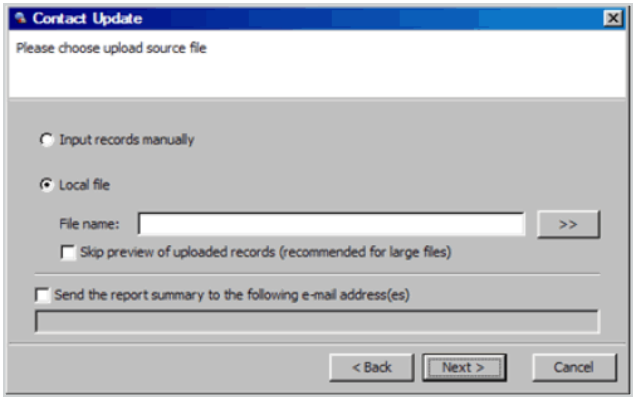
Contacts folder.

- Report as error and skip - The error is reported, and the record is skipped.
- Leave field blank - The non-conforming field is left blank; the other fields of the contact record are added or updated.

5 Click **Next**.

6 Select either manual import or a file in CSV format.

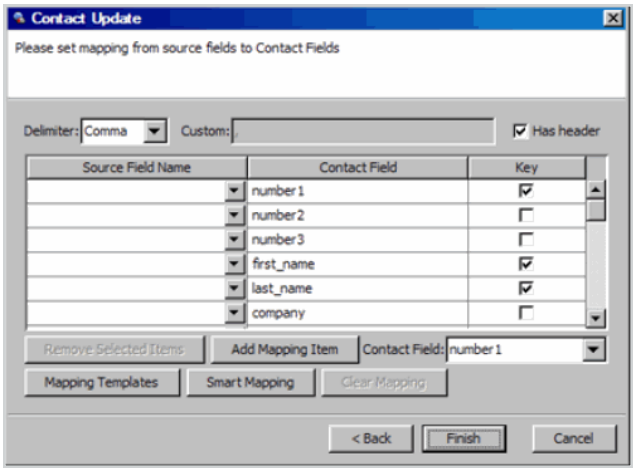
- Manual import: to edit a number of existing fields or add a few records. You can update the call list by manually entering data in the fields of the table.
- File in CSV format: to add or update large numbers of records. See also **Importing and Updating Call Lists** and **Converting a Spreadsheet to CSV Format**.



7 Optionally, to skip the last step of the wizard, check **Skip preview of uploaded records (recommended for large files)**.

8 Optionally, check **Send the report summary to the following e-mail address(es)**, and enter a comma-separated list of the email addresses.

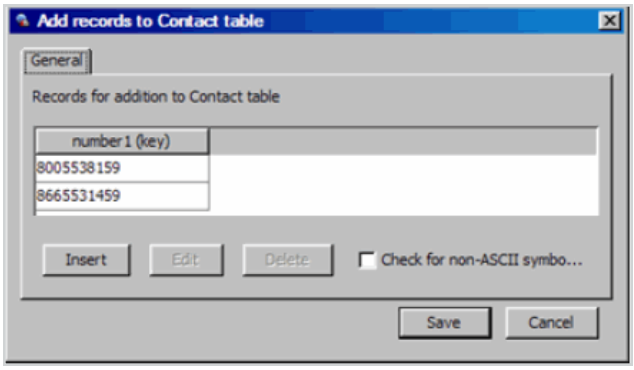
9 Click **Next**.



10 In the Source Field Name column, select the corresponding columns or the position number of the columns in your source file if your file does not have a header that you would like to update.

11 Click **Finish**.

12 To add the records to the database, click **Save**.

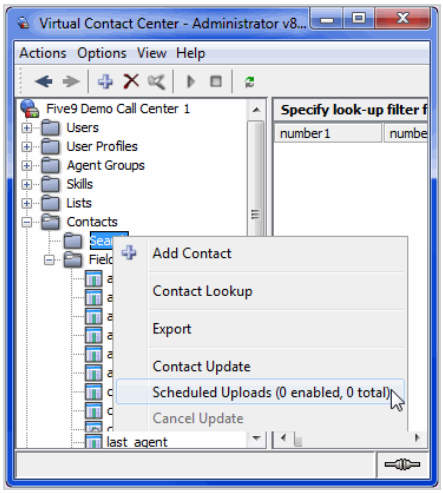


13 Click **OK** twice.

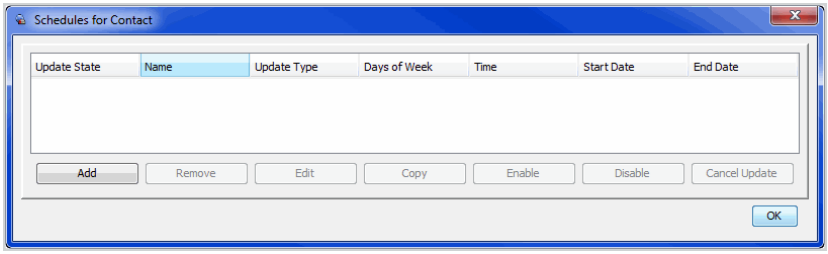
Scheduling a Contact Database Update

You can schedule the database update for a specific date and time.

1 Right-click the **Search** folder, and select **Scheduled Uploads**.

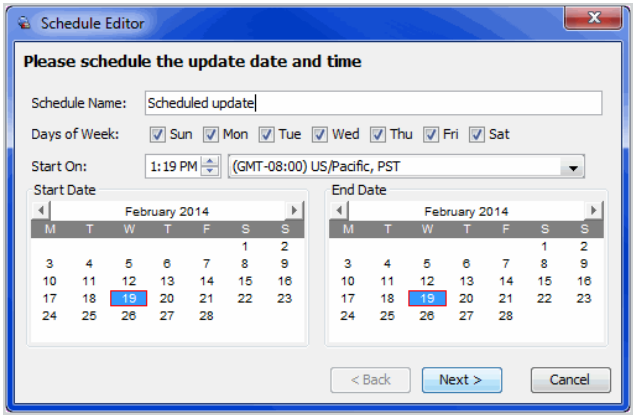


2 Click **Add** to create a new schedule update.



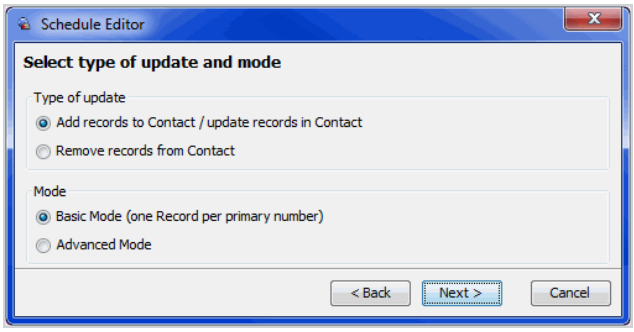
See [Scheduling Call List Updates](). The next step in the process is the same.

3 Set a date and time.



4 Click **Next**.

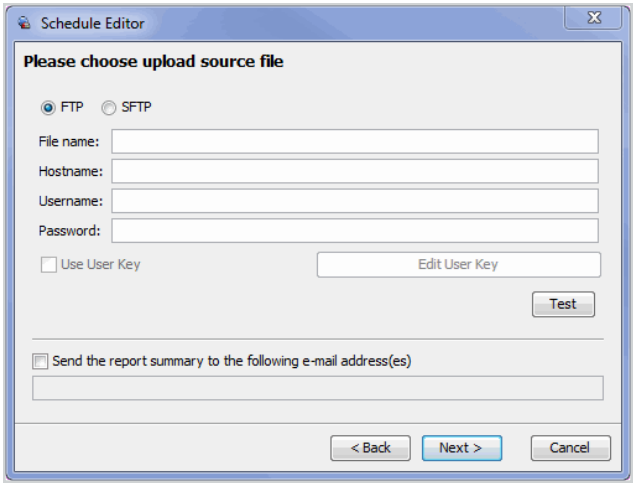
5 Select a type and mode.



6 Select your FTP file upload settings.

All fields are required. Verify that the entries are correct to avoid FTP connection problems.

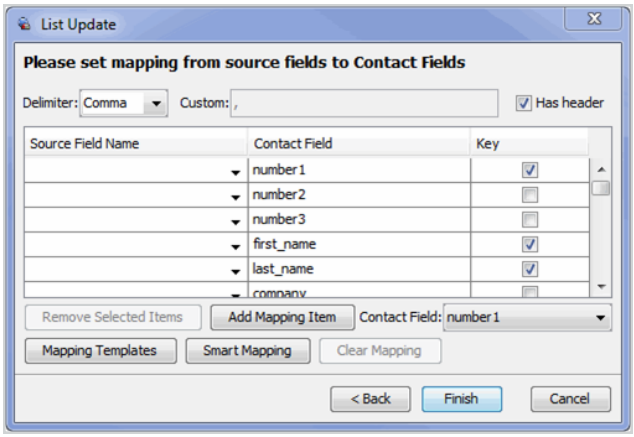
- File name - The name of the file containing the list updates.
- FTP address - The FTP server address.
- Login - The user name that is used to access the FTP server.
- Password - The password that is used to access the FTP server.



7 Optionally, check **Send the report summary to the following e-mail address(es)**, and enter a comma-separated list of the email addresses.

8 Click **Next**.

If you do not select fields for the displayed contact fields, they are not updated.



9 From the Delimiter menu, select a delimiter to separate the fields in the file: comma, colon, semicolon, or custom (you select the character(s) used as delimiters in the source file).

10 If the first row in the file contains the column headings with the names of the fields, check **Has header**.

Column headings are listed in the Source Field Name column menus. Smart Mapping is now enabled.

11 Map the file fields to the contact database fields.

See Mapping Fields During List Update for instructions. When the updates occur, fields are mapped by using column position numbers instead of the column headings.

12 When done, click **Finish**.

The new schedule appears in the list. The status of the update is indicated in the Update State column.

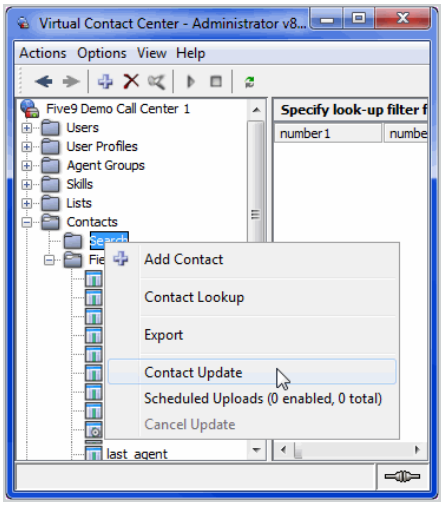
Removing Contacts

You can also delete Contact records from a particular call list.

Removing Records Manually or from File

You can use this method if you have contacts in a file in CSV format. This method is appropriate for removing large numbers of records in the database. See **Importing and Updating Call Lists** for more information about this file format.

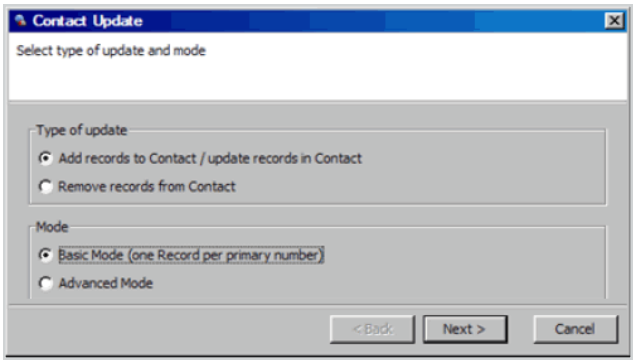
1 Right-click the Search folder, and select **Contact Update**.



2 Select your options.

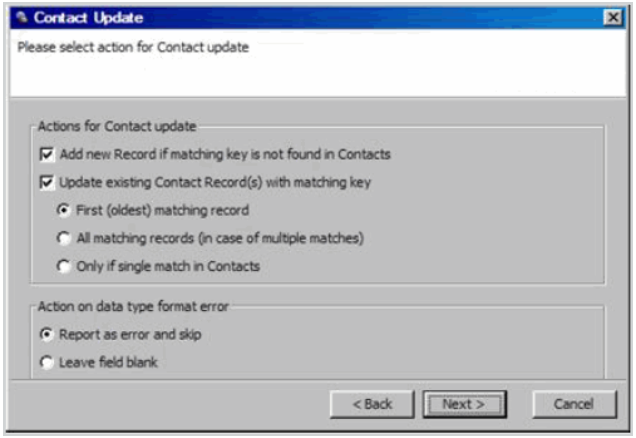
Type of update: Remove records from Contact.

- Basic mode: one record for each primary number. Use only if your contacts have unique primary numbers (`number1` field). All records, including duplicates, with keys that match existing records in your contact are removed.
- Advanced mode: multiple unique keys and manually set mapping. The Advanced Mode contains an additional step. The unique key of a record (field mapping step of the wizard) may be changed to any combination of contact fields. See **Understanding Field Mapping and Unique Keys**.



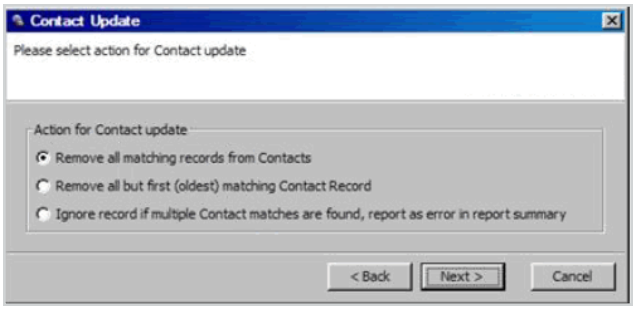
3 Click **Next**.

This step appears only if you selected the Advanced mode.



4 Select your options:

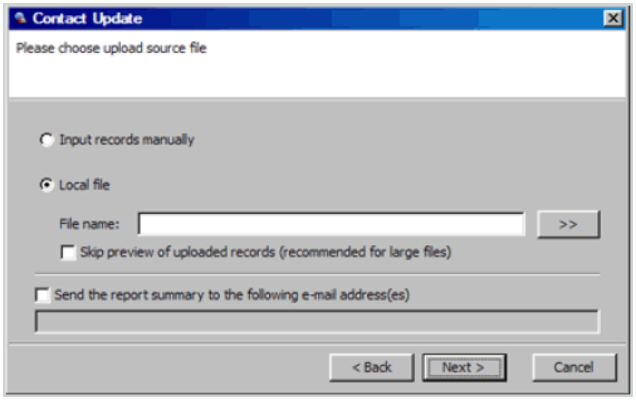
- Remove all matching records from Contact.
- Remove all but first (oldest) matching Contact Record - Recommended only for cleaning up a database with duplicate records.
- Ignore record if multiple Contact matches are found, report as error in report summary - Recommended only if checking report emails to see which records are duplicates.



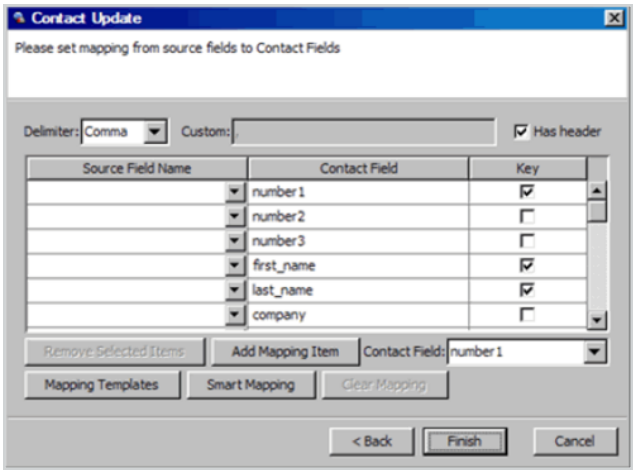
5 Click **Next**.

6 Select either manual import or a file in CSV format.

- Manual import: to edit a number of existing fields or add a few records. You can update the call list by manually entering data in the fields of the table.
- File in CSV format: to add or update large numbers of records. See **Importing and Updating Call Lists** and **Converting a Spreadsheet to CSV Format**



7 Click **Next**.



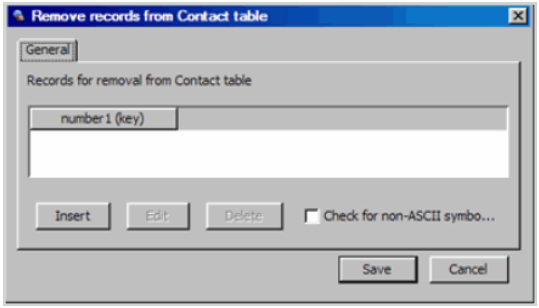
8 In the Key column, select the boxes next to each key field.

By default, the `number1`, `first_name`, and `last_name` fields are checked.

9 Click **Finish** and **OK**.

10 Check the list to ensure that the fields are correct.

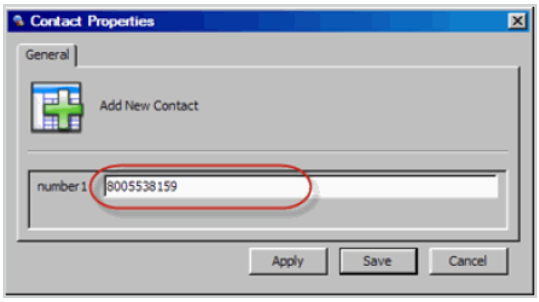
For the manual update type, the list of records is empty. This window enables you to manually add records to be removed from the list.



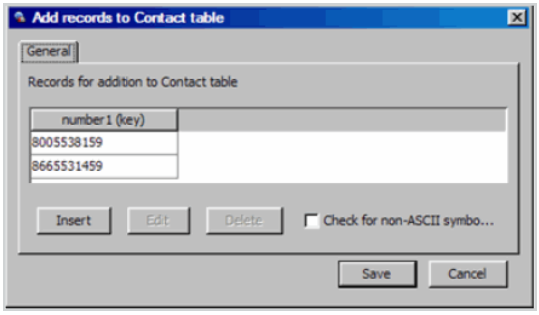
11 To insert a record, click **Insert**.

12 Enter the key fields to insert into the list and click **Apply** or **Save**.

Phone numbers must be either 10 digits for dialing within North America or begin with 011 for International numbers. International numbers length should be no more than 20 digits.



A new line appears.



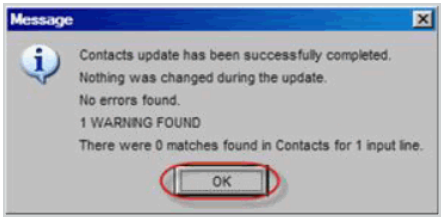
13 To modify the information, click a row and **Edit**, or double-click the row.

14 When done, click **Save**.

15 To delete the listed records from the database, select **Yes**.

16 Click **OK** twice.

You see messages about the results of the removal. In the following example, the process results with a warning: one of the entered records did not match an existing entry in the Contact database.



To see the updated record information, see **Filtering Contacts**.

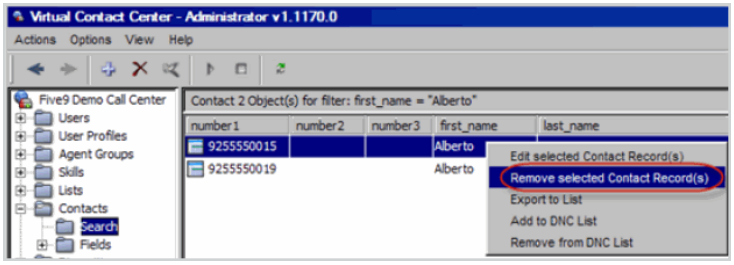
Removing Contact Records with the Search Option

Use the search option to delete records.

1 Search for the records that you want.

2 Select up to 10 contacts to edit.

3 Double-click a record, or right-click several records and select **Remove Selected Contact Record(s)**.

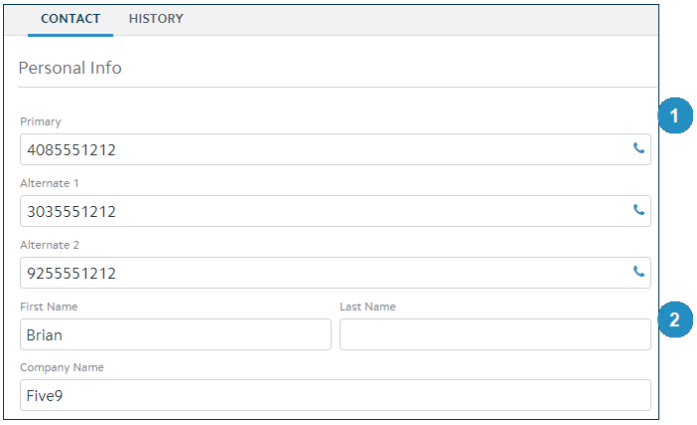


4 Click **Yes**.

Managing Contact Fields

Your contacts are stored in a database that you can update by importing a list or when an agent updates a contact record. The contact database has eight standard data fields. You can access the contact fields under **Contacts > Fields**. The list contains these columns:

- Field Name
- Data Type: See **Data Types** for a list of data types.
- Field Type (System, Mapped, Custom): See the descriptions of each type below.
- Display As: How fields appear in the agent application. Custom fields may be hidden or displayed as long or short fields on the agent's Current Call window.



1 Long Field Display
2 Short Field Display

The Contacts folder contains 10 system contact fields, which you cannot modify or delete. You can only choose how to display them.

number	company
number2	street
number3	city
first_name	state
last_name	zip

Adding Contact Fields
Removing Custom Contact Fields

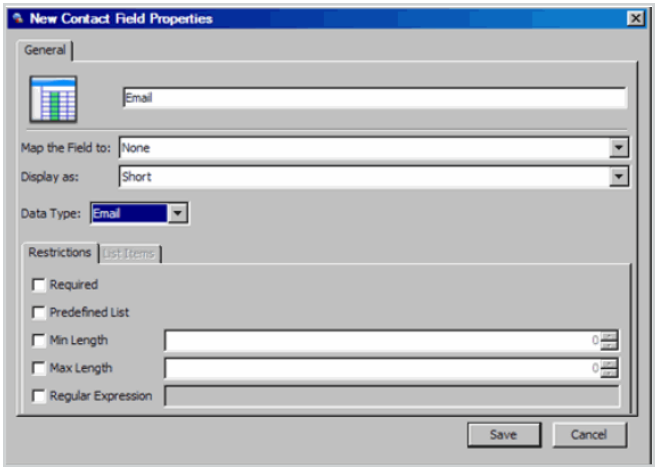
Adding Contact Fields

You can have a total of 125 contact fields. Because you already have 10 system fields, you can create up to 115 contact fields.

Before importing a list or adding contact records, check for any new fields that you may need to add. If your dialing list or contact list contains one or more fields that do not currently have an associated contact field, add the new field.

Example

Email is not a default field. Therefore, you need to add a custom contact field if you want to store this information. It is important that you create only one field with the email field type for digital engagement use.



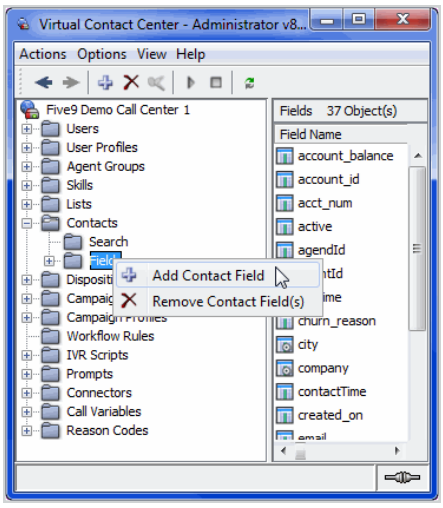
A field must exist before you can import data, but the names do not need to match exactly. In addition, if you have fields that you do not want to import into Five9, you can ignore them during the import process. Fields are not set until the record is assigned a disposition either by an agent or with a system disposition.

Important

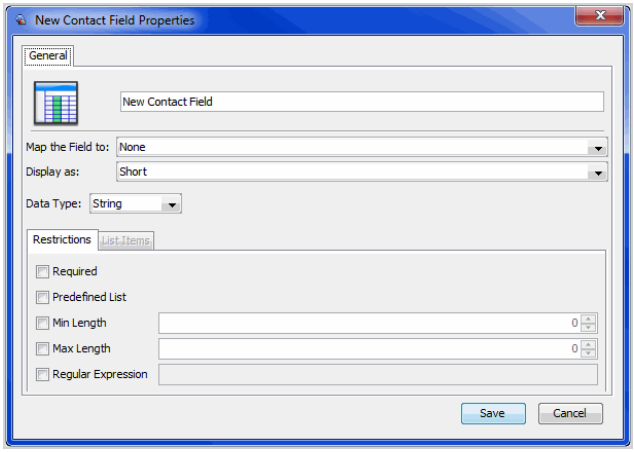
If you are enabled for the multi-channel features and plan to use the email functionality, you must create a contact field labeled email and of Data Type: Email.

1 Open the Contacts folder.

2 Right-click the Fields folder, and select **Add Contact Field**.

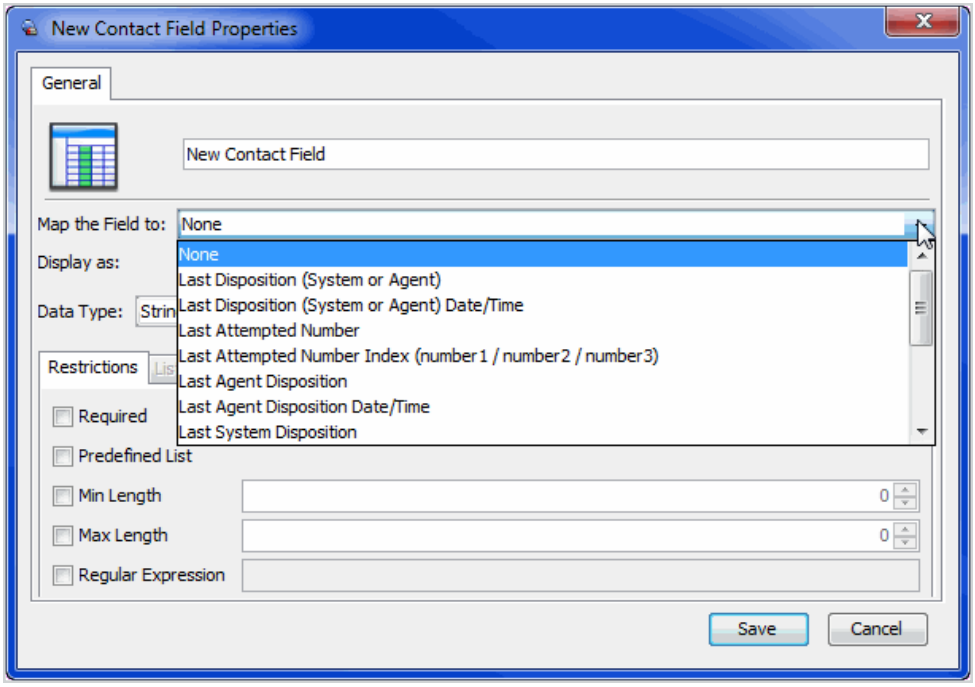


3 In the properties window, enter a field name, and select your options:



4 If needed, select an automatic mapping for the field.

Mapped fields can be used to store information about the last system and agent dispositions, the last attempted phone number, last campaign, last list, dialer, and last agent to use the record, with the fields being updated at the time that a disposition is set. Fields can be configured to save time stamps for when the record was last modified or originally created. These fields can be used with campaign profile filtering and sorting criteria for optimal dialing of your contacts. They can also be used for reporting. Some of the options for mapped fields, such as Last Disposition, are available as variables or functions in campaign profile filter configuration and do not need to be added as Contact Fields to be used for filtering.



- None: Custom fields that you do not want the system to automatically populate or is filled in manually by list upload.
- Last Disposition (System or Agent): Last call disposition recorded for the contact record. It does not matter if the disposition is set by an agent or the system. This information is updated the next time that a disposition is set.
- Last Disposition (System or Agent) Date/Time: Date and time that the last disposition is set. This information is updated the next time that a disposition is set.

- Last Attempted Number: Phone number last attempted by the dialer. Useful if dialing multiple phone numbers for contact records. This information is updated the next time that a disposition is set.
- Last Attempted Number Index (number1/number2/number 3): `number1`, `number2`, or `number3` indicating the phone number last dialed. This information is updated the next time that a disposition is set.
- Last Agent Disposition: Only dispositions selected by agents are populated to the field. System dispositions are excluded. This information is updated the next time that a disposition is set.
- Last Agent Disposition Date/Time: Time and date that the last agent disposition is set. This information is updated the next time that a disposition is set.
- Last System Disposition: Only system dispositions are populated to the field. Agent dispositions are excluded. This information is updated the next time that a disposition is set.
- Last System Disposition Date/Time: Time and date that the last system disposition is set. This information is updated the next time that a disposition is set.
- Last Campaign: name of the last campaign that dialed the contact record (if using multiple campaigns). This information is updated the next time that a disposition is set.
- Number of Attempts for Last Campaign: Number of dial attempts made to the contact record for the last campaign that dialed it. This information is updated the next time that a disposition is set.
  - This mapping supports Number and String data types. Number data type is the default value for new contact field mappings.
  - Number data type can be used for number-based sorting and filtering.
- Contact Record Created Date/Time: Date and time that the contact record was created. This field is populated if the record was created by an agent, API or Web2Campaign request, or manually by an administrator with List Update or Contact Update.
- Contact Record Last Modified Date/Time: Date and time that the contact record was last modified. Modifications performed by using List Update or Contact Update are displayed.

- Last List: Last list from which the record was dialed. This information is updated the next time that a disposition is set.
- Last Agent: Last agent to process a call for this contact record. This information is updated the next time that a disposition is set.

5 Select the display mode.

This option enables you to control how contact fields appear in the Agent Current Call screen by default. Settings in User and Campaign Profiles can override this setting.

- Short - length of the field as seen in the agent screen.
- Long - length of the field as seen in the agent screen.
- Do Not Display - Hides the field from the agent's view. This option can be used for information that is not needed by agents for processing calls but is needed for reporting or contact criteria in a profile. For example, it may not be necessary to display some of the mapped contact fields to agents.

6 Select the data type and the options (display format) for the selected data type: String, Number, Date, Time, Date/Time, Currency, Boolean, Percent, Email, URL, Phone, and Duration.

See **Data Types**.

7 Define the Restrictions options.

- Required - required for every contact record. Fields marked Required are visible and editable in all user profile and campaign profile screens.
- Predefined List - Not available for Date, Time, Date/Time, Boolean, Duration data types. This option enables the List Items tab.

> **Note**
> If the type is string, you cannot use the custom field as report criterion.

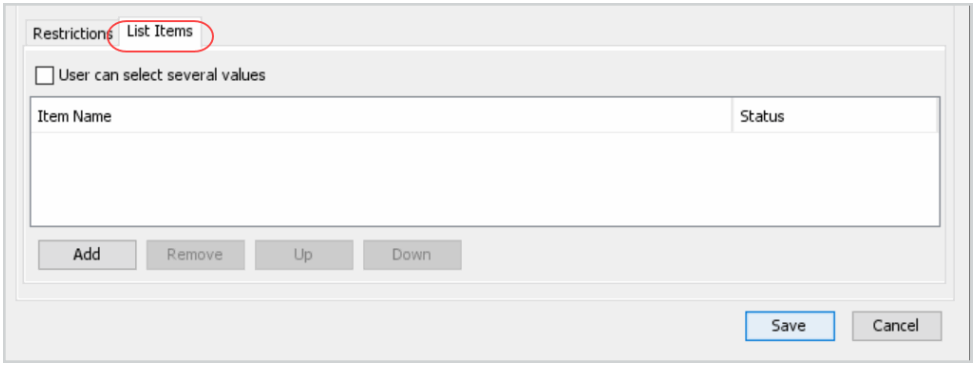
- Min Length/Min Value - minimum number of characters that may be entered in this field. Not available for predefined list. Not available for Phone and Boolean data types.
- Max Length/Max Value - maximum number of characters that may be entered in this field. Not available for predefined list. Not available for Phone and Boolean data types.

- Regular Expression - Not available for predefined list. Not available for Date, Time, Date/Time, Boolean, and Duration data types. Regular expressions are an option to use for input validation to ensure consistent data entry. For instance, a regular expression can be used to validate that a record locator in a travel reservation conformed to a specific pattern or combination of alphanumeric symbols (for example, ABC123). Patterns are defined using POSIX, Perl, or ASCII regex syntaxes. For example, using the ASCII syntax, a pattern with three upper-case letters, followed by three digits, could be configured as:

  [A-Z][A-Z][A-Z][0-9][0-9][0-9]

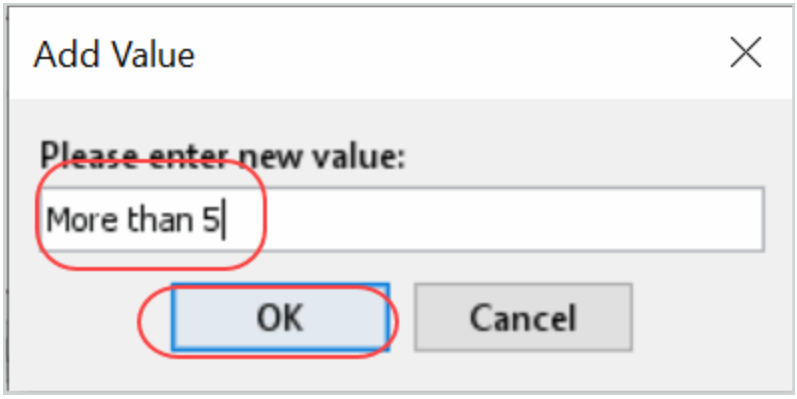
8 Define the List Items that users may select.

You can add up to 80 list items.

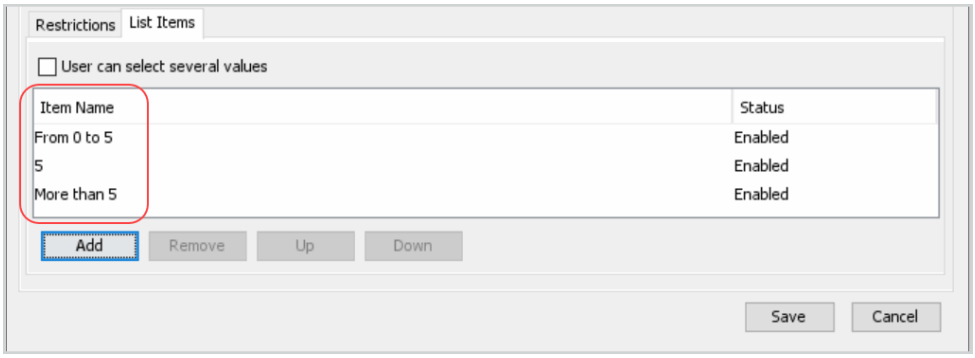


9 To create a value, click **Add**.

10 Enter a value, and click **OK**.



11 Configure possible values and answer criteria.



12 Optionally, to allow users to select multiple items from the list, check **User can select several values**.

For example, for a Pets field, you may allow users to select Cat *and* Dog values.

13 To arrange the values, click **Up** and **Down**.

14 Click **Save**.

A new row appears in the list. It is marked Custom or Mapped.

Removing Custom Contact Fields

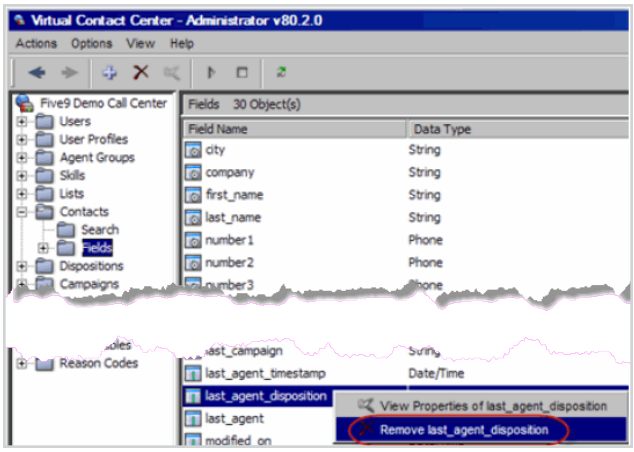
You can remove custom contact fields but not default contact fields. Before removing contact fields, stop all running campaigns.

Important

Before deleting a custom contact field, ensure that the field is not used in any campaign profile. Otherwise you see an error message.

1 Open the Contacts folder, and click the Fields folder.

2 In the list, right-click a field and select **Remove**.



3 Click **Yes**.

Data Types

Five9 supports multiple field data types. Data types apply to worksheets, variables, and contact fields. This table contains all options for each data type. Use these data types to simplify data consistency control.

Data Type	View Type *(not predefined lists)*	Other Options	Display Format *
String	• Multi-line • Single Line		
Number	• Single Line	• Digits before decimal point (1–16) • Digits after decimal point (0–15) Total available number of characters = 16.	

Data Type	View Type *(not predefined lists)*	Other Options	Display Format *
		Note: The system doesn't support negative numbers.	
Date	• Multi-line • Single Line		• yyyy-MM-dd • MM/dd/yyyy • MM-dd-yyyy • MM-dd-yy • MMM dd • yyyy • dd MMM • dd-MM • MM-dd
Time	• Multi-line • Single Line		• HH:mm:ss.SSS • HH:mm:ss • HH:mm • hh:mm a • HH • hh a • H:mm • h:mm a
Date/Time	• Single Line		Same as Date and Time
Currency	• Single Line	• Digits before decimal point (1–16) • Digits after decimal point (0–15) Total available number of characters = 16. • Currency Type ($, €, £)	
Boolean	• Single Line		
Percent	• Single Line	• Digits before decimal point (1–16)	

Data Type	View Type *(not predefined lists)*	Other Options	Display Format *
		• Digits after decimal point (0–15) Total available number of characters = 16.	
Email	• Single Line		
Phone	• Single Line		
Duration	• Single Line		• hh:mm:ss.SSS • hh:mm:ss • hh:mm • hh • mm:ss.SSS • mm:ss • mm • ss.SSS • ss SSS

**** The display format for custom date, time, or date and time fields doesn't affect the format used in connector parameter values:***

- ***Date values use the `yyyyMMdd` format.***
- ***Time values use the `HHmmssSSS` format.***
- ***Date/Time values use the `yyyyMMddHHmmssSSS` format.***

Dispositions

Types of Dispositions
Accessing Disposition Properties
Changing System Dispositions
System Dispositions
Adding Custom Dispositions
Configuring Custom Dispositions
Email Notifications for Dispositions
Instant Message Notification for Dispositions

A disposition is used by agents to set the status or result of an interaction. Dispositions appear in reports. Two types of dispositions are open and closed. Both system and custom dispositions are available:

- System Dispositions - System dispositions are provided by Five9 to help you improve the reporting results of your campaigns. You cannot remove or add system dispositions, but you can modify some of the parameters.

- Custom Dispositions - Created by you and assigned to campaigns by agents. Custom dispositions can be added, changed, or removed. Each disposition may be configured with its own parameters. For example, you may configure a disposition so that Busy numbers are redialed at five-minute intervals for up to ten times.

For outbound campaigns, you can reset dispositions for numbers that have already been dialed. When deciding on dispositions for outbound campaigns, consider these categories:

- Successful Calls (sale, lead, application taken, appointment set)
- Negative Calls (not interested, hung up, add to DNC List)
- Unknown Result (call back scheduled, left message, recycle, answering machine)

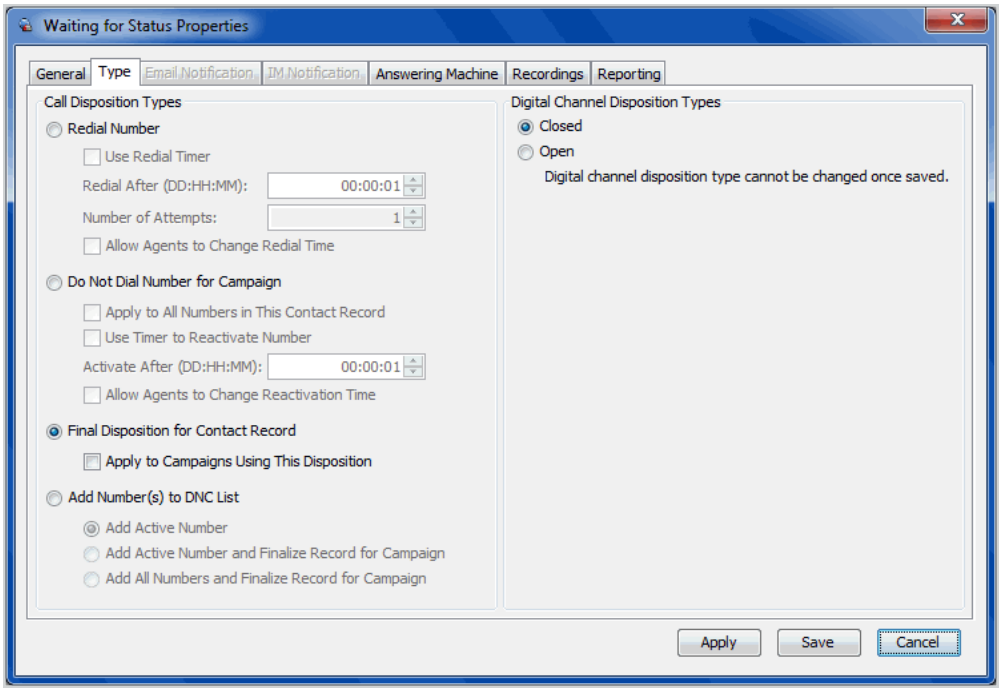
Inbound call dispositions depends on your business application. Start by creating a master list of dispositions for all campaigns. Then assign specific dispositions to campaigns from this list.

Types of Dispositions

Dispositions are always closed for voice interactions, but may be open or closed for text channel interactions. Each disposition is one of these disposition types, which may also include the **Digital Channel Disposition** type:

Redial Number Dispositions
Do Not Dial Number for Campaign Dispositions
Final Disposition For Contact Record Dispositions
Add Number To DNC List Dispositions
Digital Channel Disposition Types
Global Dispositions

The disposition type affects the behavior of the dialer. Select the type in the Type tab of each disposition. Any disposition type can also be flagged as a Digital Channel Disposition. For more detail, see the Digital Engagement Administrator's Guide.



Redial Number Dispositions

With this option configured without a redial timer, the number is dialed again when the dialer completes the list and starts over from the top. The redial time is unpredictable because you do not know when the dialer completes the first pass through the list.

