V-Spark 3.4.3 Management Guide

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Chapter 1.   V-Spark Overview

V-Spark™ is an all-inclusive speech analysis application that enables you to visualize audio using state-of-the-art speech recognition, transcription, and text analysis technologies. V-Spark automatically transcribes audio into searchable text, then organizes and archives the data, and finally provides an intuitive web interface through which you can examine and explore that data. The information is stored in a database where the audio can be searched and analyzed for compliance, customer insights, and agent performance. V-Spark has the most complete set of speech technologies in a single solution on the market today.

The current version of V-Spark is supported on Red Hat Enterprise Linux (RHEL) and Community Enterprise Operating System (CentOS) versions 6.8 and greater, within the version 6 family.

This document is intended for administrators of V-Spark. Some experience in IT is beneficial in understanding the concepts discussed in this document. This document provides an overview of how to manage your customizable V-Spark interface. For information on how to analyze audio and call statistics using V-Spark, please see the "*V-Spark 3.4.3 Review and Analysis Guide*".

1.1.   Managing V-Spark

The V-Spark web server provides a powerful yet intuitive solution for transcribing, storing, and analyzing audio. With its growing popularity and features, there became a need for V-Spark to be able to host multiple clients on a single instance and provide different configuration access to users. This document introduces the hierarchical account management feature within V-Spark for administrators to be able to manage user accounts. The focus is to set up a secure environment where each user has the access they need to efficiently and effectively accomplish their objectives.

1.2.   Tools You'll Need

Here's what you need to get started:

- Desktop or laptop computer with secure power supply, installed with Google Chrome 14+ or Mozilla Firefox 23+.

- IP address and username provided to you upon subscription

- Fast and reliable network connection

- System admin user account access to V-Spark

Chapter 2.   Multitenancy

V-Spark supports both on-premise and cloud deployments. In both of these instances, setting up an organized and configurable multitenant solution is important for the security and functionality of the tool. Multitenancy allows multiple "tenants" or group of users to have access to the same instance of V-Spark. In the cloud, this allows multiple companies to use the same V-Spark interface without each company knowing about one another. In an on-premise deployment, this allows groups within a company to view audio independent of other groups, keeping private data separate from the larger set of company users.

2.1.   Companies, Organizations, and User Accounts

V-Spark uses a 3 level hierarchy structure to define the entities that its tenants represent. At the top, each user account is associated with a single **Company**, generally defined as the company the user works for. A Company must have at least one **Organization**, which generally represents a group or department within a company. A **User Account** has configurable company- and organization-oriented permissions. For more information about user permissions see Section 4.3, "Setting User Permissions".

2.2.   Monitored Folders and Applications

In V-Spark, audio is categorized by its source into folders and managed in the **Folders** section under **Settings**. Each folder is associated with one Organization within a Company. **Applications**, customized analytics tools, are set up in the **Applications** section also under **Settings**. Each Application can be associated with multiple folders of an Organization and cannot be shared across Organizations. These will be discussed in more detail in the Chapter 6, *Folder Management* and Chapter 9, *Application Management* .

Chapter 3.   Company and Organization Management

Companies are the highest-level administrative group in V-Spark, and contain organizations, which are separate logical groups within a company. To create or edit a company or organization, log into V-Spark, and navigate to the **Settings** page in the V-Spark ❶ **Main Menu**, shown in Figure 3.1, "V-Spark Dashboard Menus". Use the ❷ **Breadcrumb Menu** to select the Company and Organization you want to view.

