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Vocera Voice Server Administration Console Quick Start

Version 5.3.3

Notice

Contents

Getting Started

This chapter describes Internet Explorer requirements for the Vocera Administration Console and how to log in.

Browser Requirements

Learn the Internet Explorer requirements needed to access Vocera Web applications.

To access Vocera Voice Web applications (Administration Console, User Console, Report Console, and Staff Assignment), your computer must have the following required software:

Table 1: Web application software requirements

Applications	Client-side component	Requirement
All applications	Browser	Internet Explorer versions 10 or later (Be sure that Compatibility Mode is turned off).

Important: Do not install another JRE on the Vocera Voice Server or Vocera Report Server machines. The required version of Java is installed with those servers.

Browser Recommendations and Requirements

Vocera recommends Internet Explorer and suggests configuration settings required for internet and browser security.

The list below includes the configuration recommendations for Internet Explorer security settings. Required items are flagged.

- **Do not access a Vocera Voice Web application from the server on which it is running** – By default, Windows Server 2008 and Windows Server 2012 ship with Internet Explorer Enhanced Security Configuration enabled, which may display frequent security prompts when you access a Web application from the server on which it is running. Rather than disable Internet Explorer Enhanced Security Configuration on the server, we recommend that you access Vocera Voice Server Web applications from your desktop or laptop computer.
- **Configure the Internet Explorer security level to Medium-low or lower** – Otherwise, Internet Explorer prevents the scripts used by the consoles from executing completely. You can configure security settings through **Tools > Internet Options > Security** in Internet Explorer. See your Internet Explorer documentation for complete information.
- **Required: Disable the pop-up blocker** – Vocera consoles display information in pop-up windows, so disable pop-up blocking in Internet Explorer (that is, configure the browser to allow pop-up windows). Choose **Tools > Internet Options > Privacy** and then uncheck the **Turn On Pop-Up Blocker** box. If you are using a third-party tool to block pop-ups, refer to the tool's documentation.

- **Remove scroll bars from pop-up windows** – Pop-up windows may display scroll bars. To remove the scroll bars, choose **Tools > Internet Options > Security**and select the **Local Intranet** zone. Click **Custom Level** to display the Security Settings dialog box. Enable **Allow script-initiated windows without size or position constraints**.

- **Required: If necessary, add the Vocera Voice Server and Vocera Report Server IP addresses to the list of Trusted Sites** – The security policy in certain situations may prevent you from setting the Internet Explorer security level for the local intranet below Medium. If Internet Explorer continues to display pop-up windows with scroll bars, follow these steps to configure a trusted site for the Vocera Voice Server:

  To add the Vocera Voice Server and Vocera Report Server to the list of trusted sites:

  1. In Internet Explorer, choose **Tools > Internet Options**. The Internet Options dialog box appears.
  2. Click the **Security** tab.
  3. Click **Trusted Sites**.
  4. In the **Security Level for this Zone** box, set the security level to Medium-low, and click **Apply**.
  5. Click the **Sites** button. The Trusted Sites dialog box appears.
  6. Type the IP address of the Vocera Voice Server, and click **Add**.
  7. Type the IP address of the Vocera Report Server, and click **Add**.
  8. Click **Close** to close the Trusted Sites dialog box.
  9. Click **OK** to close the Internet Options dialog box.

  A system administrator can manage the Internet Explorer Trusted Sites for an entire organization using Group Policy Objects (GPOs).

- **If your Vocera Voice Server or Vocera Report Server has enabled SSL, configure Internet Explorer to NOT save encrypted pages to disk** – If you enable SSL on theVocera Voice Server or Vocera Report Server, you may need to update the browser security settings for Internet Explorer to make sure the browser does delete cached-from-HTTPS resources when the browser is closed. Otherwise, certain pages of the Administration Console, such as the Permission Browser, will not work properly.

  To update Internet Explorer security settings for SSL access:

  1. In Internet Explorer, choose **Tools > Internet Options > Advanced**
  2. Make sure the **Do not save encrypted pages to disk** option is checked.
  3. Click **OK**.

Logging In

Learn about accessing the Administration Console.

The Administration Console lets you manage a Vocera system. It is a browser-based application, accessible from any computer on the network.

The console URL is either of the following, where vocera_ip_address is the numeric IP address of the Vocera Voice Server:

Table 2: Administration Console URLs

Type of Access	URL
Unencrypted	`http://` vocera_ip_address `/console/adminindex.jsp`
SSL	`https://` vocera_ip_address `/console/adminindex.jsp`

After you complete the initial setup and your organization starts using Vocera, access the Administration Console from a computer that is not running the Vocera Voice Server so you don't degrade system performance.

Logging In Using Active Directory Authentication

When Active Directory authentication is enabled, the Administration Console welcome page has an additional field, the **Active Directory** list, which specifies the Active Directory to use for your login.

To log into the Administration Console using Active Directory credentials:

1. Open an Internet Explorer browser window.
2. Enter the Administration Console URL to open the Administration Console welcome page.
3. Specify the following values:

Field	Description
User ID	Enter your Active Directory user ID (up to 250 characters). You must be a member of a Vocera group that has administrator privileges.
Password	Enter your Active Directory password (up to 127 characters).
Active Directory	Select the name of your Active Directory from the list. If there are multiple Active Directories listed and you're unsure which one to select, ask your system administrator.

4. Click **Log In**.
   The Administration Console opens.
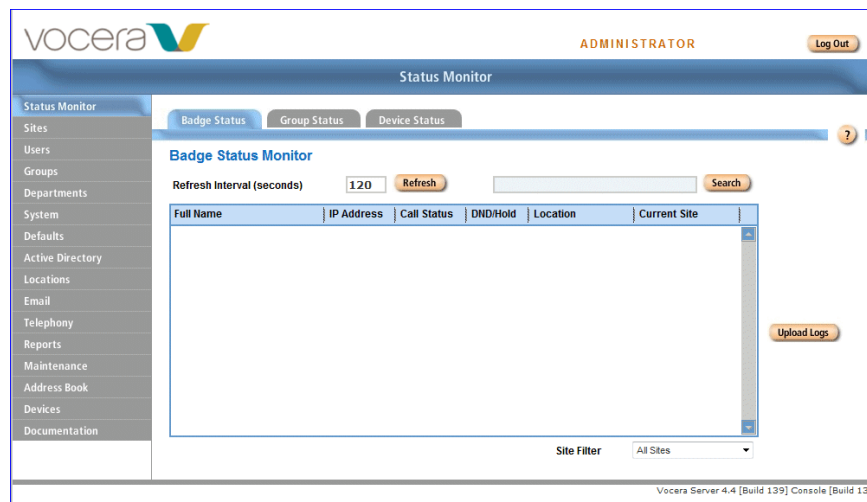
Figure 1: Administration Console opening screen

Logging In Using Vocera Authentication

If Active Directory authentication is not enabled, the **Active Directory** list does not appear on the Administration Console welcome page and you must log into the Administration Console using your Vocera credentials.

To log into the Administration Console using Vocera credentials:

1. Open an Internet Explorer browser window.
2. Enter the Administration Console URL to open the Administration Console welcome page.
3. Specify the following values:

Field	Description
User ID	Enter your Vocera user ID. You must be a member of a Vocera group that has administrator privileges.
Password	Enter your Vocera password.

4. Click **Log In**.

   The Administration Console opens.

Logging In Using the Default Administrator Account

Vocera provides a built-in administrator account with the user ID **Administrator**.

The default Administrator password is **admin**, but you can change it to something more secure.

Note: Regardless if Active Directory authentication is enabled, the default Administrator account does not use Active Directory credentials to log in.