When using this option without a timer, the *Minimum Duration Before Redialing Number* setting in Campaign Properties applies. See also *Number Redial Timeout* (Campaigns).

However, you can specify the redial time by selecting Use redial timer and entering the time you want to wait before trying the number again. The system attempts to dial the number as soon as possible, after that time (without first waiting to pass through the rest of the list). You can also specify the maximum number of attempts for a number when this disposition is selected consecutively.

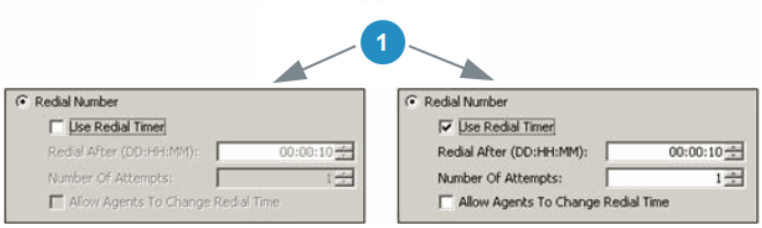
When using redial with a timer, the *Minimum Duration Before Redialing Number* setting in Campaign Properties is ignored, until the maximum number of redial attempts for the disposition is reached. You can set these additional parameters:

- Redial After (minutes) - The dialer redials the number as soon as possible after the specified time.
- Number of Attempts - The dialer redials up to the value defined in Number of Attempts if the same disposition is set sequentially.
- Allow Agents to Change Redial Time - Can be enabled only if Redial After is enabled. In the Agent application, the disposition displays an additional menu to select a redial time. The time configured in the Redial After setting is also shown to Agents as the default option for this disposition. When an agent specifies a redial time, the phone number is redialed by the campaign at the designated time and the call is delivered to any available agent that is qualified for the campaign.

This feature is useful for outbound customers whose agents work in shifts, such as when agents in the morning shift need to schedule campaign-related callbacks for agents in the evening shift.

campaign Profiles count all attempts to any of a contact record’s numbers as a dial attempt, including redials due to disposition settings. The *Campaign Profile Number of Attempts* option overrides disposition counters, rather than work with them, in cases where the Campaign Profile option is set lower than a disposition option.

The profile and disposition counters restrict dialing to individual numbers within a record, rather than to the entire record.



1 Redial Type

When using redial dispositions, consider these points:

- Numbers without a redial timer is considered for dialing by a campaign on next cycle through the list.
- Number with a redial timer is dialed again after the time specified.
- If a number was assigned a disposition with a redial timer and the dialer reaches the number again while making a new pass through the list BEFORE the redial time has been reached, it is not dialed. The number is redialed at the time specified in the disposition as opposed to the list.
- If a number receives the same Redial disposition consecutively, the dialer stops attempts when the Number of Attempts has been reached.
- When using Redial with a redial timer, the alternate phone numbers for the contact record are not dialed until this redial number is tried again. The concept is that we do not know the outcome of the original number yet, so we try it again first before attempting other numbers for the contact record.
- When using Redial without a redial timer, the alternate phone numbers for the contact are dialed without waiting for the redial number to be tried again.
- If Allow Agents To Change Redial Time is selected, the redial timer set by agents works in the same way and follows the same rules as the redial timer set by administrators.

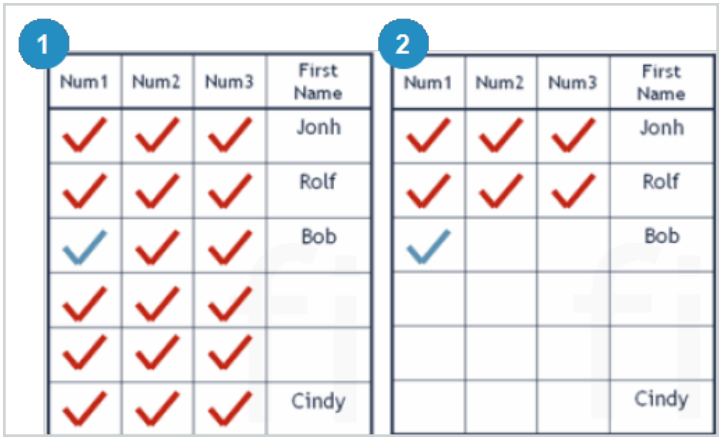
Example

Redial without redial timer: the campaign starts at 10:00AM; records are dialed consecutively.

1 At 10:10AM, the campaign dials a number that is assigned a disposition by a Redial Number disposition without a redial timer set.

2 By 2:00PM, the campaign has covered all records in the list. The first cycle of dialing took 4 hours.

3 By 2:30PM, the campaign reaches again the number that was assigned a disposition with a Redial Number disposition: the campaign attempts to dial the number again 4 hours 20 minutes after the first attempt.



1 Dial list (first pass)
2 Dial list (second pass)

Example

Redial with redial timer: the campaign starts at 10:00AM; records are dialed consecutively.

1 At 10:10AM, the campaign dials a number that was assigned a disposition as Busy (the Busy system disposition is a Redial Number disposition with the Redial After = 5 minutes and the Number of Attempts = 5).

2 By 10:15AM, the campaign tries the number again (5 minutes after receiving the original Busy disposition). It receives Busy again.

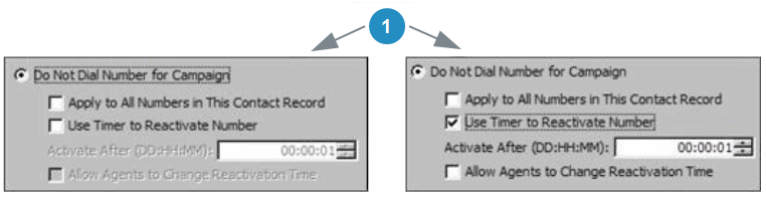
3 Four more attempts are made at 10:20AM, 10:25AM, 10:30AM, and 10:35AM. The number continues to be busy. The dialer stops dialing the number because the maximum number of attempts (5) has been

reached with this disposition.

Num1	Num2	Num3	First Name
✓	✓	✓	Jonh
✓	✓	✓	Rolf
✓	✓	✓	Bob
✓	✓	✓	
✓	✓		
			Cindy

Do Not Dial Number for Campaign Dispositions

The number is not dialed by the campaign, but other numbers from the contact record can be dialed unless the Apply to All Numbers in This Contact Record option is enabled. If the number is met in other contact records in the list, it can be dialed without restrictions.



1 DND Type

This type of disposition has three options:

- Apply to All Numbers in This Contact Record - If enabled, the dialer restricts all the contact record's numbers from being dialed, not only the number for which the disposition was set.

- Use Timer To Reactivate Number - The dialer does not dial the number in the current campaign. When this option is checked, you can set the additional parameter Activate After and set the time. This parameter means that the number becomes available again for dialing after the activation time. When using the Activate After selection, the number is dialed on the next pass through the list, assuming the activation time elapsed.

- Allow Agents to Change Reactivation Time - Can only be turned on if the Use Timer to Reactivate Number option is enabled. For the agent, the disposition enables an additional menu to select a reactivation time. The time configured in the Activate After setting is also shown to agents as the default option for this disposition. When an agent specifies a reactivation time, the phone number is reactivated by the campaign at the designated time and the dialer may later deliver the call to any available agent that is qualified for the campaign.

Example

Without an activation timer:

A record contains three numbers. The first number is assigned a do-not-dial disposition. Because every contact record can have up to three numbers to dial, the other two numbers can still be dialed. However, if Apply to All Numbers in This Contact Record is enabled, none of the numbers can be dialed.

Example

With an activation timer:

A called party asks not to be called again for at least 2 hours. The dialer considers the number on next pass in 1.5 hours but does not call, as this is before the 2-hour timer has expired. The next pass is in 3 hours. The number is redialed in 3 hours.

The vertical dialing mode does not wait until the next pass through the list to check if the timer has expired. The vertical dialing mode emulates a redial timer and redials the record when the time has expired, regardless of list position.

Final Disposition For Contact Record Dispositions

When you apply a final disposition, the contact record, including alternate phone numbers, is not dialed again by the campaign. A final decision has been made, such as Application taken or Not interested.



This type of disposition has one option: Apply To Campaigns Using This Disposition. When this option is enabled, the contact record is not dialed in any campaign that

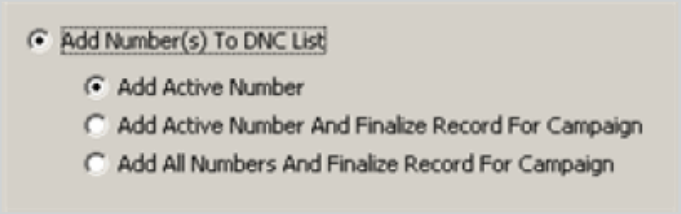
contains this disposition. A final disposition can be applied to multiple campaigns when the other campaigns are using this same disposition.

Campaigns that were created after a final disposition with the Apply To Campaigns Using This Disposition enabled was assigned to a contact record may still attempt to dial this contact record if the record exists in any lists assigned to the new campaign.

> **Note:** If the disposition is set to **Final Disposition** and if "Apply to Campaigns Using This Disposition" is enabled, the option "Apply to Campaigns Using This Disposition" does not work in the Campaign Profile Disposition menu. The disposition must be added to the Campaign Properties for "Apply to Campaigns Using This Disposition" to work.

Add Number To DNC List Dispositions

When using the **Add Number to DNC List** option, the customer's individual number or entire contact record is placed in the local Do Not Call list for the domain.



The option to assign only the contacted phone number can be used for cases when only one or two of a customer's phone numbers (for example, work or cell) should be avoided.

Example

A called party asked for one or all phone numbers to not be called again. There are the following options:

- Add Active Number - Adds only the current number (the number dialed) to the DNC list. Other numbers for the contact record can still be dialed.
- Add Active Number and Finalize Record for Campaign - Adds the current number and makes the record final for the campaign. This option stops dialing this record for this campaign but does not add the contact's

other phone numbers to the DNC list. This option allows you to dial the other numbers from another campaign.

- Add All Numbers and Finalize Record for Campaign - Adds all phone numbers for the contact record to the DNC list. This option prevents dialing to any of the contact's phone numbers from any campaign.

Digital Channel Disposition Types

Digital channel dispositions allow an agent to select a disposition on interactions, such as chat or email interactions, without closing the text interaction. This has no impact on voice calls.

Important

Digital channel disposition types cannot be changed once they have been saved.

Global Dispositions

You can create unified dispositions to use globally for text channel and voice interactions. These dispositions can be defined as open, enabling your agents to track the status of an interaction without closing that interaction, or closed to assign the final result of that interaction. This is different from voice channel dispositions, which are always closed.

Example

You can create a disposition named **Waiting for Status** that can be applied to an email interaction when the agent is waiting for a customer reply. The ability to keep this interaction open helps to track an issue without creating a new interaction for a continuing conversation, such as "Would you like for me to issue you a refund for the entire purchase price or would you prefer that I send you a replacement part?"

Digital channel dispositions may not be changes once they are saved. When converting campaigns using SCC dispositions to using global dispositions, Five9 recommends that you use identical naming to prevent duplicate dispositions in reporting. To enable your

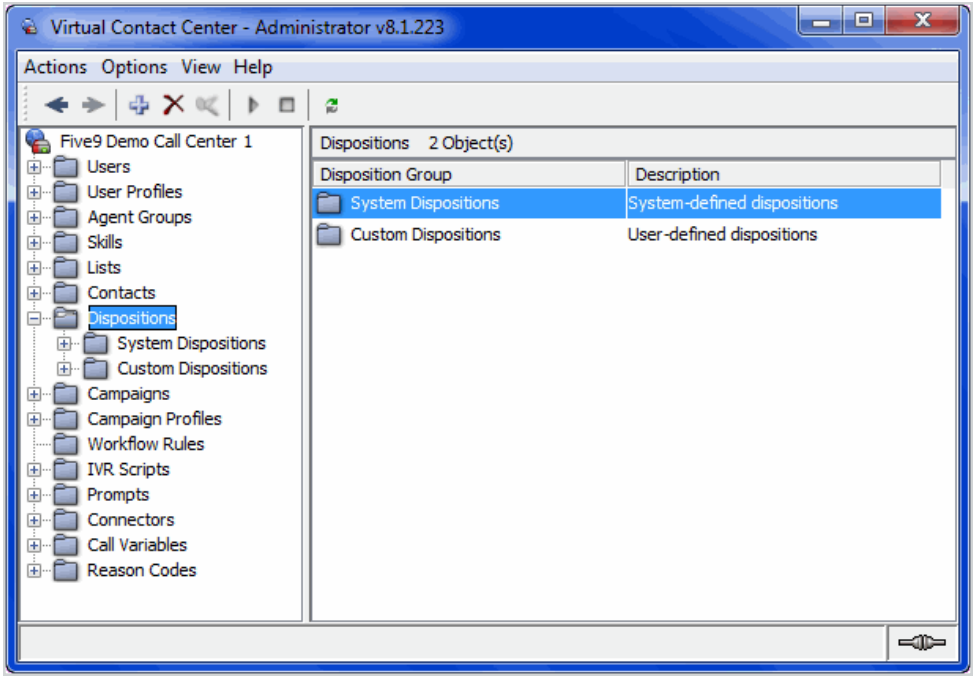
VCC dispositions for global use in text channel interactions, or to create dispositions specific to text channel interactions, see the Digital Engagement Administrator's Guide.

Accessing Disposition Properties

1 Click **Dispositions** in the navigation pane, and click the dispositions folder in the main pane.

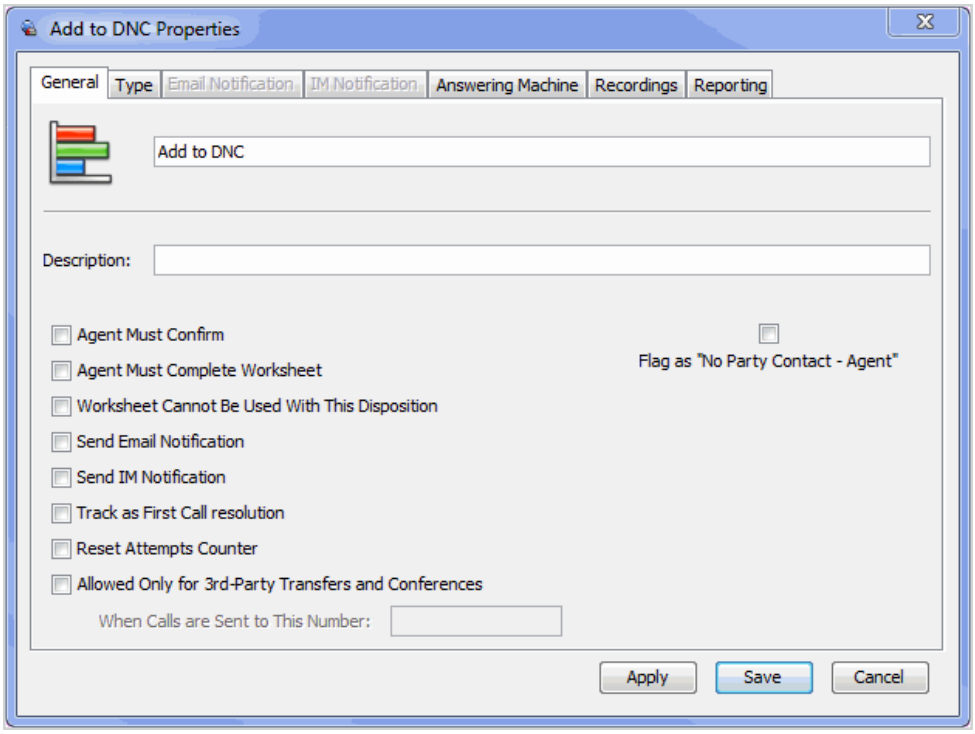
or

Open the **Dispositions** folder in the navigation pane, and open or select a dispositions folder.



2 To open the properties window, double-click the disposition, or right-click the

disposition, and select **View Properties**.



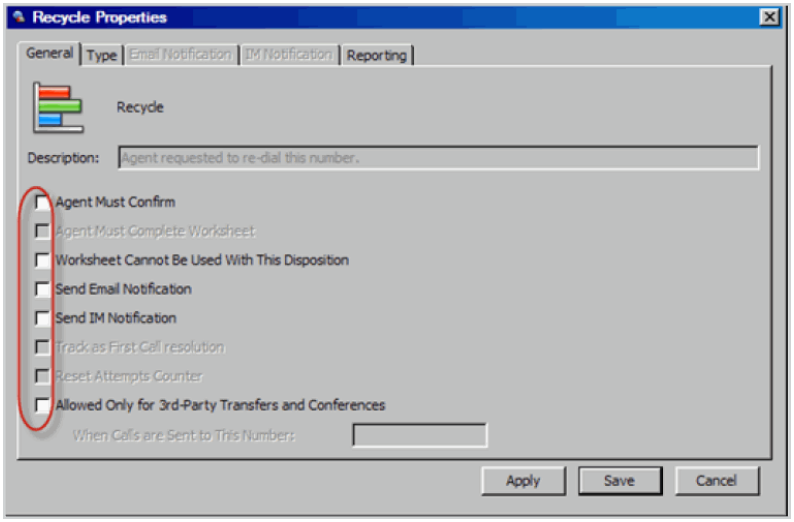
Changing System Dispositions

You cannot create, delete, or rename system dispositions. You can adjust some of the properties to make outbound or autodial campaign dialing more effective or keep users informed about campaign events. Some examples of changes you might make include:

- Change the redial parameters in the system disposition Busy to tune the dialing process for outbound and autodial campaigns.
- Configure email or instant message notifications for the system disposition Sent To Voicemail to keep users informed of new messages recorded during inbound campaigns.

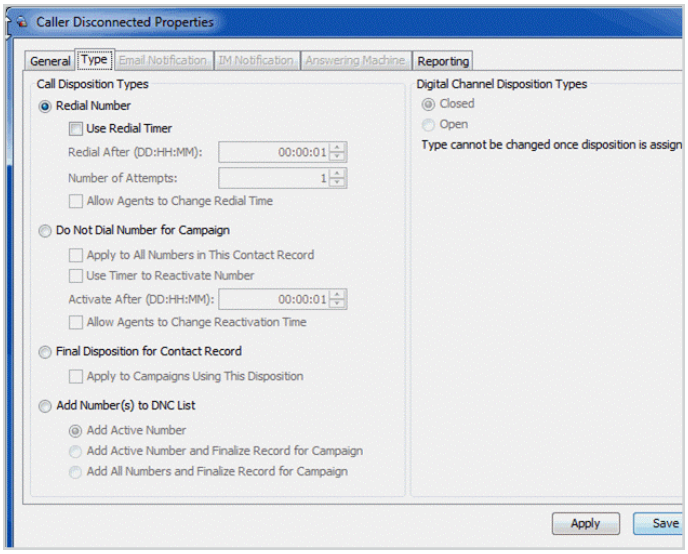
Changing Disposition Flags

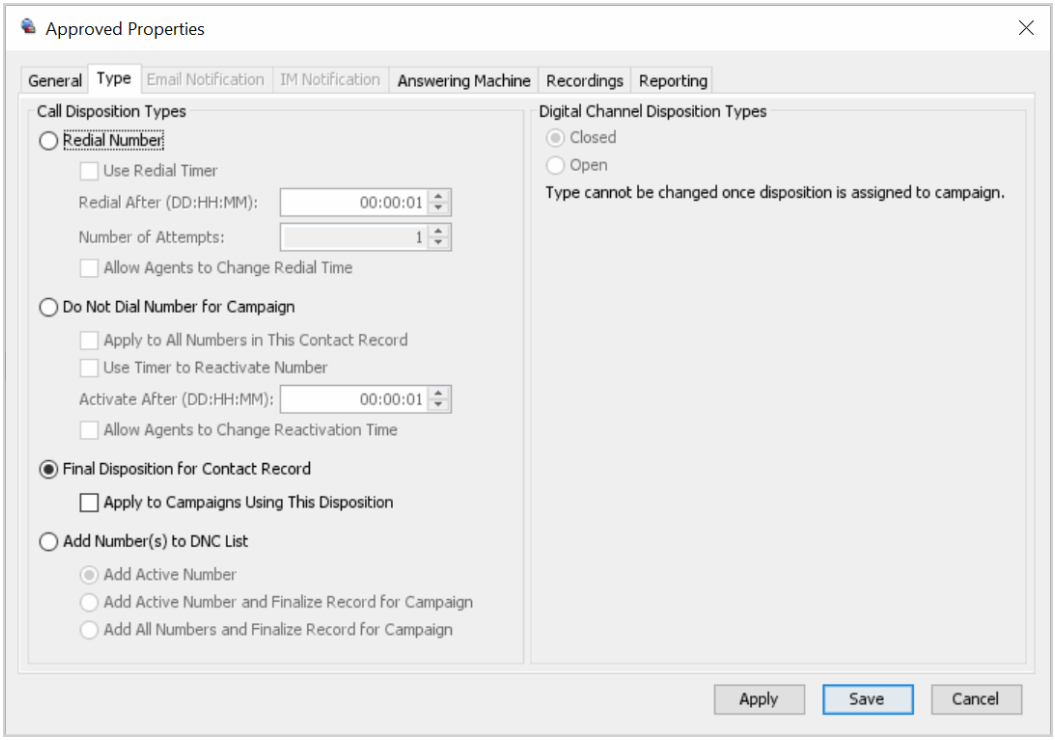
Some system dispositions allow changing Agent Must Confirm, Send Email Notification, and other options on the General tab. For enabled Email and IM notification, specify the recipients on the Email Notification and IM Notification tabs accordingly. See **Email Notifications for Dispositions**.



Changing Type and Options

The default disposition type can be changed for some system dispositions. You can do so on the Type tab.


Caller Disconnected Properties
General
Type
Email Notification
IM Notification
Answering Machine
Reporting
Call Disposition Types
Redial Number
Use Redial Timer
Redial After (DD:HH:MM):
00:00:01
Number of Attempts:
1
Allow Agents to Change Redial Time
Do Not Dial Number for Campaign
Apply to All Numbers in This Contact Record
Use Timer to Reactivate Number
Activate After (DD:HH:MM):
00:00:01
Allow Agents to Change Reactivation Time
Final Disposition for Contact Record
Apply to Campaigns Using This Disposition
Add Number(s) to DNC List
Add Active Number
Add Active Number and Finalize Record for Campaign
Add All Numbers and Finalize Record for Campaign
Digital Channel Disposition Types
Closed
Open
Type cannot be changed once disposition is assign
Apply
Save


Approved Properties
General
Type
Email Notification
IM Notification
Answering Machine
Recordings
Reporting
Call Disposition Types
Redial Number
Use Redial Timer
Redial After (DD:HH:MM):
00:00:01
Number of Attempts:
1
Allow Agents to Change Redial Time
Do Not Dial Number for Campaign
Apply to All Numbers in This Contact Record
Use Timer to Reactivate Number
Activate After (DD:HH:MM):
00:00:01
Allow Agents to Change Reactivation Time
Final Disposition for Contact Record
Apply to Campaigns Using This Disposition
Add Number(s) to DNC List
Add Active Number
Add Active Number and Finalize Record for Campaign
Add All Numbers and Finalize Record for Campaign
Digital Channel Disposition Types
Closed
Open
Type cannot be changed once disposition is assigned to campaign.
Apply
Save
Cancel

System Dispositions

Generally, system dispositions are used by the dialer to generate a report on dialing activity and control the dialing process. System dispositions have the same options and properties as the custom dispositions, but some options and properties cannot be changed. System dispositions cannot be created, deleted, or renamed.

Email notification and instant messages are available for most system dispositions. Reporting Call Variable configuration is available for all dispositions. You can configure different types (Redial, Add to DNC, and so on) for many system dispositions. Other options, such as timers, can be enabled for all system dispositions.

System Disposition Descriptions

The table below lists all the default system dispositions along with a description.

> **Note:** You can create a custom disposition along with a description. See **Adding Custom Dispositions**.

Name	Description
Abandon	Caller hangs up when the call is in ACD queue, or queue time has expired for an outbound call that was not answered by agent.
Agent Error	Agent session terminated before a call is completed, which occurs when the agent's connection to the VCC is severed during a call.
Answering Machine	Called party identified as answering machine.
Busy	Busy signal when number was dialed.
Call Screening	Called party identified as call screening. **Note:** This feature is currently available for early adopters and may not be visible in your domain. Contact your Five9 representative for additional information.

Name	Description
Caller Disconnected	Caller hung up while inside the IVR but not in an ACD queue (see abandon). Seen when caller disconnects during the IVR process or when listening to a prompt. Default disposition for many IVR modules.
Declined	Default disposition for records skipped by agents during preview.
Dial Error	Carrier failed to dial a number. A specific form of a system error.
Do Not Call	Call blocked by carrier or other operator service due to number identified on Do Not Call List. May be assigned by the system or IVR. Do Not Call disposition may also be assigned by agent request. SIP response codes for DIAL_BLOCKED and DO_NOT_ CONTACT are mapped to this System disposition.
Fax	Called party identified as fax machine.
Force Stop	Call is disconnected because a campaign is force stopped by an administrator or supervisor.
Forward Participant	Used for the forwarding leg of the call when a call is forwarded to an agent's alternate phone number when using call forwarding and the agent is not logged in. A call to the campaign is forwarded to a specific agent (not to skill), this agent is not logged in and VCC forwards this call to the external number. So the VCC sets this disposition for the second call (from VCC to agent's call forward phone).
Forwarded	Used for the initial leg of calls that are forwarded to agents' alternate phone numbers when using call forwarding. Disposition for the first call (from customer to VCC).
Hangup	On telecom level we send DialEvent CONNECT_HANGUP when outbound call is disconnected before ISDN connect or after it if channel performs Answering Machine Detection on this call. It is not similar to OPERATOR_INTERCEPT: no reason to repeat call to this number. Repeating call after CONNECT_HANGUP could be successful. Five9 dials a number. If the call is disconnected by the dialed party or the party's carrier, the Five9 dialing timeout was not yet expired when the disconnect occurred unlike a NO_ANSWER disposition. On further processing higher level (Campaign) DialEvent CONNECT_HANGUP cause HANGUP disposition to be set.
Hardware	System encountered a timeout from the phone dialing

Name	Description
Timeout	hardware.
Internal Call	Special disposition for internal calls (internal calls do not belong to any campaign).
No Answer	Rang but no answer (dial timeout is set in profile).
No Disposition	Default disposition selected by agents when no dispositions are defined for a campaign.
No Response From Caller	Caller did not provide a response to a prompt, such as entering digits. The disposition can be assigned to a module in an IVR script.
Operator Intercept	Called party was preempted by a telecom operator or other operator service due to invalid, unknown, or unidentified number or other operator blocking services.
Queue Callback Assigned	Queue callback request created and delivered to an agent in place of the call.
Queue Callback Timeout	Queue callback request created in place of the call, but no agents were available during the specified time.
Recycle	Agent requested to redial this number.
Resource Unavailable	Inbound call arrives in the system, but it is not handled because no virtual inbound lines are available. Applies to inbound campaigns only. No campaign lines or domain lines were available when the call was received. Call was rejected.
Sent To Voicemail	Caller was directed to Five9 VCC voicemail.
Station Session	Used for calls by a PSTN telephone. The agent's connection time is billed as long distance for the leg between the agent's phone and the VCC.
System Error	System failure, such as lost database connection.
System Shutdown	Domain host shut down during a call.
Transferred To 3rd Party	Caller transferred to as third-party participant.
Unknown Connection	System disposition used when a digital phone line is identified during call progress detection.
Voicemail Dump	System disposition used to indicate when a voicemail recording must be discarded by the system. Bad voicemail that should be

Name	Description
	deleted.
Voicemail Processed	Voicemail completely processed by agent. No further action required.
3rd Party Transfer	Recipient of a third-party transfer. 3rd party transfer participant - called party the first caller was transferred to.

System Disposition Parameters

You can change the type of some system dispositions. The default options can be modified. For example, you can change the redial timer or number of attempts or disable and enable timers for Redial or DND disposition types.

The limitations for the redial type are as follows:

- Timer limitations: minimum = 1 min and maximum 60 days (2 months).
- Number of attempts: minimum = 1 and maximum 99

The limitations for the DND type are minimum = 1 min and maximum 60 days (2 months).

Name	Editable Options	Default Type	Default Parameters	Set By		
				IVR	System	Agent
No Disposition	Agent Must Confirm All types	FINAL	-	X	X	X
System Error	All types	REDIAL	Timer=1 min. Attempts=5	-	X	-
Declined	Agent Must Confirm Send Email Notification Send IM Notification All types	FINAL	-	-	-	X
Dial Error	All types	DND	Timer=5 min.	-	X	-
Busy	All types	REDIAL	Timer=10 min.	-	X	-

Name	Editable Options	Default Type	Default Parameters	Set By		
				IVR	System	Agent
			Attempts=5			
No Answer	All types	REDIAL	No Timer	-	X	-
Abandon	All types	REDIAL	No Timer	-	X	-
Fax	All types	DND	No Timer	X	X	-
Answering Machine	All types	DND	Timer=120min.	X	X	-
Do Not Call	Agent Must Confirm Send Email Notification Send IM Notification	DNC	-	X	X	X
Recycle	Agent Must Confirm Send Email Notification Send IM Notification Redial Number	REDIAL	Timer=30 min. Attempts=3	X	-	X
Agent Error	Send Email Notification Send IM Notification Redial Do Not Dial Number	REDIAL	No Timer	-	X	-
System Shutdown	Redial Do Not Dial Number	REDIAL	No Timer	-	X	-
Caller Disconnected	All types	REDIAL, all Types unlocked	No Timer	X	X	-
Unknown Connection	All types	REDIAL, all Types	No Timer	-	X	-

Name	Editable Options	Default Type	Default Parameters	Set By		
				IVR	System	Agent
		unlocked				
No Response From Caller	Send Email Notification Send IM Notification All types	REDIAL	No Timer	X	-	-
Sent To Voicemail	Send Email Notification Send IM Notification All types	FINAL	-	X	X	-
Operator Intercept	All types	DND	No Timer	X	X	X
Station Session	Redial Number	REDIAL	No Timer	-	X	-
Transferred To 3rd Party	Send Email Notification Send IM Notification All types	FINAL	-	X	X	-
3rd Party Transfer	Send Email Notification Send IM Notification All types	FINAL	-	-	X	-
Hardware Timeout	Send Email Notification Send IM Notification Redial Number Do Not Dial Number for Campaign	REDIAL	No Timer	-	X	-
Hangup	Send Email Notification Send IM	REDIAL	No Timer	X	X	-

Name	Editable Options	Default Type	Default Parameters	Set By		
				IVR	System	Agent
	Notification All types					
Voicemail Processed	All types	FINAL	-	-	-	X
Voicemail Dump	All types	FINAL	-	-	-	X
Forward Participant	Send Email Notification Send IM Notification Final Disposition for Contact Record	FINAL	-	-	X	-
Forwarded	Send Email Notification Send IM Notification Final Disposition for Contact Record	FINAL	-	-	X	-
Internal Call	Final Disposition for Contact Record	FINAL	-	-	X	-
Force Stop	Send Email Notification Send IM Notification All types	REDIAL	No Timer	-	X	-
Resource Unavailable	Send Email Notification Send IM Notification Redial Number Do Not Dial Number for Campaign	REDIAL	No Timer	-	X	-

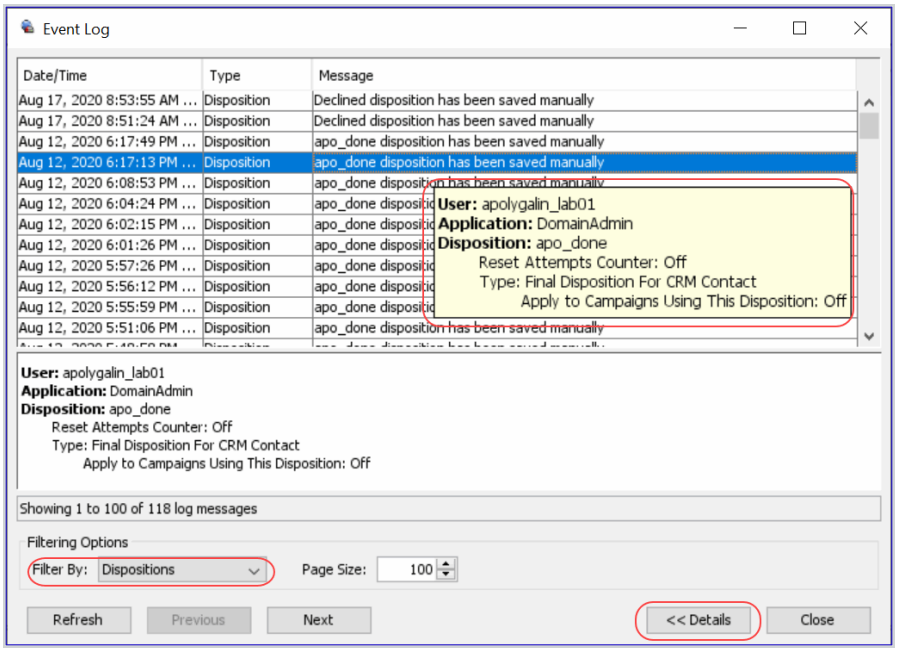
Adding Custom Dispositions

You can see information about changes to custom dispositions by viewing the Event Log.

1 In the VCC Administrator application, click **Actions** and select **View Event Log**.

2 In the resulting Event Log window, in the **Filter By** menu, select **Dispositions**.

Select a row in the table of events. To see details about the event, hover over it or click **Details** at the bottom of the window.



You can create a new disposition or modify an existing one.

Ensuring that Dropped Call Percentages Comply with FCC Regulations

FCC regulations require that the percentage of dropped calls from all outbound campaigns fall within specified guidelines. The maximum percentage allowed for the call abandonment is currently 3% for each campaign every 30 days. However, you should refer to the FCC regulations for requirements and call abandonment rate calculation to ensure that you have the up-to-date information.

Five9 modified the calculation for the dropped call percentage to ensure that custom dispositions are not included in this calculation.

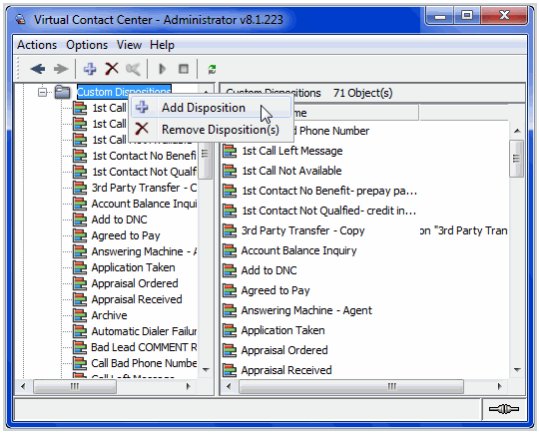
> **Note:** The abandon rate 2-second rule calculation option allows you to use a queue time of 2 seconds or higher to identify outbound calls as abandoned. The **Outbound Campaign Abandon Rate % 2 Seconds Rule** standard report shows these values.

Agents can use the **No Party Contact** disposition when connected to a non-live entity (for example, an answering or fax machine). Because the FCC calculation for abandoned calls excludes calls connected to non-live parties, using the **No Party Contact** disposition for reasons other than not connecting to live parties increases the dropped call percentage and Dialer Drop Call % rates (abandoned call rates).

Creating Custom Dispositions

You can create a custom disposition for calls passed to an agent when no person is reached, such as when calls reach an answering machine. In these cases, agents should use the appropriate custom disposition to indicate that they did not reach a person.

1. In the Dispositions folder in the navigation pane, right-click **Custom Dispositions** and select **Add Disposition**.



2. Name the new disposition.

3. Click **OK**.

4. Configure the disposition as needed.

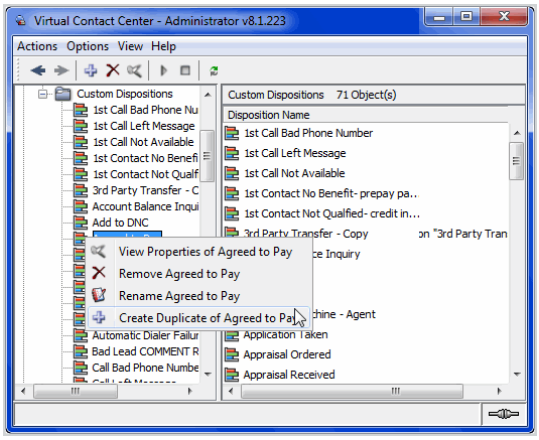
By default, the disposition type of a new disposition is Final Disposition for Contact Record. For more information, see Configuring Custom Dispositions.

Duplicating Dispositions

To copy a disposition, follow these steps.

1 Right-click a disposition, and select **Create Duplicate**.

The property window of the duplicate campaign opens, showing the name in this format: <original object name> - Copy. The copy of a system disposition is created under Custom Dispositions. All disposition options are available for the copy.



2 Make your changes to the duplicate, and click **Save**.

Renaming Custom Dispositions

To rename dispositions using the right-click menu. You can also rename dispositions in their properties window.

1 In the navigation pane, select **Custom Dispositions** in the Dispositions folder.

2 Right-click a disposition, and select **Rename**.

3 Enter a new name for the object instead of the old one, then Click **OK** to save your changes.

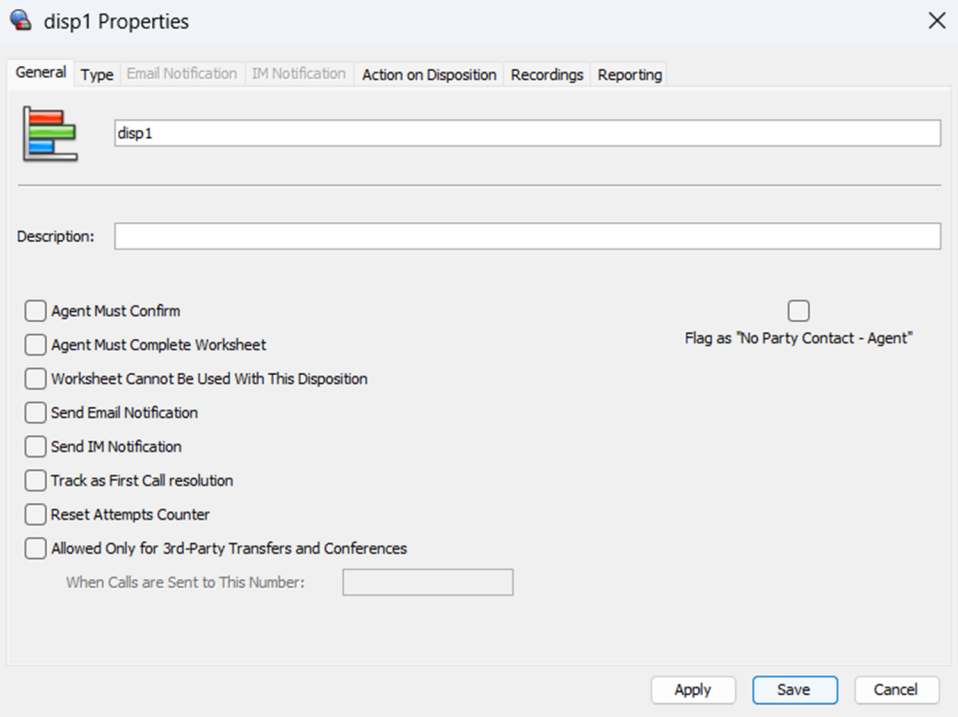
Configuring Custom Dispositions

By default, after a call is assigned a disposition with a final type disposition, the phone number is not dialed again by that campaign, even if that number appears in another list. By setting flags, you can adjust this behavior and/or extend the functionality.

Set General Properties for Custom Dispositions
Choose and Configure the Disposition Type
Configuring Dispositions for Answering Machine or Call Screening
Define the Target FTP Server to Upload Recordings
Configure Call Variables used for Reporting

Set General Properties for Custom Dispositions

Set the basic properties for custom dispositions in the **General** tab. The name of a disposition can contain up to 255 characters.



- Description - statement or purpose that identifies the disposition.
- Agent Must Confirm - requires that agents confirm the choice of disposition.

- Agent Must Complete Worksheet - for campaigns that contain worksheets, requires that agents complete a worksheet before this disposition can be selected.

- Worksheet Cannot Be Used With This Disposition - for campaigns that contain worksheets, ensures that agents cannot use this disposition if they have completed a worksheet for the current call. This option works as a safeguard against accidentally setting incorrect dispositions when a completed worksheet indicates that a different disposition should be set.

- Send Email Notification - sends an email every time this disposition is selected. The email can contain details about the call, such as agent name, time, date, contact details, comments, and worksheet data (see **Defining Email Notifications**). The email can be sent to a fixed email address or an email address specified in a contact record.

  > **Note**
  > Email notification for dispositions is not currently supported for text interactions.

- Send IM Notification - Similar to email notification except that call details are sent as an instant message. Use this option if call details must be immediately received by one or more users in your VCC.

- Track as First Call Resolution - primarily for inbound campaigns, includes the call in your first call resolution statistics for supervisors or reports: the customer's needs were addressed in the first call.

- Reset Attempts Counter - dispositions reset the dial attempts counter back to zero. Use for agent-selected redial dispositions when a contact has requested a callback after several failed attempts to reach the number (making the contact record at risk for reaching the dial attempts limit and not being dialed again).