Figure 3.1. V-Spark Dashboard Menus

❶   Main menu
❷   Breadcrumb menu
❸   Submenu

Assuming you are a system administrator or a user with company or organization-level create/edit permissions, you will see the **Accounts** section in the ❸ **Submenu**. There you can view or modify Companies, Organizations, and User Accounts as shown in Figure 3.2, "Accounts Settings page".
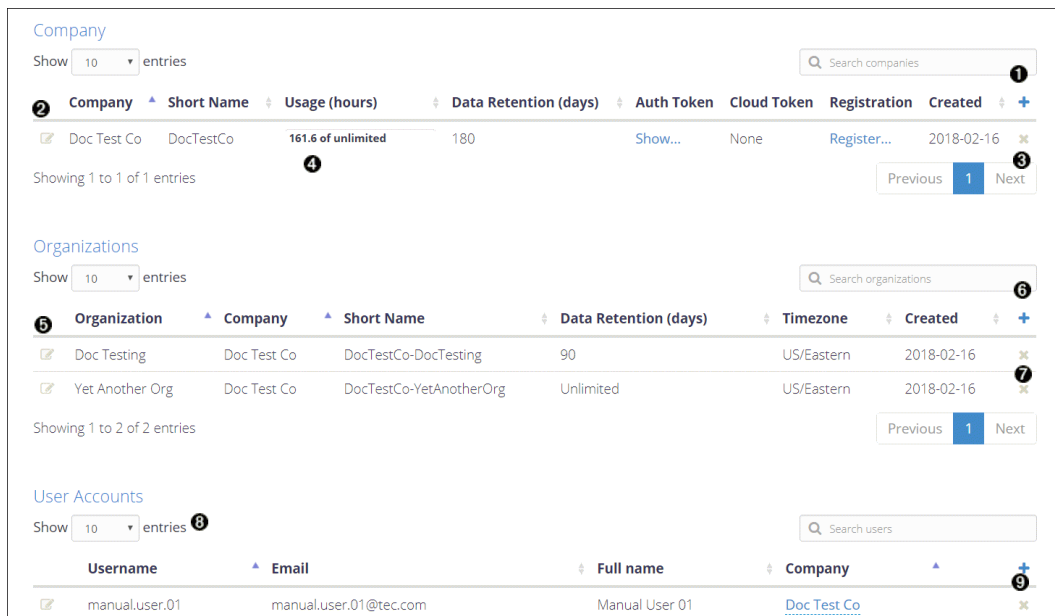
Figure 3.2. Accounts Settings page

❶   Create a new company
❷   Edit a company
❸   Delete a company
❹   View breakdown of usage by organization and folder
❺   Edit an organization

❻   Create a new organization
❼   Delete an organization
❽   Choose number of entries per page
❾   Delete a user

The next few sections explain how to create, edit, and delete a Company (if you are a **System admin**) or Organization (if you have **Create/Edit** company-level permissions for its parent company). For information on User accounts and permissions, see Chapter 4, *Users and User Account Management* .

3.1. Create a Company

> **Note**
>
> *Only **System admin** accounts have access to modify the Companies section.*

Figure 3.3. Creating a company

Create a company by clicking the blue '+' on the right side of the Companies section, shown as item ❶ in Figure 3.2, "Accounts Settings page". The dialog shown in Figure 3.3, "Creating a company" will be displayed. Fill out the fields to set up a new company. This dialog contains the following fields:

• **Company Name**: The name of the company.

• **Short Name**: Short name reference of the actual company name since Company Names may be lengthy and include spaces (spaces are not valid in the short name). The company short name *cannot* be edited after the company has been created.

- **Limit Hours**: Limit the number of audio hours a company can process through V-Spark. The **Accounts** page shown in Figure 3.2, "Accounts Settings page" displays information about the number of hours of audio that the company has used, and also shows the maximum number of hours that the company can process. Once that limit has been reached, the company can no longer process new audio, but can still use V-Spark to examine existing calls.

> **Tip**
>
> Double-click the ❹ **Usage**, value shown in Figure 3.2, "Accounts Settings page", for a company on the **Accounts page** to display a dialog where you can view detailed information about processed audio broken down by organizations and folders.

- **Data retention limit (days)**: Limits the maximum data retention days for organizations within this company. For more information about data retention limits and their implications, see Section 3.7, " Data Retention Limits for Companies and Organizations ".

At this point, you must choose between two transcription methods: appliance-based or cloud transcription, described in Section 3.1.1, "Appliance-based Transcription" and Section 3.1.2, "Cloud-based Transcription", respectively.