Administration Console Basics

This chapter describes how to quickly become familiar with the Vocera Administration Console. For more details about Administration Console functionality, use the console's context-sensitive help, or refer to the Vocera Voice Server Administration Console Guide and the Vocera Voice Server Telephony Configuration Guide.

Administration Console User Interface

Learn the basic User Interface controls on the Administration Console.

The following figure uses the Sites screen to show some of the user interface controls available in a typical Administration Console screen.

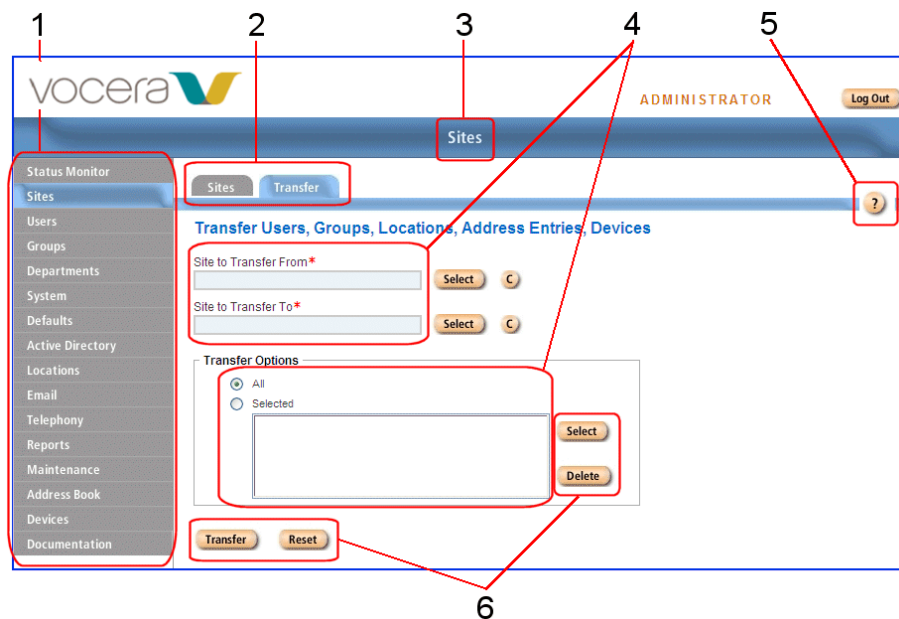Figure 2: Administration Console user interface

1. **Navigation bar.** Click a button to display a screen.
2. **Tabs.** Click a tab to display a page in a screen.
3. **Screen title.** Displays the screen name.
4. **Fields.** Click a field to select or edit a value in a page.
5. **Help button.** Click the **?** button to display context-sensitive help.
6. **Buttons**. Click a button in a page to perform an action.

Some pages have buttons that open dialog boxes. For example, when you click the **Add New User** button on the Users page, it opens the Add New User dialog box:

Figure 3: Add New User dialog box

Dialog boxes have tabs that group complex information to make it easier to enter and understand. Most have both a **Save** and **Save & Continue** button.

- Click **Save** to save the data and close the dialog.
- Click **Save & Continue** to save the data and clear the fields. It leaves the dialog open to allow faster entry of new information.
- Click **Cancel**, or close the dialog without clicking **Save** or **Save & Continue**, to discard changes made.

Administration Console Navigation Bar

TheAdministration Console has a navigation bar running down the left side of the screen, allowing you to quickly navigate from one screen to another. The navigation bar includes the following buttons:

- **Status Monitor** – monitor the status of devices and groups.
- **Sites** – create and edit sites, distinct physical locations where the Vocera system is used.
- **Users** – create and edit users.
- **Groups** – create and edit groups.
- **Departments** – designate groups as departments. By designating a group as a department, you provide accounting features and speech recognition enhancements that are not available to other Vocera groups.
- **System** – specify system preferences and passwords, schedule backups and sweeps of data, set up clusters, and view license information.
- **Defaults** – specify default settings for users.
- **Active Directory** – enable Active Directory authentication for the Administration Console, User Console, and Staff Assignment applications.
- **Locations** – configure access point locations.
- **Email** – specify email settings.
- **Telephony** – specify settings for your telephony server, either Vocera Telephony Server or Vocera SIP Telephony Gateway.

- **Reports** – print reports of Vocera users, groups, address book entries, and sites.
- **Maintenance** – export and import data, stop and start the Vocera Voice Server, backup and restore Vocera data, and use the Data Check utility.
- **Address Book** – create and edit address book entries.
- **Devices** – manage Vocera devices.
- **Documentation** – view PDF versions of Vocera manuals.

Displaying Help

The Administration Console provides context-sensitive help.

To display help, click the **?** button on any console page.

Before You Add Users

Learn the considerations and necessary tasks to perform prior to creating the users in your environment.

Complete the following tasks before you add users to the system:

1. If necessary, create individual sites so you can select them when you create each new user.
   Create individual sites only if your Vocera system supports users at multiple physical locations. Otherwise, leave the **Site** field blank and Vocera will assign the user to the Global site automatically.
2. Create departments and other groups so you can select them when you create each new user.
3. Develop a systematic method for assigning a unique user ID to each user. Users enter their own user IDs to access the User Console, and they enter the user IDs of other users to send an email message from a mail client to a badge.
   Here are some possible methods for assigning user IDs:
   - Make them the same as existing employee ID numbers.
   - Make them the same as existing email addresses, but without the domain reference. For example, if a user's email address is zrohina@yourcompany.com, the user ID could be zrohina.
   - Combine the initial of the first name and the full last name of a user to create a user ID. For example, if a user's name is zami rohina, the user ID could be zrohina.

   You can use any combination of alphanumeric values to create a user ID. Pure alphabetic values are typically easier for users to remember. However, in certain situations, you may need to use numeric or alphanumeric values for user IDs.

   For example, Vocera uses the user ID as a PIN to uniquely identify users to a nurse call management system. if you are integrating Vocera with a nurse call management system that requires numeric or alphanumeric PINs, you can provide these values as user IDs.
4. When you enter names into the system, use the character set of the locale. For example, Celine would not be pronounced the same way in French as Céline. It may therefore be necessary to add alternate spoken names (for example, "Sailine") or new dictionary entries.

Adding or Editing a User Profile

Learn the steps for editing a user profile in the Adminstration Console.

Use the Add/Edit User dialog box to create or edit a user. Individual pages in the Add/Edit User dialog box let you specify different types of information about the user you are creating or editing.

Information in a user profile is organized into the following categories. Each category has its own page in the Add/Edit User dialog box.

- Basic User Information on page 17

To add or edit a user profile:

1. Click **Users** in the navigation bar.
2. Click **Add New User** to create a user profile, or choose a user name from the list and click **Edit User** to edit an existing user profile.

   The **Search for User** option can help you find a user name quickly. You can search by typing last name, first name, and user ID in any order in the **Search** field. As you type, autocomplete assists by displaying the closest match in drop-down menu that appears below the **Search** list.

   > **Note:** If you enter user information proceeded by a comma, the autocomplete feature no longer displays predicted search results.

3. The Add/Edit User dialog box opens. Add or edit data as appropriate.
4. After working with a page in the dialog box, do one of the following:
   - Click **Save** to save changes, close the Add/Edit User dialog box, and display the Users page.
   - Click **Save & Continue** to save the user profile and leave the Add/Edit User dialog box open to add or edit another user.
   - Click another tab in the Add/Edit User dialog box to enter additional user information.

Adding or Editing a Group

Use the Add/Edit Group dialog box to create or edit one group at a time. Individual pages in the Add/Edit Group dialog box let you specify different types of information about the group you are creating or editing.