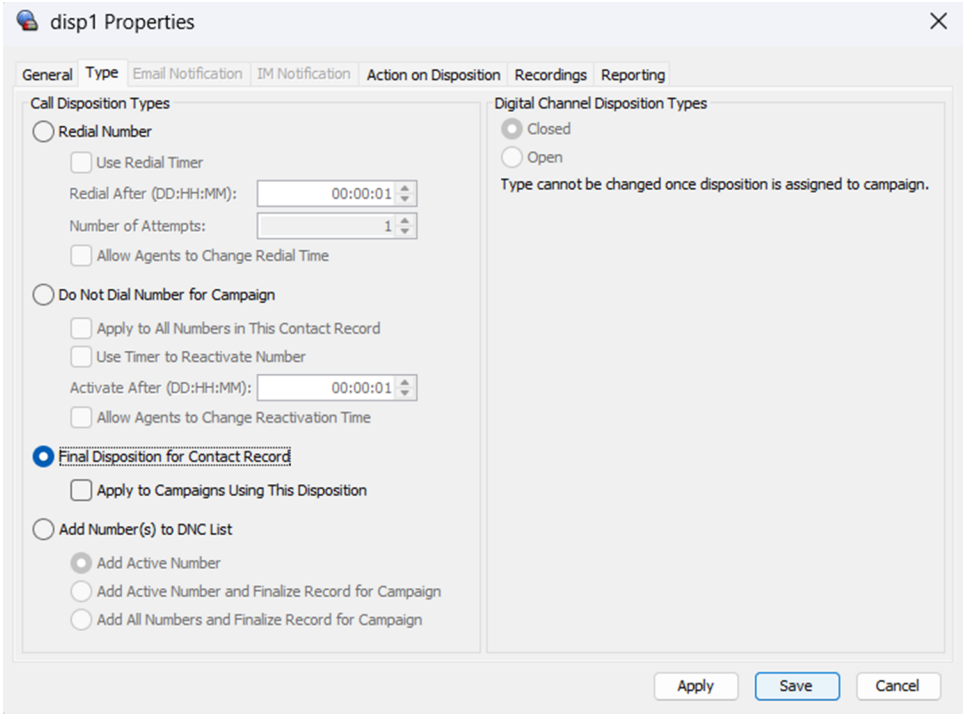
- Allowed Only for 3rd-Party Transfer and Conferences - agents can use this disposition only for third-party transfers and conferences. If this option is enabled, you may optionally type a specific number to which calls are transferred or conferenced before assigning the disposition.

- **No Party Contact - Agent** indicates that no contact occurred with a person during the call. Because custom dispositions for **No Party Contact** or Abandoned Calls can affect FCC compliance, they are excluded from the abandoned call percentage calculation.

You must acknowledge that such dispositions are not included in the calculation of the abandoned call percentage: after you check the box, a pop-up window asks you to acknowledge that this disposition is not used in abandoned call percentage calculation. When a custom disposition is used, the check box appears. You select the custom disposition from the disposition list and acknowledge that the disposition is excluded from the abandoned call percentage calculation.

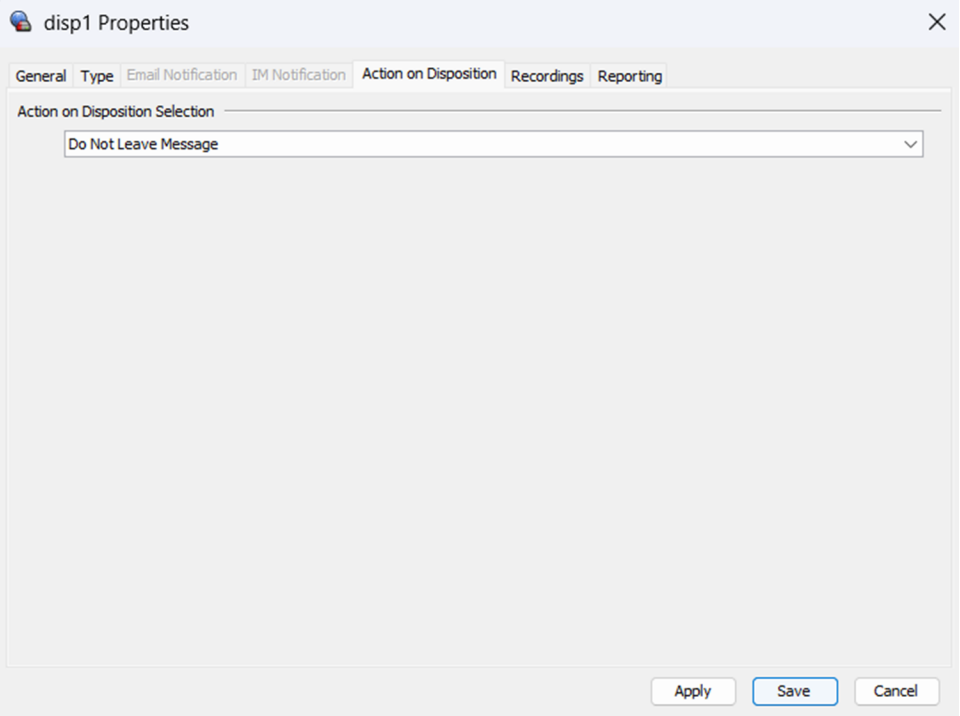
Choose and Configure the Disposition Type

You can choose and configure the disposition type. See Types of Dispositions.



Configuring Dispositions for Answering Machine or Call Screening

To configure dispositions for answering machine or call screening, go to the **Action on Disposition** tab and set the appropriate options.

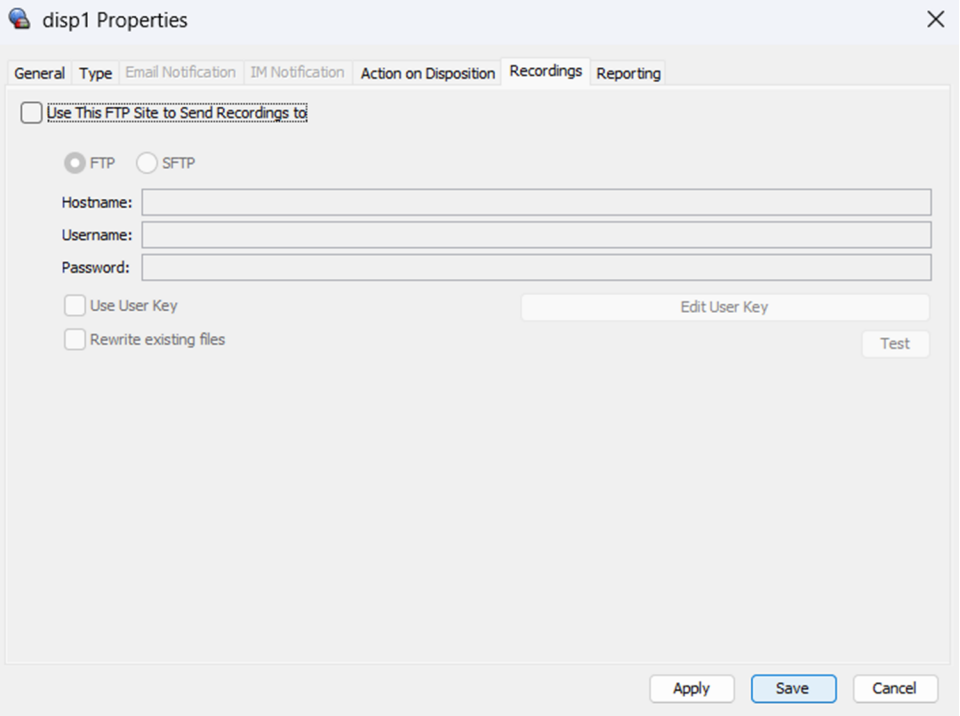


These options resemble those found in the **Dialing Options** tab of outbound campaign properties, specifically for handling answering machine and call screening detections.

- Do Not Leave Message - The system selects this as the default option to prevent leaving a message when an answering machine or call screening is detected.
- Play Prompt - The system plays a message when an answering machine or call screening is detected, based on the specified time conditions.
- Play IVR Script (Advanced) - The system runs an IVR script when an answering machine or call screening is detected, based on the specified time conditions.

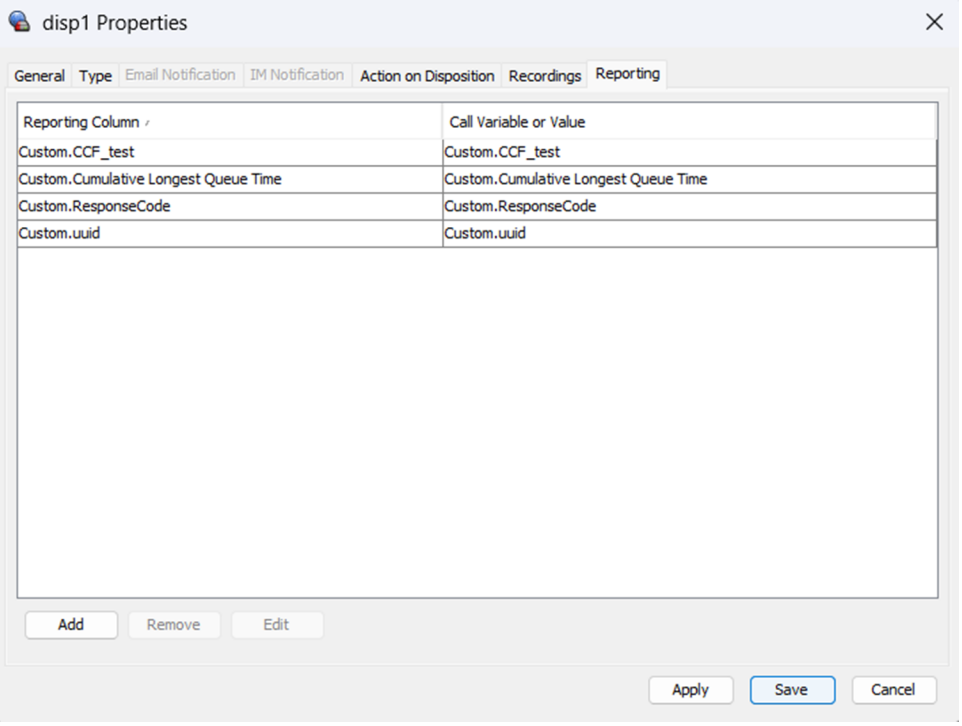
Define the Target FTP Server to Upload Recordings

Specify an FTP server to which a call recording file is automatically transferred for calls assigned the **Recordings** disposition. See **Configuring Default FTP Settings** for more about transferring call recordings by FTP.

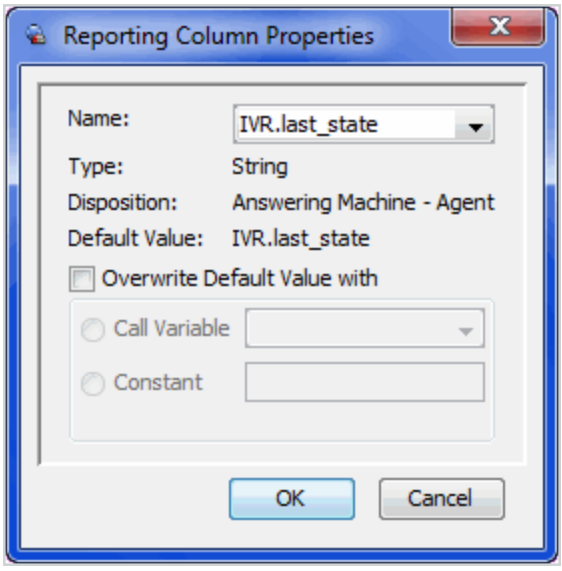


Configure Call Variables used for Reporting

You can specify reporting call variables that are affected and whose values should be written to the database when this disposition is set. Any variable with the Apply to All Dispositions option enabled cannot be removed from this lit. Use the call variable properties to edit the dispositions for which a reporting call variable value must be written.



Multiple call variables may be added for each disposition. To add or edit a reporting call variable whose value must be saved in the database and appear in reports when this disposition is set, click **Add** or **Edit**. Configure what should be done with the variable when this disposition is set:



- Name - Select the call variable to add or edit. Only variables with the reporting call variable option selected is shown. Once selected, the data type and the default value appear.
- Overwrite Default Value with - Enable this option if the value of the call variable must be different from its default value when the disposition is set. You may choose the desired value of the call variable:
    - Call Variable - Enables you to overwrite the value of the call variable with that of another reporting call variable of the same data type.
    - Constant - Enables you to overwrite the value of the call variable with a fixed value. Depending on the data type, you may select or type a valid value.

Email Notifications for Dispositions

You can configure email notifications for dispositions. This option applies to custom dispositions and to some system dispositions. You can enable and disable notifications as needed.

You can add the email addresses that receive notifications when the disposition is selected. As soon as the disposition is set for a call, an email can be sent to a fixed email address, such as an administrator or supervisor, or a contact record. The email address can be taken from a contact record field. The name of the disposition can be used as the subject in the email or a custom subject can be specified. Variables can be used to populate call or customer information in the email using a standard or custom HTML template. Up to five attachments can also be included in the email notification. You can add as many notifications as you need.

Configuring Email Notifications for Dispositions
Creating Custom HTML Templates for Email Notifications
Selecting a Custom Template for Email Notifications
Adding Attachments to Email

Configuring Email Notifications for Dispositions

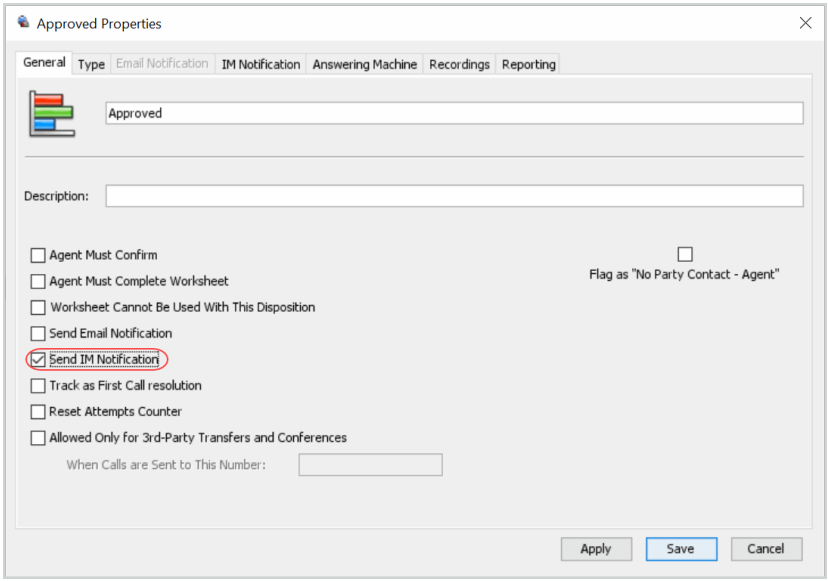
After enabling the email notification feature in the General tab of properties, configure the notifications in the Email Notification tab.

Important

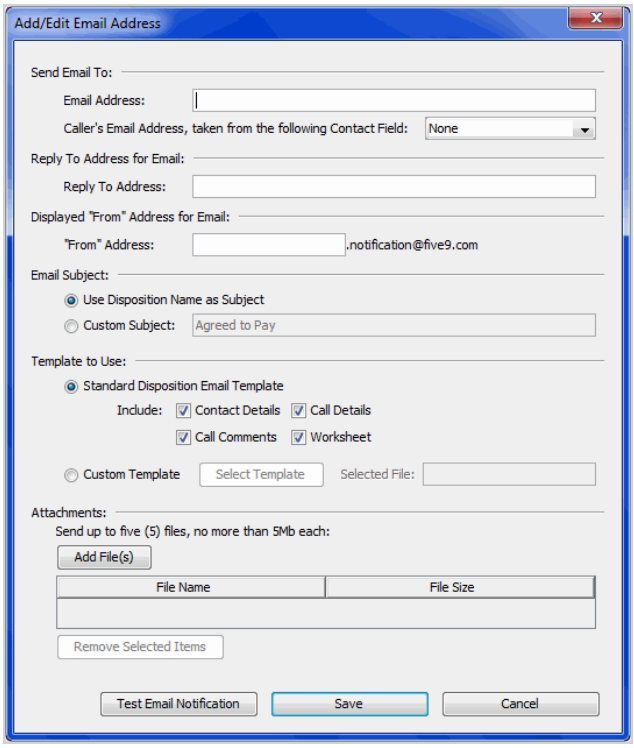
The combined maximum size for email templates and attachments is 100 Mb.

1 In the General tab, check **Send Email Notification**.

This option enables you to receive an email every time that this disposition is selected.



2 Select the **Email Notification** tab.



3 Click **Add**.

4 Define these settings.

- Send Email To
  - Email Address - address where the email notification is sent, which can be a specific address or to the contact for whose call the disposition is set. To send the notification to the same email address every time, type in a valid email address in the Email Address text field. To send the notification to the customer, select a contact field for the Caller's Email Address. If you select both options, two separate notifications are created. After initially saving the notification for both email addresses, edit each notifications.
  - Caller's Email Address Taken from the Following Contact Field - customer email address can be set as a contact field. The contact's email address is taken from a contact field. If sending an email to the caller or customer, select the contact field from which the email address is taken. If you leave the Email Address field empty,

the notification is sent to the customer's email address. If both of the Send Email To options are used, two email notifications is created.

- Reply To Address - to automatically send email messages, enter a Reply To address. This address is used when the recipient of the notification replies to this email. The Reply To address is not used as the From address for notification emails. All notifications is sent from `<custom_text>notification@five9.com`.
- Displayed From Address for Email - origin of the email address disposition notification email in this format: `<custom_text>.notification@five9.com`. The text entered in this field appears also as the name of the sender. If this field is empty, the default notification@five9.com address is used.
- Email Subject: name of the disposition used as the subject of the email or specified in the Custom Subject field.
  - Use Disposition Name as Subject - Contains the disposition name, such as 3rd Party Transfer, No Answer, or Do Not Call.
  - Custom Subject - Instead of using the disposition name as a subject, you can create a subject text suitable to your needs.
- Template to use:
  - Standard Disposition Email Template - the default template is used as the email body in the email notification.

    ```
    Disposition NAME has been received
    Customer Details (optionally)
    Call Details (optionally)
    Call Comments (optionally)
    Worksheet (optionally)
    ```

  - Custom Template - You can create a custom HTML template. For more information, see **Creating Custom HTML Templates for Email Notifications**.
- Attachments: optionally add up to five attachments to the notification email.

5 To test that the email notification can reach all email addresses in the list, click **Test Email Notification**.

If your template contains call or customer information, test values are used.

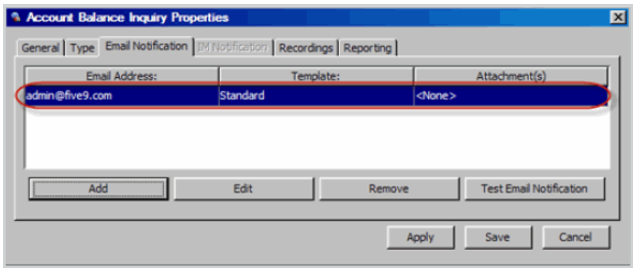
a Enter the destination email address.

b Confirm the email address, and click **OK**.

If the test is successful, you receive a confirmation message.

6 Click **Save**.

The new email notification appears in the Email Notification tab.



7 Click **Save** or **Apply** in the Disposition properties window.

Creating Custom HTML Templates for Email Notifications

You can use a file in HTML format in the body of your email notifications. The total file size of all uploaded email template files may not exceed 100 MB; individual HTML files may not exceed 1 MB. To populate call or customer information in the email, use these variables in the format `%Variable Name%`:

- `%DISPOSITION_NAME%` - name of the disposition.
- `%CUSTOMER_DETAILS%` - customer's contact data.
- `%CALL_DETAILS%` - call Information: caller's number, contact name and company, session ID, call duration, call type, agent name, and campaign name.
- `%COMMENTS%` - notes made by the agent during the call.
- `%WORKSHEET%` - answers entered by the agent during the call.
- `%contact field name%` - value of the caller's contact fields. Enclose the name of the contact field with % symbols: `%first_name%`.
  - %first_name%
  - %last_name%
  - %company%
  - %street%
  - %city%
  - %state%

- %zip%
- %custom_contact_field_name%

To use these variables, edit the HTML email template in a text editor and place the variables where the system should substitute the information. For example, Hello `%last_name%` is substituted with Hello Joseph in the email.

Example

Content of an email:

```
Disposition Application Complete has been received.

Customer Details:
number: 9252012000 first_name: Bill last_name: Jones company:
street: 123 main street city: Anytown
state: CA zip: 94123

Call details:
Number: 9252012000
Customer: Jones, Bill - Acme Parts
Session Id: 0706EFFDA74DD16ABDCA38438D05B2A2
Call Duration: 0:0:24
Session Duration: 0:15:38 Call Type: Agent
Agent: Annie Agent Campaign: Outbound Sales

Call Comments:
Interested in Refi

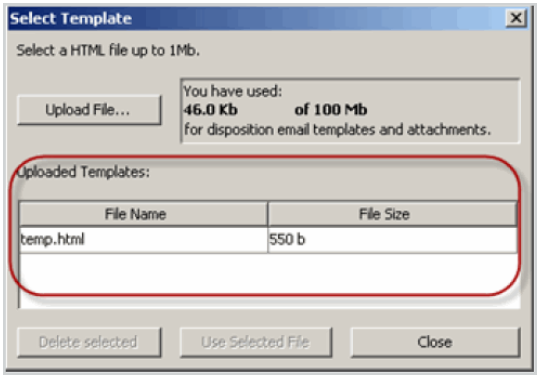
Worksheet:
1st Mortgage Balance: 250000
1st Mortgage Lender: Wells Fargo
Borrower Name: Bill Jones
Monthly Income?: n/a
Do you have a second mortgage?: No
Estimated Home Value?: $376k - $400k
How would you rate your credit?: Good
Interest Rate on first mortgage?: 5.6
Loan Purpose?: Lower Rate
Property Type: Single Family
Purchase year: 2005
Type of Mortgage?: Fixed Rate
```

Instead of using the standard disposition template, you can upload a custom HTML template, which would be used for the body of the email.

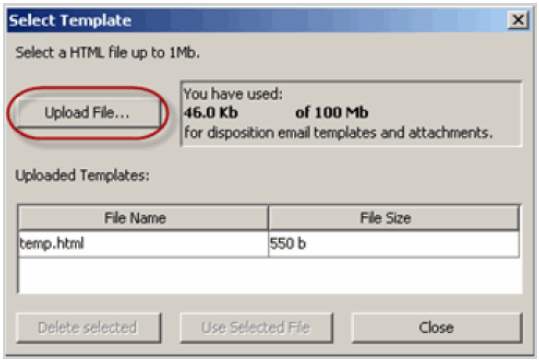
Selecting a Custom Template for Email Notifications

1 Select the **Custom Template** option, and click **Select Template**.

You can view all template files you have previously uploaded.



2 To add a file, click **Upload File**.

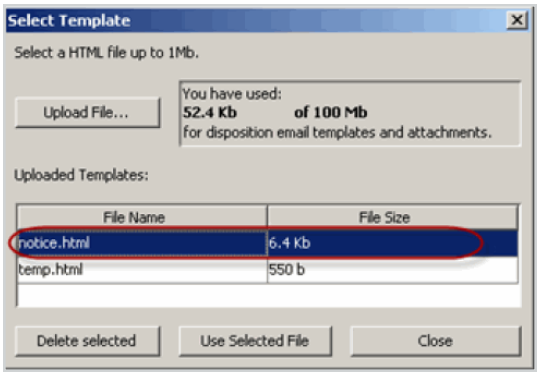


3 Select your template.

4 Confirm the file name.

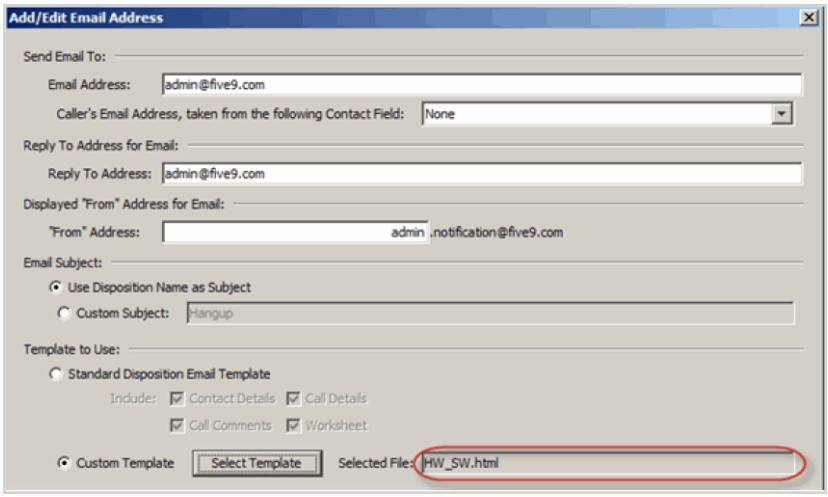
5 Click **OK**.

You can view the file and its size in the Select Template window.



6 At the bottom, click **Use Selected File**.

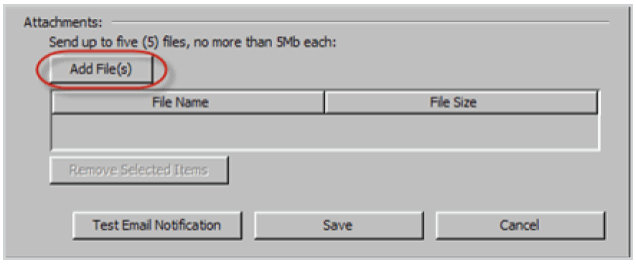
The custom template file appears in the Selected File field.



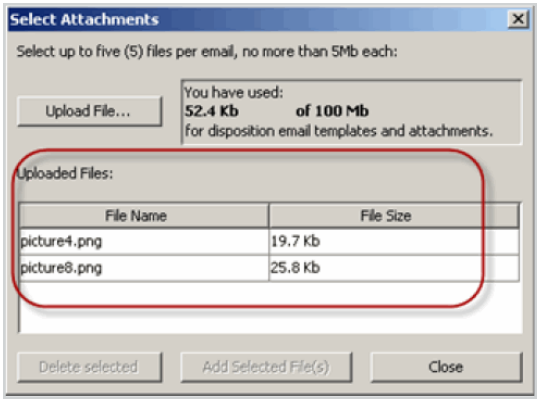
Adding Attachments to Email

You can add up to 5 attachments to an email.

1 In the Attachments section of the Add/Edit Email Address window, click **Add File (s)**.



In the window, you see all the attachments files previously uploaded.



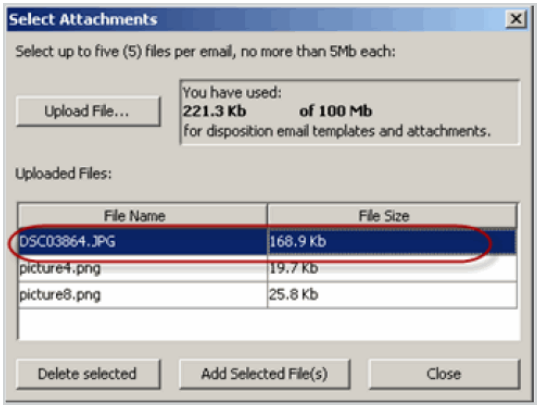
2 To add a file, click **Upload File**.

3 Select a file.

The file can have any extension, but the maximum file size is 5 MB.

4 Click **OK** twice.

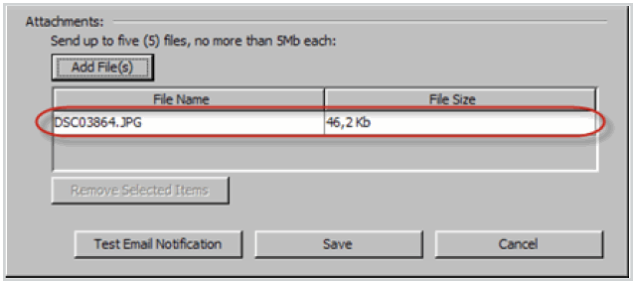
You can view the uploaded file in the Select Attachments window.



5 Select one or more files to attach to the notification email.

6 Click **Add Selected File(s)**.

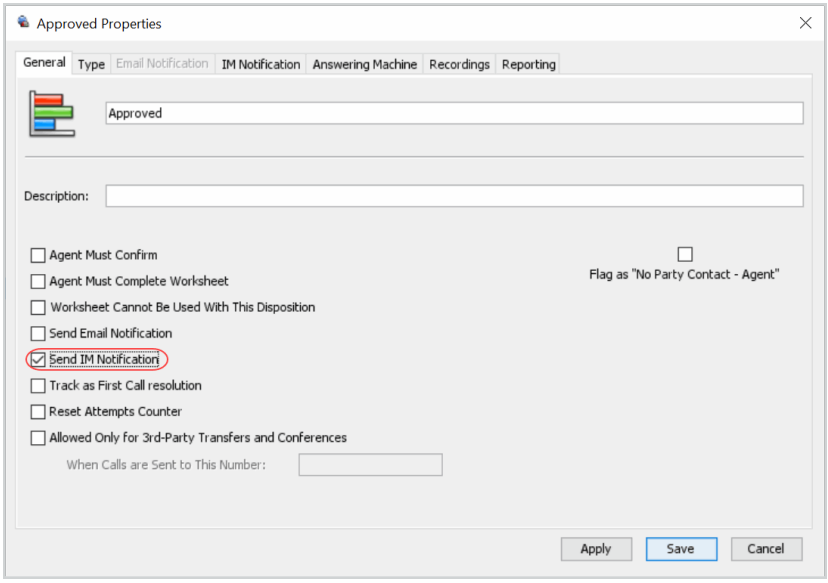
You return to the Add/Edit Email Address window. The files appear in the Attachments section.



Instant Message Notification for Dispositions

Instant message notification is similar to email notification except that the call details are sent as a message in the Five9 system. As soon as the agent selects a disposition for the call, the message is sent to one or more Users in your VCC.

1 In the General tab, select **Send IM Notification**.

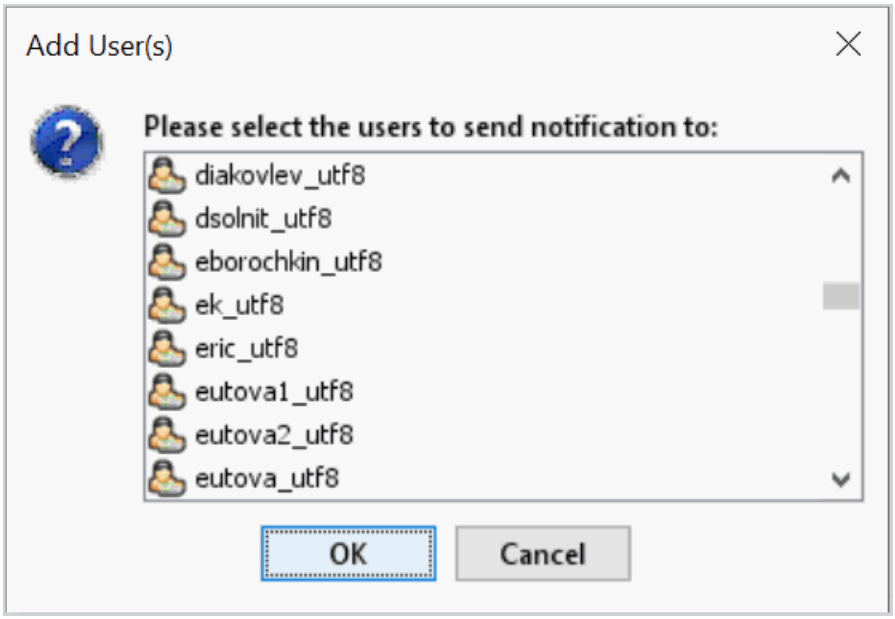


2 Click the **IM Notification** tab.

3 Add or remove users:

Adding users:

a To add one or more users, click **Add**.



b Click **OK**.

The users appear in the list.

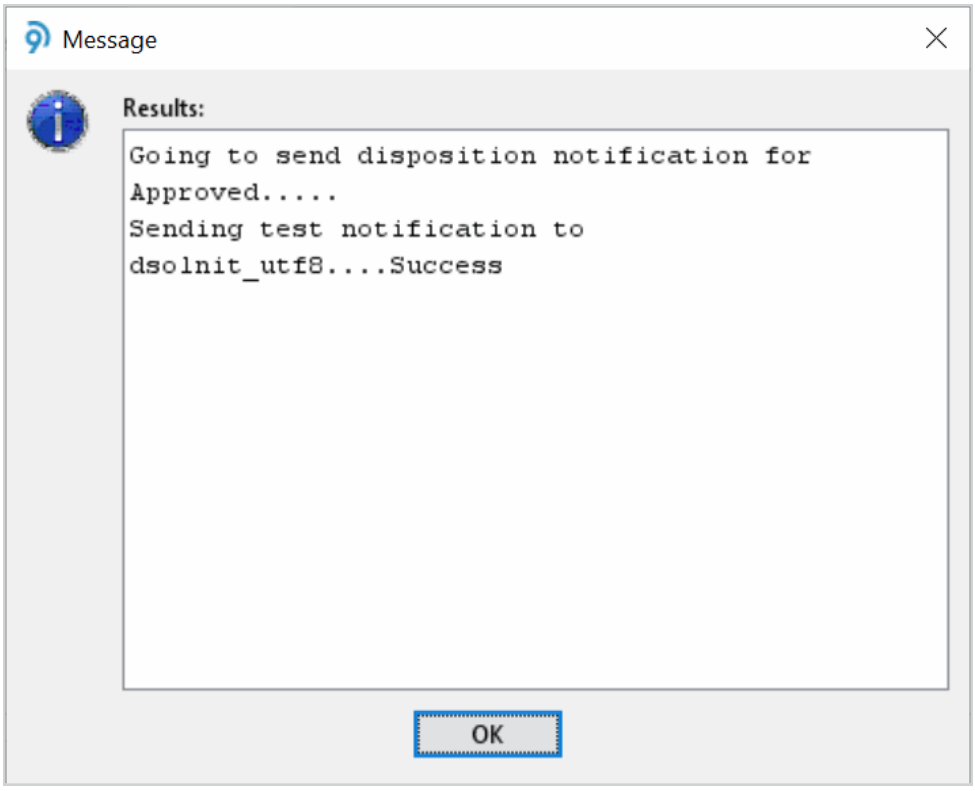
Removing users:

a To remove one or more users, select the users and click **Remove**.

b Click **Yes**.

4 To test an instant message, click **Test IM Notification**.

5 Click **Yes** to send a test instant message notification to the users in the list.



6 Click **Save** or **Apply**.

Campaign Profiles

Maximum Number of Characters
Creating Campaign Profiles
Renaming Campaign Profiles
Editing the Properties of Campaign Profiles
Assigning a Campaign Profile to a Campaign

You create campaign profiles for inbound, outbound, and autodial campaigns to define the behavior of campaign components and define the campaign characteristics. Campaign profiles enable you to override campaign defaults such as the default ANI.

You can assign a profile to a campaign when you start the campaign in Advanced mode. The campaign uses the properties you define in the profile. You can create as many profiles as you need, but you can only associate one Profile per campaign. A profile can be used simultaneously by more than one campaign. You can automatically change the profile for the campaign by using workflow rules.

With campaign profiles, you can filter and sort lists, control pop-up windows in the agent interface, and manage disposition counts. You can create, edit, and delete profiles.

Maximum Number of Characters

If you are operating text channels in your domain, or plan to in the future, you must adhere to character limitations when assigning names to campaign components or the text server will not communicate with the Virtual Contact Center (VCC) server.

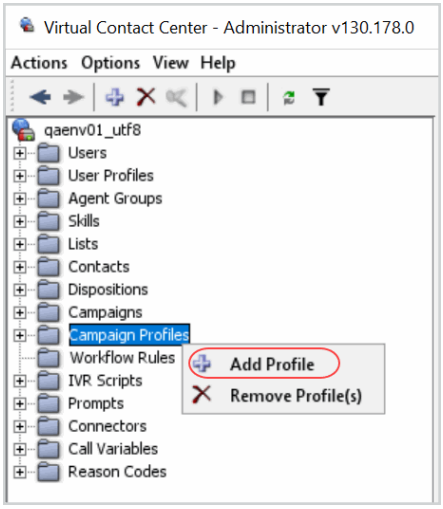
Text Profile and VCC Campaign	32 characters
Text Group and VCC Skill	255 characters
User (*also email address*)	50 characters
Password	64 characters
First Name	32 characters
Last Name	32 characters

Creating Campaign Profiles

You can create a profile or duplicate an existing one.

Creating Profiles

1 Right-click **Campaign Profiles**, and select **Add Profile**.



2 Enter a name for the campaign profile.

3 Click **OK**.

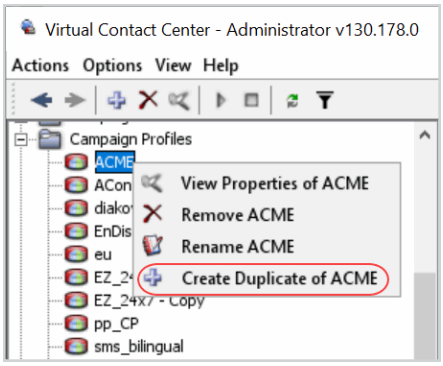
The new campaign profile with default properties is added to the list. To configure the Campaign Profile, see **Editing the Properties of Campaign Profiles**.

Duplicating Profiles

Follow these steps.

1 Open Campaign Profiles.

2 Right-click a profile, and select **Create Duplicate**.



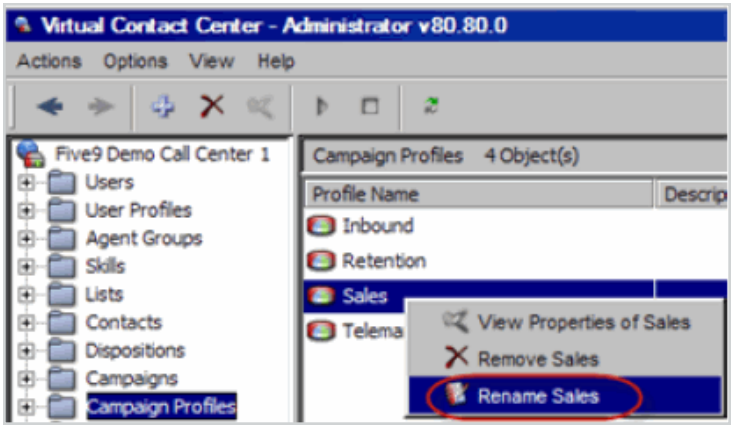
Properties are copied to a new object called <original object name> - Copy. The duplicate object's Property window opens.

Renaming Campaign Profiles

To rename a profile, follow these steps, or open the properties of the profile.

1 Click **Campaign Profiles**.

2 Right-click a profile, and select **Rename**.



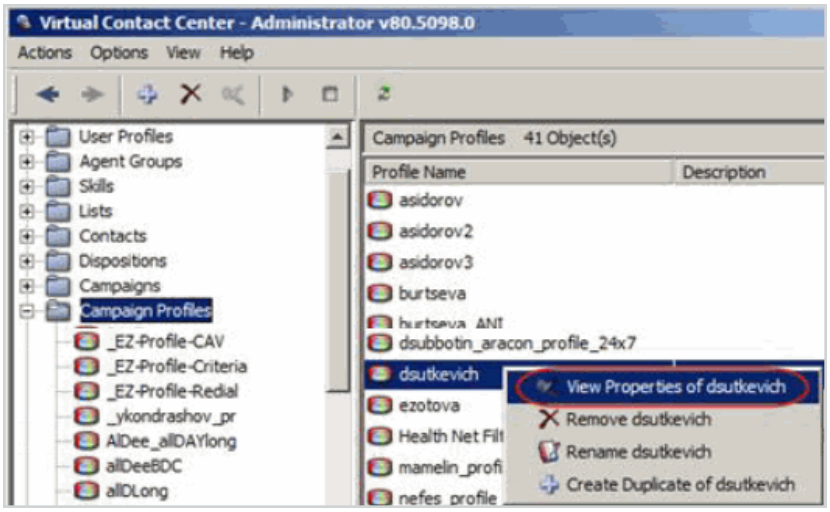
3 Replace the object name with a new one.

4 Click **OK**.

Editing the Properties of Campaign Profiles

If the profile is assigned to a running campaign, the changes are applied immediately.

1 Right-click a profile and select **View Properties**, or double-click the profile.



2 Make your changes in these sections:

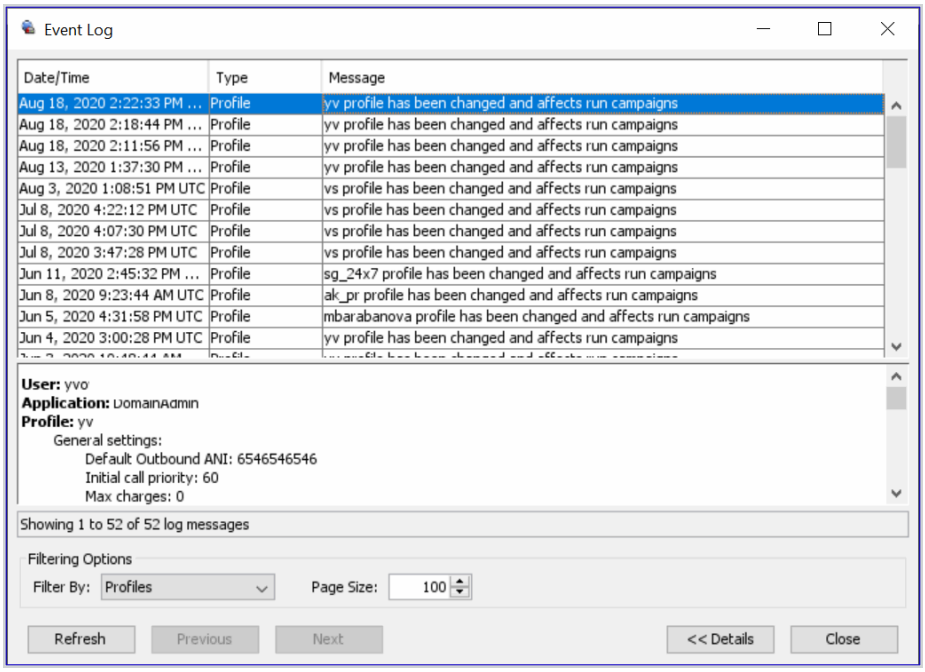
[Selecting General Settings for Campaign Profiles]
[Selecting ANI Settings]
[Filtering and Sorting Lists]
[Managing Disposition Counts]
[Configuring a Campaign Profile Layout]
[Configuring and Grouping Dispositions]

3 Click **Save**.

You can see information about changes to custom dispositions by viewing the Event Log.