The final setting that must be configured before creating a company is **Application Templates**:

- **Application Templates**: The drop-down shown in Figure 3.4, "Selecting the application templates associated with a company" enables you to select which application templates should be available for that company. Templates are described in Chapter 9, *Application Management* .

Once satisfied with the setup, click **Create**.

Figure 3.4. Selecting the application templates associated with a company

3.1.1. Appliance-based Transcription

For appliance-base transcription, the following settings must be configured:

- **Servers**: This field, shown in Figure 3.3, "Creating a company", enables you to enter the name(s) of the server(s) that can be selected during the folder creation process. Multiple machines require a ";" delimiter. For example, if there were two V-Spark appliances named asr-demo and asrsrvr1, the correct entry is "asr-demo;asrsrvr1" in this location. If the servers are not found in the local area network, you will not be able to select models.

- **Models:** On the screen shown in Figure 3.5, "Selecting the models associated with a company", you can select the different language models that are available when creating new folders.

> ⭐ **Important**
>
> Models must be selected in order to setup a folder.

Figure 3.5. Selecting the models associated with a company

3.1.2. Cloud-based Transcription

Figure 3.3, "Creating a company" shows an option to **Use Cloud Transcription**. This option is only relevant for customers using the Voci V-Cloud transcription service. All other users should leave this box unchecked. When this option is selected the following settings must be configured:

- **Cloud Token**: A V-Cloud token or alias will be provided by your Voci representative. This token authorizes the system to submit and bill transcription jobs to your V-Cloud account.

- **Custom Models**: Leave this field blank to use the system's default models. Contact your Voci representative for information about using additional or custom models.

3.2. Modify a Company

To edit an existing Company, select the edit icon on the left side of the Company you want to modify, as shown in Figure 3.2, "Accounts Settings page". An **Update Company** dialog pops up which is the same as

the **Create New Company** dialog shown in Figure 3.3, "Creating a company", in which you can modify the company information.

3.3.   Delete a Company

Figure 3.6. Deleting a company

❶   The name of the Company that will be deleted
❷   The users associated with that Company whose accounts will be deleted
❸   The names of the Organizations associated with that Company that will also be deleted
❹   Type the name of the Company here to confirm
❺   Select **Cancel** to return to the Company list
❻   Select **Yes, delete this company** to confirm the deletion

⚠ **Warning**

Deleting a Company permanently removes all information associated with it, including the Company's Users, Organizations, Folders, and Applications.

Deleting a Company requires *care* and can be done using the 'x' to the right of the company information in the **Accounts** section. The red pop-up warning screen shown in Figure 3.6, "Deleting a company" highlights the data that will be deleted when the Company is deleted. You will be required to confirm

the deletion before it will occur. Confirm the deletion by entering the name of the company that will be deleted, and selecting **Yes, delete this company**. The company name is shown near the top of the dialog. For security reasons, you cannot delete your own Company, regardless of your permissions.