You can change group information at any time. To ensure that no call activity is interrupted, changes take effect as soon as no calls or Genie sessions that affect the group are in progress.

> **Note:** When you need to add a large number of groups or group members, you can save time by importing them directly from CSV files to the Vocera database. See Importing Data from a CSV File on page 14.

After you create groups, be sure to record name prompts for them. If you record prompts, the Genie uses them instead of synthesizing names when speaking to users.

To add or edit a group:

1. Click **Groups** in the navigation bar to display the Groups page.
2. Click **Add New Group** to create a group profile, or choose a group name from the list and click **Edit Group** to edit an existing user profile.

   The **Search for Group** option can help you find a group name quickly. As you type a name, Search for Group finds the closest match in the list.

3. The Add/Edit Group dialog box opens. Add or edit data as appropriate.
4. Do one of the following:
   - Click **Save** to save changes, close the dialog box, and return to the Groups page.
   - Click **Save & Continue** to save changes and leave the dialog box open to create another group.
   - Click another tab in the dialog box to enter additional group information.

Adding or Editing a Device

As soon as a Vocera device arrives at a site, its identifying information should be entered into the Vocera system so that it can be tracked and monitored appropriately.

This should be done even before the device is configured. This helps prevent the device from being lost or transferred to another department. It also allows you to monitor and report on the device status.

There are three ways devices can be added to the Vocera system:

- Automatically load devices when they connect to the Vocera Voice Server. See Automatically Loading Devices into the System on page 30.
- A system administrator can import devices from a CSV file. See Importing Data from a CSV File on page 14.
- A system administrator or system device manager can add devices using the **Devices** screen in the Administration Console.

> **Note:** Group device managers cannot use the Administration Console to add devices.

To add or edit device information using the **Devices** *screen:*

1. Click **Devices** in the navigation bar.
2. Click **Add New Device** to add information for a new device, or choose a device from the list and click **Edit Device** to edit information for an existing device.

   The **Search** option can help you find devices quickly. In the **Search By** list, select a field to search, and then type a value in text field and click **Search**. As you type a search value, the field displays a drop-down list of closest matching values.
3. The Add/Edit Device dialog box opens. Add or edit data as appropriate.

   To ensure the accuracy of serial numbers and MAC addresses, you can use a barcode scanner to scan device labels or inventory sheets. For more information, see Using a Barcode Scanner to Add Devices on page 31.
4. After working with a page in the dialog box, do one of the following:
   - Click **Save** to save changes, close the Add/Edit Device dialog box, and display the Devices page.
   - Click **Save & Continue** to save the device information and leave the Add/Edit Device dialog box open to add information for another device.

Adding or Editing an Address Book Entry

When you add or edit an address book entry, you provide basic information to identify the entry, then you optionally provide speech recognition information.

> **Note:** When you need to add a large number of address book entries, you can save time by importing them directly from CSV files to the Vocera database. See Importing Data from a CSV File on page 14.

The Add/Edit Entry dialog box provides two pages where you can enter information: the **Entry Information** page and the **Speech Recognition** page.

To add or edit an address book entry:

1. Click **Address Book** in the navigation bar.
2. Click **Add New Entry** to add a new entry, or choose a name from the list and click Edit Entry to edit an existing site.

   The Add/Edit Entry dialog box appears.

The **Search for Entry** option can help you find a name quickly. As you type a name, Search for Entry finds the closest match in the list.

3. Enter basic information in the Entry Information page.

   See Basic Address Book Entry Information on page 14.

4. (Optional) Enter speech recognition information in the Speech Recognition page.

   See Speech Recognition on page 15.

5. Save your address book entry in either of the following ways:

   • Click **Save** to save the entry and return to the Add, Edit, and Delete Entries page.

   • Click **Save & Continue** to save the entry and begin entering a new address book entry.

Importing Data from a CSV File

A CSV file lets you specify most of the information you can enter when you create an entry in the Administration Console.

When you enter data through the Administration Console, you use one of the Add dialog boxes to specify all the related information for a single entry. For example, to create a new user, you use the fields and tabs in the **Add New User** dialog box to provide user information, speech recognition, group membership data, and so forth.

If you need to enter a large amount of the same kind of data at a single time, however, it is faster to import it from a specially formatted CSV (comma separated value) file. For example, when you first load the Vocera database, it is often faster to import data for all your users from a single CSV file, rather than to create each user individually in the Administration Console.

Note: The Vocera Voice Server supports CSV files up to 1 MB in size. If a CSV file that you want to import is larger than 1 MB, break it up into multiple files.

A CSV file lets you specify most of the information you can enter when you create an entry in the Administration Console. Each line in a CSV file represents a separate database entry. Within each line, commas separate the values that qualify the entry.

For example, each line in the CSV file you use to import user data represents a single user. Within each line, commas separate the values that you would enter in the fields and tabs of the **Add New User** dialog box.

Basic Address Book Entry Information

Use the **Entry Information** page (or the corresponding fields in the data-loading template) to provide basic information about a specified address book entry. The **Entry Information** page includes the following fields:

Table 3: Address book information fields

Field	Maximum Length	Description
Entry Type	n/a	Use the **Entry Type** radio buttons to identify the type of entry you are adding to the address book: • Choose **Person** to specify that the contact information you are providing is for an individual. • Choose **Place** to specify that the contact information you are providing is for a place. **Note:** This field does not appear in the Address Book data-loading template. In the template, you implicitly specify the entry type as a person by providing a value in the **First Name** column or as a place by leaving the **First Name** column blank.

Field	Maximum Length	Description
First Name, Last Name, Name	50	Provide a name for the address book entry as follows: • If you are entering contact information for a person, use the **First Name** and **Last Name** fields to specify the full name of the individual. • If you are entering contact information for a place, use the **Name** field in the Add/Edit dialog box (called **Last Name or Place Name** in the Address Book data-loading template) to specify the name of the organization or place. The name must start with a letter or digit. It must contain only letters, digits, spaces, apostrophes ('), underscores (_), or dashes (-). No other characters are allowed. By default, the speech recognition system uses the name you enter to recognize address book entries. If users refer to an address book entry by something other than the name you enter here, provide an Alternate Spoken Name in the Speech Recognition tab.
Phone	75	Optionally provide a phone number for the person or place in the **Phone** field.
Pager	75	Optionally provide a pager number for the person or place in the **Pager** field. If you enter a value for this field, any user can issue the "Send a page" voice command to send a numeric page to this address book entry; when the recipient returns the call, it is connected directly to the user's badge. To identify this pager as a Vocera Messaging Platform pager number, prefix the number with a "w".
Email Address	40	Optionally enter an **Email Address** to allow users to send voice messages as an email attachment. **Note:** You must also configure the settings on the Email page of the Administration Console to enable this feature.
Site	50	Use the **Site** field to specify the home site for the address book. In the Add/Edit Entry dialog box, click the **Select** button to open the Select Site dialog box, then choose a name from the list and click **Finish**. • If your organization has multiple sites connected to the same Vocera Voice Server, choose the home site where users need to access this address book entry. If the entire organization uses this entry, choose **Global**. • If your organization does not have multiple sites, accept the default **Global** setting. When working in the data-loading template, leave this field blank to accept **Global**.