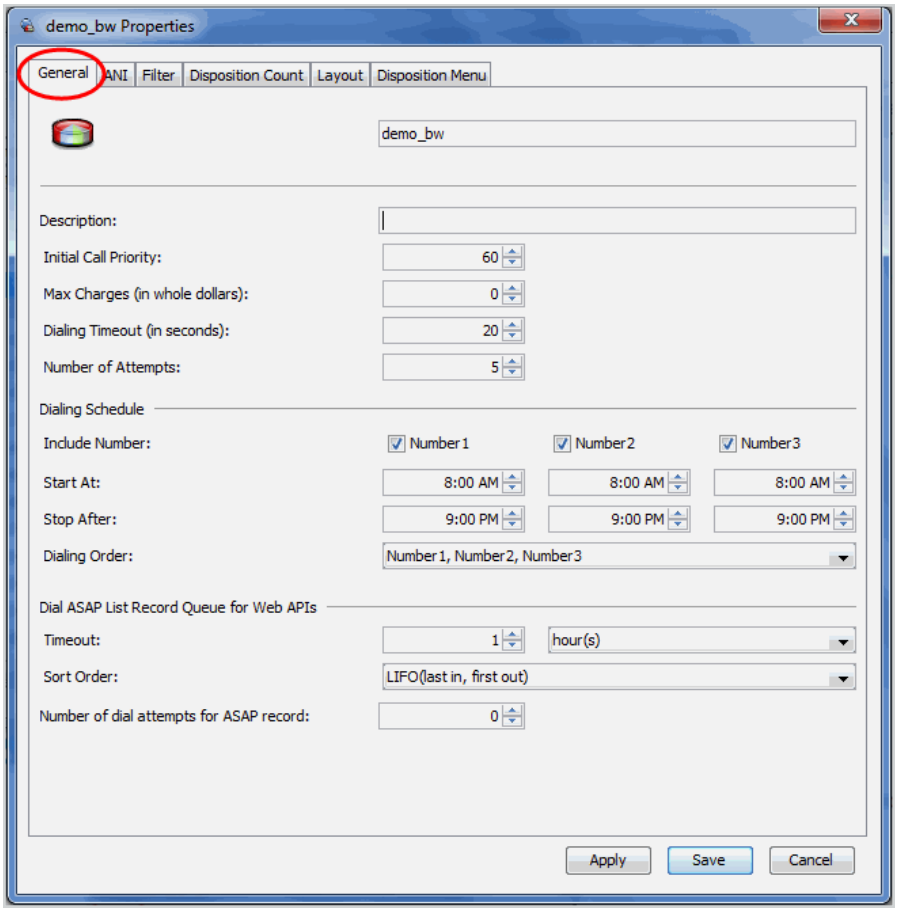
1 In the VCC Administrator application, click **Actions** and select **View Event Log**.
2 In the resulting Event Log window, in the **Filter By** menu, select **Profiles**.
3 Select a row in the table of events. To see details about the event, hover over it

or click **Details** at the bottom of the window.



Selecting General Settings for Campaign Profiles

Several options are initially set to the campaign defaults. If you do not use a profile, a campaign runs with the default settings shown on the General tab.



- Name and Description: Name and optional description of the profile.
- Initial Call Priority (inbound or outbound): Inbound calls have a default priority of 60 on a scale of 1 to 100. Calls with a higher priority (100) are answered first, regardless of their time in a queue. If a campaign uses a profile with a higher priority, calls belonging to that campaign are answered first. For calls from a campaign to be answered before calls from other campaigns, increase the priority by one.
- Max Queue Time (Outbound): Maximum time that the dialed party is held by the dialer if no agents are available to process the call. After the maximum queue time expires, the action selected as the Action on Max Queue Time Expiration under the Dialing Options tab is taken. The default value is one second. Counting from the end of the called party's greeting, the maximum value allowed by the FCC for dialed calls is two seconds before the call is considered dropped. The remaining second is used by call analysis, if enabled, and for routing the call across the network.

Important

Do not increase the default value, except in specific cases, such as when using a dialer to connect calls to remote employees.

- Max Charges (Inbound or Outbound): Dollar amount for Maximum Long Distance Charges. The campaign stops automatically when this amount of long distance charges is reached. A setting of zero means no limit.

- Dialing Timeout (Outbound): Enables the administrator to configure how long the system waits before an unanswered call is disconnected and logged as No Answer. In other words, this is how long the dialer rings a number. Sometimes this time period is equated to number of rings but it is actually measured in seconds. The default is 20 seconds.

  Dialing timeout allows the administrator to increase the ring time (not the number of rings) in an effort to reach more answering machines or give the called party more time to pick up the phone. For autodial campaigns it is sometimes beneficial to increase the dialing timeout in an attempt to capture more answering machines.

  Warning

  This setting has a direct effect on how answering machines and no answers are reported. If the timeout is increased, expect to receive more answering machines and fewer no answer dispositions. More importantly, if your list is producing a lot of unanswered calls, increasing this setting means it takes longer to process the list and potentially increase the agent idle time.

  Telemarketing regulations in the U.S. require that calls ring for a minimum of 15 seconds. If you are running telemarketing campaigns, do not reduce this setting to less than 15 seconds.

- Number of Attempts (outbound, autodial): This is an outbound dialer setting. The counter for the Number of Attempts counts all dial attempts for phone numbers in a list record, including redials due to disposition settings.

  The campaign profile option overrides disposition counters, rather than working with them, in cases where the Profile option is set lower than a disposition option. See also: Disposition Settings/Options (Type tab > Redial Number > Number of attempt.)

  The profile and disposition counters restrict dialing to individual numbers within a record, rather than to the entire record.

For campaign profiles with very low values for the Number of Attempts setting, Five9 recommends increasing the values.

Campaigns running in Basic Mode (without an assigned Profile) use a default of five attempts.

- Dialing Schedule:
  - Include Number: Using the check boxes, you can define which contact number the dialer should consider.
  - Start At (outbound): Sets the dialing hours for an outbound campaign. The default dialing hours are 8:00 AM to 9:00 PM based on the time zone of the phone number being dialed, not your local time zone. To change the default starting time when the dialer begins dialing numbers based on local time for an outbound campaign, change the Start At setting. The time when the dialer dials to the states can be also defined by State Dialing Rules.
  - Stop After (outbound): To change the default stopping time (when the dialer stops dialing numbers based on their local time) for an Outbound Campaign, change the Stop After setting. When changing this setting, keep in mind that the time is based on the time zone of the phone number being dialed. The time when the dialer dials to the states can be also defined by State Dialing Rules.
  - Dialing Order: This field specifies the dialing order for multiple phone numbers on contact records. If your lists contain multiple phone numbers for contact records, you can change the order in which the numbers are dialed.
- Dial ASAP List Record Queue for Web APIs: The options allow you to specify the sort order and timeout for the newly added ASAP records (Web2Campaign or APIs). For more information, see Five9 Web2Campaign Developer's and Administrator's guide: Five9Administrator Setup.
  - Timeout: The default value is one hour. The time-sensitive ASAP list records are removed from the ASAP queue after the timeout period. Following the time-out period, any leads not dialed are treated normal records in the list.
  - Sort Order: The dialer follows the selected list order for the new ASAP records.

  - FIFO (first in, first out)
  - LIFO (last in, first out): Select this order if your last lead has the best chance of closing business.
  - Contact Record Field(s): Select this order if you want the campaign profile's sort order to be used. For example, sorting by contact first name applies a different sort order than using LIFO or FIFO sort order.

- Number of dial attempts for ASAP record: The default value is zero (0). This option indicates the number of dial attempts for the time-sensitive ASAP record, after which it loses the ASAP flag (priority) and becomes a normal (priority) record.

  The default value of zero (0) indicates that the dial attempt number of the time-sensitive ASAP record should not be tracked. Only the timeout option value dictates when the ASAP records lose the ASAP flag (priority) and become normal (priority) records.

  If the value assigned to the ASAP records is any other positive integer, the records lose their priority flag and become normal priority records after reaching the assigned number of dial attempts.

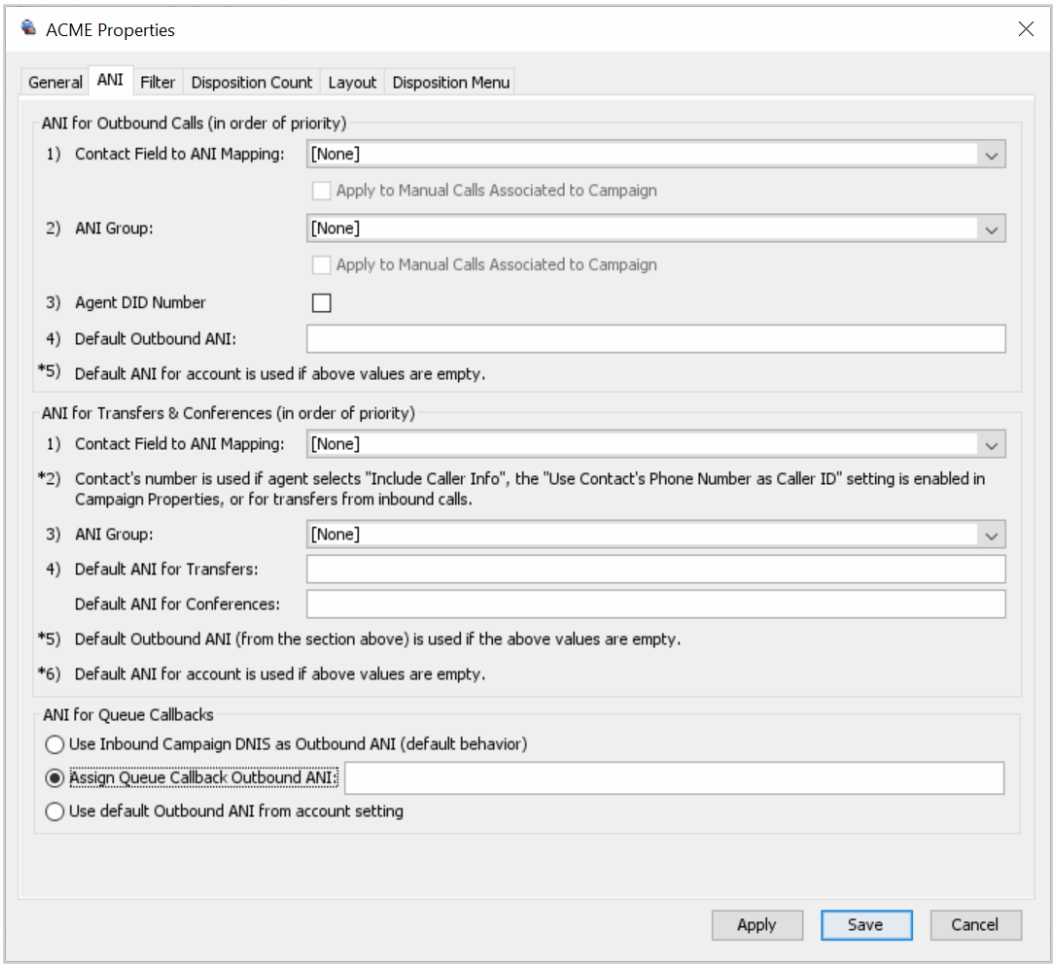
Note

Campaign profile rules may affect the number of records available to dial that is displayed in the Supervisor application. Because these dialing rules may apply to future calls, they may not match reports reflecting numbers immediately available to be dialed.

Selecting ANI Settings

ANI settings provide additional flexibility for dynamically selecting an appropriate phone number for displaying to clients and to business partners who may expect to see particular number formats during transfers and conferences. See also **Priorities of ANI Settings**.

ANI for Outbound Calls
ANI for Transfers and Conferences
ANI for Queue Callbacks
Priorities of ANI Settings



ANI for Outbound Calls

This section applies to most outbound calls associated with the campaign.

> **Note**
>
> These settings do not apply to queue callback calls. For more information, see the ANI for Queue Callbacks section below.

Contact Field to ANI Mapping. Contains the list of custom contact fields with the phone data type, excluding number1/2/3. [None] is chosen by default. If enabled, this option uses the value of a specified Phone-type contact field (excluding multi-pick-list Phone fields) as the ANI for a call to the record. Toll-free numbers may be used as ANIs only if a DID ANI is configured for the domain (see **Managing Automatic Number**

Identification (ANI)). If not, such numbers are not valid and the next-priority ANI settings apply.

Apply to Manual Calls - This option allows the custom contacts to be used for manual calls that are assigned to the campaign, including callbacks.

ANI Group. You can choose the ANI group from the drop-down list. The [None] option can be selected in the ANI Group menu if the campaign does not have requirements to show local presence by displaying a local prefix.

Apply to Manual Calls Associated to Campaign. This option allows the ANI Group settings to be used for manual calls that are assigned to the campaign, including Callbacks.

Agent DID Number. This number is used only if the call is a manual or campaign preview call.

Default Outbound ANI. When you run an outbound campaign without a profile, all outbound calls use the default ANI number set in the Actions menu (see Managing Automatic Number Identification (ANI)). To override the default ANI for a campaign, enter the number here. If you use a Profile for other purposes, you must still enter an ANI. If you do not want to change the default ANI, enter your default ANI in this field. The Default Outbound ANI would be used when a campaign dials a number without a prefix/area code that has an assigned ANI within the ANI Group. You can configure ANIs starting with a + sign. The maximum number length for international numbers is 17 digits, plus prefix. The prefix may be 011 (for a total of 20 digits) or + (for a total of 17 digits and a + sign). Default ANI for account is used if above values are empty.

ANI for Transfers and Conferences

This section applies only to transfers and conferences associated with the campaign.

Contact Field to ANI Mapping. Contains the list of all contact fields with the Phone data type, including number1/2/3. [None] is chosen by default. If enabled, this option uses the value of a specified Phone-type contact field (excluding multi-pick-list Phone fields) as the ANI for a conference/transfer that is initiated while an agent or IVR script is working with the record.

Toll-free numbers may be used as ANIs only if a DID ANI is configured for the domain (see Managing Automatic Number Identification (ANI)). If not, such numbers are not valid and the next-priority ANI settings would apply.

Contact's number is used if agent selects Include Caller Info, the Use Contact's Phone Number as Caller ID setting is enabled in Campaign Properties, or for transfers from inbound calls.

ANI Group. You can choose the ANI group from the drop-down list. The [None] option can be selected in the ANI Group menu if the campaign does not have requirements to show local presence by displaying a local prefix.

Default ANI for Transfers. The **Default ANI for Transfers** option is equivalent to **Default Outbound ANI** but applies only to transfers. A similar check is performed for transfer ANIs as for the Default Outbound ANI to see if there is a campaign using this ANI as the DNIS. If not, a warning message is displayed when you attempt to save the campaign profile:

the Transfer ANI you are attempting to use for this Campaign is not being used in any currently running inbound campaign for your domain. Please double-check your configuration to ensure calls can be received on this number, or *The Transfer ANI you are attempting to use for this Campaign does not match any assigned numbers for your domain. Please double-check the number you entered to ensure its accuracy*.

The Default Transfer ANI follows the same number restrictions (for example, no 9999999999 or Five9 ANIs) as the Default Outbound ANI.

Default ANI for Conferences. The **Default ANI for Conferences** option is equivalent to **Default Outbound ANI**, but applies only to Conference Calls. The same check is performed for conference ANIs as for the Default Outbound ANI. It shows if there is a campaign using this ANI as the DNIS; If not, a warning message appears when attempting to save the campaign profile:

"*The Conference ANI you are attempting to use for this Campaign is not being used in any currently running inbound campaign for your domain. Please double-check your configuration to ensure calls can be received on this number*" or "*The Conference ANI you are attempting to use for this Campaign does not match any assigned numbers for your domain. Please double-check the number you entered to ensure its accuracy*."

The **Default Conference ANI** follows the same number restrictions (for example, no 9999999999 or Five9 ANIs) as the **Default Outbound ANI**. **Default Outbound ANI** (from the section above) is used if the above values are empty. **Default ANI for Account** is used if both default values are empty.

ANI for Queue Callbacks

This Campaign Profile setting enables you to configure the outbound ANI to be displayed as the **Queue Callback for Outbound ANI** parameter for outbound calls. Enable these settings by assigning the configured campaign profile to an inbound campaign.

Outbound ANI for Queue Callback may also be configured dynamically using the Set Variable function in Engagement Workflow. An IVR Group variable for Queue Callback ANI may be set and overrides options configured using a Campaign Profile for the specific Inbound Campaign.

> **Note**
> The Queue Callback ANI variable may be used independently of Campaign Profiles.

The ANI for queue callback configuration settings (select one):

Use Inbound Campaign DNIS as Outbound ANI (default behavior). Select this option to use the inbound DNIS associated with the original inbound campaign as the outbound ANI for queue callback.

Assign Queue Callback Outbound ANI. Select this option to assign a specific outbound ANI for queue callback.

Use Default Outbound ANI From Account Settings. Select this option to use the outbound ANI configured for your domain as the queue callback outbound ANI.

> **Note**
> The Queue Callback Outbound ANI setting may be overridden at runtime using the Set Variable function in the associated IVR script. IVR scripts may be shared by multiple campaigns and may not be the originating inbound campaign that the customer dialed. The desired outbound ANI for queue callback may only be known/set at runtime.

Priorities of ANI Settings

Configure ANI settings in campaign profiles and in campaign properties. The behavior varies slightly by campaign type.

Priorities of ANI settings for outbound calls when no values are available for the highest-priority settings.

- **Contact field mapping**: If the specified contact field has a valid, non-null value for the contact, it is used as the ANI for the call.
- **ANI Group (using a local prefix)**: Valid prefix-to-ANI mapping that must be configured for the dialed phone number in the selected ANI Group.
- **Agent DID Number**: DID number that must be defined for the agent.
- **Default Outbound ANI**: Campaign Profile setting. See Editing the Properties of Campaign Profiles.
- **Default Domain ANI**: See Managing Automatic Number Identification (ANI).

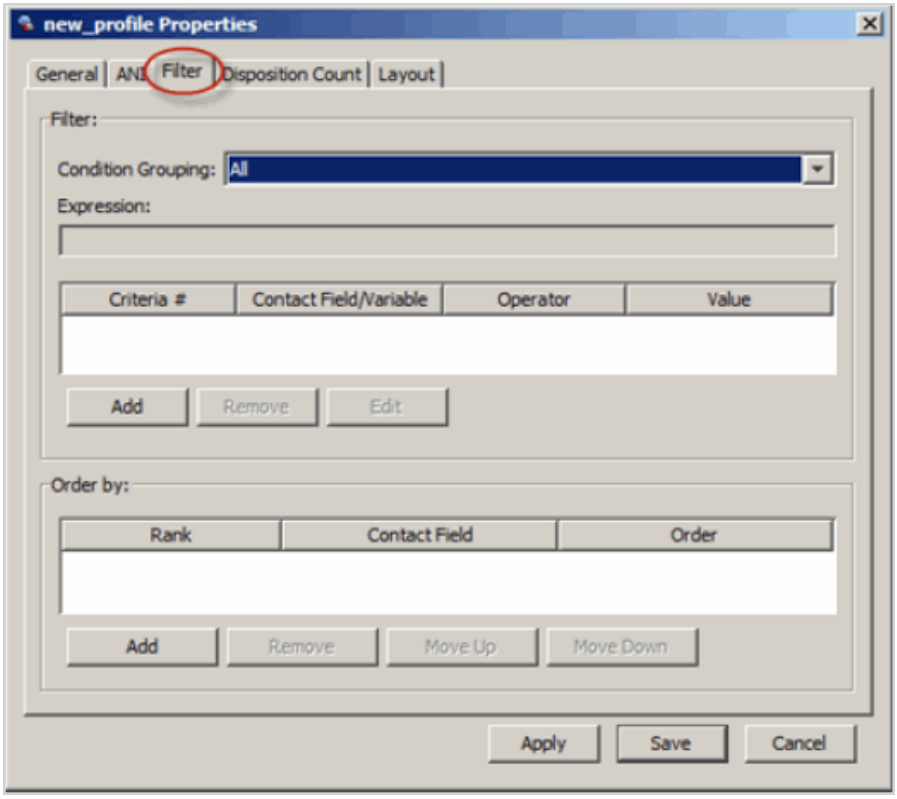
Priorities of ANI settings for transfers and conferences.

- **Contact field mapping**: If the specified contact field has a valid, non-null value for the contact, it is used as the ANI for the call.
- **Use Caller Info / DNIS-as-ANI**: If the Agent enables Use Caller Info, a campaign properties setting forces the contact's phone number to be used as the ANI, or a call transfer is initiated from an inbound call.
- **ANI Group (using a local prefix)**: Valid prefix-to-ANI mapping that must be configured for the phone number being dialed in the selected ANI Group. It only applies if an ANI Group is selected in the ANI for Transfers and Conferences section. An ANI Group configured in the outbound calls section does not apply. See Editing the Properties of Campaign Profiles.
- **Default ANI for Transfers / Default ANI for Conferences**: Can be configured from the ANI for Transfers and Conferences section. See Editing the Properties of Campaign Profiles.
- **Default Outbound ANI**: Campaign Profile setting. See Editing the Properties of Campaign Profiles.
- **Default Domain ANI**: See Managing Automatic Number Identification (ANI).

Filtering and Sorting Lists

Use campaign profile settings to organize the dialing order of a calling list based on the contact fields. For more information, see also Dialing Rules and Dial Order. This tab

applies to outbound campaigns. It allows you to filter a list based on information in the contact database. If the contact details for a phone number match the criteria you enter, the phone number is dialed. If not, the number is skipped. By default, all records are dialed.



Records can be filtered by created or last modified timestamps, time zones, last dispositions, last disposition times, last attempted numbers, the number of dial attempts, and so on Calling list operator filters include Starts with, Contains, and Ends with comparison types for dialing list filters. You can also define the contact data sorting, which allows you to specify the order by which the list records will be arranged.

Applying a Filter
Applying a Sorting Order
Removing Contact Filter Criteria
Removing Sorting

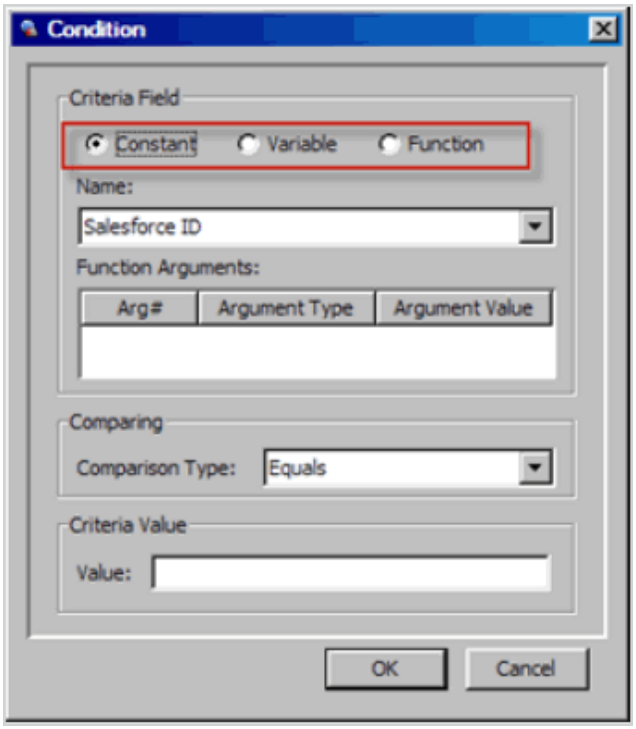
Applying a Filter

Follow these steps to filter a list for outbound dialing. Filters are not case sensitive.

1 In the Filter tab, click **Add**.

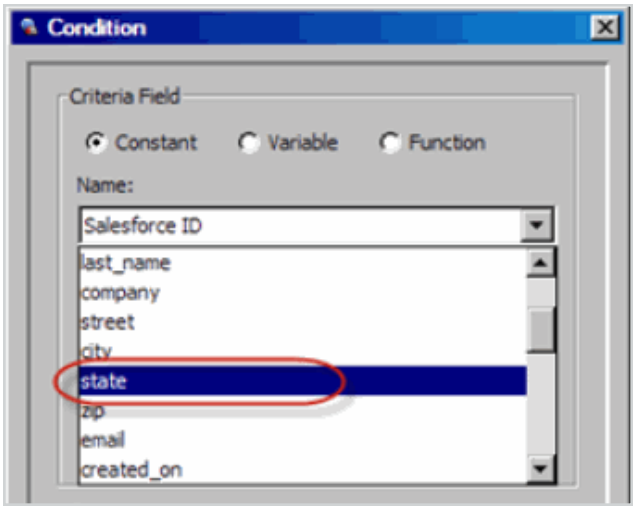
2 Select a criteria type: Contact, Variable, or Function.

In the following steps, an example is created with a constant: `state equals CA`.



3 From the Name menu, select the field to use as filter.

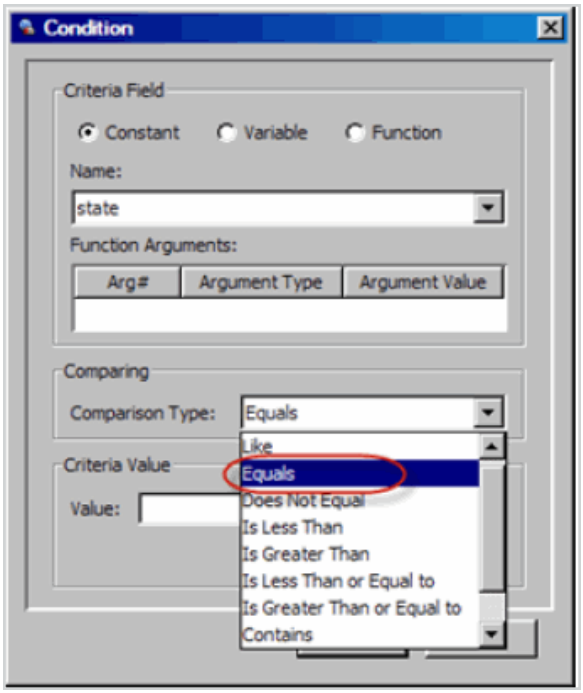
You can filter your lists on the basis of mapped contact fields which can store information about the last system and agent dispositions, the last attempted phone number, last campaign, last list, and last agent to use the record, with the fields being updated at the time that a disposition is set. The mapped fields can contain time stamps for when the contact record was last modified or created.



4 Select the comparison type:

- Like: Find a string fitting a certain description. A wild card character can be used.
- Equals (=): Test the equivalence of two values. Cannot use wild cards.
- Does Not Equal (!=): Test the negated equivalence of two values.
- Is Less Than (<): Left expression is less than that of the right expression.
- Is Greater Than (>): Left value is greater than that of the right value.
- Is Less Than or Equal to (<=): Test if the value of the left expression is less than or equal to that of the right expression.
- Is Greater Than or Equal to (>=): Test if the value of the left expression is greater than or equal to that of the right expression.
- Contains: Cannot use wild cards.
- Starts with: A wild card character can be used (an implied % at the end).
- Ends with: A wild card character can be used (an implied % at the beginning).
- Empty: The set contains the items. Available for predefined lists.
- Is Not Empty: The set does not contain the items. Available for predefined lists.
- Only Contains: The set only contains the items. For example, of four possible items, two are selected (and only those two - no other items, and not only one of those items). Available for multi-pick predefined lists.
- Does Not Only Contain: The set may or may not contain the items, but it is not the only selection. For example, of four possible items, a particular combination of two of the items is not selected; all other combinations

are valid. Available for multi-pick predefined lists.



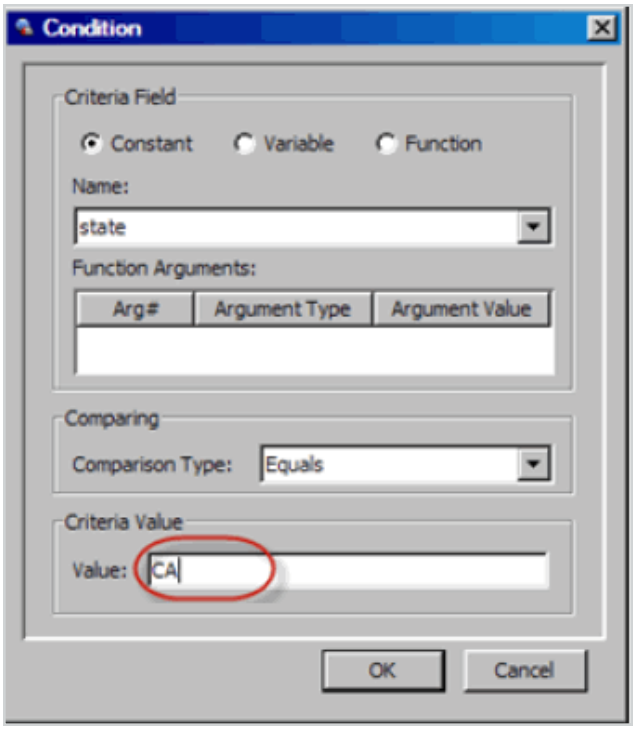
5 In the Value field, enter the text you want as your filter.

A wild card character can be used to substitute for any other character or characters in a string. You can use % and _ characters as a wild card in the criteria fields. The percent sign matches zero or more characters. For example, use “%555%” to find numbers like 92**555**72000 or 928923**555**2 or 9234**555**233. The underscore substitutes a single character. For example, search for ___555__ __ (3 underscores + 555 + 4 underscores) to find numbers like 123**555**1234.

Wild card characters can be used only in Like, Start with, End with expressions. Start with has an implied % at the end, and End with has an implied % at the beginning.

Example

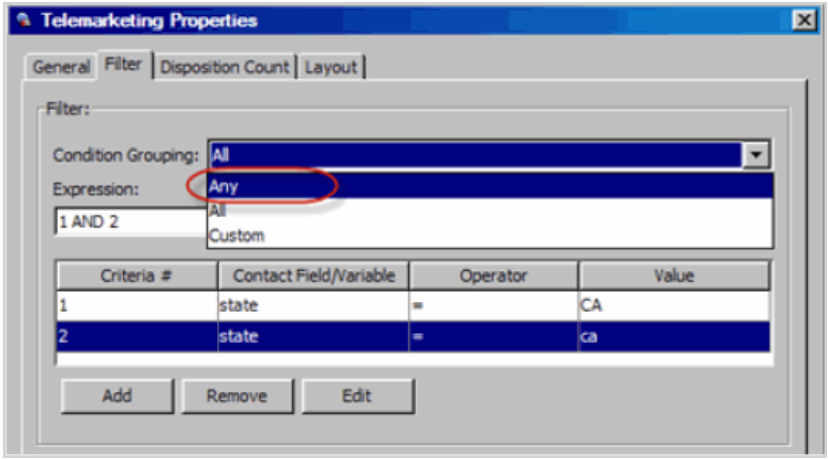
To find any string that begins with the letter “S” type “S%.”



6 Click **OK** to add a criterion to the list.

7 Repeat these steps to add more criteria.

8 Choose a value from the Condition Grouping.



The supported operators are: AND, OR, or NOT.

You can add up to 20 contact field conditions when defining contact filtering.

Example

(1 AND 2 AND 3) OR (4 AND 5 AND 6 AND 7) OR 8 OR (10 AND 11 AND 12 AND 13 AND 14 AND 15)

Example

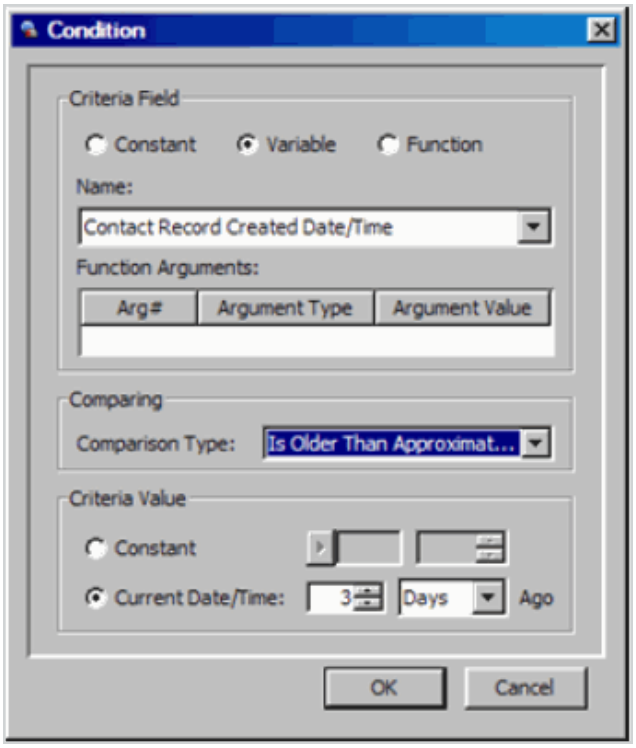
Use the an expression like the following to skip numbers with the specified area code: 1 AND 2 AND (NOT 3)

9 Click **Apply** or **Save**.

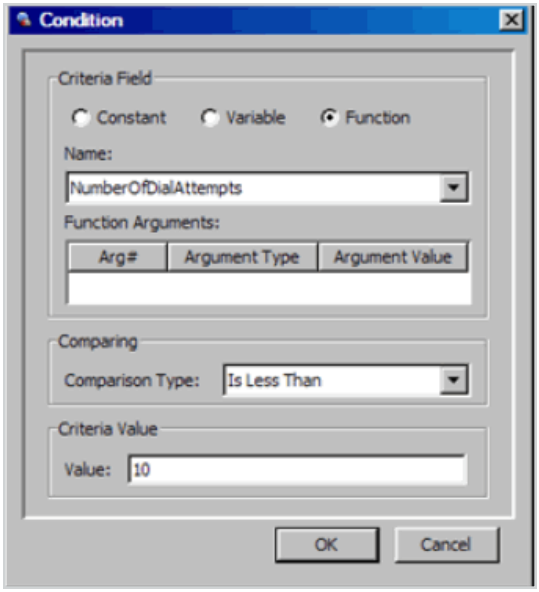
The previous examples indicate how to filter using a constant. You can filter by variables and functions as well:

- Constant: for example, if your list contains contacts from several states, but you want to dial California only, you can use a filter to dial only the numbers where the state field equals CA.
- Variable: you can choose from these variable options:
  - Contact Record Last Modified Date/Time
  - Contact Record Created Date/Time

  The filter would include list records that are more than 3 days old, compared to the current date:



- Function: In the example below, the records are selected if the number of dial attempts is less than 10. In some cases, you have an additional function argument like in the example below.



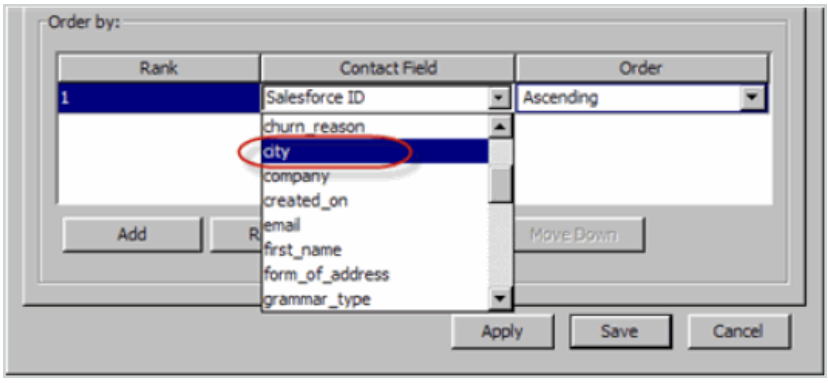
Applying a Sorting Order

Follow these steps to sort a list for outbound dialing. If you set two lists to the same priority, both lists are sorted together as one list. Five9 does not recommend that you sort lists larger than 50,000 records. Large list sorting results in longer campaign startup and list recycling, which may negatively affect agent productivity. You can select up to three Sort-by fields.

1. In the Filter tab, click **Add**.

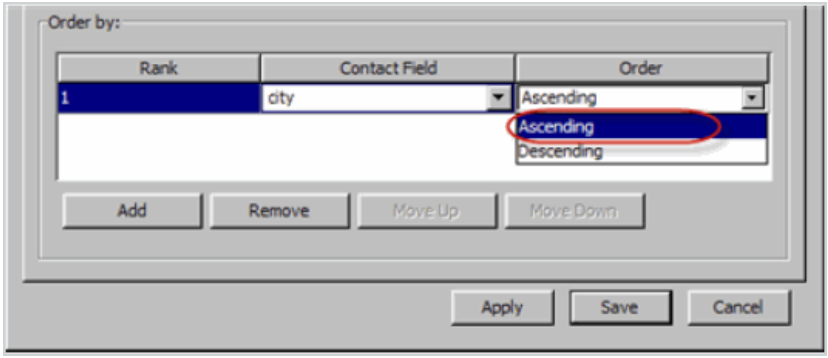
   The set (multi-pick) fields cannot be used for *order by* parameters in campaign profiles.

2. From the Contact Field menu, select the column to use for sorting.



   You can sort on the basis of custom mapped contact fields which can store information about the last system and agent dispositions, the last attempted phone number, last campaign, last list, and last agent to use the record, with the fields being updated at the time that a disposition is set. The mapped fields can contain time stamps for when the contact record was last modified or created.

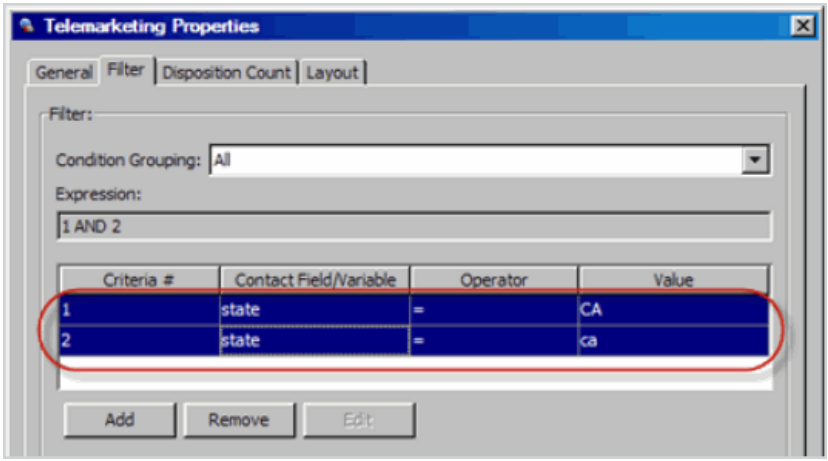
3. Select the order type: Ascending or Descending.



4. Change the order up or down as needed.

Removing Contact Filter Criteria

1 In the Filter tab, select **Criteria #**. To select multiple criteria, use <CTRL> or <SHIFT>.



2 Click **Remove**.

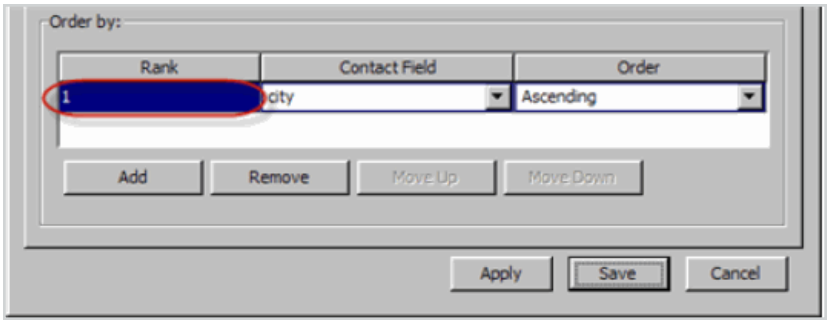
3 Click **Yes**.

4 Click **Apply** or **Save**.

Removing Sorting

When you remove the sort order, the list is reset to the default sort state.

1 In the Filter tab, click the line you want to remove at the bottom of the window. To select multiple lines, use <CTRL> or <SHIFT>.



2 Click **Remove**.

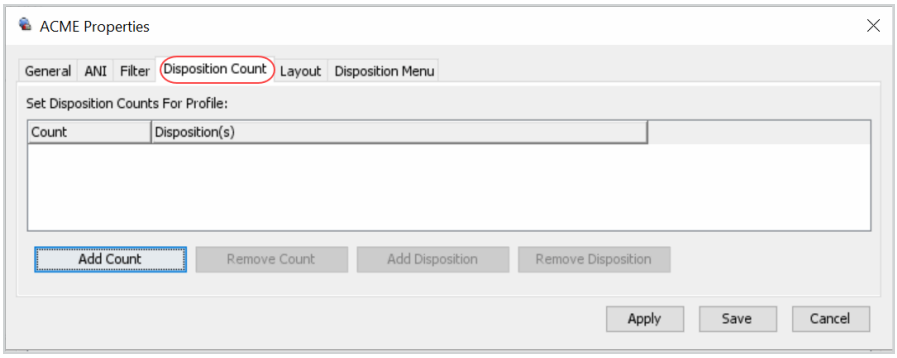
3 Click **Apply** or **Save**.

Managing Disposition Counts

This tab applies to inbound and outbound campaigns. The Disposition Counts tab is used to stop a campaign based on how many times a disposition is selected. See also the Campaign Administrator's Guide, Stopping a Campaign.

Disposition count allows you to automatically stop an Inbound or Outbound Campaign after the specified disposition has been selected a specified number of times. For example, if you have 100 items to sell, use Disposition Count to automatically stop dialing after the Sales disposition has been selected 100 times. To do this, set a Disposition Count equal to your product inventory.

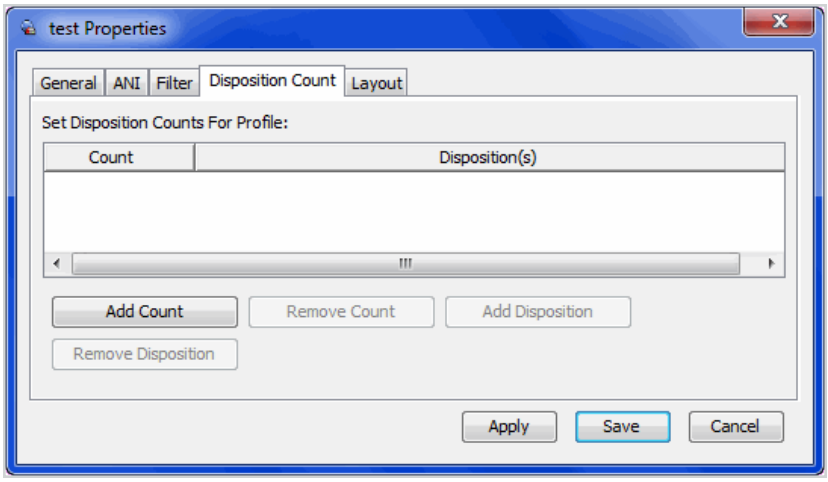
This feature can be used for things such as controlling inventory, mailing applications or fliers of which you have a limited amount printed, limiting appointments based on staffing, and so on. The Disposition count is an event.



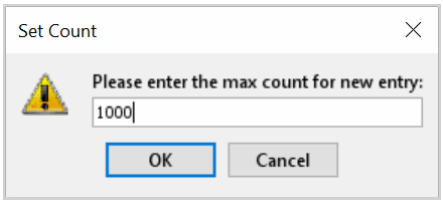
Creating a Disposition Count

To create a Disposition Count, follow these steps.