3.4. Create an Organization
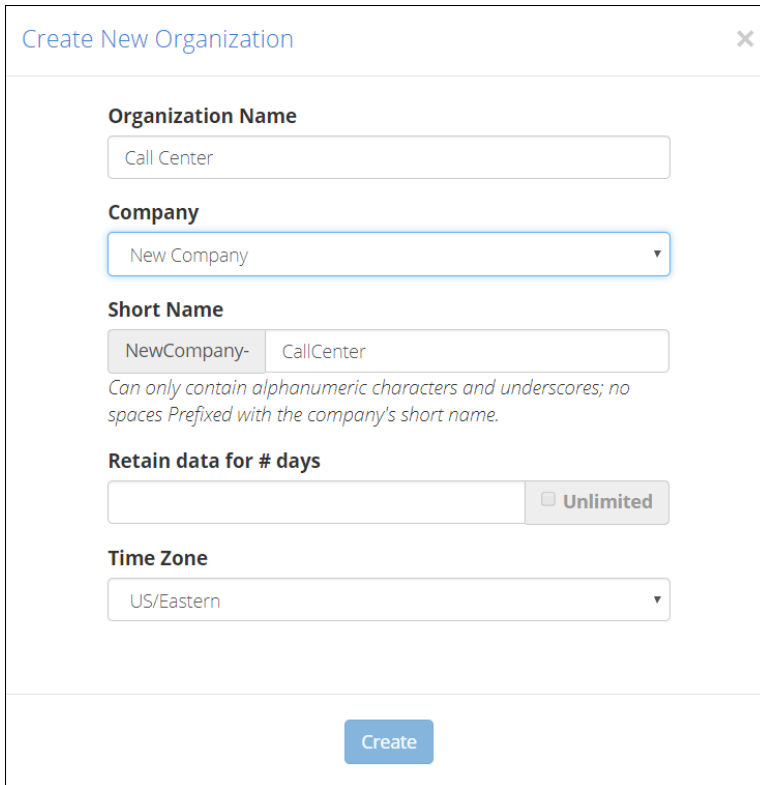
Figure 3.7. Creating an Organization

> 📄 **Note**
>
> Only System admin users or users with company create/edit permissions can modify a company's organizations.

Create an Organization by clicking the blue '+' on the right of the Organizations section. The window shown in Figure 3.7, "Creating an Organization" displays. Fill out the fields to set up a new organization. This dialog contains the following fields:

• **Organization Name**: The name of the organization within a company.

• **Company Name**: The name of the company that the organization is a member of.

• **Short Name**: Short name reference of the actual organization name (since organization names may be long with spaces). An organization's short name defaults to <company short name>-<organization name> in the dialog box. However, the user is able to change the organization portion of the short name. The short name *cannot* be changed after the organization is created.

- **Retain data for # of days**: Specifies how long calls will be retained in the system. For more information about data retention limits and their implications, see Section 3.7, " Data Retention Limits for Companies and Organizations ".

- **Time Zone**: Each organization is assigned its own time zone. This allows users of that organization to have customized dates and times specific to that time zone.

> **Note**
>
> Choose your organization's Time Zone carefully! The Time Zone that is associated with an organization cannot be modified after that organization is created.

3.5.   Modify an Organization

To edit an existing Organization, select the edit icon on the left side of the Organization you want to modify, as shown in Figure 3.2, "Accounts Settings page". An **Update Organization** dialog displays that is the same as the **Create New Organization** window shown in Figure 3.7, "Creating an Organization", in which you can modify the Organization information.

3.6.   Delete an Organization

Figure 3.8. Deleting an organization

❶   The name of the Company with which the Organization that will be deleted is associated
❷   The name of the Organization that will be deleted
❸   Type the name of the Organization here to confirm
❹   Select **Cancel** to return to the Organization list
❺   Select **Yes, delete this organization** to confirm the deletion

Warning

Deleting an Organization permanently removes all information associated with it, including all of the Organization's Folders and Applications.

Deleting an Organization requires *care* and can be done using the 'x' to the right of the organization information in the **Accounts** section. As shown in Figure 3.8, "Deleting an organization", a red pop-up warning screen displays that highlights the data that would be deleted when the Organization is deleted. You will be required to confirm the deletion before it will occur. Confirm the deletion by entering the name of the organization that will be deleted, and selecting **Yes, delete this organization**. The organization name is shown near the top of the dialog.

3.7.   Data Retention Limits for Companies and Organizations

V-Spark data retention limits specify the maximum number of days that calls will be retained before being automatically removed from the system. This automated data cleanup mechanism prevents unneeded call information from accumulating on the system, consuming disk space.

Note

The data lifetime is measured against call "datetime" metadata, which is not necessarily when the call was loaded into the system. If historical data is to be loaded, ensure that the retention limit is sufficient to retain the historical data as desired.

A company's **Data retention limit (days)** setting (shown in Figure 3.3, "Creating a company") restricts the maximum data retention limit for that company's organizations, whereas an organization's **Retain data for # days** setting (shown in Figure 3.7, "Creating an Organization") sets the actual retention period that is used for scheduled data cleanup.