Speech Recognition

Use the Speech Recognition page (or the corresponding fields in the data-loading template) to provide alternate spoken names, phonetic spellings, or additional identifying information so the speech recognition software can recognize variations of a name. The Speech Recognition page includes the following fields:

Defining Alternate Spoken Names

Table 4: Speech recognition fields

Field	Maximum Length	Description
Alternate Spoken Names	50	Use these guidelines to ensure the best result when you are defining alternate names for users: • **Person, Group, and Location Names**–If users refer to a person, group, or location in various ways, enter each variation in a different field. For example, enter Bob Jones and Rob Jones in addition to Robert Jones. Similarly, enter a nickname that the person or place is known by, such as Skip Jones. • **Digits and Special Characters in Name Fields**–The names you provide must start with a letter or digit. They must contain only letters, digits, spaces, apostrophes ('), underscores (_), or dashes (-). No other characters are allowed. If you use special characters, especially apostrophes ('), they must be used adjacent to the surrounding letters and may not be separated by spaces. For example, enter O'Neill Staff or O'Neill's Staff, never O'Neill ' s Staff **Note:** Even though these special characters are allowed, it is unlikely that an alternate spoken name would need underscores (_), or dashes (-). • **Staff IDs**–It is recommended that you do not create an alternate spoken name that contains numeric digits only. For example, a staff ID with numbers and no letters. 567748 Entering numeric staff IDs is permitted. However, using numeric values only might result in • Slower Genie response times • Problems with phone number recognition • **Acronyms and Initials in Alternate Spoken Names**–If people use an acronym or initials to refer to an address book entry, provide them as a series of letters separated by spaces. For example, if users refer to Easton Medical Clinic as EMC, enter E M C. Similarly, enter A C Hoyle for A.C. Hoyle. For Armandeep Munindar Gill, also enter A M Gill rather than A.M. Gill. • **Unusual Pronunciation**–If a name has an unusual or confusing pronunciation, or silent letters, enter a name that is spelled as it is pronounced. For example, if the system does not recognize the name Jodie Dougherty, you could enter Jodie Dockerty. • **Professional Titles in Alternate Spoken Names**–If users refer to a person by his or her title, provide the full spelling of the title rather than an abbreviation. For example, enter Father Brown instead of Fr. Brown, or Professor Lindsay instead of Prof. Lindsay. • **Doctor Title in Alternate Spoken Names**–When adding or editing user profiles, you do not need to include the Doctor title as part of the user's name in the **Alternate Spoken Names** (ASN) field on the **Speech Recognition** tab. Instead, check the **Doctor Prefix** check box. When you speak a command using one of the ASN variations, Vocera understands the user to whom you are referring. For example, when you speak, Call Doctor Michael Smith, the Vocera Genie knows that you are referring to Doctor Michael Smith. You could also speak, Call Doctor Smith or Call Doctor Michael and the Genie will find the user because the **Doctor Prefix** option is checked.

Field	Maximum Length	Description
Identifying Phrase	100	Optionally specify an **Identifying Phrase** to help Vocera distinguish this user from another whose first and last names are spelled the same. For example, if there are two users named Mary Hill on the system, but they are in different departments, you could enter `Mary Hill in Pediatrics` as the identifying phrase for one user and `Mary Hill in Admissions` for the other.

Basic User Information

The **User Information** page of the **Add/Edit User** dialog box (or the corresponding fields in the data-loading template) lets you specify basic information about a user such as a user name, user ID, and password, as well as accounting information such as an employee ID and cost center ID.

Table 5: Basic user information fields

Field	Maximum Length	Description
First Name, Last Name	50	Enter the user's **First Name** and **Last Name** in the corresponding fields. The name must start with a letter or digit. It must contain only letters, digits, spaces, apostrophes ('), underscores (_), or dashes (-). No other characters are allowed. By default, the speech recognition system uses the names you enter to recognize users. If people refer to a user by something other than the name you enter here, provide an Alternate Spoken Name in the Speech Recognition tab.
User ID	50	Enter a **User ID** that is not already assigned to another user on the system, being careful to choose a name that you and the user can easily remember. The user ID is not case-sensitive. The User ID must contain only letters, digits, spaces, periods (.), underscores (_), or dashes (-). No other characters are allowed. It must not begin or end with a space. **Note:** You must have System Administrator or Tiered Administrator permissions to change or enter the **User ID**.
Employee ID	50	Optionally use the **Employee ID** field to specify a unique value that identifies a Vocera user. **Note:** You must have System Administrator or Tiered Administrator privileges to change or enter the **Employee ID**.
Password	25	Optionally enter a **Password** of five to 25 characters for the user, and re-enter the password to make sure you typed it correctly. Letters, digits, spaces, periods, dashes (-), asterisks (*), and underscore characters (_) are allowed. The password is case-sensitive. If Vocera authentication is used, the password is required for tiered administrators, and Staff Assignment users. It is not required to access the User Console. If Active Directory authentication is enabled for the Vocera Voice Server, the Vocera password is not required. If you have specified an **Initial User Password** on the Passwords page of the System screen, Vocera automatically adds it to a profile that has a blank password after you save the profile. Initial user passwords do not affect existing user profiles, only profiles that you create after specifying the initial password. **Note:** This field does not appear in the data-loading template.

Field	Maximum Length	Description
Re-enter Password	25	Retype the same password you entered in the Phone Password field. **Note:** This field does not appear in the data-loading template.
Email Address	60	Enter the user's email address to take advantage of these features: • Other users can send voice messages from their badges to this user's email inbox. Vocera sends voice messages to an email address as .WAV file attachments. Users can listen to these messages with the Windows Media Player and other players. • The Vocera system administrator can send the user an email from the Administration Console with instructions on how to install and configure Vocera Connect. • The Vocera system administrator can integrate the user with Vocera Messaging Platform (VMP). If so, enter a unique email address. Otherwise, the page is not sent as an alert through VMP. **Note:** To enable email features, you must also configure the settings on the Email page of the Administration Console
Site	50	Use the **Site** field to specify the user's home site. In the Add/Edit User dialog box, click the **Select** button to open the Select Site dialog box, then choose a name from the list and click **Finish**. • If your organization has multiple sites connected to the same Vocera Voice Server, choose the home site that represents the user's physical location. • If your organization does not have multiple sites, accept the default **Global** setting. When working in the data-loading template, leave this field blank to accept **Global**.
Cost Center	100	Optionally specify a value in the **Cost Center** field. A cost center ID lets Vocera track system usage by users and potentially allows an organization to charge for relative usage.
Badge ID	12	Enter the MAC address of the user's badge in the **Badge ID** field as follows: • If the system-wide setting Login/Logout Voice Commands is enabled, you do not need to enter the Badge ID, because it will be entered automatically when the user logs in. • Login/Logout Voice CommandsIf Login/Logout Voice Commands is disabled, use the **Info** menu on the badge to find the Badge MAC address, and enter this address in the Badge ID field. The MAC address of a badge is also printed near the bottom of the white label under the battery.

Field	Maximum Length	Description
Custom 1	100	(Optional) Enter up to 100 characters to define a custom attribute for user profiles such as might be needed for integrations with external data sources. For example, you might need to include an external system identifier such as those used in Electronic Health Record (EHR) and Nurse Call systems. This field may be uploaded from in bulk add or updates.
Custom 2	100	(Optional) Enter up to 100 characters to define a custom attribute for user profiles such as might be needed for integrations with external data sources. For example, you might need to include an external system identifier such as those used in Electronic Health Record (EHR) and Nurse Call systems. This field may be uploaded from in bulk add or updates.
Temporary User	n/a	Optionally allows you to create a temporary Vocera user account. The first message sweep that occurs after midnight on the expiration date automatically removes a temporary user account. You should always delete user accounts that are not necessary. When a temporary user expires, Vocera deletes all information about the user from the database, simplifying maintenance for the system administrator. **Note:** This field does not appear in the data-loading template.
Expiration Date	n/a	Specifies the last full day that a temporary user account is available. The first message sweep that occurs after midnight on this date automatically removes the temporary user. This field is required if you check the **Temporary User** field. When a temporary user account expires, all information about the user is removed from the Vocera database, and the user can no longer log in. Select an expiration date by clicking the calendar icon to the right of the field, or type the date in the field. If you type the date, use the correct date format: United States: `mm/dd/yyyy` Other locales: `dd/mm/yyyy`

User Phone Information

The Phone page of the Add/Edit User dialog box (or the corresponding fields in the data-loading template) lets you provide telephone numbers and additional phone-related information for each user. If your site has the telephony integration option enabled, entering telephone numbers for users enables connectivity between the badge, on- and off-site telephones, and pagers. If you do not enter values for these numbers, the Genie informs users who try to access these features that the number is not available.