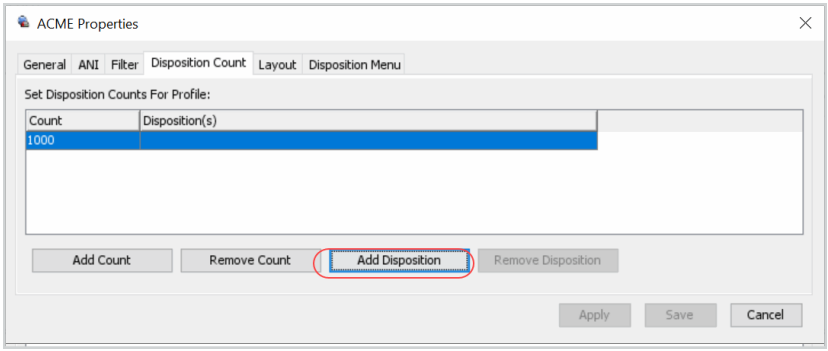
1 In the Disposition Count tab, click **Add Count**.



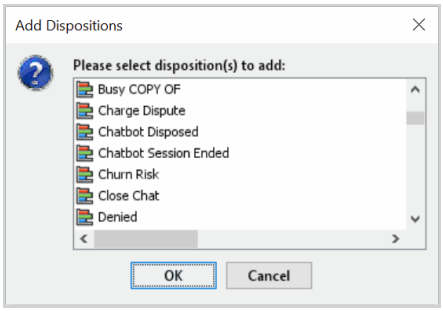
2 Enter the number at which to stop the campaign, and click **OK**.



3 Highlight the count that you entered, and click **Add Disposition**.



4 Select the dispositions you want to use.

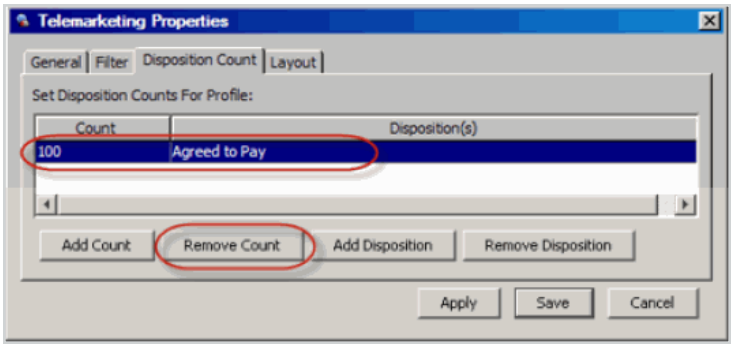


5 Click **OK**.

6 Click **Apply** or **Save**.

Removing a Disposition Count

1 In the Disposition Count tab, select one or several lines to remove. For multiple choices, hold down the <CTRL> or <SHIFT> keys.



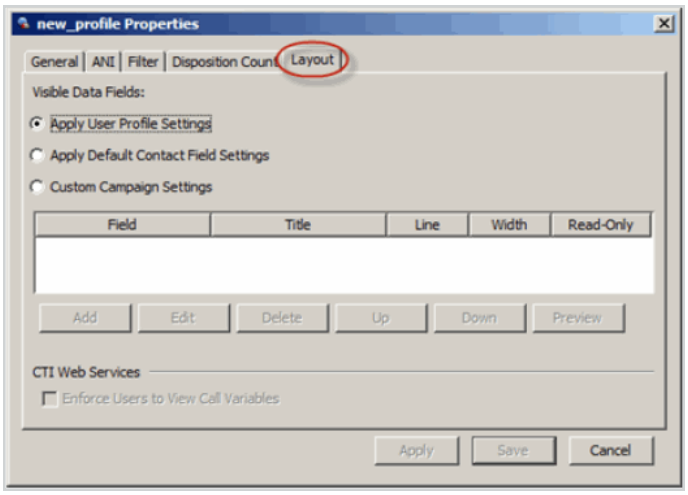
2 Click **Remove Count**.

3 When done, click **Apply** or **Save**.

Configuring a Campaign Profile Layout

You can control which contact fields and variables are shown to the agents and which fields can be edited by them. Additionally, you can control how the fields are displayed. You can configure the width of the fields. A variety of call variables are configured for the profile. Some of them are read only. For the editable fields, agents can add or change data. For example, you might have a sales campaign and a support campaign.

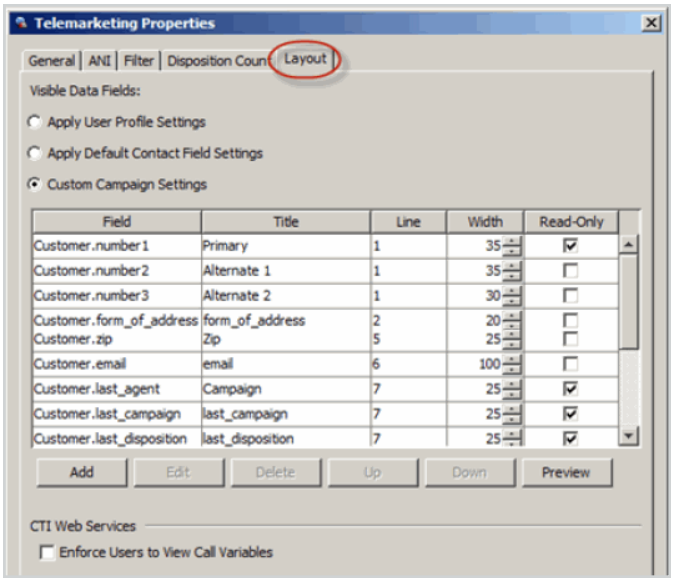
These probably are two different variable groups and two different sets of variables that you want to display, using the Campaign Profile Layout configuration.



1 In the Layout tab, select one of these options:

- Apply User Profile Settings - Select this option to use the layout settings for the user profiles associated with agents handling calls for this campaign. Note that the user profile layout settings do not include call variables; therefore, all call variables are displayed to agents for calls associated with campaigns using this profile.
- Apply Default Contact Field Settings - Select this option to use the default settings configured for all contact fields. Note that the contact field layout settings do not include call variables; therefore, all call variables are displayed to agents for calls associated with campaigns using the Campaign Profile.
- Custom Campaign Settings - Select this option to apply the Campaign Profile layout configured in the Data Fields table described below. This option activates for integrations only Enforce Users to View Call Variables under CTI Web Services:
  - Enabled: call variables are always displayed to agents.
  - Disabled: call variables are displayed to agents only if they have enabled Show Call Attached Variables in their softphone settings.

Custom campaign settings take priority over those configured in user profiles. Both configurations also take priority over the default contact field settings configured in **Contacts > Fields**.



Data Fields - This table shows the contact fields and call variables that will be displayed to agents when handling calls for campaigns associated to the Campaign Profile.

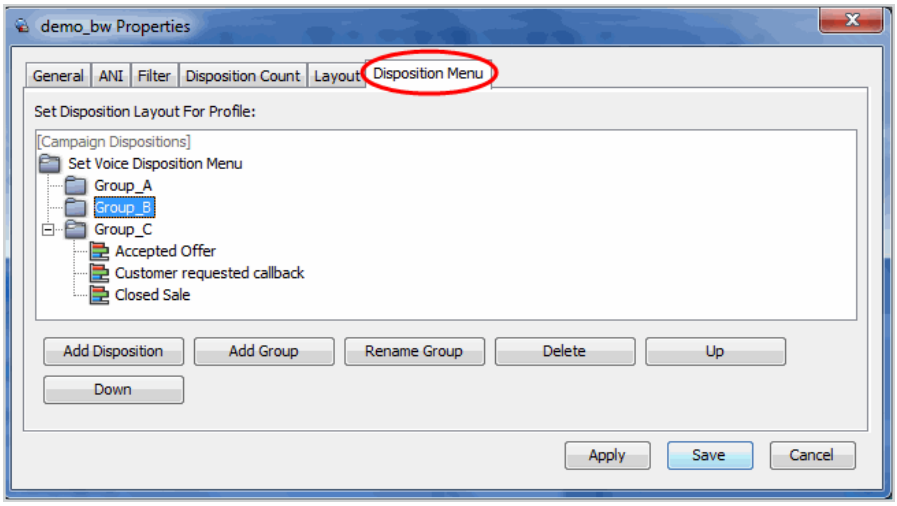
- Add - opens the New Data Field window where you can define a contact field or call variable. If all fields are added, New Data Field is not available.
- Edit - change the contact field or call variable properties.
- Delete - remove the field from the allowed fields list.
- Up - move up the field in the form for contact filed lookup.
- Down - move down the field in the form for contact filed lookup.
- Preview - preview the form.
- Line - indicates the vertical position of each field in the layout, with line 1 at the top. Lines are calculated based on the width of each field, described below.
- Width - relative width of each field displayed in the layout. Values can be set in increments of 5%, ranging from 5 to 100.

- Read-Only - property of each field that indicates whether agents can change the value while handling calls.

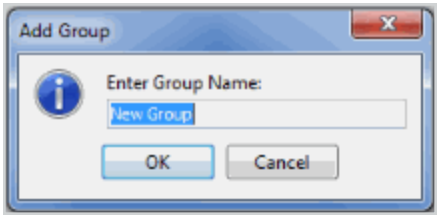
2 When done, click **Apply** or **Save**.

Configuring and Grouping Dispositions

You can assign, group dispositions, and sort the order in which dispositions and disposition groups are displayed.

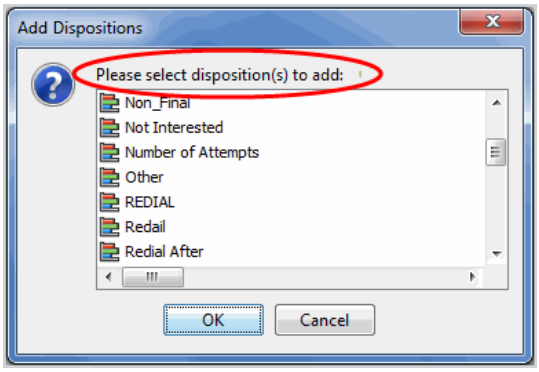


- To create a disposition group, click **Add Group** and assign a name that best identifies the group. The names of disposition groups must not exceed 255 characters.



- To rename a disposition group, select the group and click **Rename**.
- To add dispositions to a disposition group, select group, click **Add Disposition**, and select dispositions.
- To remove a disposition or disposition group, select that object and click **Remove**. To reorder the groups or the dispositions within a group, select that

object and click **Up** or **Down** until your desired display order is defined.

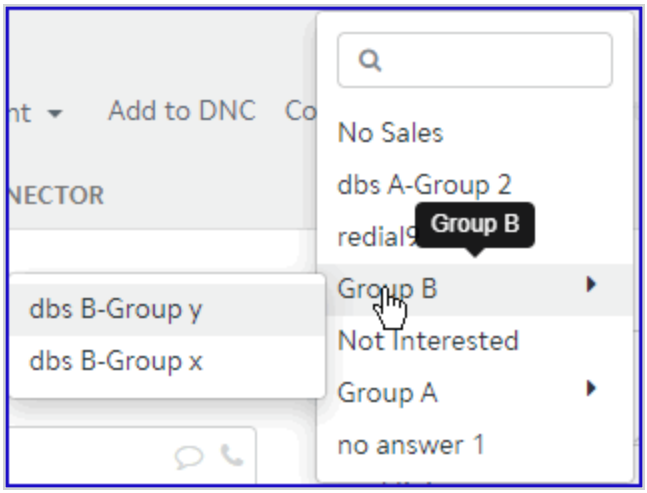


You can also assign dispositions in campaigns. For consistency, Five9 recommends that you assign a disposition in a campaign profile or in a campaign, but not both.

In the agent application, dispositions are ordered as follows:

1. All dispositions assigned in the campaign, ordered alphabetically but with all uppercase letters preceding all lowercase letters.
2. All dispositions and groups assigned in the campaign profile, in the order specified in the profile. Dispositions contained in a group are displayed in the expanded menu of the group.

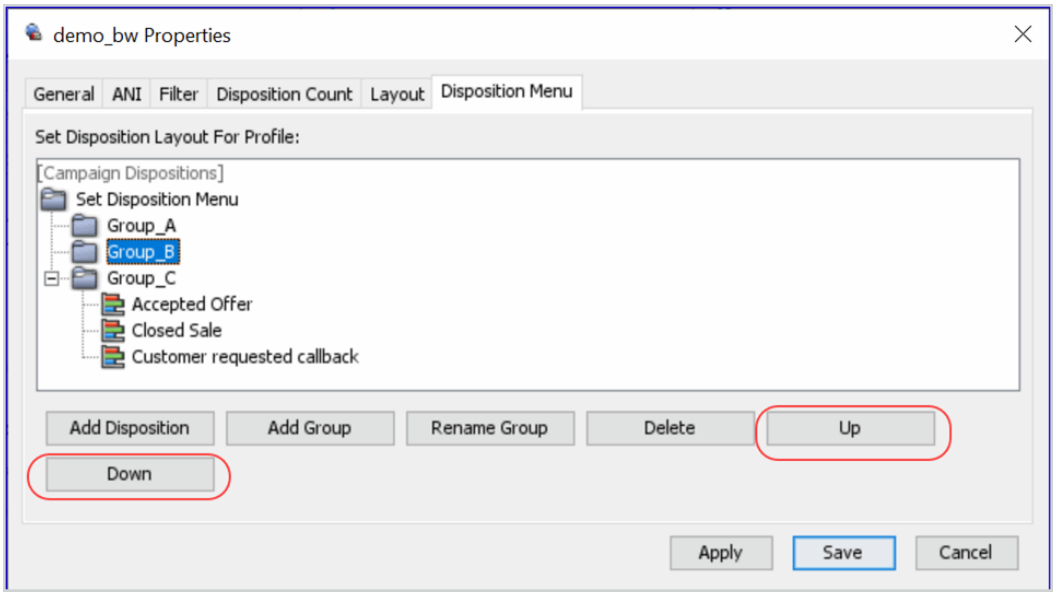
In the following example, No Sales, dbs A-Group 2, and redial9 are assigned in the campaign, and Group B, Not Interested, Group A, and no answer1 are assigned in the campaign profile. Notice that Group b would follow Group A alphabetically, but here it precedes because it is identified that way in the profile:



You can reorder or remove any dispositions or disposition groups to best display a list from which your agents can rapidly select the appropriate disposition.

Example

You have defined GroupA, GroupB, and GroupC and discover that your agents are using GroupC most often. Use the Up button to move GroupC to the top of the agent display.



To reorder the groups or dispositions within a group, select an object and click Up or Down until your desired display order is defined.

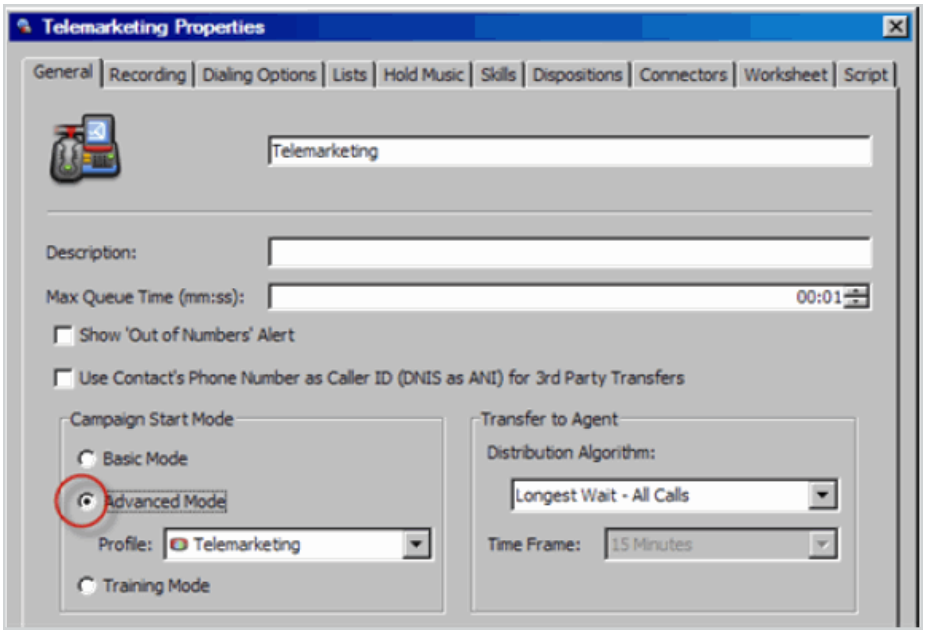
Assigning a Campaign Profile to a Campaign

You can use workflow rules to change the active profile when certain events take place. To use a campaign profile, you must associate it with a campaign.

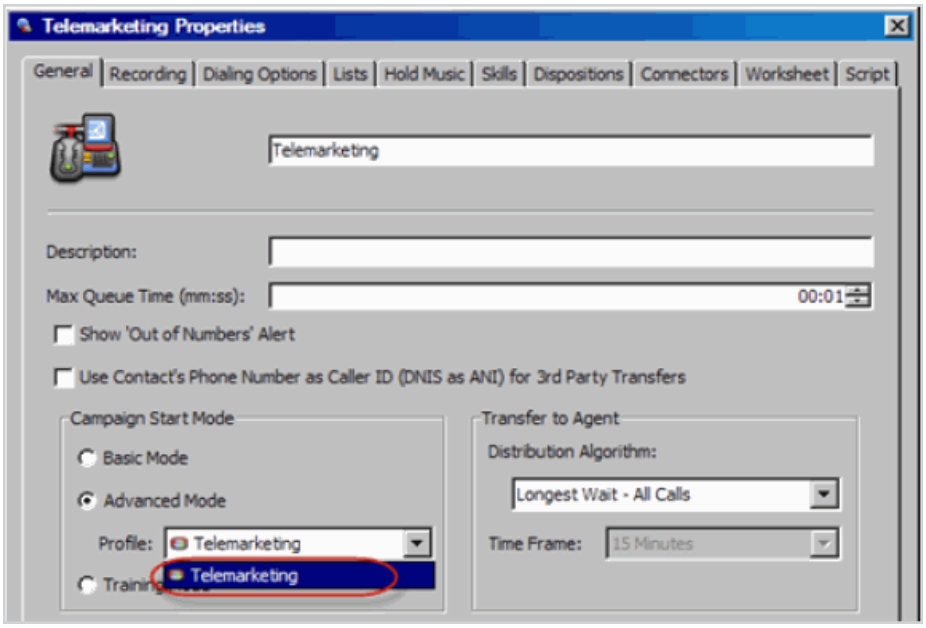
1. Open properties window of a campaign.

   See the Campaign Administrator's Guide, Configuring An Outbound Campaign.

2 In the General tab, select **Advanced Mode**.



3 Select a campaign profile.



4 Click **Apply**, or click **Save** to apply the changes and close the window.

The campaign profile is applied the next time you start the campaign. If you do not want to use a campaign profile, start the campaign in Basic mode.

Prompts

Types of Prompts
Managing Voice Prompts

The Prompts folder in the Five9 Administrator is used to upload sound files to use in IVR prompts, custom hold music, and skill group audio files. Audio files are used also for voicemail greetings, but they are uploaded directly to the User or Skill Group properties window.

A voice prompt is an audio file used in IVR scripts to play a greeting or give callers instructions or information, for example: *Thank you for calling Acme Company. Please hold for the next available agent* or *Please press 1 for Technical Support or 2 for Sales*.

Audio files require this format: WAVE audio, ITU G.711 mu-law, mono 8000 Hz. In some applications, the format may be listed as CCITT u-Law, 8.000 kHz, 8 bit, Mono, 7 kb/sec.

Create a prompt by using one of these methods:

- Use a professional voice-over service. Five9 recommends this option for a caller friendly experience in your IVR.
- Record your own by using recording software such as Microsoft Sound Recorder.
- Use the built-in Text-to-Speech engine.

Import audio files into the Prompts folder in the Administrator's desktop. An imported prompt can be used in multiple inbound campaigns. Prompts can be played sequentially by linking multiple Play modules in the IVR. Prompts can be edited.

Types of Prompts

If you need to select a prompt, you can choose from default prompts, uploaded prompts (voice audio files), and TTS prompts.

Default Prompts
IVR Prompts
Text to Speech
    Modes

Elements

Default Prompts

Five9 provide a few default prompts but, for best results, recommends that you record and import custom prompts. The default prompts are displayed in the same list as any of your imported prompts in the Play module.

Several prompts can be saved sequentially to achieve the message that you need, for example: *Extension two three four five is not available*, and *Please leave a message after the tone*. This table contains the default prompts:

Zero	Nine
One	Extension
Two	Please hold while I transfer your call
Three	Is not available
Four	Please leave a message after the tone
Five	Or
Six	Please enter the extension of the party you would like to reach
Seven	Hold for the next available agent
Eight	

IVR Prompts

These modules can have prompts:

Play Module	Query Module
Get Digits Module	System Info Module
Input Module	Conference Module
Menu Module	Voice Input Module
Lookup Contact Record Module	Skill Transfer Module
	Agent/Voicemail Transfer Module

In the IVR properties, you can select the prompts that will be played to callers while the module is executed. The list of prompts includes the default prompts and the prompts you added to the Prompts folder. You may also use Text-to-Speech (TTS) for dynamic

prompts. However, Five9 recommends that you limit the use of TTS to short phrases, such as call variable values or contact field values. For example, you may want to provide the caller's checking account balance by using TTS to say the current balance.

You can also make the selected prompts interruptible: the prompt stops as soon as the background operation is completed.

Text to Speech

Text to Speech (TTS) functionality allows you to create a voice prompt from text using different voice characters available from the library. TTS is the only way to provide your customers with dynamic voice messaging being used in the IVR scripts. For example, you can provide the inbound customers with information about their account balance using the IVR script which asks the customer to enter their account number. The script queries the database to get the current balance and finally generates the voice message with the customer's balance amount which is played to the customer.

Five9 does not recommend that you use this functionality as the main way to create voice messages for your customers. Messages generated by TTS have a computer-sounding voice, which is not suitable for extended messages. Five9 recommends that you record real voice messages and combine the messages using the TTS only to say the values of variables. For example, record the phrase *Your balance is* in a sound recorder and upload it to the system. During the creation of the prompt, combine this message with a TTS message that plays the balance amount.

The TTS Script Builder is designed to prepare the rendered text for the TTS engine. The text may consist of predefined pieces of text and the content of variables.

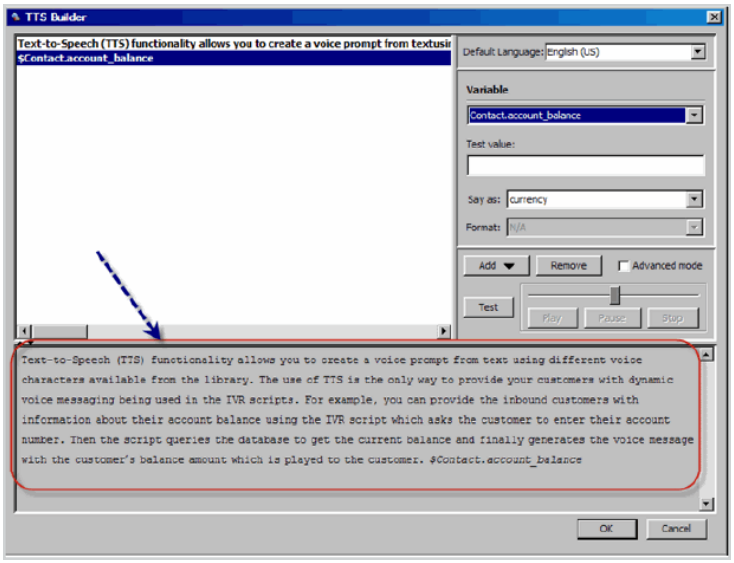
The Builder can be used in Advanced Mode or in Simplified Mode (Default). The only difference is allowing the SSML text to render with explicit use of the SSML tags. The Advanced Mode check box is used to switch between modes.

Modes

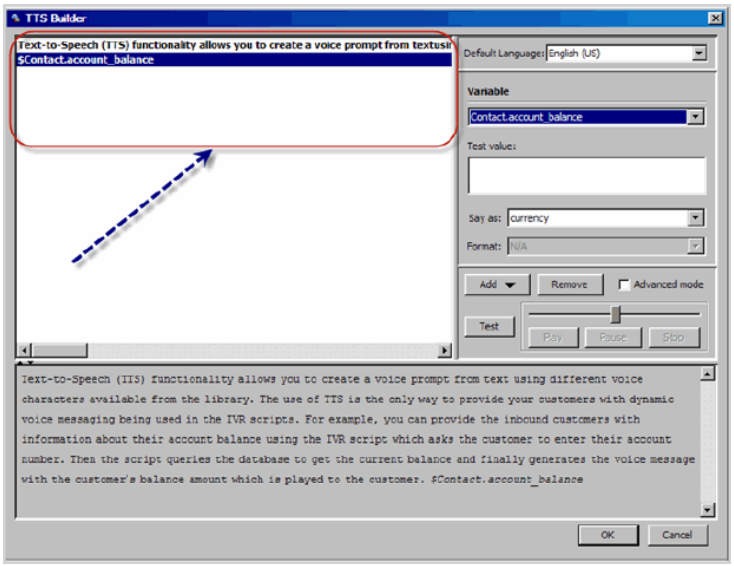
Simplified Mode. The TTS Script Builder dialog consists of the three main panels:

- Bottom Panel: Shows the complete text cleared from any structuring insertions (XML tags). This is a read-only text box intended for easy control and navigation purposes. Click a word in the panel selects the left panel's string, which contains

the word (which in turn selects a substring in the bottom panel).

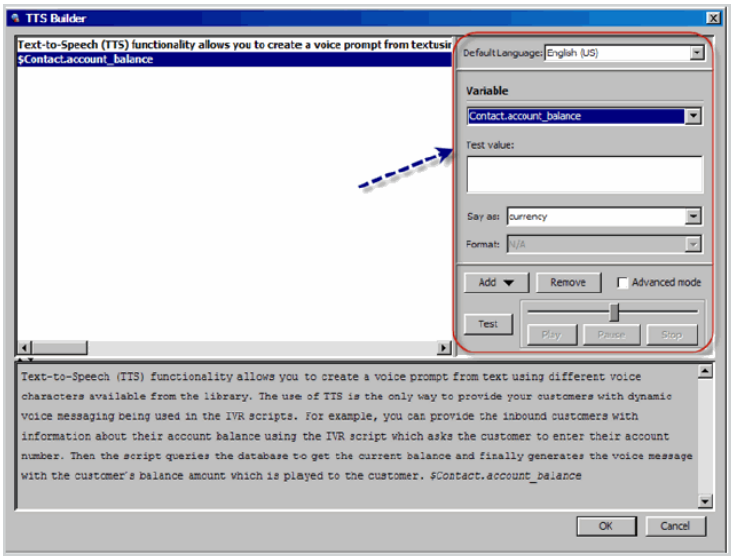


- Left Panel: Contains a table where each elementary piece of text (term) is on a separate row. Click a string to display the element settings in the right panel.

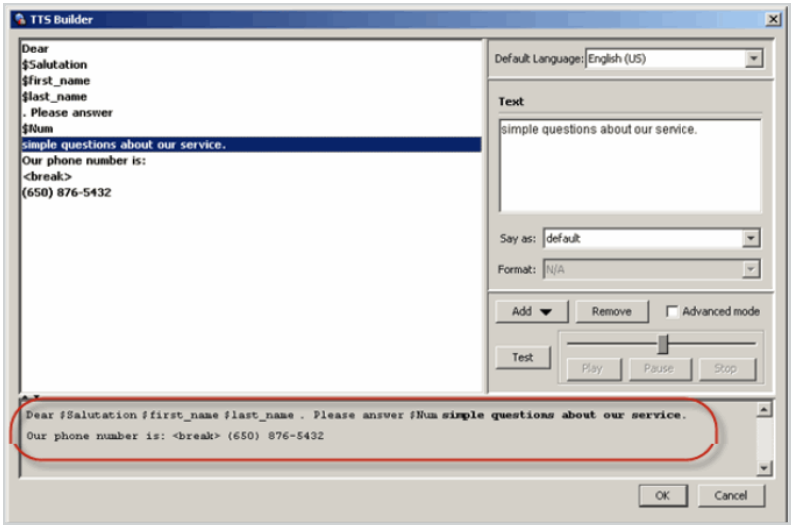


- Right Panel: Displays the selected term type and definition. After you add a new element, you can define the options for this element in the right panel. Select an

element from the left panel to display its settings in the right panel.



See the example of how it would look after clicking on some position between *simple* and *service* words in the bottom pane. The corresponding string is selected in the left panel and the settings for this text element are displayed in the right panel.



if the TTS Builder is started from an IVR Module Properties window, the Simplified Mode allows you to add only three main elements:

- Text Element
- Break Element
- Variable Element

If the TTS Builder is activated from the Add Prompt dialog in the Prompts folder, only substrings and pauses are available:

- Text Element
- Break Element

These elements can be added by using the Add button.

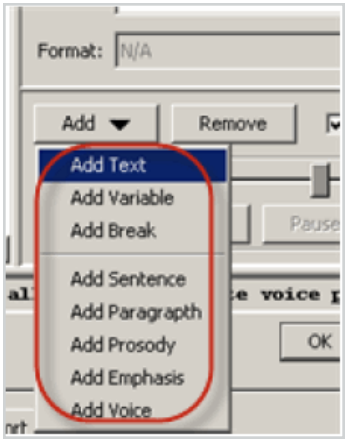
Advanced Mode. Checking the Advanced Mode box enables the TTS advanced mode. With this setting it is possible to improve the sound quality of the prompts by rendering the text with the SSML (Speech Synthesis Markup Language) tags.

In this mode, the left panel contains the SSML tags along with text, variable, and break elements. The tags should be visually distinguished from the term elements (in the figure the last ones are displayed in Bold).

The tags appear in pairs (opening tag has the symbol > attached to the end of its name, closing tag is marked by leading <). Click a string with the opening or closing tag to select whole strings between them (shown red in the figure), so selecting the tag means selecting all enclosed elements.

An additional column with check boxes serves to select elements that need to be included inside a new tag pair. The customer can switch on several subsequent elements (for example Dear, $Salutation, $first_name, $last_name) and press the Add button. After selecting the Add sentence command from the menu, the newly created pair s>/<s appears around the selected terms (see the figure). Use the <CTRL> or <SHIFT> keys to select more than one term. The Advanced mode allows you to add these elements:

- Text Element
- Break Element
- Variable Element
- Additional elements shown in the figure

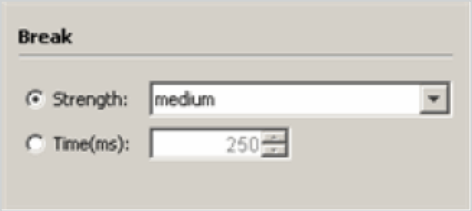


The set of tags available for adding depends on the *including* and *included* tags. Each of the tags can include the text, variable, and break elements. Each of the tags can be applied to the root level elements.

Command	Element	Description	Parent Elements	Child Elements
Add Paragraph	p	Enclosed text as a paragraph	voice, prosody	voice, prosody, emphasis, s
Add Sentence	s	Enclosed text as a sentence	p, voice, prosody	voice, prosody, emphasis
Add Prosody	prosody	Prosodic information for the enclosed text	p, s, voice, prosody, emphasis	emphasis, prosody, voice, p, s
Add Emphasis	emphasis	Enclosed text should be spoken with emphasis	p, s, voice, prosody, emphasis	voice, prosody, emphasis
Add Voice	voice	Voice characteristics for the spoken text	p, s, voice, prosody, emphasis	p, s, voice, prosody, emphasis

Elements

Break Element. The Break element applies to the simplified and advanced modes.



The Break element is an empty element that controls the pausing or other stress and intonation patterns between words. The use of the Break element between any pair of words is optional. If the element is not present between words, the synthesis processor is expected to automatically determine a break based on the linguistic context.

The alternative attributes in this element are Strength and Time. The corresponding panel contains the options for the attributes selection, the Strength menu, and the Time entry field. The last two controls are enabled with the corresponding selections.

The Strength menu has the following possible values. Duration in ms of the pause.

- x-weak: 100
- weak: 200
- medium: 400
- strong: 700
- x-strong: 1200

The Time field explicitly specifies the duration of a pause to be inserted in the output in milliseconds (ms). It can contain a non-negative integer. The spin button has a 250 ms step.

Emphasis Element. The Emphasis element specifies that the enclosed text should be spoken with emphasis. This element can be added in the Advanced Mode of TTS Builder.

- Element tag: emphasis
- Parent elements: p, s, voice, stress and intonation, emphasis
- Child elements: voice, stress and intonation, emphasis

This element requests that the contained text be spoken with emphasis (also referred to as prominence or stress). The synthesis processor determines how to render emphasis since the nature of emphasis differs between languages, dialects, or even voices.

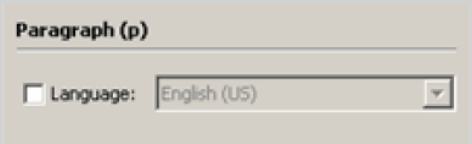
The optional level attribute indicates the strength of emphasis to be applied. Defined values are as follows strong, moderate, and reduced. The default level is moderate.



Paragraph Element. The Paragraph element identifies the enclosed text as a paragraph. It can be added in the Advanced Mode of TTS Builder.

- Element tag: p
- Parent elements: voice, stress and intonation
- Child elements: voice, stress and intonation, emphasis, s

The sentence (s) and paragraph (p) tags have just one optional parameter, language. The right panel contains the Language check box which enables or disables the menu with the supported set of languages.

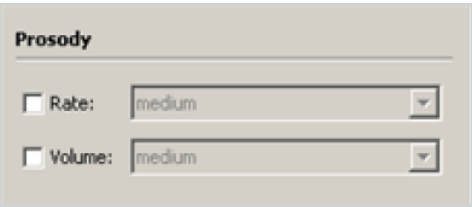


Prosody Element. Prosody refers to the rhythm, pattern, and flow of sounds in language. The Prosody element specifies stress and intonation information for the enclosed text. This element can be added in the Advanced Mode of TTS Builder.

- Element tag: prosody
- Parent elements: p, s, voice, prosody, emphasis
- Child elements: emphasis, prosody, voice, p, s

This element permits the control of the speaking rate and volume of the speech output. The attributes, all optional, are as follows:

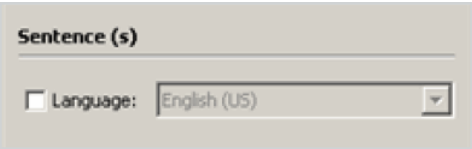
- Rate - speaking rate for the contained text: x-slow, slow, medium, fast, x-fast, or default.
- Volume - values: silent, x-soft, soft, medium, loud, x-loud, or default.



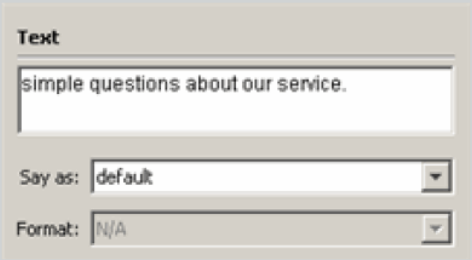
Sentence Element. The Sentence element identifies the enclosed text as a sentence. This element can be added in Advanced Mode of TTS Builder.

- Element tag: s
- Parent elements: p, voice, prosody
- Child elements: voice, prosody, emphasis

The sentence (s) and paragraph (p) tags have one optional parameter, language. The right panel contains the Language check box which enables the menu of supported languages.



Text Element. The Text element can be added in the simplified and advanced modes. For the text term, the panel contains the text box (allowing the text editing), the **Say as** and **Format** menus. The Variables, Say as, and Format menus are related to the selected variable.



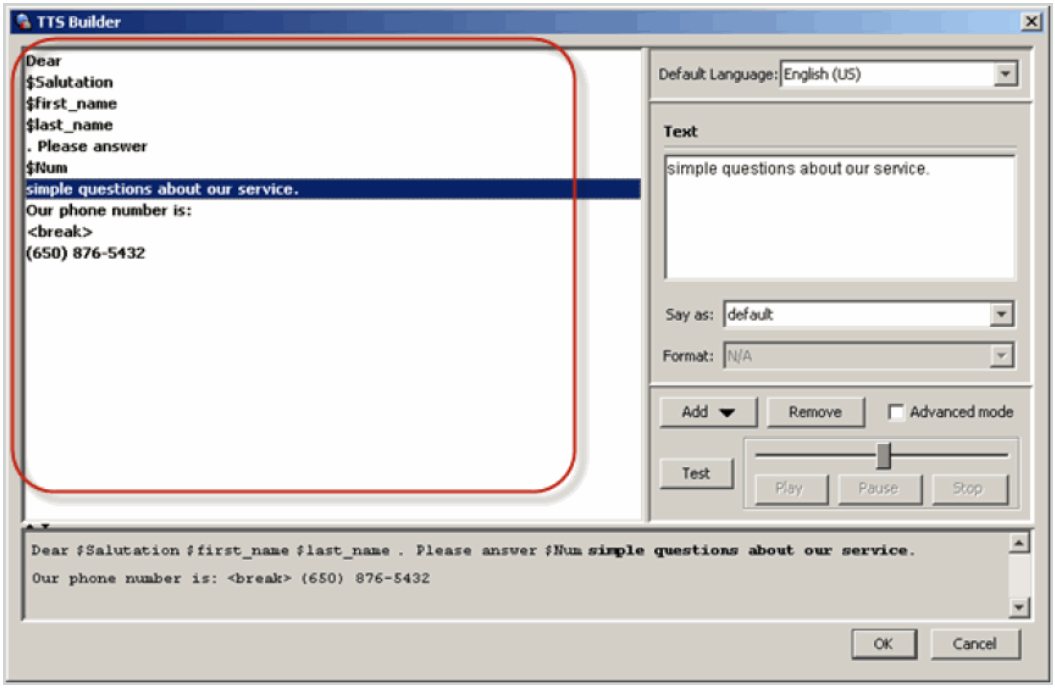
The following table describes the relations between the variable's type, say-as interpretation, and formats supported by TTS engine. A warning appears if the improper formatting is selected for the entered text.

Say as	Format	Description	Data Type
acronym	N/A	Sequences of letters and digits are spoken as words when this is considered natural in the target language. For example, NATO, UNESCO for English. Otherwise, letters and digits are pronounced individually. For example, API for English. Use detail *strict* to force spelling mode. In that case punctuation is also spoken (such as, speaking a comma as *comma*). Acronym with detail *strict* is equivalent to letters with detail *strict*.	STRING
address	N/A	Used for postal addresses.	STRING
cardinal	N/A	Supported if relevant in the target language. Roman cardinals are often supported.	INTEGER STRING
currency	N/A	Contained text is a currency amount (the currency symbol may be present in the enclosed text). Supports currencies as commonly specified in the country corresponding to the target language, such as $ and ¢ for US English.	CURRENCY NUMBER INTEGER STRING
date	d, dm, dmy,		DATE

Say as	Format	Description	Data Type
	m, md, mdy, my, y, ym, ymd		STRING
decimal	N/A	Same as number with format decimal. Use of the separator for the integral part is optional. For example, 123456.123 and 123,456.123 are pronounced in the same way for US English.	NUMBER INTEGER
digits	N/A	Numbers must be read digit by digit. Decimal periods or commas should be pronounced as well. Same as number with format digits.	NUMBER INTEGER
duration	h, hm, hms, m, ms, s	**Example**: duration with format hms is read out as <h> hour(s), <m> minute(s), and <s> seconds.	TIME STRING INTEGER
fraction	N/A	Same as number; with format fraction. For example, to pronounce 1/3 as *one third*.	STRING
letters	N/A	Pronounce alphanumerical strings as a sequence of individual letters and digits. With detail *strict* punctuation is also spoken (such as, speaking a comma as *comma*). Letters with detail *strict* is equivalent to acronym with detail *strict*. For true spelling of all readable characters, use the interpret-as value spell.	STRING
measure	N/A	Variety of units (for example, km, hr, dB, lb, MHz) is supported; the units may appear immediately next to a number (for example, 1cm) or be separated by a space (for example, 15 ms). For some units, the singular and plural distinction may not always be made correctly.	STRING
name	N/A	Interpret a string as a proper name if possible.	STRING
net	email, uri	email can be used for email	STRING

Say as	Format	Description	Data Type
		addresses.	
number	cardinal, decimal, digits, fraction, ordinal, telephone	Only formats relevant in the target language are supported. All the format values are supported as interpret-as values as well, behaving the same for either syntax. See the table entries for those aliases for more details.	INTEGER NUMBER STRING
ordinal	N/A	If relevant, see the language-specific User Guide for a list of the supported formats. Same as number with format ordinal.	INTEGER
spell	N/A	Characters in the contained text string are pronounced as individual characters.	STRING
telephone	N/A	Supports telephone numbers as commonly specified in the country corresponding to the target language. See the language-specific User Guide for a list of the supported formats. Use detail="punctuation” to speak punctuation (such as, speaking a dash as *dash*).	STRING INTEGER
time	h, hm, hms	Hour should be less than 24, minutes and seconds less than 60; AM/PM is read out only if explicitly specified. See the language-specific User Guide for a list of the supported formats.	TIME STRING
words	N/A	This biases the rendering of word strings towards speaking them as words instead of pronouncing them as strings of individual letters and digits. However, the characters of a word may still be uttered individually for particularly difficult to pronounce character sequences. Meant for acronyms to be read as words.	

The text should be split up if some of the words require applying a special treatment. In our example, the phone number (650) 876-5432 is a separate text element because we want to apply *say as telephone* rule to it.



Variable Element. The Variable element can be added in the simplified (in IVR Modules properties only) and advanced modes. The Variables, Say as, and Format menus correspond to the selected variable.



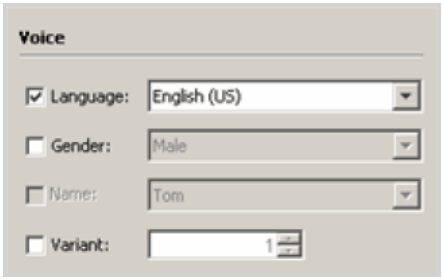
Voice Element. The Voice element specifies voice characteristics for the spoken text. This element can be added in Advanced Mode of TTS Builder.

- Element tag: voice
- Parent elements: p, s, voice, stress and intonation, emphasis

- Child elements: p, s, voice, stress and intonation, emphasis

All parameters are optional:

- Language: Set of available languages.
- Gender: Possible values are male and female.
- Name: A voice from the set of available voices.
- Variant: Changes the voice (without complete specification of other parameters, for example, male voice variant 1 and male voice variant 2).