Note

If a company's data retention limit is *decreased*, the data retention limits for organizations within that company are not checked to see if they are still valid. However, when an organization is updated, its data retention limit is checked to ensure that it does not exceed the data retention limits for its parent company.

If an organization's data retention limit is *decreased* to a period that would cause calls to be removed the next time data cleanup is executed, a message like the following displays:

```
Your recent data retention change for CO-ORG will delete N files at next scheduled cleanup (TIME). Click to
 cleanup now instead of waiting
```

This dialog provides a **cleanup now** option that enables you to remove the files from the system immediately.

The data retention cleanup schedule for an organization is based on its time zone and is configurable at the system level by system administrators.

Chapter 4. Users and User Account Management

User accounts are created within a single company and can have customized permissions for both entire companies and individual organizations. This chapter explains how to create, configure, and manage V-Spark user accounts.

4.1. Creating a User Account

Figure 4.1, "Company, Organization, and User Account Settings" shows the screen from which you can create, modify, and optionally delete user accounts. To display this screen, select the **Settings** menu's **Accounts** entry and scroll down to the bottom of that screen. The **User Accounts** section is the last section that displays on this screen, and is shown in more detail in Figure 4.6, "Configuring User Account Settings".

Figure 4.1. Company, Organization, and User Account Settings

> ⭐ **Important**
>
> When creating or modifying user accounts, it's important to remember that the companies and organizations that you see when displaying this dialog are those to which the account that you are logged in as could have permission to view and/or modify. To be able to set permissions for a user in any company or organization that is present in a V-Spark installation, you must be logged in as a user that has **System admin** permissions.

4.1.1. Manually Creating a User Account

To manually create a new user account, click the blue + sign at the far right of the **User Accounts** section of the screen shown in Figure 4.1. The dialog shown in Figure 4.2, "Using the Create New User Dialog" displays.
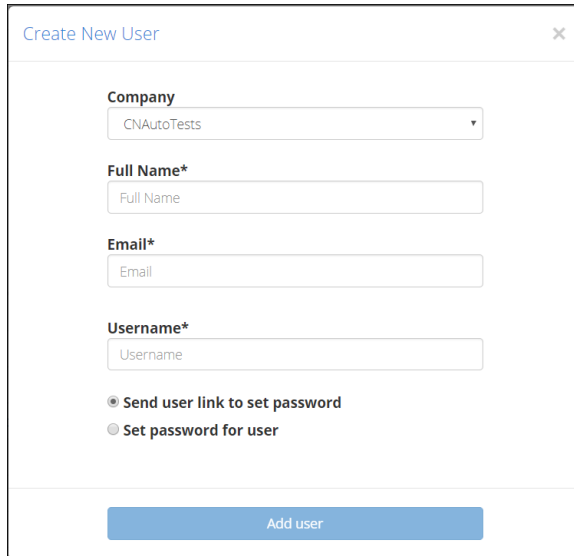
Figure 4.2. Using the Create New User Dialog

![Note icon] **Note**

If you do not see a dialog like the one shown in Figure 4.2, "Using the Create New User Dialog" but instead see the one shown in Figure 4.3, "Creating a New User with External Authentication ", your V-Spark installation has been configured to support both V-Spark's internal authentication and V-Spark integration with external authentication mechanisms. Using that dialog is explained later in this section.

When a dialog like this one displays, the suggested company is the company that is associated with the user that is currently logged in:

1. Use the **Company** dropdown to select the company that you want the new user to be associated with

2. Enter the user's **Full Name**, **Email** address, and **Username** (the user's login name for V-Spark). The email address for each user in V-Spark must be unique.

3. Specify how you want the new user to get the password that they will use to log in to V-Spark:

    a. **Send user link to set password** (Optional) - you can send the new user a link in email that they can click to set their initial password by clicking the **Send user link to set password** checkbox. Doing so sends email to the user and displays the **User settings** page, where you can set company and organization permissions for the user, enable the user's account for login, and so on.

    b. **Set password for user** (Optional) - you can set an initial password for the new user by clicking the **Set password for user** checkbox. Doing so displays a **Password** field in which you can enter a password for the user, which must be at least 6 characters long.