Table 6: User phone information fields

Field	Maximum Length	Description
Desk Phone or Extension	50	Enables the following features: • Allows users to forward or transfer calls from their Vocera devices to their desk phones. • If no Vocera Extension is specified, allows outside callers to connect to a user's Vocera device by entering the user's desk extension at the Vocera hunt group prompt, instead of saying the user's name. • Allows users to send a page and receive the return phone call from a person they paged on their badges. • If users have appropriate permission and have Vocera Access Anywhere enabled, the Desk Phone or Extension field allows users to be authenticated by Caller ID when they call the Vocera hunt group number.
Cell Phone	50	Allows users to forward calls from a badge to a cell phone. If users have appropriate permission and have Vocera Access Anywhere enabled, the Cell Phone field allows users to be authenticated by Caller ID when they call the Vocera hunt group number.
Home Phone	50	Allows users to forward calls from their badges to their home phones. It also allows users take advantage of the "Call My House" address book entry.
Pager	50	Allows users with the proper permissions to receive numeric pages on their pagers from other badge users who issue the "Page" voice command.
Vocera Extension	50	Allows a user to route calls made to this virtual extension to go to their Vocera device instead. If the Vocera Extension field is filled in, it is used for • Direct dialing from smartphone keypads • Paging callbacks • Vocera hunt number access If you leave this field blank, smartphone users and outside callers can dial the user's desk phone to be routed to the user's Vocera device. Because the Vocera extension is a virtual phone number, you can put any number in the Vocera Extension field. If a user already has a desk phone number, you can reuse that number for the Vocera Extension field but prepend a digit, such as 8, to make the number unique in the Vocera system. Vocera extensions are not constrained by fixed-length numbers for your PBX. You can also enter DID numbers for Vocera extensions.
Dynamic Extension	50	As Vocera assigns dynamic extensions, they appear in this read-only field. Because dynamic extensions are assigned on-demand, this field may be empty even after you enable the dynamic extensions feature. Similarly, this field will continue to display an expired number that has not been reassigned; the user keeps the number as long as it is available. See the Vocera Telephony Configuration Guide for more information.
PIN for Long Distance Calls	50	Allows an organization to authorize or account for telephone usage and to distribute telephone costs among different users, departments, or sites. A PIN template can include digits, special characters, and PIN macros.
Enable Vocera Access Anywhere	n/a	When this option is checked, the user can access the Genie from a telephone to perform Vocera functions other than basic calling. The number of users that can use the Vocera Access Anywhere feature is controlled by your Vocera license.

Field	Maximum Length	Description
		If you check this box, make sure you enter a Phone Password for all users that are not authenticated by Caller ID when they access the Genie from a phone. **Note:** This field does not appear in the data-loading template.
Phone Password	25	Password used to authenticate the user when accessing the Genie from a phone. The Phone Password must be five to 25 characters consisting of letters or numbers. Special characters are not allowed. Do not enter your regular Vocera password that you use to log into the User Console. **Note:** This field does not appear in the data-loading template.
Re-Enter Phone Password	15	Retype the same password you entered in the Phone Password field. **Note:** This field does not appear in the data-loading template.

You must set permissions to allow users to forward calls to telephones and to allow users to have toll or toll-free pager numbers.

User Speech Recognition

The **Speech Recognition** page of the **Add/Edit User** dialog box (or the corresponding fields in the data-loading template) lets you provide variations of a user's name or identifying phrases to assist in speech recognition.

Table 7: User speech recognition fields

Field	Maximum Length	Description
Doctor Prefix	Check box	Check the **Doctor Prefix** check box to indicate the user is a Doctor. If you are using this option, it is not necessary to also type Doctor in one of the **Alternate Spoken Name** (ASN) fields. The recommended ASN entries in the three fields are • <Last name> Example: `Smith` • <First and Last names> - Example: `Michael Smith` • <First name> or a nickname if the user is commonly known by a nickname When you speak a command such as, Call Doctor Smith, Vocera's speech recognition knows you are calling Doctor Michael Smith because **Doctor Prefix** is checked.

Field	Maximum Length	Description
Alternate Spoken Names	50	Use these guidelines to ensure the best result when you are defining alternate names for users: • **Person, Group, and Location Names**–If users refer to a person, group, or location in various ways, enter each variation in a different field. For example, enter Bob Jones and Rob Jones in addition to Robert Jones. Similarly, enter a nickname that the person or place is known by, such as Skip Jones. • **Digits and Special Characters in Name Fields**–The names you provide must start with a letter or digit. They must contain only letters, digits, spaces, apostrophes ('), underscores (_), or dashes (-). No other characters are allowed. If you use special characters, especially apostrophes ('), they must be used adjacent to the surrounding letters and may not be separated by spaces. For example, enter O'Neill Staff or O'Neill's Staff, never O'Neill ' s Staff **Note:** Even though these special characters are allowed, it is unlikely that an alternate spoken name would need underscores (_), or dashes (-). • **Staff IDs**–It is recommended that you do not create an alternate spoken name that contains numeric digits only. For example, a staff ID with numbers and no letters. `567748` Entering numeric staff IDs is permitted. However, using numeric values only might result in • Slower Genie response times • Problems with phone number recognition • **Acronyms and Initials in Alternate Spoken Names**–If people use an acronym or initials to refer to an address book entry, provide them as a series of letters separated by spaces. For example, if users refer to Easton Medical Clinic as EMC, enter E M C. Similarly, enter A C Hoyle for A.C. Hoyle. For Armandeep Munindar Gill, also enter A M Gill rather than A.M. Gill. • **Unusual Pronunciation**–If a name has an unusual or confusing pronunciation, or silent letters, enter a name that is spelled as it is pronounced. For example, if the system does not recognize the name Jodie Dougherty, you could enter Jodie Dockerty. • **Professional Titles in Alternate Spoken Names**–If users refer to a person by his or her title, provide the full spelling of the title rather than an abbreviation. For example, enter Father Brown instead of Fr. Brown, or Professor Lindsay instead of Prof. Lindsay. • **Doctor Title in Alternate Spoken Names**–When adding or editing user profiles, you do not need to include the Doctor title as part of the user's name in the **Alternate Spoken Names** (ASN) field on the **Speech Recognition** tab. Instead, check the **Doctor Prefix** check box. When you speak a command using one of the ASN variations, Vocera understands the user to whom you are referring. For example, when you speak, Call Doctor Michael Smith, the Vocera Genie knows that you are referring to Doctor Michael Smith. You could also speak, Call Doctor Smith or Call Doctor Michael and the Genie will find the user because the **Doctor Prefix** option is checked.
Identifying Phrase	100	Optionally specify an **Identifying Phrase** to help Vocera distinguish this user from another whose first and last names are spelled the same. For example, if there are two users named Mary Hill on the system, but they are in different departments, you could enter `Mary Hill in Pediatrics` as the identifying phrase for one user and `Mary Hill in Admissions` for the other.