Managing Voice Prompts

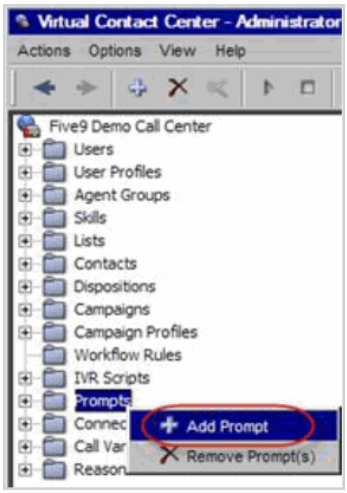
Selecting Recorded WAV Files

After saving your prompt, greeting, or custom hold music, upload it to the Prompts folder.

Important

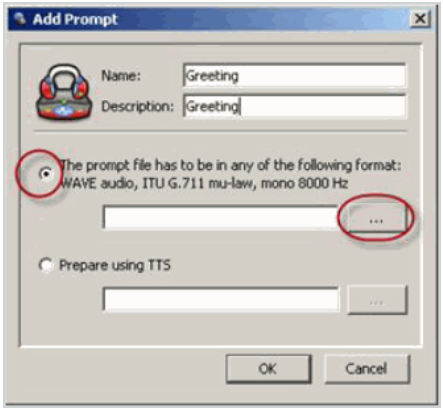
Before uploading audio files, you must save them in the supported format: WAV audio, ITU G.711 mu-law, mono 8000 Hz. In some applications, the format is also listed as CCITT u-Law, 8.000 kHz, 8 bit, Mono, 7 kb/sec.

1 Right-click the Prompts folder and select **Add Prompt**.



2 Enter a name and description.

3 Select the first option to select a previously recorded file on your computer, and locate the file on your computer.



4 Click **Select**.

5 Click **OK**.

After a few seconds, the prompt is available for modules that support prompts in your IVR script.

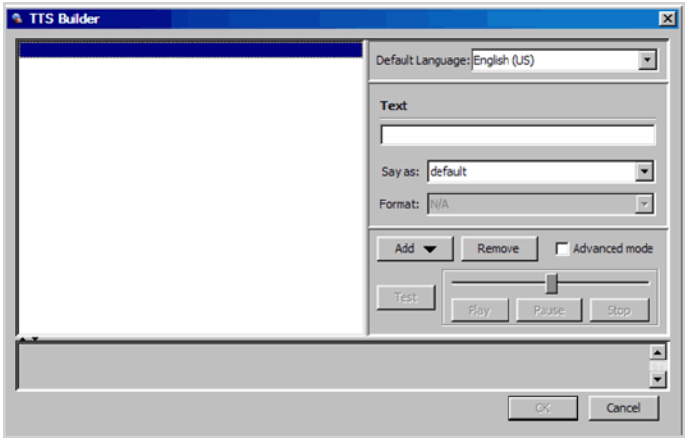
Preparing Text-to-Speech Prompts

To create voice prompts from text, follow the instructions below.

Accessing the TTS Builder to Create Prompts

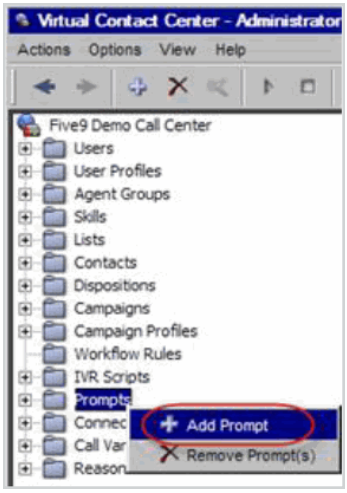
To create the voice prompts from text, use the TTS Builder that you can access from two locations: the Prompts menu and these IVR modules:

- Agent/Voicemail Transfer Module
- Conference Module
- Get Digits Module
- Input Module
- Lookup Contact Record Module
- Menu Module
- Play Module
- Query Module
- System Info Module
- Skill Transfer Module
- Voice Input Module



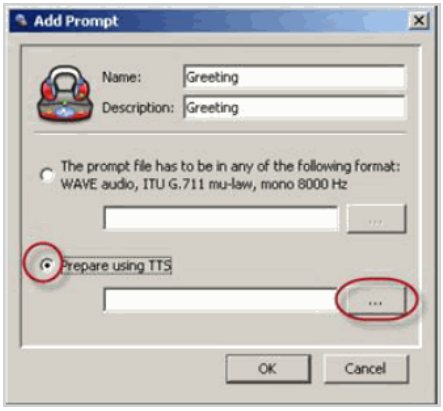
Prompts Menu

1 Right-click Prompts and select the **Add Prompt**.



2 Enter a name and description.

3 Select **Prepare using TTS** and locate an audio file on your computer.



4 Prepare your prompt.

5 When done, click **OK**.

After a few seconds, the prompt is available in the module of your IVR script.

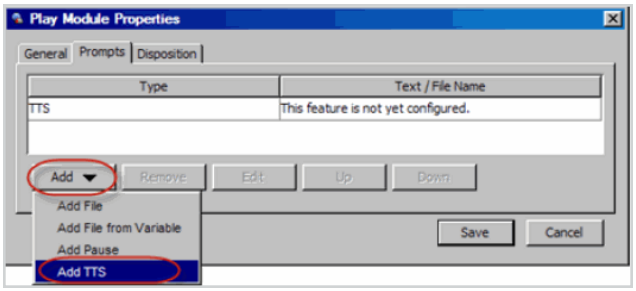
IVR Module

1 Right-click an IVR script name and choose **Edit**, or double-click the script.

2 Drag a module to the workspace.

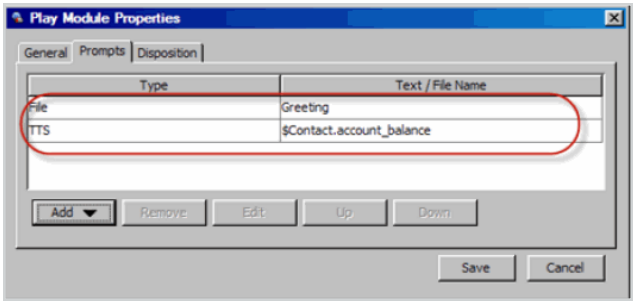
3 Right-click the module and select **Module Properties**, or double-click the module.

4 Select the **Prompts** tab.



5 To add a TTS prompt, click **Add**, and select **Add TTS**.

6 To edit the existing prompt, double-click a line in the Prompts tab.



You see these options:

- Default language
- Text
- Say as
- Format
- Advanced mode

The text terms which you add to the prompt appear in the left side of the TTS Builder window. The system places the controls for the prompt creation in the right side of the TTS Builder. At the bottom of the TTS Builder you see the text of the voice message.

To ensure that TTS resources are more likely to be available for subsequent callers, Five9 recommends limiting the use of TTS to dynamic information within a prompt, rather than a long prompt message. Each time you use TTS, a system resource gets occupied during the TTS message. When the system needs dynamic information within

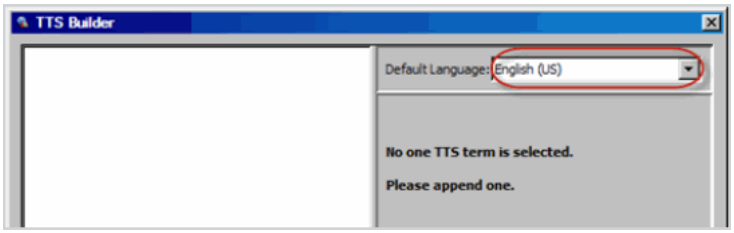
a prompt, you can use prompt files before and after the dynamic information conveyed with TTS.

Creating Voice Messages

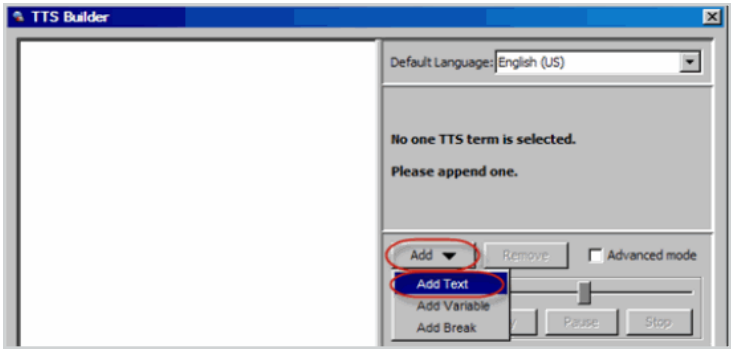
Follow these steps to create a voice message in the TTS Builder in simplified mode.

1 Select the language of the message.

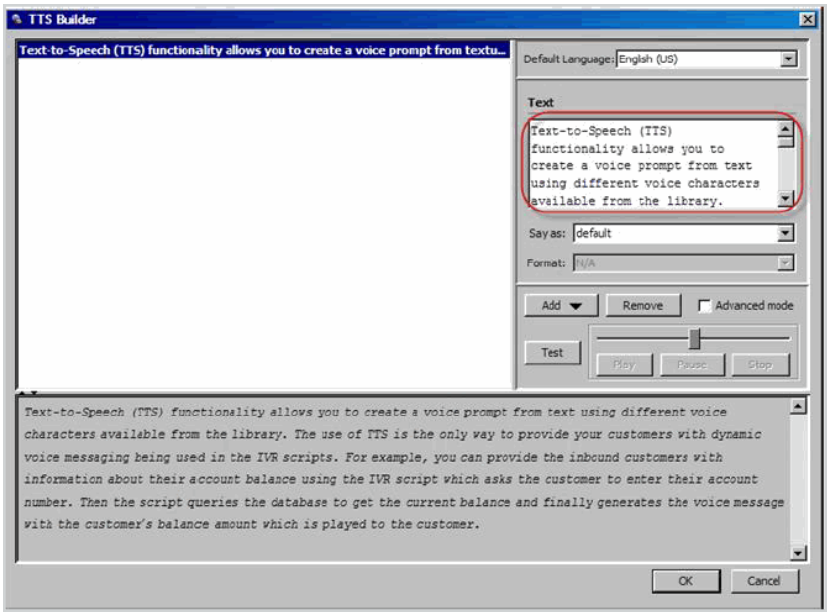
By default, the text term is already added to the prompt.



2 If the text term is not entered, click **Add** and selecting **Add Text**.

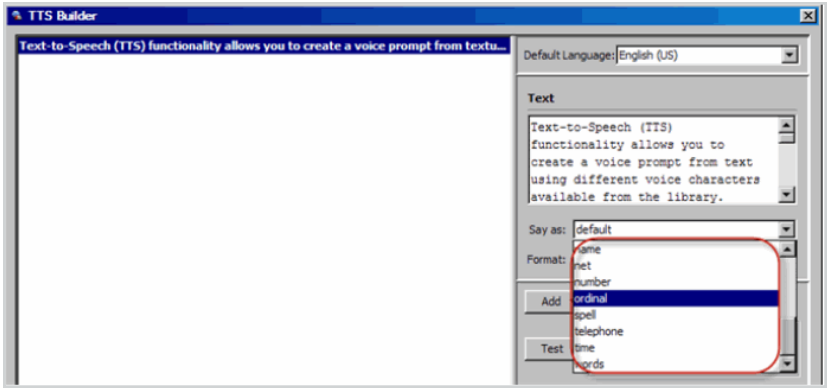


3 Enter or paste the text of the prompt into the Text area.

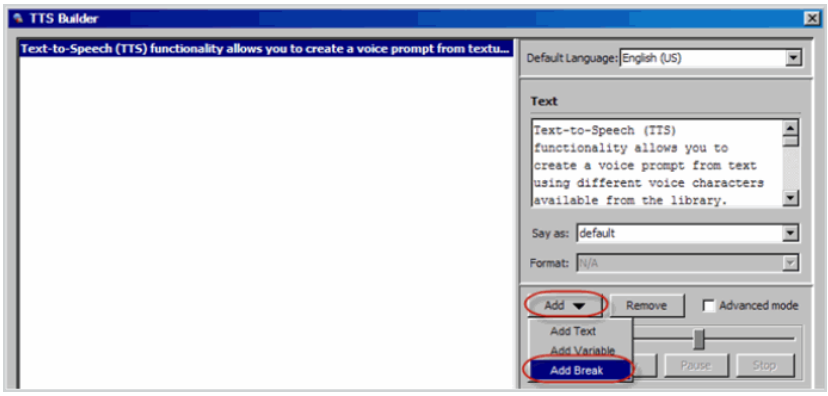


4 Select **Say as** to configure the characteristics of this text term.

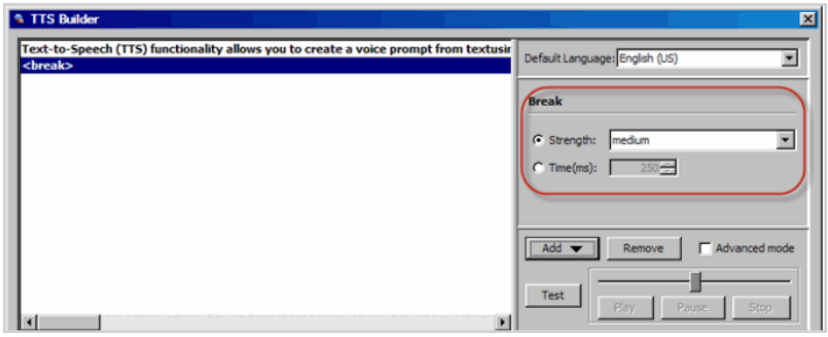
The pronunciation of the text term depends on your choice. Your message can contain more than one text term and you can configure each separately.



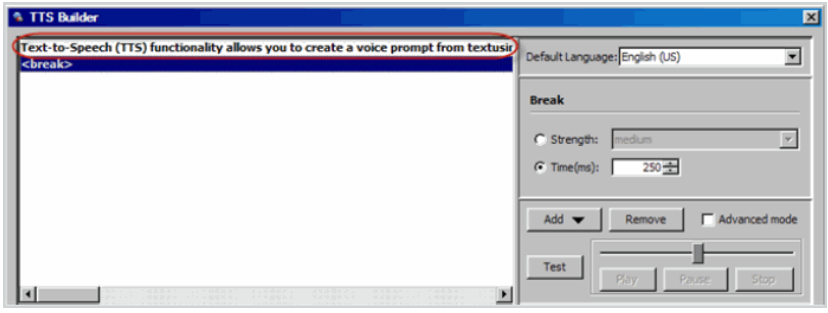
5 To create pauses between sentences, add **Break**.



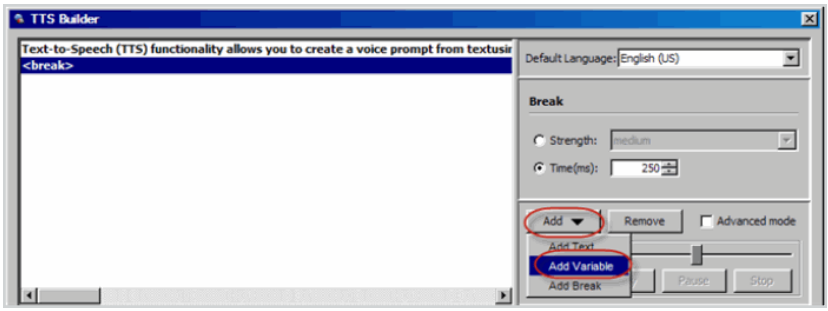
6 To set the duration of the break, use Strength in the drop-down menu or the Time control.



7 To return to the text, click the text in the left pane.

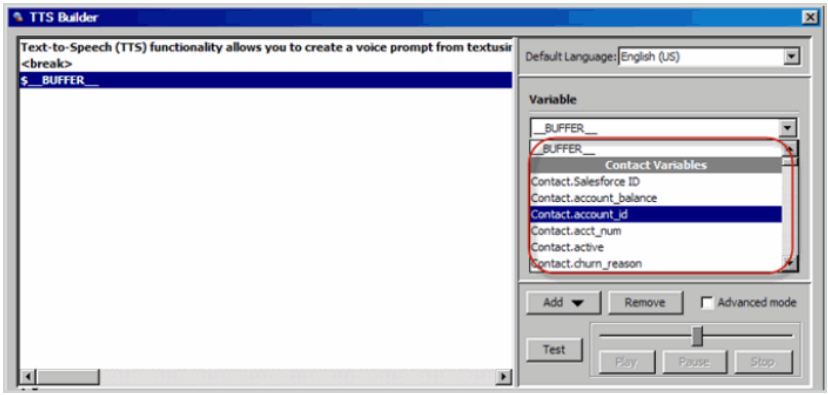


8 To add a variable, click **Add**, and select **Add Variable**.

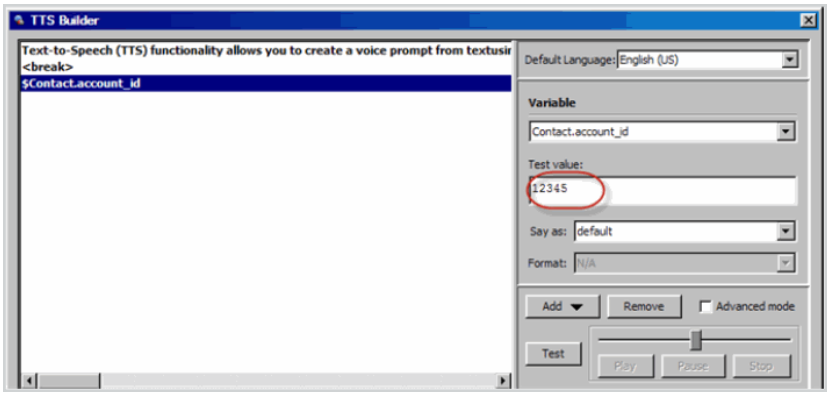


9 Choose a variable:

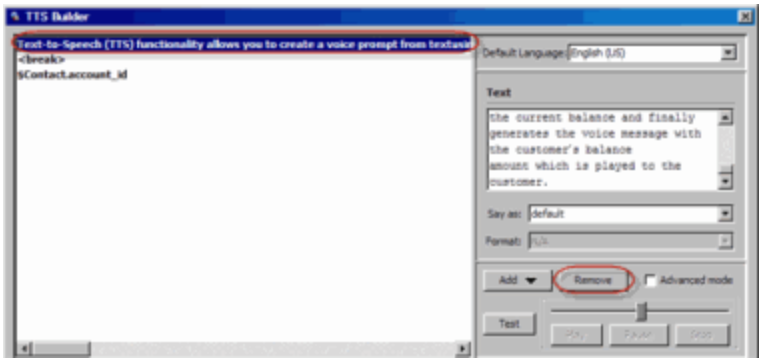
- User Variables (BUFFER)
- Contact Variables (same as Contact Fields)
- System Variables (CRM_ID, DATE, DAY, INPUT, LAST_AGENT_EXTENSION, LAST_AGENT_NAME, SWI_LITERAL, TIME_ZONE, TIME)
- Agent Variables (Agent.first_agent, Agent.full_name, Agent.id, Agent.user_name)
- Call Variables (Call.ANI, Call.DNIS, Call.bill_time, Call.campaign_id, Call.campaign_name, Call.comments, Call.disposition_id, Call.disposition_name, Call.end_timestamp, Call.handle_time, Call.hold_time, Call.length, Call.number, Call.park_time, Call.queue_time, Call.session_id, Call.skill_id, Call.skill_name, Call.start_timestamp, Call.type, Call.type_name, Call.wrapup_time)
- IVR Variables (IVR.error_code, IVR.error_desc, IVR.last_module, IVR.last_state)
- User CAVs (user-defined call-attached variables)



You can also define the text value.



10 To remove a text item, select the item in the left pane and click **Remove**.



11 When you finish entering the text of the message, click **Test** to listen to the message.

The system generates the file.

12 Play the voice message.

13 If you change the message, retest it.

14 When done, click **OK**.

Editing TTS Prompts

You can upload WAV files to existing prompts. You can't change Prompt names. TTS prompts can be changed by editing the associated text. You can also replace an existing file.

1 Open the Prompts folder.
2 Double-click a prompt, or right-click a prompt and select **View Properties**.
3 Click the dots button.

4 When you're done with the changes, click **OK**.
5 Click **Save** or **Apply**.

Listening to Prompts

You can listen to a prompt after the system imports it. The system plays the prompt with your default audio player, usually Windows Media Player.

1 Open the Prompts folder.
2 Right-click a prompt in the list, and select **Play Prompt greeting**.
3 Click **Yes**.

Exporting Prompts

You can save the current audio file to the computer.

1 Open the Prompts folder.
2 Double-click a prompt, or right-click a prompt and select **View Properties**.
3 Click the dots button.
4 Click **Save Prompt As**.
5 Select a destination folder and file name.
6 Click **Save**.

Deleting Prompts

When you delete a prompt, the system immediately checks all configurations for references to that prompt. If any configuration still uses it, the system blocks the deletion and displays an error message that shows where the system uses the prompt and why it can't complete the deletion. To delete a prompt that a configuration uses, you must first remove all references to that prompt in the configuration settings.

Connectors

Understanding Connectors
Creating a ClassicConnector
Managing Connectors

Connectors are URLs used to automate tasks such as looking up a customer record or completing a form. Connectors help agents find information or trigger an action in campaigns in which connectors are defined. You can search for call variables that contain customer data as well as call parameters, such as call length, handle time, wrap-up time, skill transfer, queue time, and hold time. Actions performed by connectors are typically to GET or POST information about a contact record. Connectors may also execute form submission or Cross-Origin Resource Sharing (CORS).

Important

If you plan to use parameters that contain sensitive data in your connectors, use secure URLs and the POST method. You cannot save a connector that contains sensitive data with a non-secure URL or with the GET method.

You can use connectors for a variety of purposes, such as these:

- Open an ordering system.
- Integrate with third-party tools or systems to send and reuse information, such as analytics.
- Post data to a web page or web form.
- Look up a contact record in a local or web application.
- Send information to or request information from an external database by using a web service.

Connectors, in most cases, are executed in the agent's computer and your domain can support up to 1000 queued requests. Up to 10 requests can be processed simultaneously. Agents do not require permission to use connectors. However, to use an embedded Web browser to open a URL, you must give permission to agents. For more information, see **Agent Permissions**.

Each call record contains data fields about who handled the call, the campaign in which it is used, the contact, and the disposition of the call. This information can be

substituted in the connector URL and executed when the agent is processing a call. See **System Call Variables Groups** for a list of all available parameters.

Understanding Connectors

Connectors comprise a URL, a script that defines the action taken by the connector (a GET or POST command), some delimiters, and one or more parameters that define the data to retrieve from the URL or post to the target URL, such as a database or third-party tool. The URL, script, and keywords come from your application, form, or tool, not from Five9 applications.

URL Strings
URL Parameters
Names of Parameters
Worksheet Fields
Connector Execution in the Agent's System
Connector Examples

URL Strings

The URL defines the host name, the script to execute, the parameters passed to this script, and the keywords that map to the VCC data.

Five9 Virtual Contact Center (VCC) supports standard HTTP and secure HTTPS protocols. HTTPS can be used for the system disposition connectors. For secure connections, you may use certificates in cases where the external Web server uses a root certificate (unsigned/self-signed public key certificate). You can import CRT files or enable **Accept All Certificates**. Configure certificates in **Actions > Configure > Certificates**. See **Installing a Certificate**.

Use this syntax:

```
http://www.domain.com/page.htm?keyWord_1=@parameter_1@&keyWord_2=@par-
rameter_2@
```

***domain*.com**	Domain where the URL exists. The URL standard contains a port specification, for example: `www.domain.com` means `http://www.domain.com:80`. The default port is generally omitted. Five9 URLs do not use a port other than 80.
page.htm	Name of the script being called to perform the GET or POST

	method.
?	Indicates that a sequence of keywords and parameters follows. The question mark is added automatically to the URL.
@	Must precede and end each parameter definition.
&	Indicates another keyword-parameter combination follows.
keyWord **=@parameter@**	Define the data to GET or POST.

URL Parameters

A connector parameter is a field or constant that is appended to the URL. URL strings are generated automatically when parameters are formatted properly.

- Parameter names are case sensitive.
- The string must be in URL format.
- Connectors usually include one or more VCC parameters and their associated keywords.
- Connectors often display a static Web page, knowledge base, or list.

Types of Parameters

The type of call data handled by the parameter is identified by its name.

Agent Data Parameters	Identifies the agent who handled the call in which the connector was executed. Format: Agent.*parameter* Example: Agent. username, Agent.id
Call Data Parameters	Information about the call record that is passed in the connector. Format: Call.*parameter* Example: Call.session_id, Call.disposition_id, Call.campaign_id
Customer Data Parameters	The CRM fields available in your domain, including the Five9 default fields and your custom fields. Format: Customer.*parameter* Example: Customer.number, Customer.company For example, if you create a CRM field called, email_address, the parameter would be listed as *Customer.email_address*.

To display a list of all possible parameters, navigate to **Connector > General Properties**.

Using International Phone Numbers in Connectors

If your domain is not enabled for the format for international phone numbers, your agents must enter 10 digits to conform to the North American Numbering Plan. If your domain is enabled for the format, your agents need to enter phone numbers for all calls according to your configuration: in your national format or up to 15 digits, starting with the plus (+) sign and the country code. If set accordingly in your VCC configuration, connectors may display the customers' phone numbers in the same localized format in pop-up windows.

GET and POST Methods in Connectors

For GET methods, the URL length is limited to 2048 characters after the Five9 contact parameters are populated. This is the length of the URL when executed on the agent's computer with all contact data populated. In some cases, depending on the contact fields you choose to use (such as first name); the URL length varies because a standard field length may not exist.

When executing POST connectors, a security setting in the browser must be enabled. See also **Connector Execution in the Agent's System**.

Configure connector parameters in the **Connector Properties** window.

Parameters that Contain Sensitive Data in Connectors

To use parameters that contain sensitive data in your connectors, use secure URLs and the POST method. You cannot save a connector that contains sensitive data with a non-secure URL or with the GET method.

Connectors Executed in Browsers

You can execute a connector in a new browser window or embedded in the browser.

> **Important**
>
> Because of their security policies, browsers do not accept mixed content unless they are configured to do so. For example, if you combine secure and non-secure URLs, such as in an integration, the connector may not open in the browser. This issue occurs with Firefox, Chrome, and Internet Explorer.

To prevent issues, when you create a connector, always use secure URLs and/or enable **Execute in Browser**. You must use HTTPS to embed connectors for Web agents. Otherwise these connectors are not displayed.

Note

Connectors that are triggered by a disposition are executed in a new browser window when the disposition completes the interaction (call).

Some web sites, such as google.com, use the **x-frame-options:SAMEORIGIN** header to prevent the web site from being embedded into an iframe in another site. If you plan to use the Embedded tab in the Agent Desktop Plus application, locate the special embedded URL to use in a connector in that web site.

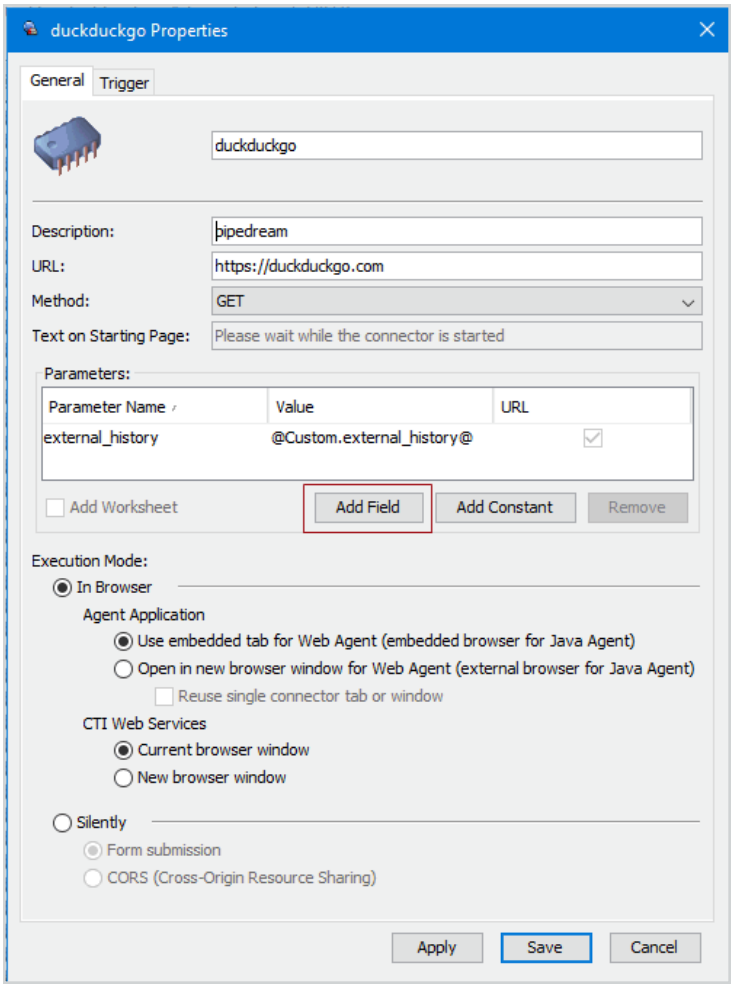
Names of Parameters

The Five9 VCC provides a set of standard parameter names for connectors. Connector parameters in the connector URL must begin and end with an at sign (@), such as in `@Customer.first_name@`.

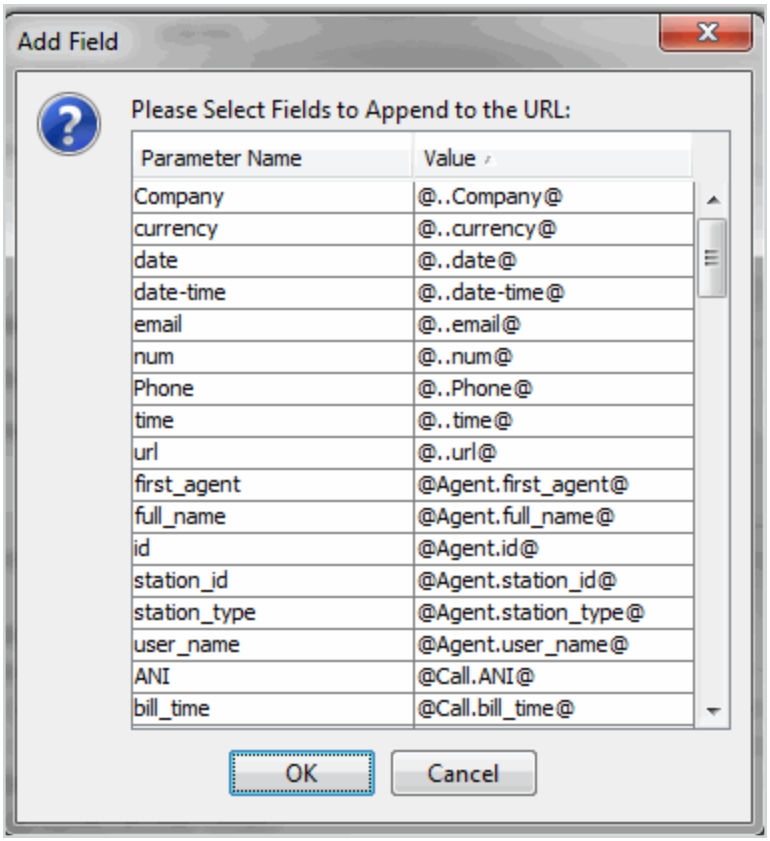
Separate additional keyword-parameter pairs with an ampersand (&). The type of call data handled by the parameter is identified by its name. Parameter names are case sensitive.

The customer data parameters are the contact fields available in your VCC, including the Five9 default fields and custom fields you create. For example, if you create a contact field called **email_address**, the parameter would be `Customer.email_address`.

1 Double-click a connector to open its Properties window.



2 Click **Add Field** to open the Add Field window.



`Customer.number` is the ANI for an inbound call when a contact record for the phone is not available. Use this parameter to include the caller's phone number in a connector for an inbound campaign.

The configured Display Format for a custom Date, Time, or Date/Time field does not affect the format used in Connector parameter values. Date values are sent in yyyyMMdd format; Time values are sent in HHmmssSSS format; Date/Time values are sent in yyyyMMddHHmmssSSS format.

Worksheet Fields

Five9 worksheet data can be sent with a connector. To enable worksheet data, select the POST method and the check box for Add Worksheet.

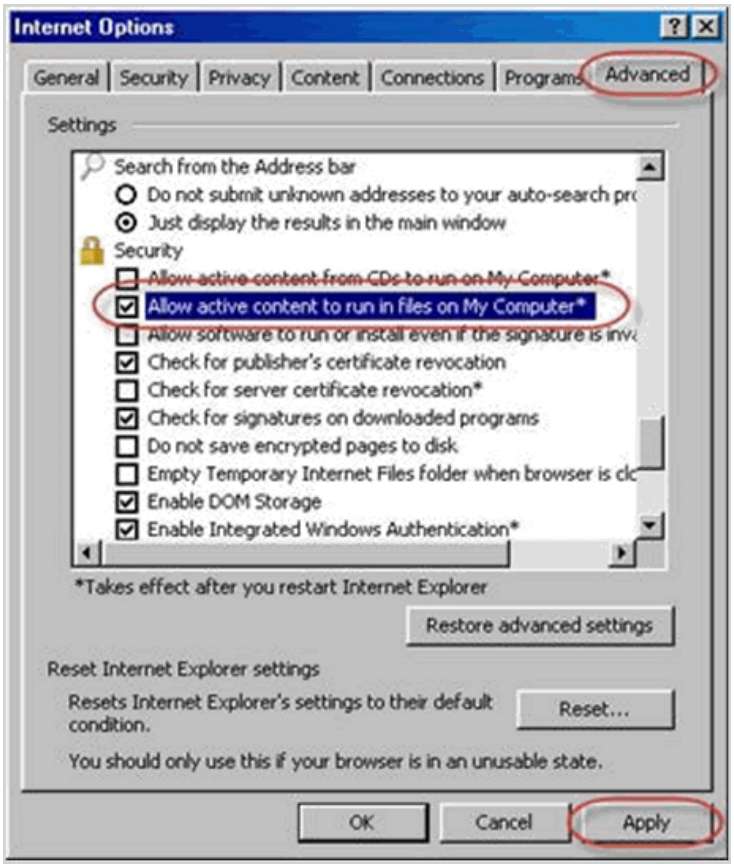
- Use the POST method to populate worksheet data in a Connector URL.
- Worksheet questions are automatically inserted into the URL string when the connector is executed on the agent workstation.
- Worksheet question names are the parameters and the answers are the values. Therefore, your worksheet question names must match the parameters used in the script called by the connector.

Connector Execution in the Agent's System

Most connectors are executed automatically. The trigger setting for the connector determines when it is activated such as when a call is accepted, a disposition is set, or upon a transfer. See **Selecting the Trigger** for a description of possible triggers. After the first execution, the connector is stored in memory on the agent's system. If you change a connector, agents must log out and log in again to reload the new connector settings.

When executing POST connectors with Internet Explorer, you must enable a security setting.

1. In Internet Explorer, select **Tools > Internet Options**.
2. Select the **Advanced** tab.
3. In the Security section, check the box next to **Allow active content to run in files on My Computer**.



4 Click **Apply** and **OK**.

5 Restart Internet Explorer.

Connector Examples

URL String Syntax

```
http://www.domain.com/page.htm?keyWord_1=@parameter_1@&keyWord_2=@par-
rameter_2@
```

domain.com	Domain where the URL exists.
page.htm	Name of the script for the GET or POST method.
@	Precedes and ends each parameter definition.

&	Precedes keyword-parameter combination.
keyWord_ =@parameter@	Keyword-parameter combination that defines data passed from or to the connector; Multiple keyword-parameter combinations can be included in any connector.

URL Example

```
http://www.five9.-
com/data.htm?agentId=@Agent.id@&Company=@Customer.company@
```

domain	=	five9.com
Web page	=	data.htm
keywords	=	agentId Company
data parameters	=	Agent.id Customer.company

The scripting language is ASP (Active Server Page). Additional keyword and parameter pairs can be appended to the string with the ampersand (&).

When executed, the URL string looks similar to this:

```
http://www.five9.com/data.htm?agentId=123456&Company=Acme%20Company
```

Note

GET method URL length is limited to 2048 characters after all parameters are populated with call and contact data.

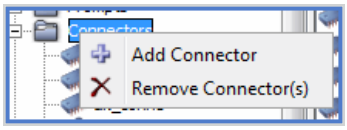
ASP Code Example

A section of the ASP code used to get the code from the page.

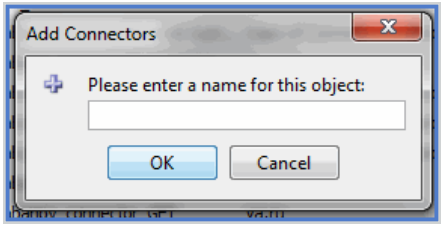
```
%=Request.Querystring("agentId")% // Gets Agent.id
%=Request.Querystring("Company")% // Gets Customer.company
```

Creating a ClassicConnector

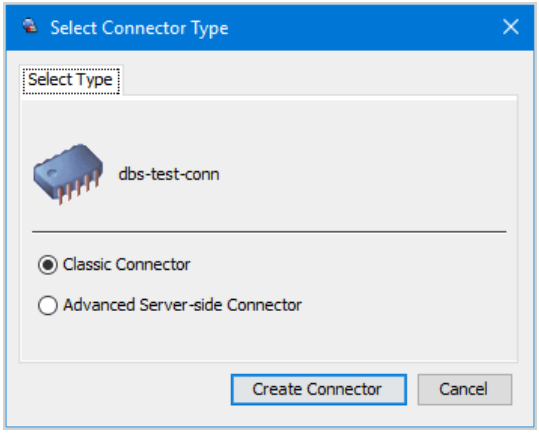
1 In the navigation pane, right-click **Connectors**, and select **Add Connector**.



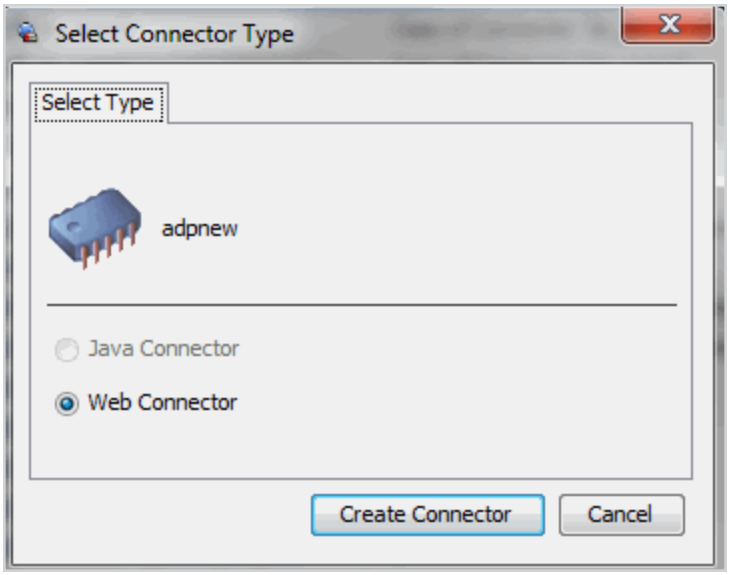
2 Name the connector and click **OK**.



3 Select the type of connector.



4 Select **Web Connector**.



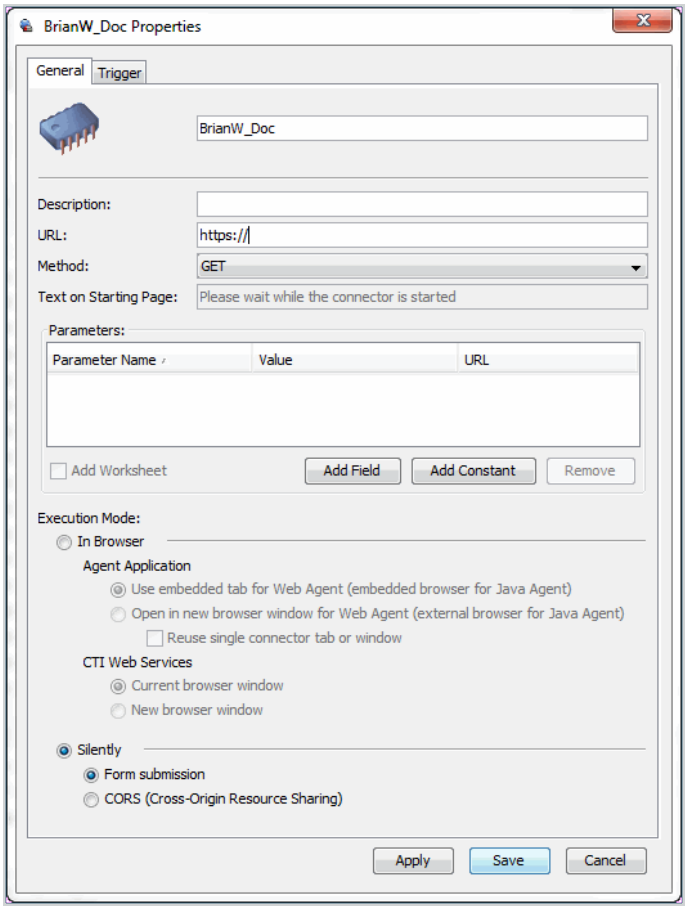
5 Click **Create Connector**.

Next you define the properties.

Defining the General Properties
Selecting the Trigger
Using Connectors with Text Interactions

Defining the General Properties

In the General Properties tab, describe the connector and construct the URL.