Figure 4.3. Creating a New User with External Authentication

c. **Use external auth method** - (Optional) - if this option is available, you can integrate the user's account with an external authentication mechanism that is available in their environment, so that they do not need to use a new password to access V-Spark. This option is only available if your V-Spark installation is configured to support external authentication mechanisms.

Clicking this option displays a drop-down list that displays the list of the authentication mechanisms that your V-Spark installation has been integrated with. Select the external authentication mechanism that you want to use from the drop-down list. Contact `<support@vocitec.com>` for more information about enabling and configuring external authentication in a V-Spark installation.

> **Important**
>
> When creating a user account that will be integrated with an external authorization mechanism, the **Username** for the account that you are creating must be the same in V-Spark as it is in the external authorization system. This username may be a simple username, an email address, or a "user principle name" (UPN), depending on the service.

4. Click **Add user** to create the new user.

Once the new user is created, the **User Settings** page for the new user displays (as shown in Figure 4.7, "Modifying User Permissions") to enable you to specify company and organization permissions for the new user.

4.1.2. Enabling Users to Request a V-Spark Account

Before a user can register for an account, the company with which their account should be associated must first exist. Once that company exists, you can enable a user to create an account for themselves for that company by copying the link location for the **Registration Link** for that company by right-clicking that link to capture the registration URL, as shown in Figure 4.4, "Copying the Registration Link". If you do

not want to manually create users (or use the API to do so), you can then send that link to employees who need V-Spark access as members of that company, so that they can request a V-Spark account.
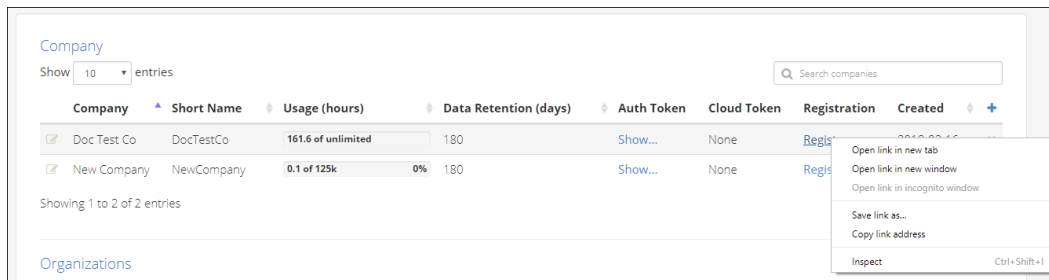
Figure 4.4. Copying the Registration Link

Note

Users can also request V-Spark accounts themselves by going to the home page for the V-Spark application and clicking the **Sign up** button in the upper right corner of the screen. In this case, whoever verifies the account will have to assign the account to a company before it can be verified.

Figure 4.5, "Signing up for a V-Spark Account" shows the Sign Up screen that users are taken to after clicking the Registration link. Users log in using their *Username*.

Figure 4.5. Signing up for a V-Spark Account

4.2.   Verifying and Enabling a User Account

Figure 4.6, "Configuring User Account Settings" shows the section of the **Accounts** page where user accounts are updated.

User Accounts

Show [10 ▼] entries   🔍 Search users

	Username	⬆ Email	⬍ Full name	⬍ Company	⬍ ＋
✏	test.user.01	test.user.01@example.com	Automated Test User 01	Doc Test Co	✖
✏	test.user.02	test.user.02@example.com	Automated Test User 02	Technologies	✖
✏	test.user.04	test.user.04@example.com	Automated Test User 04	Doc Test Co Unverified	✖

Showing 1 to 3 of 3 entries   Previous **1** Next

Figure 4.6. Configuring User Account Settings

Once a user registers, a user with create/edit permissions for the company that the user will be associated with must verify the account to validate it, and then assign user permissions for the new user across companies and organizations. To do so, any user with create/edit permissions for the company that the new account will be assigned to must do the following:

1. Log into V-Spark using an account that has create/edit permissions for the company that the new account will be associated with

2. Select the **Accounts** section of the **Settings** menu

3. Scroll down to view the **User Accounts** section

4. Make sure that the account is associated with a company, and assign it to one if it is not.

5. When a user account is initially created using the sign up page, that account must be verified before the associated user can log in using that account. Accounts can be verified in one of two ways:

   - From the screen shown in Figure 4.6, "Configuring User Account Settings", click the **Unverified** field to the left of the user that must be verified. A **Verify user** pop-up displays that enables you to select **Verified** from the left-hand drop-down menu. Click the checkmark to close this pop-up and proceed.

   - Click the icon to the left of the entry for the user to display a screen like the one shown in Figure 4.7, "Modifying User Permissions". In the **Auth** portion of that screen, click the **Unverified** field. (If the user has already been verified, the field will be labeled **Verified** and no further verification is required.) If you click **Unverified**, a **Verify user** pop-up displays that enables you to select **Verified** from the left-hand drop-down menu. Click the checkmark to close this pop-up and proceed.

6. To set a user's permissions, click the icon to the left of the entry for the user to display a screen like the one shown in Figure 4.7, "Modifying User Permissions". Configuring user permissions is discussed in Section 4.3, "Setting User Permissions".

> ### Note
>
> The **Auth** portion of the screen shown in Figure 4.7 also provides a field that enables you to temporarily disable an account. This field is either labeled **Enabled** or **Disabled**. Clicking this field displays a pop-up from which you can select the value that you want to set for this account, and either click the checkmark to accept the new value or click the **X** to close the pop-up without making changes.
>
> The **Auth** portion of this screen also includes a section to **Update Password**, where an administrator can change a user's password. Alternatively, this section provides a **Send password reset link** button that you can click to send email to the user that provides them with a link to change their password if they have forgotten it or if an administrator wants to make sure that they change their password.

4.3.   Setting User Permissions

V-Spark provides a very flexible company- and organization-oriented model for assigning user permissions and associated user capabilities.

The **Permissions** section of the screen shown in Figure 4.7 contains a row for each company or organization that has been defined in your V-Spark installation.

Figure 4.7. Modifying User Permissions

The name of the company or organization is listed at left, and the two columns of checkboxes at right enable you to define:

• **View** - a user's ability to view dashboards for that company or organization

• **Create/Edit** - a user's ability to create new data under that company or organization, and to modify existing data for that company or organization

The **Permissions** section of the screen shown in Figure 4.7, "Modifying User Permissions" enables you to modify three aspects of a user account:

• **System admin** - gives a user **Create/edit** permissions to any aspect of a V-Spark installation that can be configured. This enables them to create, delete, and modify V-Spark users, companies, and organizations, as well as modify system-wide settings, which are explained in Chapter 10, *System Management* . Giving a user **Create/edit System admin** permissions automatically selects both **View** and **Create/edit** permissions for all companies and organizations that are available in the V-Spark installation.

In Figure 4.7, note that there is no **View** permission in the **System admin** section. That is because the **View** permission is inherently available at the system level when a user already has the privilege to **Create/edit** any part of the V-Spark configuration data.

- **company-level permissions** - gives a user permissions within the specified company. **Create/Edit** permission enables the user to manage other users in that company, and to create and modify organizations. **View** permission enables the user to view dashboards and transcripts for any existing or newly created organization within the specified company.