Field	Maximum Length	Description
Enable Frequently Called User	Checkbox	Enables or disables this user to be included in the weighting for improving speech recognition for frequently called users and departments. This option is is used in conjunction with the system-level configuration for frequently called users. You can view **Enable Frequently Called User** option on the the **Speech Rec** tab only if you have selected **Enable for Users** under **Favor Frequently Called** section on the **System** > **Preferences** page. By default, **Favor Frequently Called** option is disabled for users and departments.

Group Membership

The Assign User to Groups page of the Add/Edit User dialog box lets you specify the groups each user belongs to.

Note: You cannot add members to or remove members from the built-in Everyone group. The Vocera Voice Server maintains membership in the Everyone group automatically.

To specify group membership:

1. Add the user to a group by clicking **Add**, selecting the group name or names from the list that appears, and clicking **Finish**.
   The groups appear in the **Group Name** list. Vocera indicates the permissions resulting from group memberships as check marks in the **Permissions** list.
2. Remove the user from one or more groups by selecting the groups and clicking **Delete**.
   The names are removed from the **Group Name** list.

Department List

The Departments page displays the list of departments a user belongs to. You cannot add a user to a department directly—Vocera determines department membership according to the groups that users are assigned to. That is, if a user is a member of a group, and that group has the **Group Type** property set to Department, then the user is also a member of that department. If a user is a member of a group and that group has the **Group Type** property set to Subdepartment, then the user is also a member of any parent department group(s).

Vocera populates the Departments page when you save the user profile. If you are creating a new user and assigning that user to groups, you will not see any information in the Departments list until you save the user profile.

When you export users to a `.csv` file, Vocera populates this field for informational purposes. When you import users through the data-loading template, any value in this field is ignored, because you cannot assign department membership directly.

Best Practices

Lean about best practices for setting up the Vocera database using the Administration Console.

Best Practices for Configuring Groups

Learn about guidelines for configuring Vocera groups.

Group Membership

There are two basic types of groups:

- Department groups
- Role-based groups

Here are suggestions to set up groups for each unit/department:

Department Groups

Department groups are large groups of people working towards a common goal (typically) in a geographically similar area (a unit/floor). Department groups generally have role-based groups as members as opposed to having specific staff as members.

For example I C U would be a department group, having only role-based groups such as I C U Nurse, I C U Tech, I C U Unit Secretary, I C U Nurse Manager, and so on, as members.

Role-based Groups

Within the large groupings of people, department groups, further sub-division into smaller groups by role/position is possible (and desirable). Not everyone in a department does the same job. These subdivisions are considered role-based groups. The following table provides some examples of role-based groups.

Table 8: Role-based groups

Role-based Group	Description
Common Role-Based Groups	These are sub-groupings of people who have a somewhat specific duty to perform1. Examples of common role-based groups include: nurses, techs (nursing assistants), unit secretaries, and physicians. Each of these sub-groupings of people typically has staff names as members. These groups may have other common role-based groups as members as well. However, they usually do not include managerial role-based groups as members. Common role-based groups can have staff who are always members of the group (static) or can have staff who change frequently as needed (dynamic). Common role-based groups are usually members of a department group. Avoid getting too granular with your role based groups. As a general rule, if you don't need to give special permissions or send a message/broadcast to them as a specific grouping of individuals, you don't need to make a separate group for them. For example, I C U Nurse, I C U Tech, and I C U Unit Secretary are examples of common role-based groups and would be members of the I C U department group.

Role-based Group	Description
Managerial Role-Based Groups	This type of role-based group is also known as a special role-based group. Managerial role-based groups are nested as members of a departmental group. Members of special role-based groups have been promoted or hired into this role and may not want to receive general calls to the "associated" role-based group. Often these special role-based groups are not the correct personnel to respond to the calls anyway or are frequently unavailable due to meeting schedules. I C U Nurse Manager is an example of a managerial role-based group. I C U Nurse Manager would not typically be a member of the I C U Nurse group and would be a member of the I C U department group.
Room/Bed Role-Based Groups	Room/bed role-based groups are created to facilitate contacting the caregiver(s) responsible for a specific patient. Having a caregiver in a room based group allows other clinicians, doctors, or even patients and patients' families to contact the caregiver responsible for a particular patient without needing to know the caregiver's name. Hospitalists are particularly interested in being able to reach the correct nurse for their patient without researching "who" is responsible for the patient on a particular shift. These groups are often established to interact with nurse call or patient monitoring integrations. Room/bed role-based groups generally have dynamic membership that changes from shift to shift. An example of a room/bed role-based group would be a group named Room 103 A (a patient room in the I C U Department). This room/bed role-based group is used by staff in the I C U department, but it is not nested under the I C U department group.

Group Permission and the Charge Role

Almost every healthcare unit has a "charge" role. This is a nurse responsible as a lead for a shift. The changing membership shift by shift makes it a dynamic group. For ease of database administration, allow an entire group within the department to add/remove themselves from their particular "charge nurse" group. Assign the group of nurses needing to add/remove from the charge group as the "group of users permitted to add themselves to this group" under the permissions tab for the charge group. By making this permission somewhat broad (by allowing the entire nurse group to add/remove themselves even though there may only be a subset of nurses that will fill this role), administration is simplified as nurses take on this role at varying times.

For example, all I C U Nurses can add/remove themselves from the "I C U Charge Nurse group."

Group Nesting

Why do we nest groups? Group nesting reduces the number of administrative actions necessary with regard to group membership(s), permission(s), and access to specific Vocera feature sets. The following figure shows an example of nested groups:
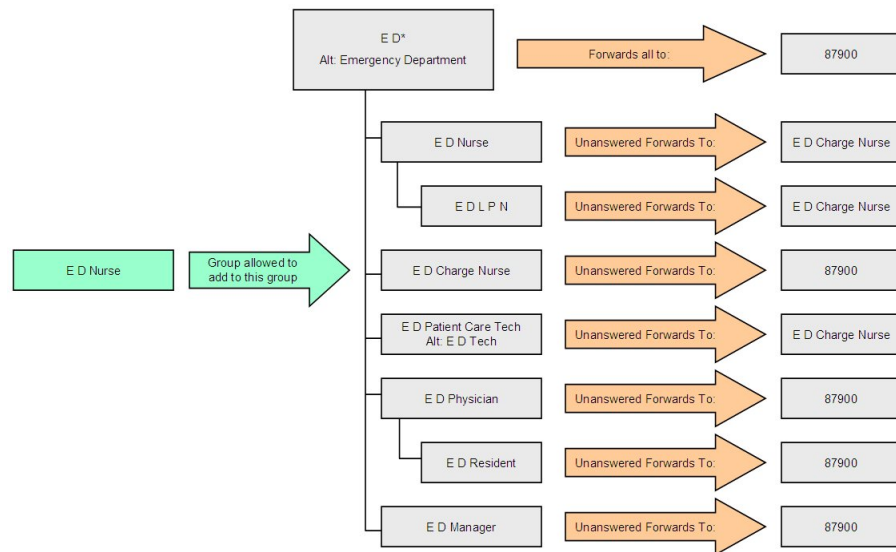
Figure 4: Nested groups

The E D departmental group would only have listed on the members tab in the Administration Console: E D Nurse, E D Patient Care Tech, E D Physician, and E D Nurse Manager.

The E D LPN group may be nested in the E D Nurse group as they would typically be expected to respond to the same broadcasts as an E D Nurse.

The E D Resident group is nested in the E D Physician group allowing them to receive calls, broadcasts, and messages to the E D Physician group.

It is not required to nest the E D Charge Nurse group within the E D Nurse group. The members of the E D Charge Nurse group (in this example) are already an E D Nurse or they would not have the ability to add themselves to the E D Charge Nurse group. It may be desirable to nest it within the E D departmental group for purposes of understanding and compartmentalization.