Selecting the Trigger

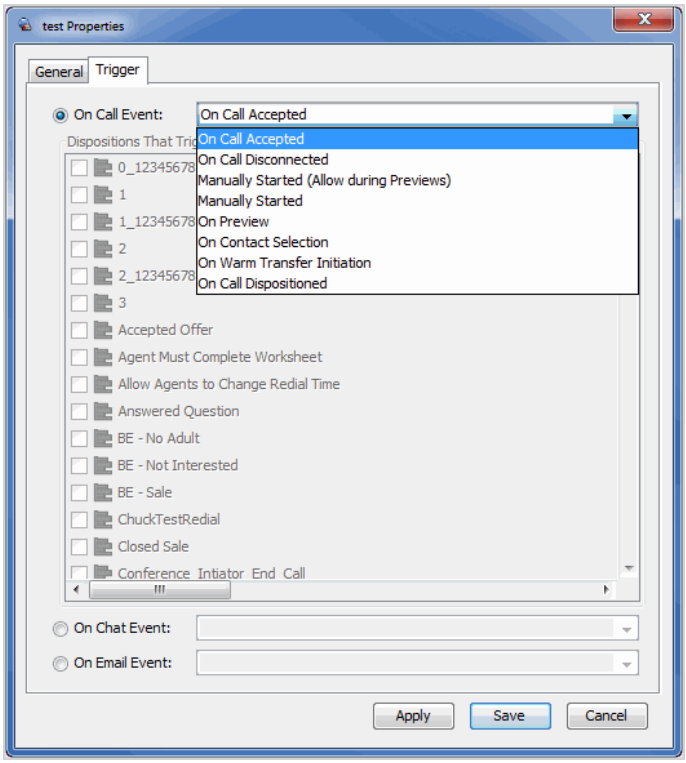
You can use connectors when these events occur:

- Agent accepts or disconnects a call.
- Agent selects a contact record.
- Agent receives a preview record.
- Agent initiates a warm transfer.
- Interaction is routed to a Skill Transfer module in an IVR script.
- Agent assigns a system disposition.
- Agent accepts a chat or email interaction.

Click the **Trigger** tab, and select one of the trigger options. When done, click **Save** or **Apply** twice.

Call Events

This section describes the triggers that apply to voice interactions.

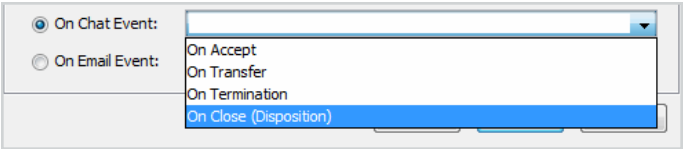


Trigger	Description
Manually Started	Agent clicks the **Connector** button during a call.
Manually Started (Allow during Previews)	Agent receives a third-party URL while previewing a call.
On Call Accepted	Agent accepts a call routed from the ACD.
On Call Disconnected	Connector URL is executed when a call is disconnected or when the caller hangs up.
On Preview	Connector is executed when the agent takes a Preview contact record.

Trigger	Description
On Contact Selection	Connector URL is executed when agents select a contact to associate a call with by pressing the Select Contact Record.
On Warm Transfer Initiation	Connector is executed when agents start a Warm Transfer.
On Call Dispositioned	When the disposition is selected, the live call screen is cleared. If this option is enabled, **Dispositions that trigger this connector** is activated. Select all the dispositions that should trigger this connector. This option does not apply to Decline Preview Record Dispositions.

Chat Interaction Events

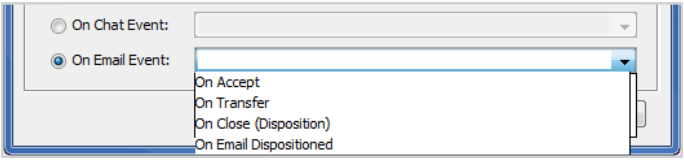
This section describes the triggers that apply to chat interactions.



Trigger	Description
On Accept	When agents accepts a chat routed to their station.
On Transfer	When agents transfer the chat.
On Termination	When agents end the chat.
On Close (Disposition)	When agents sets the disposition for the chat. If this option is enabled, **dispositions that trigger this connector** is activated. Select all the dispositions that should trigger this connector. This option does not apply to Decline Preview Record Dispositions.

Email Interaction Events

This section describes the triggers that apply to email interactions.



Trigger	Description
On Accept	When agents accepts an email routed to their station.
On Transfer	When agents transfer the email.
On Close (Disposition)	When agents sets the disposition for the email. If this option is enabled, **dispositions that trigger this connector** is activated. Select all the dispositions that should trigger this connector. This option does not apply to Decline Preview Record Dispositions.
On Email Dispositioned	When agent sets a unified disposition for the email. Unified dispositions must be enabled in the SCC Administrator application to use this control or connector will not trigger.

Using Connectors with Text Interactions

If you are using Five9 Digital Engagement, you can use connectors to pass custom parameters to third-party systems to augment interactions like chat and email. You can create custom console fields that map to call variables for system and custom call variable groups.

> **Note**
> If your agents use preview chat, the connector is activated once the customer has responded and engaged in the preview chat session.

The Five9 chat console custom fields support the following Five9 system call variables:

Key	Type and Format	Description
Call.campaign_id	string	Campaign object ID. Up to 20 digits.
Call.campaign_name	string	Campaign name.
Call.disposition_id	string	Disposition object ID. Up to 20 digits.
Call.disposition_name	string	Disposition name.
Call.end_timestamp	yyyy-mm-dd hh:mm:ss	Call completion date and time.
Call.handle_time	hh:mm:ss	Handle time duration. Starts with interaction

Key	Type and Format	Description
		assigned to an agent and ends with call disposition.
Call.length	hh:mm:ss	Call duration.
Call.mediatype	string	Can be used for Chat, Email, or SMS.
Call.queue_time	hh:mm:ss	Queue time.
Call.session_id	string	Call session ID that can contain 32 to 64 characters.
Call.skill_id	string	Skill object ID (up to 20 digits).
Call.skill_name	string	Skill associated with this interaction.
Call.start_timestamp	yyyy-mm-dd hh:mm:ss	Date and start time of the call.
Customer.city	string	Default contact field.
Customer.company	string	Default contact field.
Customer.first_name	string	Default contact field.
Customer.last_name	string	Default contact field.
Customer.number1 **Customer.number2** **Customer.number3**	phone	Default contact field. Primary, first alternate, and second alternate phone numbers. Editable. The phone data type guarantees that correct value is entered.
Customer.record_id	string	Default contact field. You cannot select this contact field in the VCC menus.
Customer.state	string	Default contact field.
Customer.zip	string	Default contact field.

These examples describe how to use system and custom call variables.

Example

About `Call.number`, `Customer.numberX`, and `Call.ANI`:

All fields contain a contact's phone number but differ as follows:

- `Call.number` is read only whereas `Customer.numberX` is editable.
- `Customer.numberX` and `Call.ANI` contain the same information. However, `Call.ANI` can be empty. In this case, the call may be manually associated with a number.

Example

Account ID in a chat request:

When a customer submits a chat request with an account ID, that account ID can be passed in a connector to a customer's third-party system to present the customer's account information to the agent.

1. Create a custom chat console field called account_id.
2. Create a call variable group. Assign to this call variable group an intuitive name, such as ChatVariables. See **Creating Call Variable Groups** for more information.
3. Create a call variable to store the new custom chat field. Name this variable account_id and assign the variable type String. See **Creating Call Variables** for more information.

Example

Route interactions based on text channel profiles.

You can use the Call.campaign_name, which contains the name of the profile to dynamically route text interactions based on subcategories, such as Sales chat inquiry and Support chat request.

Example

Route interactions based on customer sentiment.

If your domain is enabled for Natural Language Processing (NLP), you can route interactions to NLP:

1. Create a variable named Omni.Subject, type=string, to map to the title of an email request
2. Create a new variable named Omni.Content, type= string, that maps to the email body or chat text content.
3. You can send this information to the NLP real time engine to determine customer sentiment before routing to specialists or teams that handle happy customer comments or angry customer comments.

Managing Connectors

You can rename or duplicate connectors and add them to campaigns.

Renaming Connectors

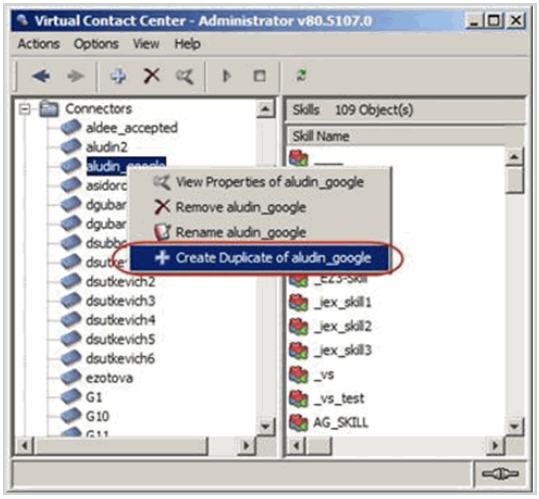
To rename a connector, follow these steps.

- Right-click a connector, and select **Rename**.
- Replace the name.
- Click **OK**.

Duplicating a Connector

Follow the instructions below to make a copy of the existing Connector.

1 Right-click a connector, and choose **Create Duplicate**.



Relationships and properties are copied to a new object called <original object name> - Copy. The duplicate object's Property window opens. The description is Copy of connector <name of original object>.

Adding Connectors to Campaigns

To activate a connector, add it to one or more campaigns. See Campaign Administrator's Guide, *Adding Connectors*.

Reason Codes

Enabling Reason Codes for Manual Calls
Using Reason Codes
Creating Reason Codes
Renaming Reason Codes
Accessing the Properties Window
Deleting Reason Codes
Creating Shortcuts for Reason Codes

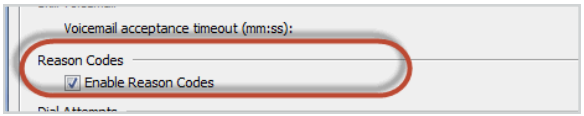
Reason Codes are selected by agents when going not ready or when logging out. The selected reason code provides more information about the cause of the agent unavailability. You can enable and configure reason codes to better keep track of agent states.

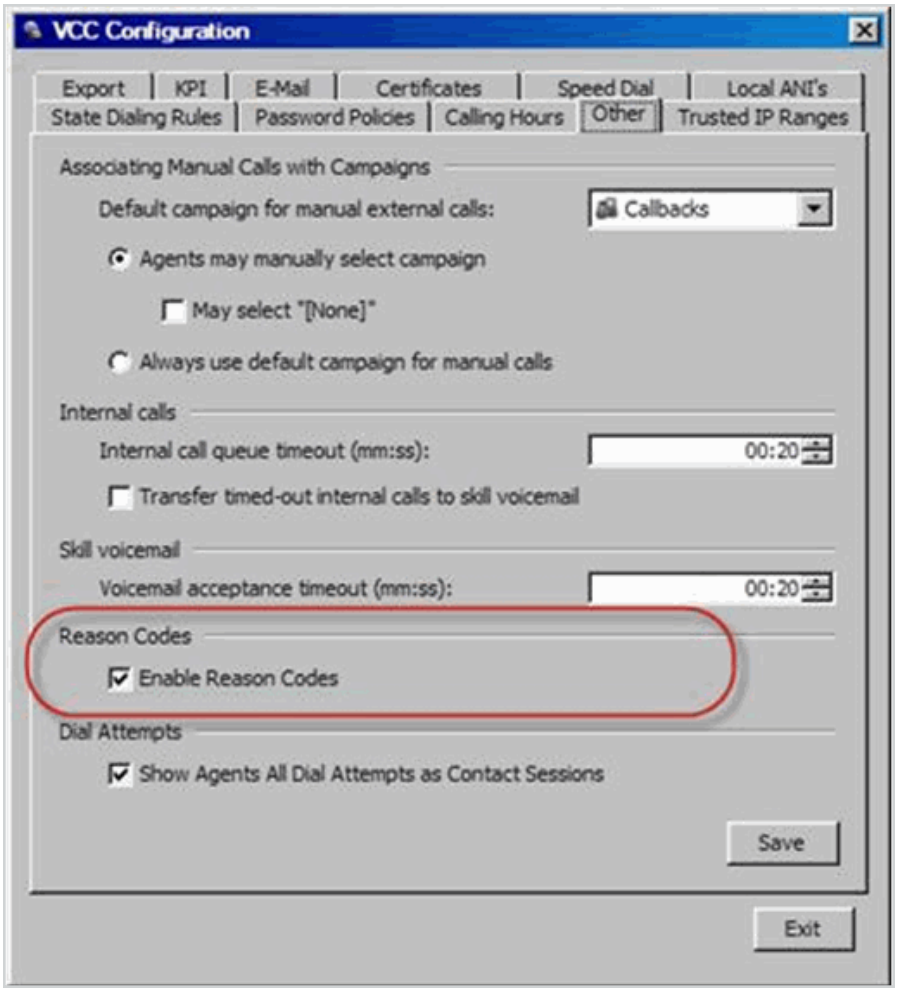
There are codes provided by default, but you can disable, rename (not recommended), delete, or create custom codes as needed. System codes cannot be modified or deleted. Short-cut keys can be defined for each code. See **Default Reason Codes** and **System Reason Codes**.

Reason Codes are subdivided into Not Ready Codes and Logout Codes. Not Ready codes are used when agents become unavailable for calls. Logout codes are used when agents log out of their stations.

Enabling Reason Codes for Manual Calls

Check to enable use of reason codes for manual calls in this campaign.





Using Reason Codes

Default Reason Codes

You can modify or delete custom reason codes. To disable default codes, right-click the code and disable the option. To rename default codes, right-click the code to view its properties.

> **Caution:** Five9 does not recommend renaming default reason codes. Instead, deleting or making them inactive and creating new ones is suggested.

Default Not Ready Codes

Break	When agents go on personal breaks
Email	When agents are not ready to send emails
Fax	When agents are not ready to send faxes
Follow-Up Work	When agents are not ready to do follow up work
Meal	When agents are on meal or lunch break
Meeting	When agents are not ready for a meeting
Team Meeting	When agents are not ready for team meeting
Training	When agents is on training

Default Logout Codes

Email	When agents log out to send an email.
End Shift	When agents logs out at the end of the shift.
Fax	When agents log out to send faxes.
Meal	When agents log out for lunch or meal break.
Split-Shift	When agents log out for the first part of the shift.

System Reason Codes

System reason codes are used for specific events. These codes cannot be modified or deleted.

System Not Ready Codes

Forced	When supervisors change the agents' state to not ready, regardless of the previous state.
System	When the system changes the agent's state to not ready, for example when an inbound call was offered to the agent, but the agent did not answer the call.

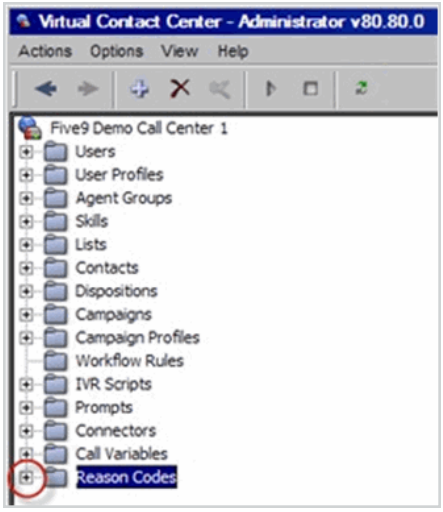
Task Completion	When agents have pending tasks that might be lost when status is changed. For example, while on call, the agent clicked **At End of Call Switch to** and selected Meeting. Then the agent clicked Park Call. The agent is placed automatically on Task Completion to give a way for the parked call to be processed before going to Meeting status. Another example is when the agent accepts a skill voicemail but has not completed processing it. The agent cannot switch to other not ready codes unless the skill voicemail is completed.
Text	When agents are available for text channels only.

System Logout Codes

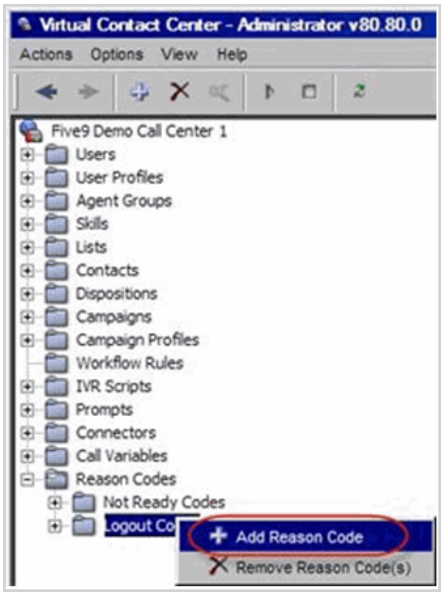
Forced	When agent are forced to log out from the system either by the supervisor or by the same user who logged in using a different computer.
System	When a system error or maintenance forces the agent to log out. For example, it is used when the agent loses Internet connection or the agent application abnormally loses connection with the server.

Creating Reason Codes

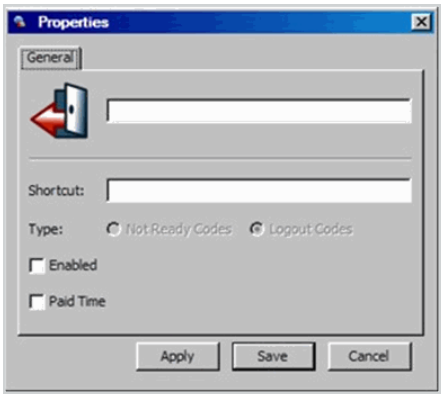
1 In the Navigation pane, open the Reason Codes folder.



2 Right-click one of the sub-folders, and select **Add Reason Code**.



3 Enter the following information in the properties window:



- Reason Code Name - name shown to agents.
- Shortcut (optional) - keys pressed by the agent to select a reason code. By default, <T> key is reserved for the Training default reason code.
- Enabled - required to be able to select this reason code.
- Paid Time - whether the reason code will be counted as paid time in reports.

4 Click **Apply** or **Save**.

Renaming Reason Codes

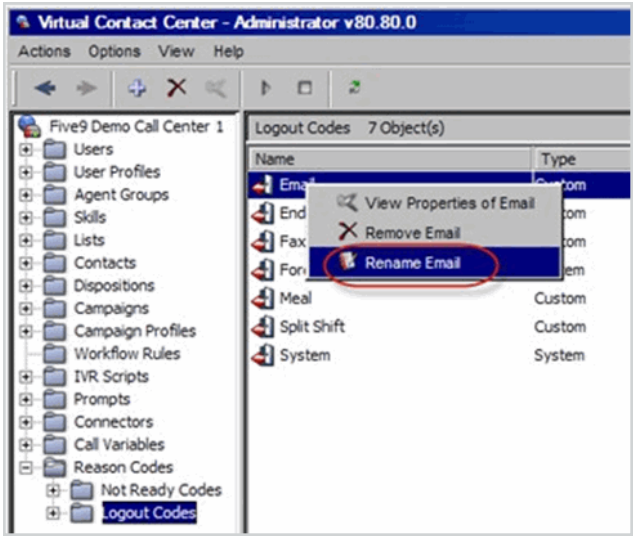
You can rename objects in their properties window.

> **Caution:** Five9 does not recommend renaming default reason codes. Instead, deleting or making them inactive and creating new ones is suggested.

1 In the navigation pane, open the Reason Codes folder.

2 Select one of the sub-folders.

3 Right-click a reason code, and select **Rename**.



4 Enter a new name.

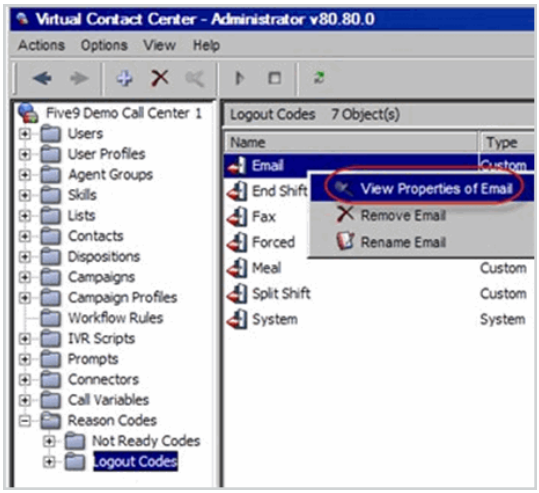
5 Click **OK**.

Accessing the Properties Window

1 In the navigation pane, open the Reason Codes folder.

2 Select one of the sub-folders.

3 Right-click a reason code, and select **View Properties**.



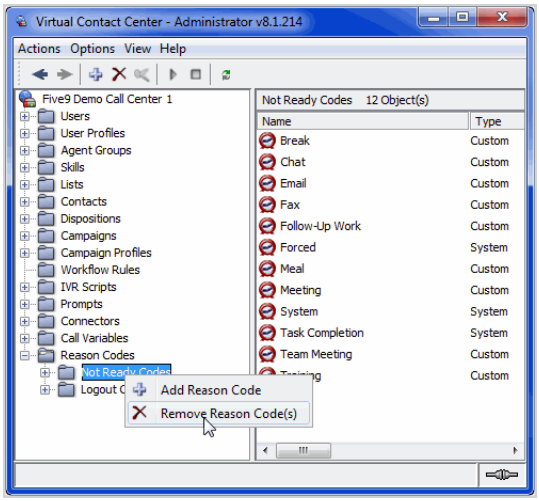
Deleting Reason Codes

Not all default reason codes can be deleted: Forced, System, and Task Completion cannot be deleted.

1 In the navigation pane, open the Reason Codes folder.

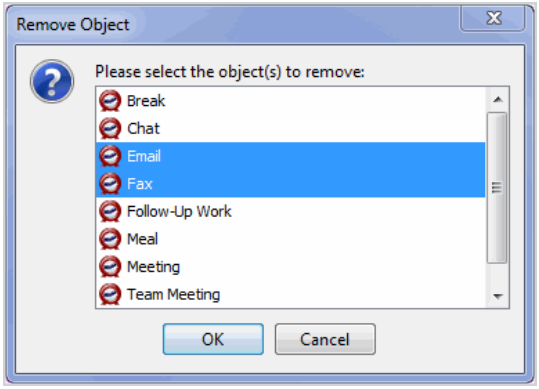
2 Select one of the sub-folders.

3 Right-click a sub-folders, and select **Remove Reason Code(s)**.



4 Select the reason codes to delete.

To select several objects, hold <SHIFT> or <CTRL> keys while selecting the items.



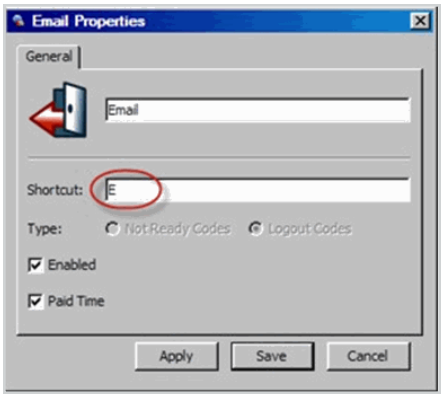
5 Click **OK**.

6 Click **Yes** for every item or **Yes To All**.

Creating Shortcuts for Reason Codes

1 Open the reason code properties window.

2 Type one alphanumeric character to be used in the Shortcut field.



3 Click **Apply** or **Save**.

Workflow Rules

Understanding Workflow Rules
Creating Workflow Rules
Deleting Workflow Rules

This feature enables you to automate campaign-related tasks. Workflow rules are conditional statements defined by events and the actions that take place when the events are triggered. Rules are used mostly in outbound campaigns. For example, you can create a rule to start another campaign when an outbound campaign stops because it is out of numbers.

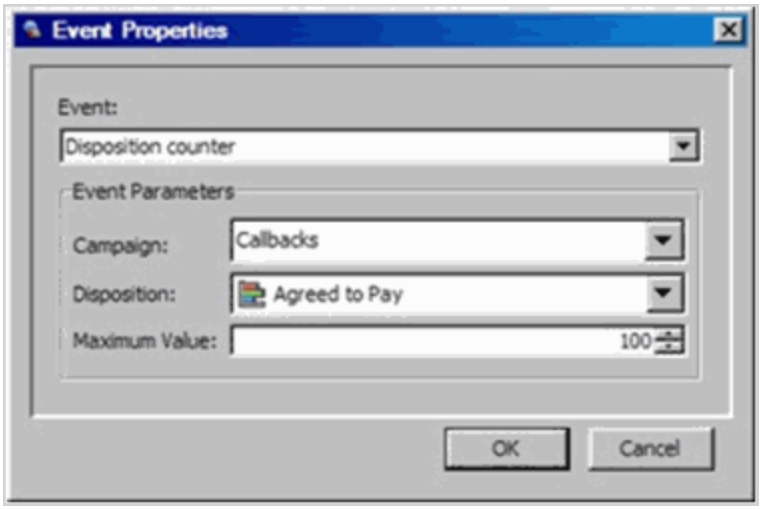
The information displayed in the columns can be accessed and updated in the Workflow Rule Properties window. You can add, update, enable, disable, and delete workflow rules. All system-wide actions are available through the View Event Log menu. See **Event Log of Workflow Rule Actions and Activities**.

Understanding Workflow Rules

Events for Workflow Rules
Actions for Workflow Rules
Ordering Actions for Workflow Rules
Event Log of Workflow Rule Actions and Activities

Events for Workflow Rules

An event is a condition that must be true for the action to take place. You can define a workflow rule to contain one or several events. You can add multiple events and join them with operators to form logical expressions. When the conditions defined by the expression are true, the event is triggered.



Event	Trigger	Parameters
Campaign out of numbers	Campaign has no more numbers in the lists to dial.	Campaign
Campaign stopped	Campaign is stopped automatically or manually.	Campaign
Date and time	Date and time. See Specifying Time Zones in Date and Time Events.	• Date • Time • Time Zone
Day and time	Every day at specified time.	Time: 12:00am to 12:00am Time zone
Disposition counter	Number of specified dispositions for the campaign is reached. You can also find the disposition counter in Campaign Profile Properties.	• Campaign • Disposition • Maximum value
List completion	List is completed by the specified percentage for the campaign.	• Campaign • List • Completion Percentage
No records for immediate dialing	Campaign does not have records to dial within the time specified when agents are available for calls.	Campaign, Time in seconds (default is 60 seconds)

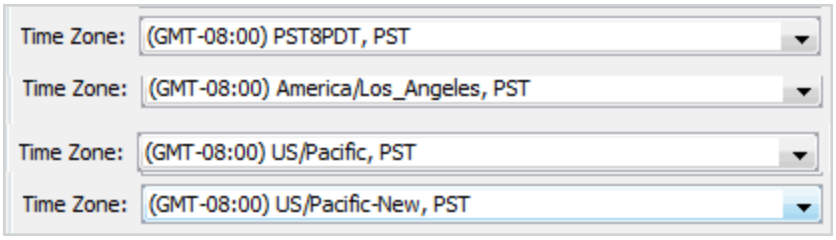
Specifying Time Zones in Date and Time Events

You can use Time Zone as an event parameter. The time zones are displayed using Time Zone Abbreviations (such as, MST, MDT, PST), or the format established in the IANA (Internet Assigned Numbers Authority) time Zone Database (such as, America/Phoenix, America/Los Angeles).

The Time Zone list items in Virtual Contact Center (VCC) Administrator's Application are provided by the JRE (Java Runtime Environment) dictionary. In addition to the time offset (such as, GMT-08:00) each entry includes a zone caption to indicate its purpose. Some of the time zone definitions are obsolete, but are kept by JRE for (non-Five9) backward compatibility.

How to Choose a Time Zone for Time Events

Some time zone options appear to be redundant, such as those for Pacific time. Here are examples of Pacific time zone that appear in the Time Zone list:

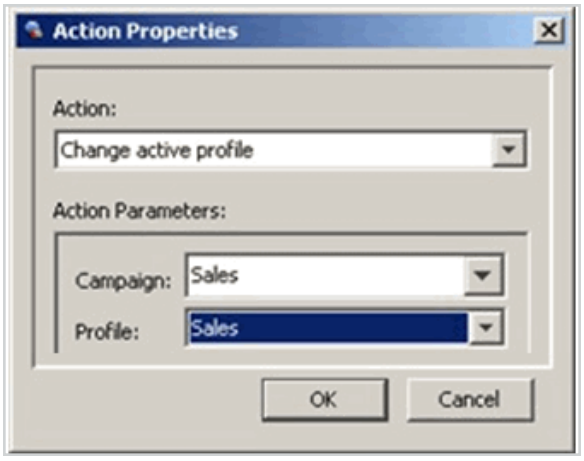


Each of the options could differ, indicating a history of changes such as dates for switching to daylight savings time and back.

In this case, the safest selection would be **America/Los Angeles, PST**; it covers both Pacific Standard Time (PST) and Pacific Daylight Time (PDT), and is based on the current IANA database definition. The **PST8PDT, PST** option will also work for the same purpose. the **US/Pacific, PST** and **US/Pacific-New, PST** options are obsolete and should be avoided.

Actions for Workflow Rules

Workflow rules are defined by events and the actions that take place when the events are triggered. You can define one or several actions for each rule.



Action	Description	Parameters
Change active profile	Changes the profile for the selected campaign.	• Campaign • Profile
Change outbound campaign prioritization mode	Changes the campaign priority mode setting for your domain. **Example:** You can change the dialer priority/ratio selection, and the individual campaign settings for priority and/or ratio. You may want to adjust priority depending on the time of the day or other event to better align with your business needs.	• Priority • Ratio
Change outbound campaign priority	Changes the priority setting for the selected campaign.	• Campaign • Priority
Change outbound campaign ratio	Changes the ratio setting for the selected campaign.	• Campaign • Ratio
Change list priority	Changes the priority setting for the selected list in the specified campaign.	• Campaign • List • Priority
Change list ratio	Changes the ratio setting for the selected list in the campaign.	• Campaign • List

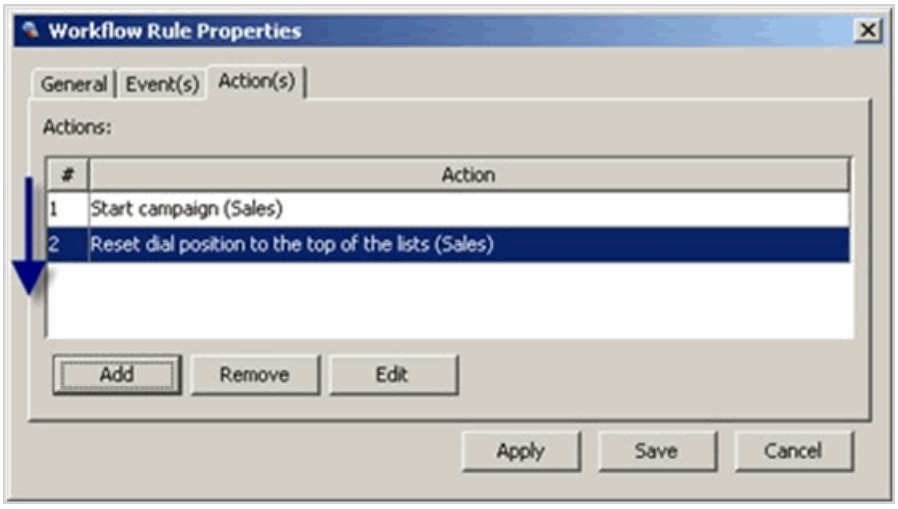
Action	Description	Parameters
	For example, you can change list ratio depending on the time of the day to dial fresh leads during the day and to dial older leads at the end of the day. You can change list ratio depending on day in case your list needs to be refreshed after a couple of weeks. In this case, you may want to dial the old list more frequently because you need to dial more numbers to get contact.	• Dialing Ratio
Popup dialog notification	Displays a pop-up window to users with administrator and supervisor roles.	• Text • Receivers
Reset dial position to the top of the lists	Starts dialing from the top of the lists in the selected campaign. To reset the list position manually, see the Campaign Administrator's Guide, *Resetting List Position in Outbound and Autodial Campaigns*.	• Campaign
Send email	Sends message to the specified email.	• To up to 5 addresses • Reply to • Subject • Text • Event description (automatically generated by the system)
Start campaign	Starts the campaign if it is not running. Generates error in event log if campaign cannot be started.	• Campaign
Stop Campaign	Stops the campaign if it is running.	• Campaign

Ordering Actions for Workflow Rules

Results of workflow rule actions are recorded in the Event Log.

The actions selected in the workflow rule are triggered when the expression configured on the events tab changes from a value of false to true.

Actions are executed in the order listed under the Actions tab, from top to bottom.



If an action cannot be executed (attempting to start a campaign that does not have a list for example), the action is skipped and the next action in the list is attempted.

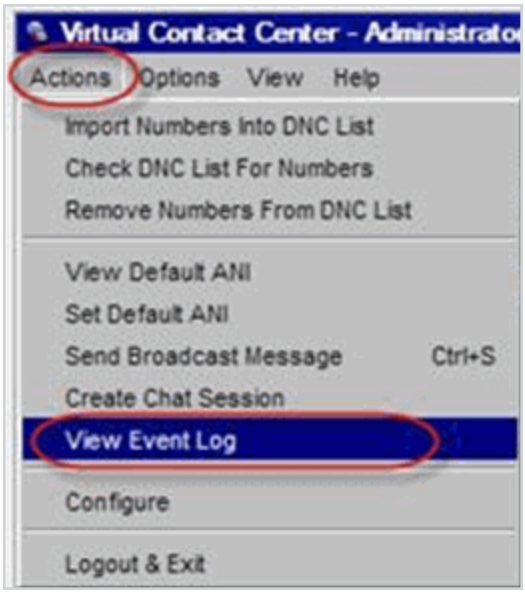
Errors and exceptions can cause a rule to be automatically disabled. These exceptions are recorded in the event log. for example:

- Recursion - Execution of an action causes triggering the action again. In this case, the rule is automatically disabled.
- Flooding - Triggering of the rule too frequently. If the rule is triggered again in less than one minute three times in a row, the rule is automatically disabled.

Event Log of Workflow Rule Actions and Activities

The event log enables you to view the results of workflow rule actions, campaign-related activities, and to track workflow rule actions and other administrative changes. The number of records in the log is limited by 10,000 per domain. When the limit is reached, the old records are cleaned automatically. The event log shows the date and time of the event, the event type, and a description of the event. Selecting an event from the list shows the event details in the lower panel of the screen.

To view the log, select **Actions > View Event Log**. Click **Details** to show or hide the details.



This table shows the events logged to the Event Log. WR = Workflow Rule.

System Event	Event Source	Log Message	Details
Start campaign	Campaign	Campaign name has been started manually	Information about the agent and application type that started the campaign. Information about campaign and profile parameters is placed here.
		Campaign name has been started automatically	Information about the cause of the start (dialing rule for now). Information about campaign and profile parameters is placed here.
Stop campaign	Campaign	Campaign name has been [forcedly] stopped manually	Information about the agent and application type the stop was run from.
		Campaign name has been stopped automatically	Information about the cause of the stop: • Campaign out of numbers • Workflow rule

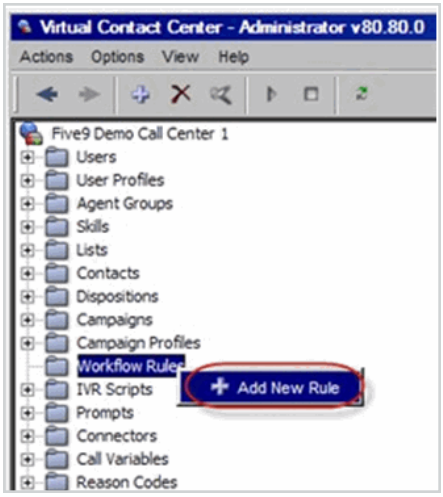
System Event	Event Source	Log Message	Details
			• Disposition criteria reached • Max charges reached
Change profile	Campaign	Message appears for running campaigns only: Profile has been assigned to campaign name manually	New profile settings, campaign parameters, agent and application type placed here.
		Message appears for run campaigns only: Profile has been assigned to Campaign name automatically	New profile settings, campaign parameters, and cause of the profile assignment (dialing rule parameters)
Reset campaign disposition	Campaign	Dispositions for Campaign name have been reset manually	Contains list of reset dispositions, time intervals for the reset procedure
Reset list position	Campaign	Message appears only for campaigns being run: List position has to be reset to top for Campaign name	List of campaign lists
Profile has been changed	Profile	Message appears if the changed profile affects campaigns being run: Profile has been changed and affects **campaigns being run**	New profile settings, list of affected campaigns, agent and application type has to be placed here.

System Event	Event Source	Log Message	Details
Workflow rule triggered	Workflow Rule	Message appears when an action is triggered: Event happens in rule #	• Basic event follows for triggering of the event. • Event expression • List of actions to run

Creating Workflow Rules

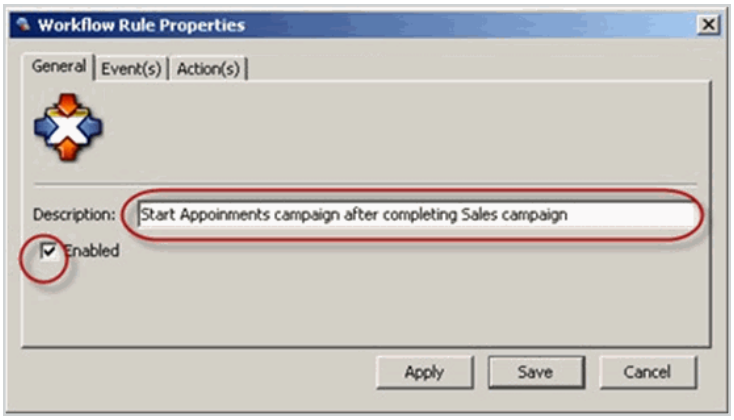
Add a New Rule

1 Right-click the Workflow Rules folder, and select **Add New Rule**.



2 In the General tab, enter a description of the rule.

> **Important**
>
> The rule is enabled by default. If you disable it now, be sure to enable it later to use it in production.



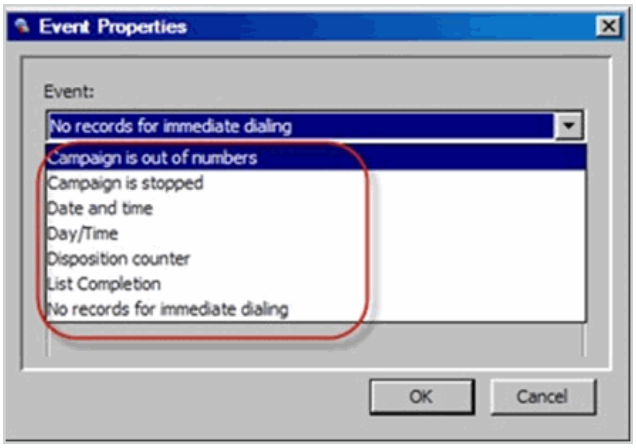
3 Optionally, disable the check box.

Define Events to Trigger Actions in the Rule

1 Select the **Event(s)** tab.

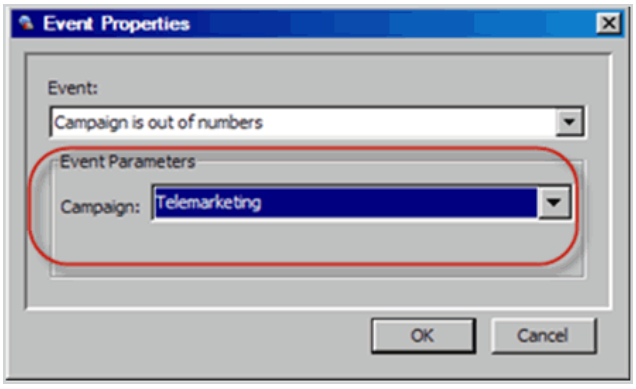
2 Click **Add**.

3 Select an event from the list.



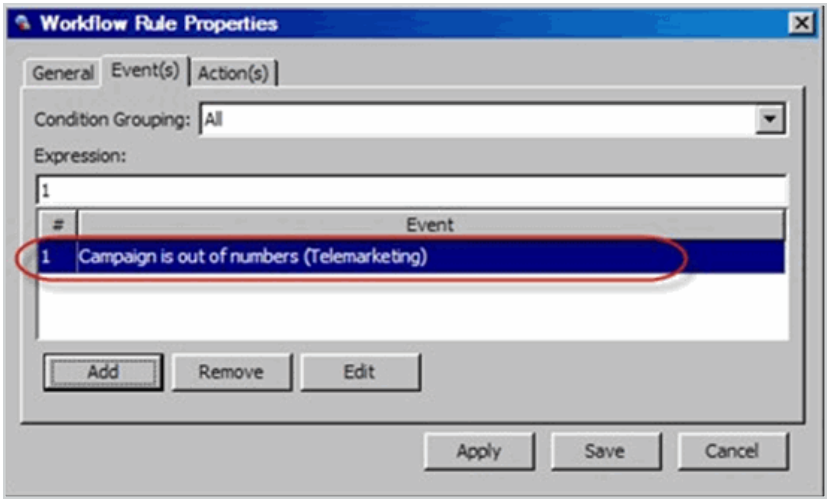
Define the Event Options

1 See Events for Workflow Rules for a list of all available events and the configuration options for each event.



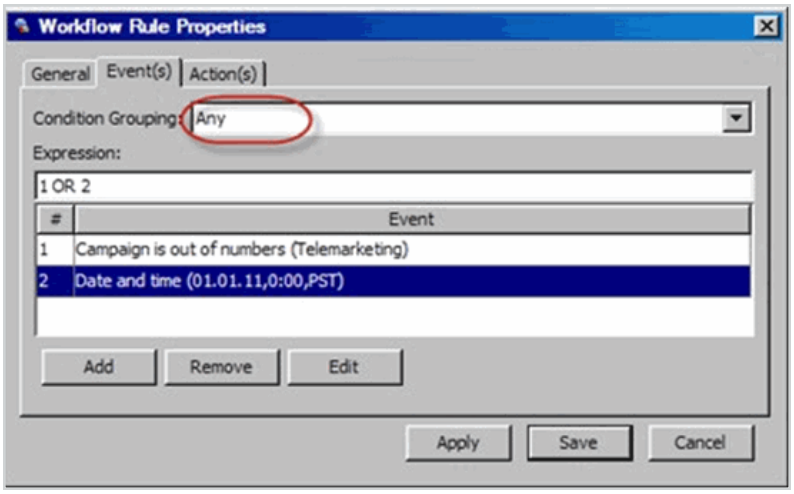
2 Click **OK** to save the event options.

The event appears in the Event(s) tab.



Choose an Operator to Form an Expression (Optional)

You can add multiple events and join them with these operators: and, or, not. When the expression is true, the event is triggered. In this example, the event is triggered if the Telemarketing campaign stops running due to the lack of numbers ***or*** the date is 1/1/2011 at 00:00 PST.