The E D Nurse Manager is NOT nested in (a member of) the E D Nurse group as this is typically a person who has hired for/promoted to this managerial role and will typically not be providing direct patient care or want to receive calls destined for the E D Nurse group. Even though the E D Nurse Manager is not nested within the E D Nurse group, they can still be notified of situations within the department.

Propagating Permissions

Because permissions to access the various Vocera features are granted by group, there is a benefit to nesting groups. For example, if we refer to the E D example above, the E D Nurse Manager group is a member of the E D department group. One could deduce that if the nurse Jane Smith is the E D Nurse Manager and a member of the E D Nurse Manager group, and the E D Nurse Manager group is a member of the E D (department group), then Jane Smith is a member of the E D department group. The permissions that you specify for a group flow down to the members of nested groups all the way through to the lowest group level (if A —> B, and B —> C, and C —> D, then A —> D).

Call Flows

Call flows unlock the power of Vocera and opens the door to improved communications and productivity. A call flow is the movement of calls and/or information through a particular department or group. The call flows discussed in this section are found in the settings made under the Forward tab when editing/adding a group.

The best way to identify the optimal call flow for a group is to ask the question of the group, "If I call the <Vocera Group Name> and no one answers, where you do want the call to go?" You generally do not want a call to a group to go to voicemail. This question should be asked for every group. The goal of group calling is for all groups to end with the caller reaching a live person. It is easy to set up a default call flow and will typically meet more than 85% of almost any department's needs.

Before setting up call flows for groups, you must first make a few assumptions about acceptable call flow behavior:

- When a call is placed to a group, the person calling often does not know or care which person they connect with. However, they expect to reach someone.
- If a call to a staff member is made by name, the person calling explicitly knows who they want, and it is acceptable for the call to go to voice-mail if that person does not answer.
- If a call is placed to a department group, it's likely that the caller doesn't know who or what role they really need to talk to and reaching the first random person in the department group would slow the flow of information. An explicit forward to the unit secretary will ensure the information gets to the right person to receive it.

Based on the previous assumptions, the following call flows are recommended:

- **Department groups** – Forward all calls to the main desk extension of the department.
- **Common role-based groups** – Forward unanswered calls to the main desk extension of the department or to the "charge" role-based group for the department. Be sure to ask this question when you interview the department about their call flow preferences.
- **Role-based groups with dynamic membership (such as a charge nurse role)** – Forward unanswered calls to the main desk extension of the department.
- **Managerial role-based groups** – Forward unanswered calls to the member of this group's desk extension or to the main desk extension of the department. By default, forward unanswered calls to their desk extension if an office extension is provided. This allows voicemail to be checked in one location if desired.

> **Note:** The managerial role-based group must have a single person as the member. If the managerial role-based group contains more than one member that does not share an extension, forward unanswered calls to the main desk extension of the department.

The Vocera Voice Server has a timeout value on the length of time allowed for a call to be connected. The call must complete in less than 50 seconds. This timeout value can affect any forwarding you set up. If a call made to a group searches through a group or groups of staff (in the case of nested groups) for longer than 50 seconds before being answered, the caller will be asked to leave a message to the original group they placed the call to. This will occur regardless if you have forwarded unanswered calls to a desk extension. This timeout exists on purpose—would you wait longer than 50 seconds to talk to someone?

Float Pools

A float pool is a pool of staff members who can be assigned to different units for a given period.

To implement float pool groups in Vocera, create a top-level administrative group for each float pool (for example, Float Nurse or Float Respiratory Therapist). This group should NOT be set to remove users on logout (uncheck the **Remove Users on Logout** box on the Member tab of the group).
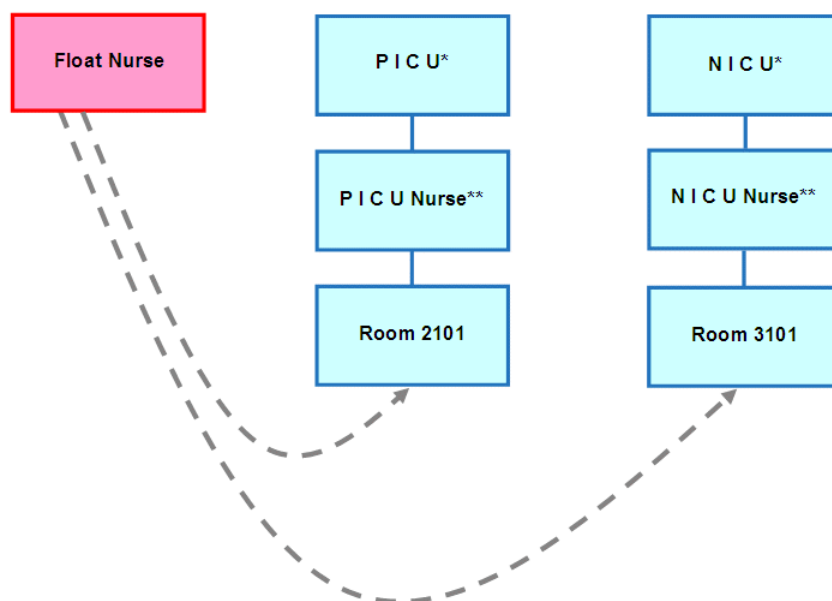
Figure 5: Example of a float pool group

In the preceding figure, an asterisk (*) indicates a department group and two asterisks (**) indicates a subdepartment group.

A float nurse can be added to a room/bed group (such as Room 3101) via Staff Assignment or by using voice commands (for example, "Add me to Room 3101"). After being added to a room/bed group, the float nurse will also be a member of the parent department for the duration of that shift, and will therefore receive calls and broadcasts to that department as well as the room/bed group.

Note: Conference Groups do not follow the rules of nesting and call flow. If a unit utilizes Conference Groups, float personnel must issue an additional command to add themselves to the appropriate Conference Group (that is, "Join the conference for N I C U Nurse").

Group Naming Conventions

Careful thought should go into the naming conventions you use for Vocera groups. If you are unfamiliar with the terms and names used by clinicians at your hospital, it will be very important for you to interview each department along with those of your staff that call these departments to determine the best group names. It may take some time to discuss naming conventions with your staff and come to a consensus, but it is well worth it.

It is very important to use the group names that the staff members use. Department and group names listed in official documentation such as directories or hospital maps typically do not reflect how the hospital staff would refer to the departments and groups in conversation. For example: Mother Baby Care Center (hospital directory) versus L & D (Labor and Delivery). If the names you assign to Vocera groups do not match the group names that the staff commonly uses, users will experience frustration when the Vocera Genie does not recognize the names, and they may complain about poor speech recognition.

It is sometimes difficult to identify the underlying cause of speech recognition complaints. The problem is often wrongly diagnosed as a flaw in the overall system rather than a problem with inconsistent or unfamiliar group names. For instance, let's say your hospital directory refers to the Orthopedics department as Davis Fourteen; however, all of your staff simply calls it Orthopedics. In this example, you should make sure the department group in the Vocera system is named Orthopedics, not Davis Fourteen.

When group naming conventions are consistent across departments, staff members will have a much easier time learning the names and will be more successful guessing the name of a group when they are not absolutely sure. Additionally, consistent naming conventions improve your ability to scale the database through ease in database administration. If you have one department that has the following groups of users, I C U Nurses, I C U Unit Secretary, and I C U Charge Nurse, you should continue this model for the N I C U group names. This allows you to re-purpose many of the same documentation and templates you have created for the previous unit and it makes it easier for staff to remember all of the group names because they will be similarly structured.

Room/Bed Naming Conventions

For role-based groups created to facilitate calls to hospital rooms or beds, follow these naming guidelines:

- If there are multiple beds in the room, follow the room number by a letter. Leave a space between the room number and the letter. For example: 2013 A, 2014 B, 2014 C, and so on.
- Don't use spelled numbers, such as "Two Zero One Three".
- Don't use alphanumeric ordinals, such as "1st", "2nd", or "3rd".

Recording Names for Groups

Although Vocera allows users to say a full range of number pronunciations, the Genie always chooses a single pronunciation when responding to users. If you don't like the Genie's pronunciation of a group name, you can record a name for the Genie to use when interacting with users. Users will hear more natural sounding speech and will also learn how to correctly pronounce group names.

For example, suppose you have a group whose name is "2035". The Genie always pronounces this group as "Two Thousand and Thirty Five", but users may commonly pronounce it as "Twenty Thirty Five". To change the Genie's pronunciation, use the "Record a Name" command to specify the name as "Twenty Thirty Five".

Best Practices for Alternate Spoken Names

The Administration Console provides Alternate Spoken Name fields where you can enter data that can help you prevent speech recognition problems by following these best practices.

When a user asks the Vocera Genie to contact a person or place in the address book, the speech recognition software tries to match the spoken name to a name in a user profile, a group, or an address book entry.

People may not always use the name that is entered in the system, however, or they may pronounce it in a way that the Vocera system does not recognize.

The following table lists important rules to follow when entering information in the "Alternate Spoken Name" fields.

DO's	DON'Ts
DO use Alternate Spoken Names for users that make sense and do so judiciously. • Create another form of the name only when the alternate name for a group or a user is used frequently by others. For instance, the department group name may be entered as Emergency Department however many people call this department by saying, "Call E D" or your co-worker Charles Baker is well known by the team as "Chuck Baker". • Enter an Alternate Spoken Name for someone who has recently had a name change. For example, after Rebecca Berry married she changed her name to Rebecca Nunn.	**DON'T** enter an alternate name unless it is really needed. Remember, the more alternate names that are entered, the more entries the system has to search through to determine a match for what a user requested in a command to the Genie.
DO use real words. For example Lee Nguyen could have a phonetic Alternate Spoken Name of "Lee When".	**DON'T** enter phonetic spellings if the words are nonsense. For instance do not enter "Lee neh wha enh" as a phonetic Alternate Spoken Name for Lee Nguyen. Since "Neh", "wha", and "enh" are not real words and are just as bad for speech recognition as not having the phonetic entry at all.
DO: • Use the Alternate Spoken Name field, if an individual uses a given name as well as a nickname. For example, Lauren Galaty also answers to Laurie Galaty. • Add an Alternate Spoken Name of "Doctor <last name>", where <last name> is the surname of the physician. Generally speaking people refer to physicians using the format of title and last name, or in some cases title and first name. However, organizations should consider adding Alternate Spoken Names of "Doctor <first and last name>" to avoid duplication. • Enter a phonetic spelling for a name if many users can not pronounce the name.	**DON'T:** • Use Alternate Spoken Names to spell out different ways of saying a numbered group name. For instance, Room 299 does not need the Alternate Spoken Name of "Room Two Nine Nine". • Create an alternate spoken name that contain numeric digits only. For example, a staff ID with numbers and no letters: 567748 Refer to the section titled "Using Numeric Values in Names" in the Vocera Administration Guide for more information.
DO completely spell out the full title or surname. For example, "Professor", "Doctor", or "Mister".	**DON'T** use the abbreviated form of titles and surnames. For example, do not enter "Prof.", "Dr." or "Mr.". .

Device Considerations

This sections lists information for you to consider when setting up your Vocera badge.

Automatically Loading Devices into the System

Vocera automatically loads new devices into the system the first time you connect to the Vocera Voice Server.

This feature ensures that every device that connects to the Vocera Voice Server is recorded by the system for inventory purposes.

When the server automatically loads a new device, it records the following device information:

• MAC Address
• Serial Number
• Site

- Type
- Color

By default, the status of automatically loaded devices is "Unregistered." The system device manager should use the **Devices** page of the Administration Console to assign unregistered devices to an owning group and change the status from "Unregistered" to "Inventory" or "Active." See Adding or Editing a Device on page 13.

Using a Barcode Scanner to Add Devices

Vocera devices have labels on the back that include barcodes for the serial number and MAC address of the device.

An inventory sheet with barcodes of the badges' serial numbers is included with every Vocera badge pack. You can use a handheld barcode scanner to scan the badge labels or the inventory sheets. When you scan a Vocera device barcode label using a scanner with keyboard emulation, the data scanned appears at the cursor as if you had typed it from the keyboard. This helps you avoid typographical errors in entering serial numbers and MAC addresses.

Tip: The system device manager should scan new devices into the Vocera system before configuring them.

When you receive a shipment of badges from Vocera, it is much easier to scan barcodes for badge serial numbers from the inventory sheet that accompanies the Vocera badge pack. The inventory sheet includes barcodes for the serial numbers of all badges packed in the box.

The following figure shows a user scanning barcodes from a Vocera inventory sheet.

Figure 6: Scanning an inventory sheet

Individual badges are shipped in a plastic clamshell that also has barcode labels. Before opening the clamshell, you can scan the barcodes of the MAC address and serial number from the back of the clamshell.

The following figure shows a user scanning barcodes from the back of a badge clamshell.

Figure 7: Scanning a badge clamshell

The following figure shows a user scanning the barcode label on the back of a Vocera badge.

Figure 8: Scanning a badge

To add devices into the system using a barcode scanner:

1. Make sure your scanner is capable of reading and scanning **Code 128** barcodes. See Barcode Scanner Requirements on page 33.
2. Obtain either the devices or inventory sheets for the devices you need to scan.
3. Log in to the Administration Console.
4. Click **Devices** in the navigation bar.
5. Click **Add New Device**. The Add/Edit Device dialog box opens.
6. Enter common values in the Add/Edit Device dialog box that are shared between all devices you are scanning.
   * If the devices share the same **Tracking Date, Owner,** and **Site,** specify values for those fields. Otherwise, leave them blank for now and fill them in later.
   * If you are assigning the devices to a group, change the status from "Unregistered" to "Inventory" or "Active."
   * If the devices are shared by multiple users in the group, make sure to check the **Shared Device?** box.

Important: These values will be used for all of the devices that you scan during the session.

7. Click the **Serial Number** field.

8. Using the scanner, scan the serial number from the device or the inventory sheet.

   > ⚠ **Important:** If you are scanning badge serial numbers, the **MAC Address** field is automatically populated, its value derived from the serial number.

9. Once the **Serial Number** and **MAC Address** fields are completed, the device is saved automatically after a brief pause. The Add/Edit Device dialog box remains open and the **Serial Number** and **MAC Address** fields are cleared so that you can add another device.

To search for a device using a barcode scanner:

1. Log in to the Administration Console.

2. Click **Devices** in the navigation bar.

3. Click the **Search By** field, and select either "Serial No" or "MAC Address."

4. With the cursor in the **Search** field, use the scanner to scan the serial number or MAC address label from the device.

5. The matching device is selected in the Devices list. To edit it, click **Edit Device**.

Barcode Scanner Requirements

To scan Vocera barcodes, you must use a scanner capable of reading and scanning **Code 128** barcodes.

Many scanners are capable of reading and scanning Code 128 barcodes by default. Otherwise, you can configure the scanner to scan such barcodes. For information on how to configure your scanner to read and scan Code 128 barcodes, refer to your scanner's documentation.

When you scan a barcode, many scanners are preconfigured to automatically add a carriage return to move to the next field. If your scanner does not move to the next field, check your scanner documentation for instructions on how to configure the suffix or postamble character.