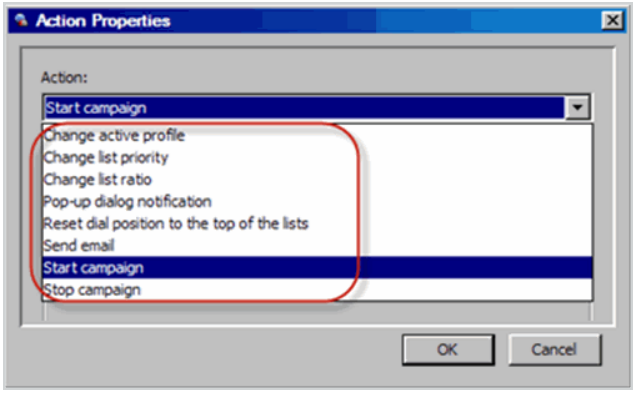


Define Actions and Action Options for the Event

1 Open the Actions tab.

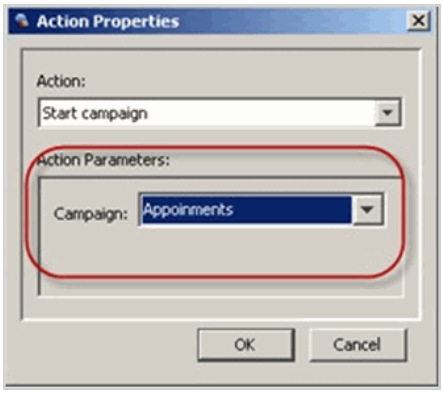
2 Click **Add**.

3 Select the task to complete when the event is triggered.



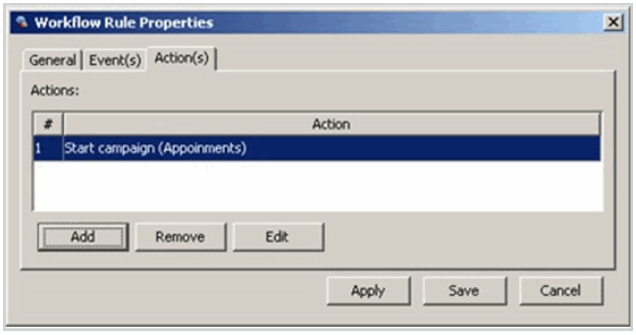
4 Define the action options.

See **Actions for Workflow Rules** for a list of all available actions and the configuration options for each action.

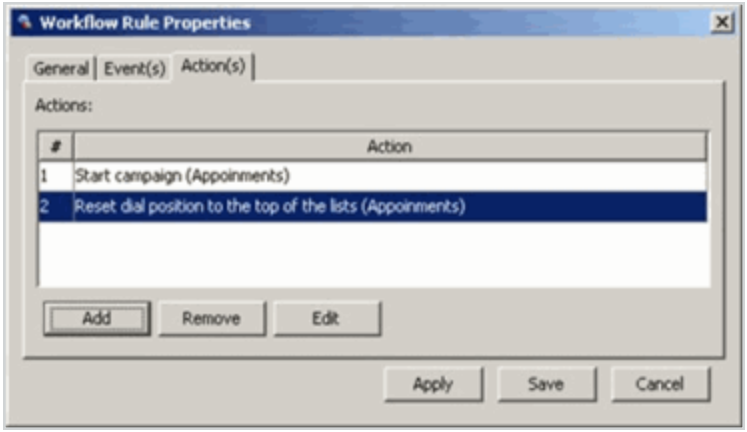


5 Click **OK** to save the action and options.

The item appears in the list in the Action(s) tab.



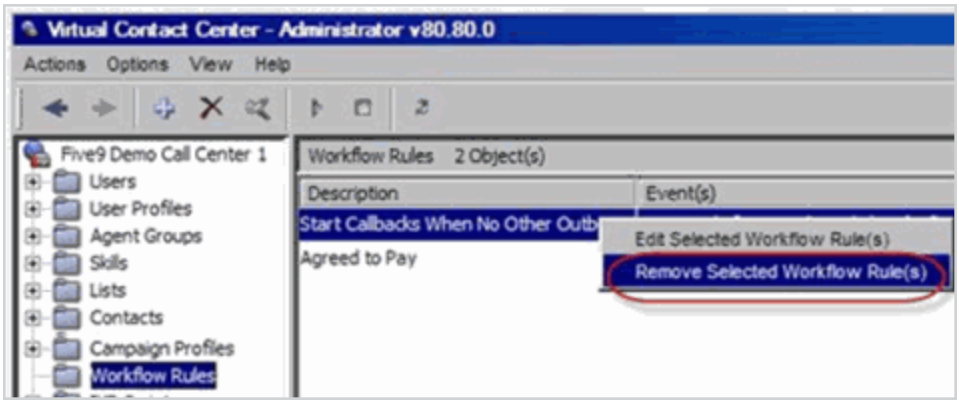
You can specify multiple actions. In this example, the system automatically starts the Appointments campaign and sets the dial position to the top of the list when the event is triggered.



6 To activate the rule, click **Apply** or **Save**.

Deleting Workflow Rules

To delete workflow rules, right-click one or more rules, and choose **Remove Selected Workflow Rule(s)**.



Call Variables

Creating Call Variable Groups
Creating Call Variables
Adding Call Variables to Campaign Profiles
Linking Call Variables to Dispositions
Transferring User-to-User Information with Call Variables
System Call Variables Groups

Call variables are custom fields that store call data instead of contact records. During a call, they can be used and updated in the IVR and by agents. When configuring dispositions, you can also set the value for call variables that should be stored for reporting purposes when that disposition is used, or when any disposition is used. With call variables, you can gather more information about each call. For example, you can collect error codes generated by IVR and find out how many times a speech input was provided, an account balance retrieved, and customer satisfaction survey results.

In addition to U.S currency, all currency variables support the British Pound and Euro currencies.

You can use call variables in connectors and IVR scripts to send information, for example, to third-party systems. Optionally, call variables can be stored to use in reports. The variables are organized in groups, similar to classes used in many programming languages. When using a variable, follow this syntax:

```
[Call Variable Group Name].[Call Variable Name]
```

Example

Call.mediatype

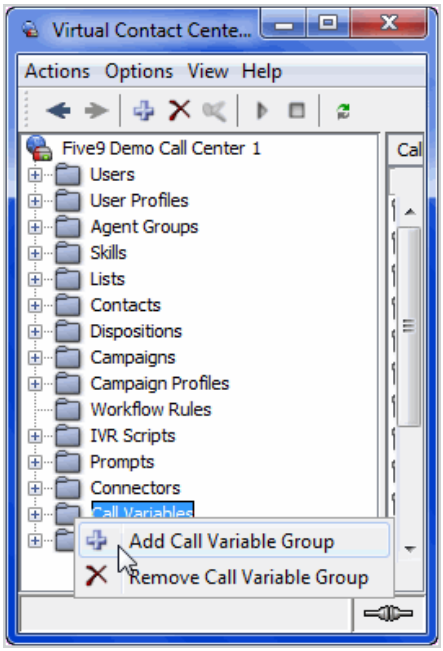
In reports, you can summarize call variable values across calls to provide the total sale amount per agent or per campaign based on individual sale amounts from each call.

In the Call Variables folder, you can create items variables in predefined variable groups or add custom groups. For example, you can create skill-based groups or groups for surveys, sales, error handling to store more information about error codes generated by IVR, and speech recognition events.

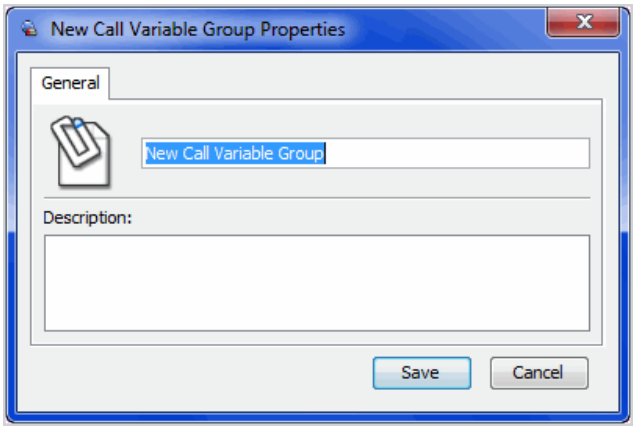
Creating Call Variable Groups

These steps explain how to create a call variable group.

1 In the navigation pane, right-click **Call Variables > Add Call Variable Group**.



The New Call Variable Group Properties window is displayed.



2 Complete the fields, and click **Save**.

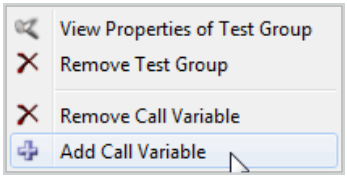
The new group appears in the Call Variables folder.

Creating Call Variables

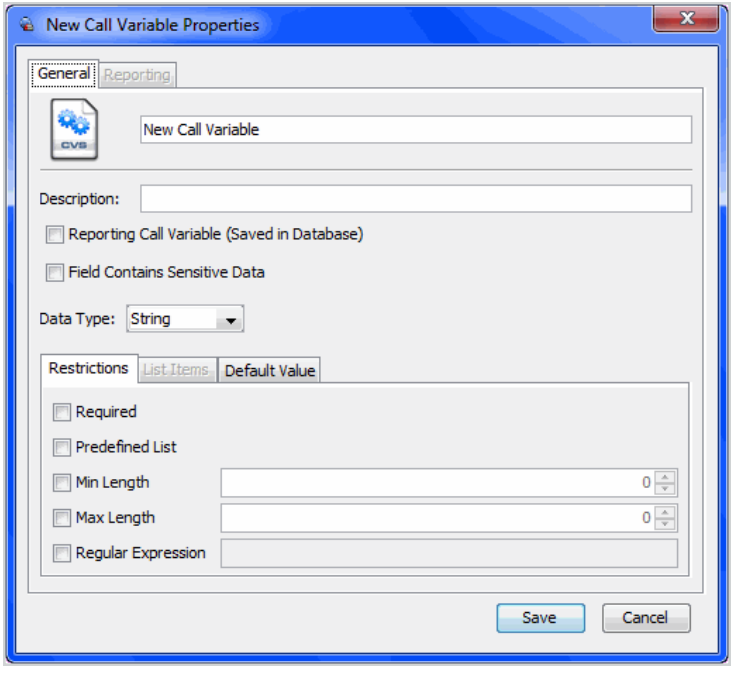
These steps explain how to create and configure a call variable.

1 In the navigation pane, open the Call Variables folder.

2 Right-click a group, and select **Add Call Variable**.



The properties window opens.



3 In the General tab, follow these steps:

a Enter a name and description.

b If the call variable will contain personal or private information, check **Field Contains Sensitive Data**.

Sensitive data is personal, financial, and legal information specific to the customer that is protected by law. Revealing this information could harm the customer. When you enable this option, the **Reporting Call Variable** option is deactivated because you may not store private information in the database or include it in reports. You may use variables that contain sensitive data in IVR scripts. In logs, private information is masked with pound signs: `###`.

c To include the call variable information in reports, check **Reporting Call Variable**, which activates the Reporting tab.

d Select a data type.

The data type that you choose determines the fields that appear. This table describes each data type, except for predefined lists.

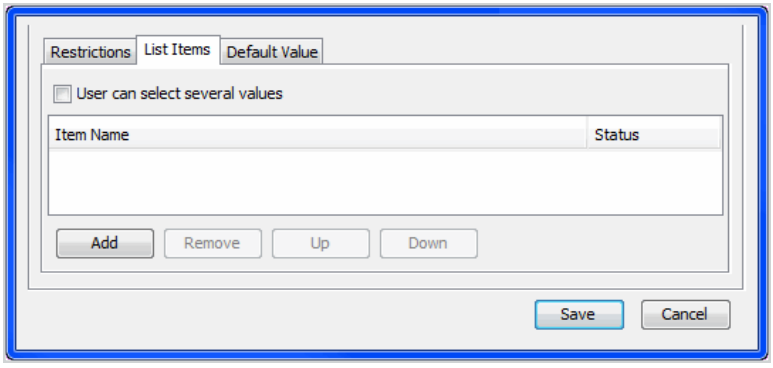
Data Type	View Type	Values/Units/Format
String	One or more lines	Text
Number	Single Line	Maximum number of characters = 16 ◦ Digits before decimal point (1–16) ◦ Digits after decimal point (0–15)
Date	One or more lines	◦ yyyy-MM-dd ◦ MM/dd/yyyy ◦ MM-dd-yyyy ◦ MM-dd-yy ◦ MMM dd ◦ yyyy ◦ dd MMM ◦ dd-MM ◦ MM-dd

Time	One or more lines	◦ HH:mm:ss.SSS ◦ HH:mm:ss ◦ HH:mm ◦ hh:mm a ◦ HH ◦ hh a ◦ H:mm ◦ h:mm a
Date/Time	Single Line	Combination of Date and Time data types
Currency	Single Line	Maximum number of characters = 16. ◦ Digits before decimal point (1–16) ◦ Digits after decimal point (0–15) ◦ Currency Type ($, €, £)
Boolean	Single Line	◦ True, TRUE, or true ◦ False, FALSE, false, or any other value
Percent	Single Line	Maximum number of characters = 16. ◦ Digits before decimal point (1–16) ◦ Digits after decimal point (0–15)
Email	Single Line	`<emailAddress>@<domain>`

URL	Single Line	HTTP, HTTPS, file
Phone	Single Line	
Duration	Single Line	◦ hh:mm:ss.SSS ◦ hh:mm:ss ◦ hh:mm ◦ hh ◦ mm:ss.SSS ◦ mm:ss ◦ mm ◦ ss.SSS ◦ ss ◦ SSS

e In the Restrictions tab, define the options that are specific to each data type.

- Required: Whether the variable is required.
- Predefined List: Not Available for Date, Time, Date/Time, Boolean, Duration data types. With this option, the agent does not need to enter the answer but must select one or several answers. This option activates the List Items tab where you can define the possible answers.



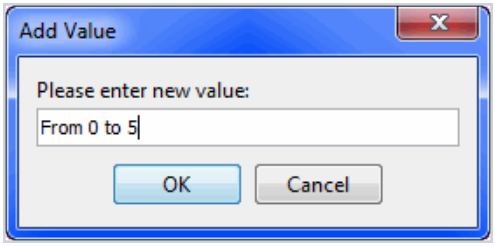
- For each data type, you may select these menu options:
  - Combo Box: Agents may select values from a drop-down menu.
  - List: All values are displayed at the same time.
  - Buttons: Check boxes are displayed in front of each value.

- Min Length/Min Value: Limits for values entered by agents. Available for predefined list, except for the Phone and Boolean data types.
- Max Length/Max Value: Limits for values entered by agents, except for predefined list, except for the Phone and Boolean data types.
- Regular Expression: Not Available for predefined list and for predefined lists for Date, Time, Date/Time, Boolean, and Duration data types.

f In the List Items tab, define the options.

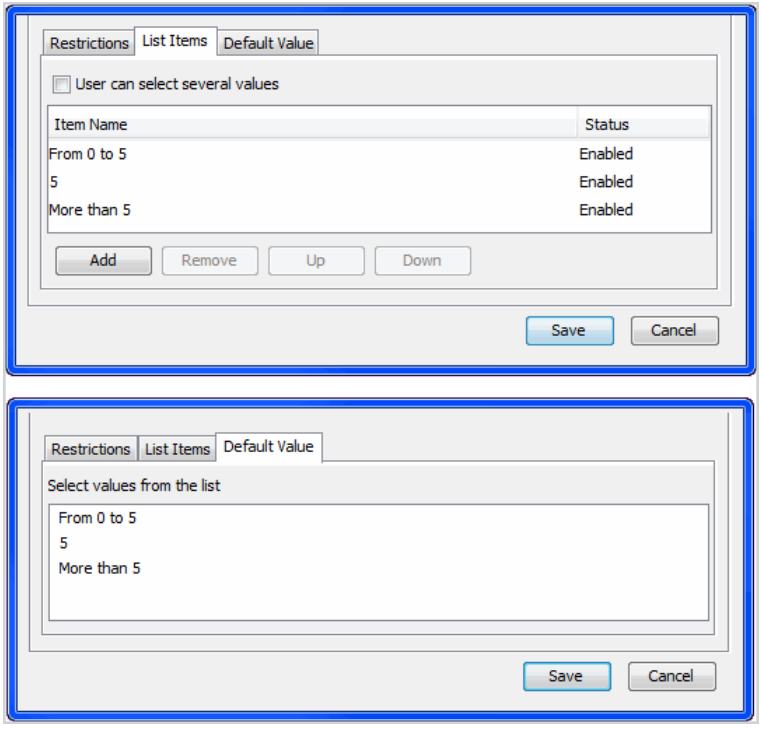
g To create the answer that appears to agents, click **Add**.

h Enter the value to the displayed, and click **OK**.



i Configure possible answers and answer criteria.

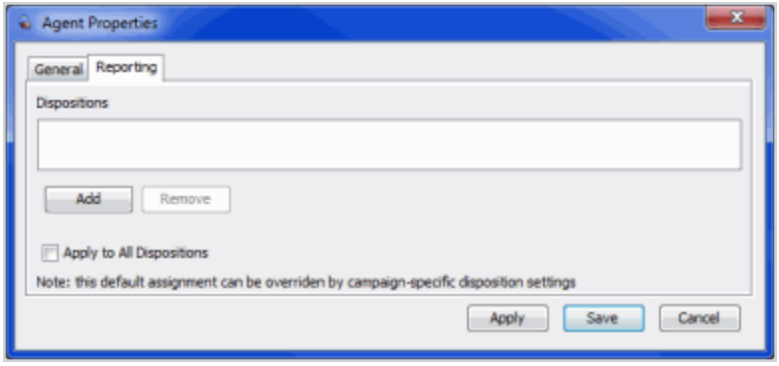
Optionally, check **User can select several values**. Use the Up and Down buttons to arrange the answers.



j Optionally, configure the default value on the Default Value tab.

If you use a predefined list, the Default Value tab displays all predefined values and you can select one in the list. If you do not use the Predefined List, the Default Value tab enables you to select an undefined option or define a value depending on data type.

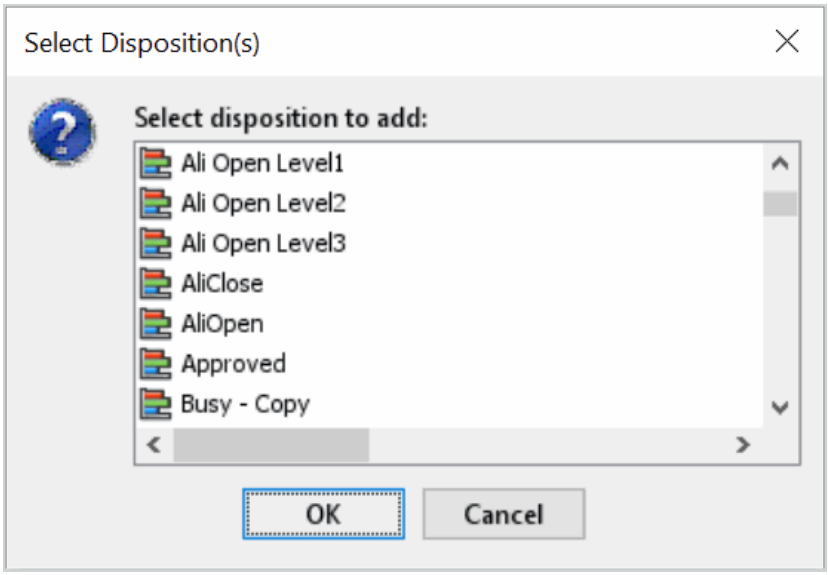
4 Click the **Reporting** tab.



5 To add dispositions that can be assigned in the IVR script, click **Add**.

6 To apply to all call dispositions, check **Apply to All Dispositions**.

7 Select the dispositions and click **OK**.



8 Click **Save**.

After you save a call variable, you can no longer modify its content. Your only option is to create a new call variable.

Example

Describes how to create a call variable for queue callbacks. By adding the variable to reports, you can find out the number of callers who select queue callback each day for each queues.

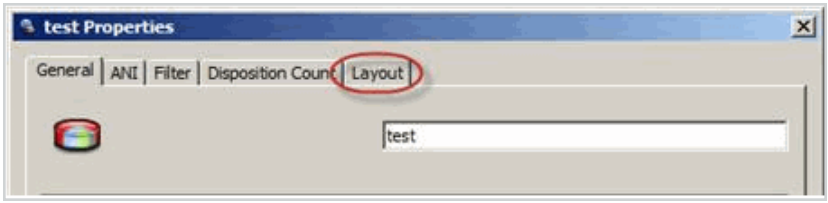
1. Select or create a call variable group.
2. Create and name a variable Queue Callback.
3. To include the variable in reports, check **Reporting Call Variable**.
4. In the Queue Callback example, keep the **String** default data type.
5. Under Restrictions, select **Required**.
6. Under Default Value, enter a value, such as 1.
7. In the Reporting tab, add the Queue Callback Assigned disposition.
8. Save the variable.

Adding Call Variables to Campaign Profiles

The Campaign layout configured in the Campaign Profiles enables you to define which call variables are visible for the campaign. See also Managing Campaigns in the Five9 Campaign Administrator guide.

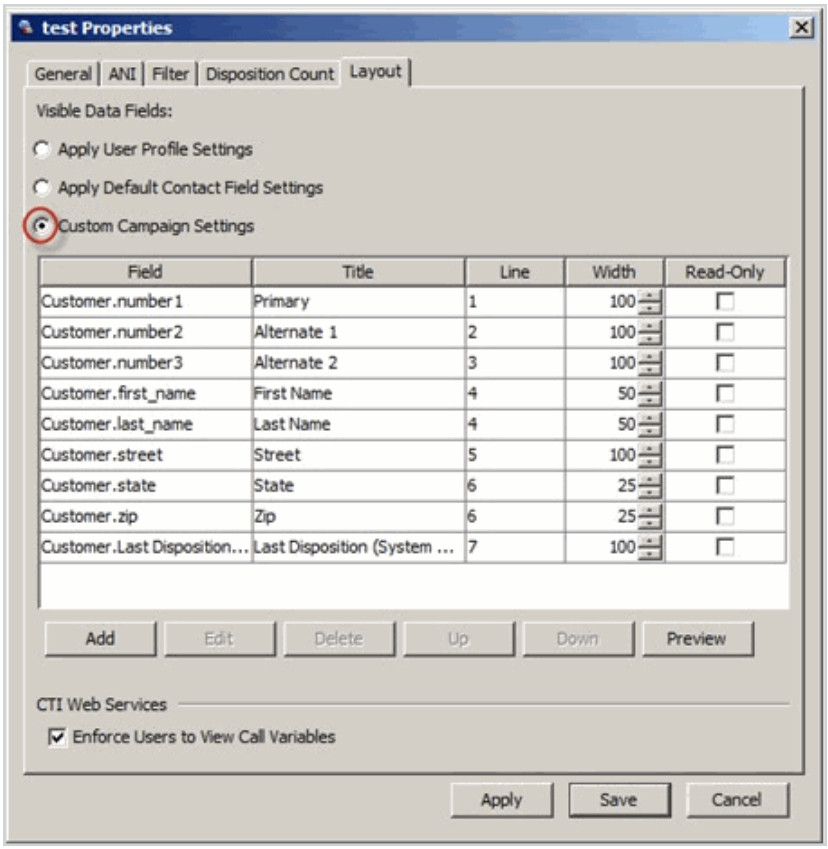
The User Profile settings allow you to control which contact fields are available to the Users which belong to the profile. The profile does not provide access to call fields, user profiles are not call related.

1. Access the Campaign profile properties window.
2. Select the Layout tab.



3. Select **Custom Campaign Settings**.

   If you are creating custom campaign layouts with the CTI Web Services API, you can display call variables to agents.



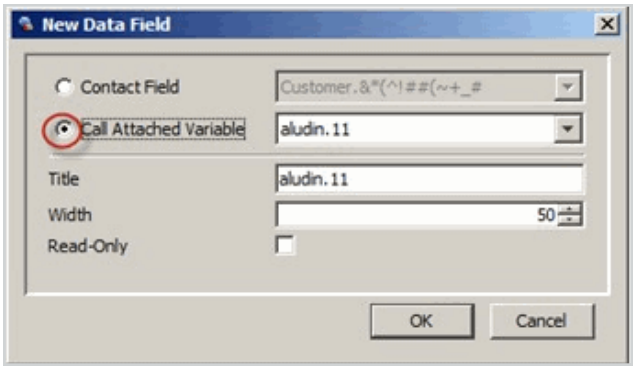
4 If appropriate, enable **Enforce Users to View Call Variables** at the bottom.

With this feature, any component that uses the CTI Web Services displays call variables as follows:

- Enabled: Call variables are always shown to agents.
- Disabled: Call variables are shown to agents only if they enable Show Call Attached Variables in their softphone settings.

5 Click **Add**.

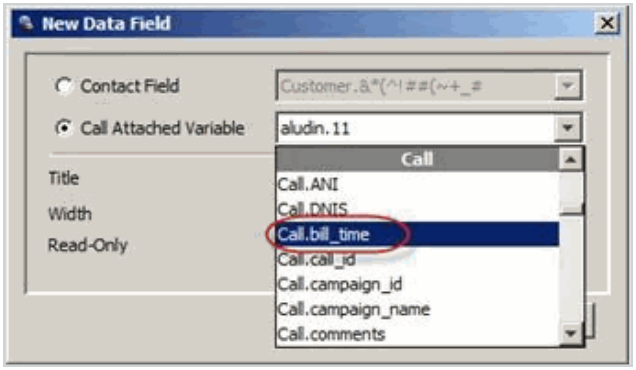
6 Select **Call Attached Variable**.



In the drop-down menu, all existing call variables are listed.

7 Select a variable.

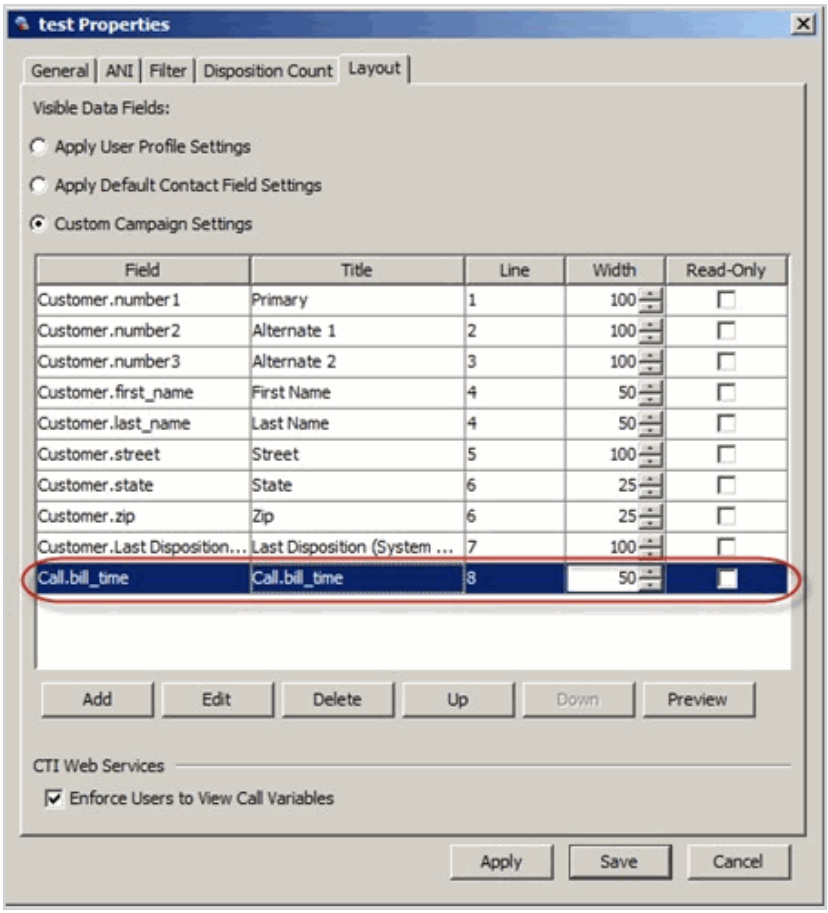
For example, if you select `Call.skill_name`, assign the profile to a campaign, and instruct your agents to enable Show Call Attached Variables in their softphone settings, your agents will see the skill name of all inbound calls of that campaign.



8 Define the following options for the selected field:

- Title - Field name displayed in interface.
- Width - width of the field.
- Read-Only - For example, you can deselect this option for such fields as Sale Amount as the agent will put the value there.

9 Click **OK**.The field appears in the layout.



10 Click **Apply** or **Save**.

Linking Call Variables to Dispositions

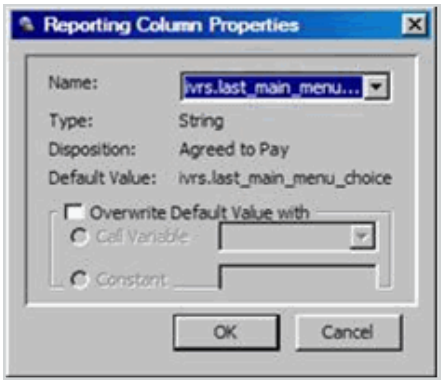
Call variables can be linked to dispositions by their properties or by the disposition properties. In both cases, use the Reporting tab to associate call variables to dispositions. Once enabled for reporting, call variable values can be displayed using a custom Call Log report. Alternately, you can assign a call variable with the enabled Reporting option to the disposition as described below.

1 Open the Dispositions section, and open the properties of a disposition.

2 Select the Reporting tab.



3 To choose a call variable with enabled Reporting option, click **Add**.



4 Select a call variable name from the menu.

5 Optionally, check **Overwrite Default Value With**.

6 Choose a call variable or define a constant.

7 Click **OK**, and **Apply** or **Save**.

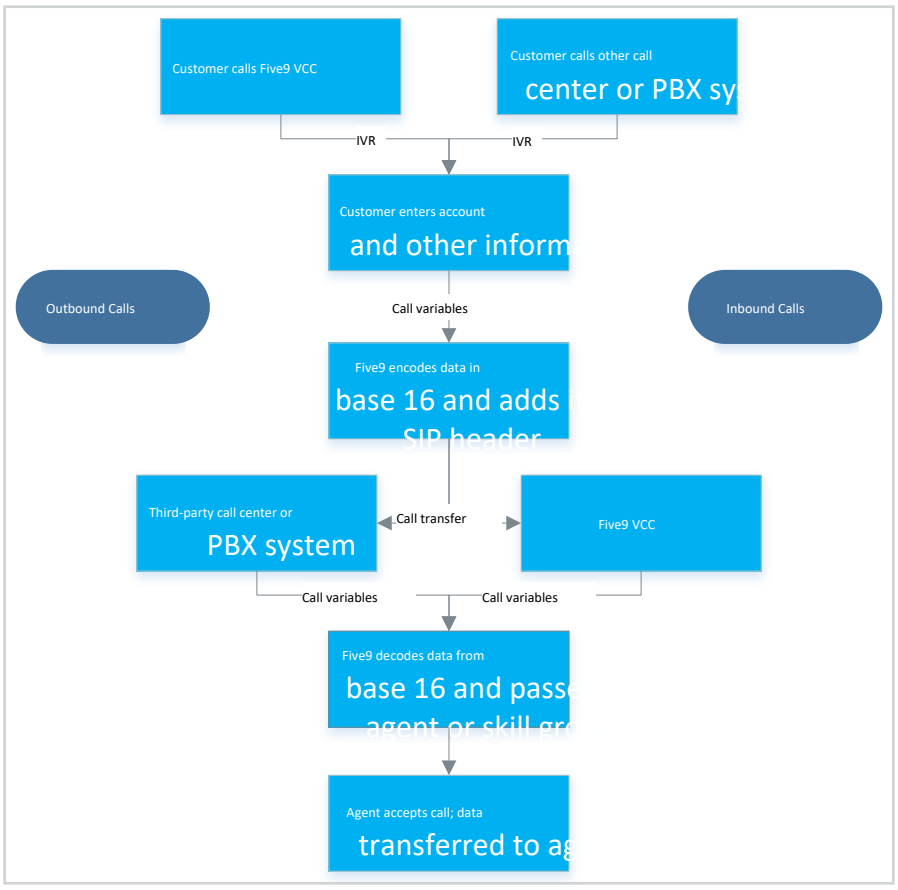
Transferring User-to-User Information with Call Variables

You can use call variables to transfer User-to-User Information (UUI) data between the VCC and other telephony systems, such as other call centers or PBX systems, by using the SIP protocol. UUI data is information not pertaining to the call, such as an account number. The call variables values are transferred without modification.

> **Note:** UUI.XHeaders, UUI.XHeadersOut, and UUI.AllHeaders CAVs are set by the system.

This table and the figure that follows describe outbound and inbound calls with a UUI example.

Outbound Calls	Inbound Calls
The call is transferred from the agent to the external application that supports UUI. **The UUI data is sent from the Five9 VCC to a third-party call center or PBX system in outgoing SIP calls.**	The call is transferred from the caller to the agent. The UUI data is received by the Five9 VCC in incoming SIP calls.
A customer calls an 800 number assigned to the Five9 VCC. **In the VCC IVR menus, the customer enters information, such as account number and personal identity, that corresponds to call variables. The information captured by the IVR is attached to the call in UUI or other SIP headers.** **The VCC IVR transfers the call to a third-party call center or PBX system, which extracts the data to route the call to the appropriate skill group or agent.** **Once the agent accepts the call, all data originally entered by the caller is transferred to the agent.** **The agent does not have to enter that information again.**	A customer calls a third-party call center or PBX system. In the external IVR menus, the customer enters information, such as account number and personal identity, that corresponds to call variables. The information captured by the IVR is attached to the call in UUI or other SIP headers. The external IVR transfers the call to the VCC, which extracts the data to route the call variables. The VCC IVR uses these call variables to route the call to the appropriate skill group or agent. Once the agent accepts the call, all data originally entered by the caller is transferred to the agent. The agent does not have to enter that information again.



Requirements

Before using this feature, you must be able to provision a private SIP trunk to connect to Five9 across the internet, VPN, or Multiprotocol Label Switching (MPLS). With VPN and MPLS, you may incur additional fees. For more information about private SIP trunks and to implement this feature, contact your Five9 representative or Professional Services.

Creating Call Variables

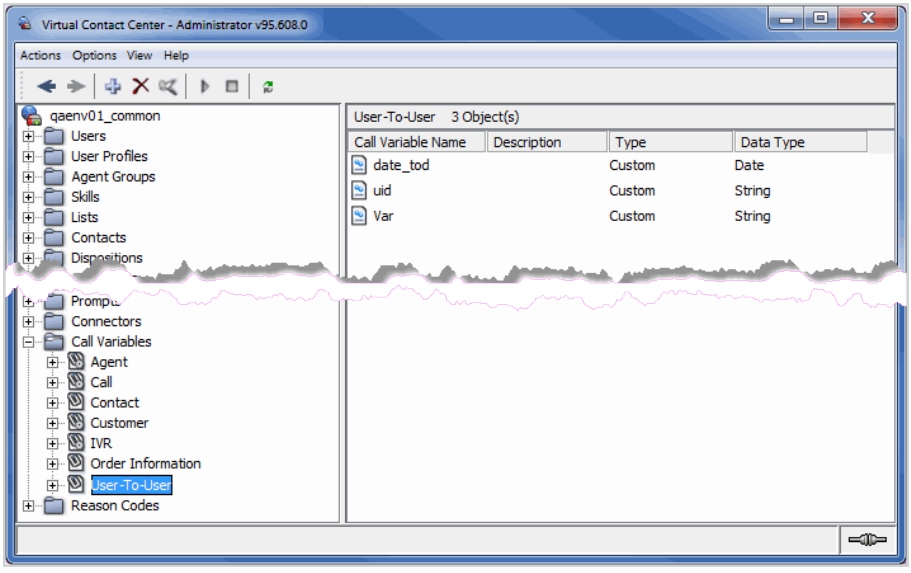
> **Note:** UUI.XHeaders, UUI.XHeadersOut, and UUI.AllHeaders CAVs are set by the system.

Create these items:

- A call variable group specific to UUI data. You may choose any group name.
- As many variables as you need for the data that you want to transfer between locations. You may choose any variable names. Variables can have any format, value, restrictions, and default values. Choose the format expected by the remote side to which the SIP trunk is linked. For example, if you expect UUI data to be an integer, create an integer variable.

Example

Your remote call center or PSTN system expects UUI data in the body of a User-To-User SIP header to be an integer. Your call variable for UUI data is named `my.var`. Its type is integer. The IVR script validates the format of the value when assigning it to the variable. Five9 inserts the value of `my.var` in the initial SIP message of each outbound call as follows: `User-To-User=<my.var-value>`.



Preparing Your Implementation

When done, provide to Five9 the names and types of your variables, such as string or date, for the UUI data to add to SIP headers.

While Five9 is setting up your implementation, add the call variables to campaigns and IVR scripts as usual. You can start transferring data as soon as Five9 has completed your implementation.

When you receive decoded data, you can add it to an IVR script, show it to an agent, send it with the SIP protocol during third-party transfer, and store it for reports.

System Call Variables Groups

You cannot edit system variables. Default settings are overridden by campaign settings.

Agent Group
Call Group
Customer Group
IVR Group
Omni Group

Agent Group

Key	Type and Format	Description
Agent.first_agent	string	ID of the first agent associated with the call. If only one agent handles the call, `Agent.id` and `Agent.first_agent` are the same.
Agent.full_name	string	Full name of the last agent on call
Agent.id	string	Agent object ID (up to 20 digits)
Agent.station_id	string	Last agent's station ID used when logging in
Agent.station_type	string	Last agent's station type: softphone, gateway, or PSTN

Key	Type and Format	Description
Agent.user_name	string	Last agent's user name

Call Group

Key	Type and Format	Description
Call.ANI	string	ANI. The Automatic Number Identification provides the receiver of a telephone call with the number of the calling phone. Up to 20 digits, including 011 for international numbers
Call.bill_time	hh:mm:ss	Bill time for the call. Roughly equivalent to Call Time but can vary based on the call plan
Call.call_id	string	Call ID. Up to 20 digits
Call.campaign_id	string	Campaign object ID. Up to 20 digits
Call.campaign_name	string	Campaign name
Call.comments	string	Call notes recorded by an agent
Call.disposition_id	string	Disposition object ID. Up to 20 digits
Call.disposition_name	string	Name of a disposition.
Call.DNIS	string	DNIS. Dialed Number Information Service is the number that is being dialed. Up to 20 digits, including 011 for international numbers.
Call.domain_id	string	Domain ID that can be added to reports.
Call.domain_name	string	Domain name that can be added to reports.
Call.end_timestamp	yyyy-mm-dd hh:mm:ss	Call completion time stamp.
Call.handle_time	hh:mm:ss	Handle time duration (starts with call being answered by an agent and ends with call disposition).
Call.hold_time	hh:mm:ss	Hold time (duration)

Key	Type and Format	Description
Call.language	string	IVR language
Call.end_ timestamp	yyyy-mm-dd hh:mm:ss	Call completion time stamp
Call.handle_time	hh:mm:ss	Handle time duration (starts with call being answered by an agent and ends with call disposition)
Call.hold_time	hh:mm:ss	Hold time (duration)
Call.length	hh:mm:ss	Call duration
Call.mediatype	string	Type of customer interaction with your agents. In reports, you see these values: Voice or Visual IVR.
Call.number	string	Contact number Read-only variable that indicates the format of the record that was found. In the future, it can be assigned to email or login, for example. For a comparison of variables that can contain phone numbers, see About Call.number, Customer.numberX, and Call.ani.
Call.park_time	hh:mm:ss	Duration of park time
Call.queue_time	hh:mm:ss	Queue time
Call.session_id	string	Call session ID that can contain 32 to 64 characters.
Call.skill_id	string	Skill object ID (up to 20 digits)
Call.skill_name	string	Skill name
Call.start_ timestamp	yyyy-mm-dd hh:mm:ss	Date and start time of the call.
Call.tcpa_date_of_ consent	yyyy-mm-dd hh:mm:ss	Date and time of consent used for consenting to callbacks from a Visual IVR contact page.
Call.type	string	Two-digit call type ID.
Call.type_name	string	Call type name.
Call.wrapup_time	hh:mm:ss	Duration of after-call work.

Customer Group

In the Call Variables folder, this group is named **Customer**. However, this group is named **Contact** in the menus from which you select call variables.

Key	Type and Format	Description
Contact._record_id	string	Default contact field. You cannot select this contact field in the VCC menus.
Contact.city	string	Default contact field
Contact.company	string	Default contact field
Contact.email address	string	Default contact field
Contact.first_name	string	Default contact field
Contact.last_name	string	Default contact field
Contact.number1	phone	Default contact field (primary phone number)
Contact.number2	phone	Default contact field (first alternate phone number)
Contact.number3	phone	Default contact field (second alternate phone number)
Contact.state	string	Default contact field
Contact.street	string	Default contact field
Contact.zip	string	Default contact field

IVR Group

Key	Type and Format	Description
IVR.error_code	int	Four-digit error code of the last module of the IVR script. For a complete list, see the Interactive Voice Response (IVR) Administrator's Guide.
IVR.error_desc	string	Description of script module errors.
IVR.last_module	string	Name of last IVR module.
IVR.last_state	string	Name of last branching module in a script: If/Else, Case, Answering Machine, or Menu.

Omni Group

The Omni variable group is designed for digital engagement interactions, such as email and chat.

> **Note**
> Chat and email sessions must use Omni.* system variables. Chat and email sessions using custom Omni.* prefix variables are not established.

Key	Type and Format	Description
Omni.campaign_sms_number	string	E164 formatted phone number assigned to campaign.
Omni.client_sms_number	string	E164 formatted phone number user employs.
Omni.contact_id	string	Reserved for future use.
Omni.domain_id	string	Unique ID for your VCC domain.
Omni.domain_name	string	Unique name for your VCC domain.
Omni.email	string	Sender's email address.
Omni.email_priority	number	Reserved for future use.
Omni.external_id	string	Unique ID for Salesforce chat and case objects.
Omni.interaction_id	string	Unique ID for text interactions.
Omni.main_recipient	string	Campaign's main email account.
Omni.name	string	Email name if available in the email or chat name field.
Omni.published_time	date/time	• Email: Time that email is received in the customer's mail server. • Chat: Start time of the chat.
Omni.question	string	Chat question.
Omni.source	string	Predefined list that includes Five9_chat and Salesforce. The media type is specified in `Call.mediatype`.
Omni.start_time	date/time	Time that email reaches Five9 (synchronized with mail server).
Omni.subject	string	Subject of email.
Omni.to	string	Additional email recipient addresses.

Key	Type and Format	Description
Omni.total_body_bytes_size	number	Body size in bytes.
Omni.total_body_chars_size	number	Body size in characters.