- **organization-level permissions** - gives a user permissions within the specified organization. **Create/edit** permission enables a user to create and modify folders and applications that are associated with that organization. **View** permission enables a user to view dashboards and transcripts for that organization.
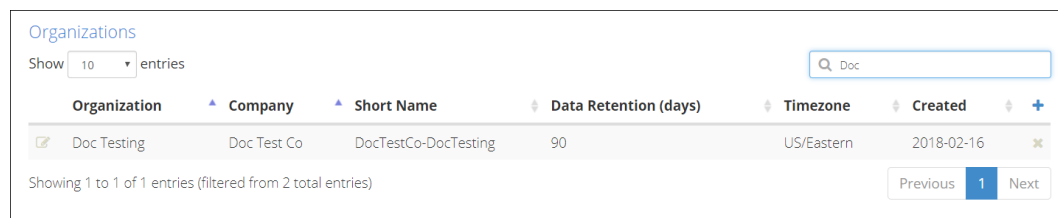
Flexibility in company-level and organization-level permission settings provides opportunities for users to see and optionally edit organizations and associated folders outside their home company. This makes it easy to empower specific users to serve as administrators across multiple organizations in a V-Spark installation.

4.4. Deleting a User Account

User accounts can be deleted by selecting the **x** at the far right of the user's entry in the **User Accounts** section of the page that displays after selecting the **Settings** menu's **Accounts** menu item. This section is shown at the bottom of Figure 4.1, "Company, Organization, and User Account Settings", and is shown in more detail in Figure 4.6, "Configuring User Account Settings"

4.5. Filtering Company, Organization, and User Lists

Each subsection of the **Settings** menu's **Accounts** page can be filtered to view just those items that you wish to look for. For example, in Figure 4.8, "Example of Filtering Organizations", typing *Doc* into the "search organizations" filter returns only those organizations that contain "doc" in their name. These filters can also be used for folders and applications under that tab of the Settings page.

Figure 4.8. Example of Filtering Organizations

Chapter 5.   Customizing your Account

Once you have signed up for an account using your given username, and logged into your **Dashboard**, click on username in the main menu at the top of your web browser. You will see a dropdown menu with the **Profile** page where you can update your account information.

5.1.   Updating Your Information

To change your password, click on the **Profile** section in the dropdown menu under your username in the upper right corner of V-Spark. The screen shown in Figure 5.1, "Updating Your User Profile" displays.

Figure 5.1. Updating Your User Profile

In this screen, you can also update your Name and Email address.

📄 **Note**

Your username cannot be changed once your account is created.

5.2.   Reporting Email settings

To change your Email settings for receiving *Monthly* and *Daily Reports*, select the reports you would like to receive using the dropdown menus in the **Email reports** shown in Figure 5.1, "Updating Your User

Profile". You have the option to select folders to subscribe to for a monthly report or daily reports. Folders are grouped by Organization, under the organization's shortname. You are able to select and receive email reports from any folders that you have permission to view.

Chapter 6.   Folder Management

The **Folders** section under **Settings** contains the **Monitored Folders** list. Monitored Folders consist of folders of audio files. The list displayed on this page is updated every minute.

The next few sections explain how to configure and manage Folders.
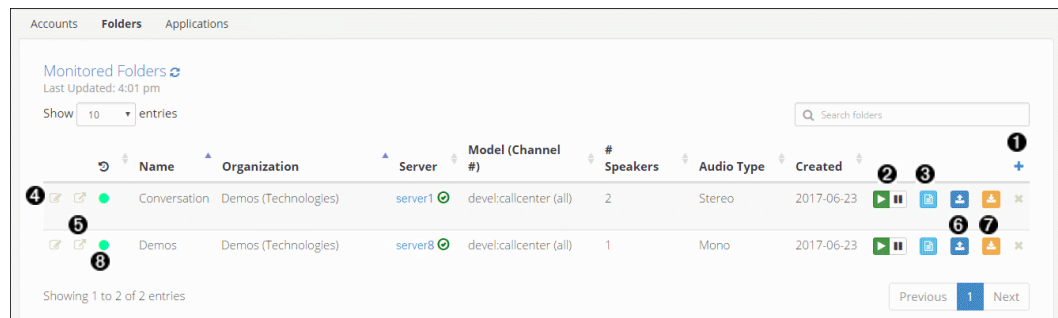
Figure 6.1. V-Spark Folder Settings

❶   Create a new folder
❷   Pause file processing for a folder
❸   View folder processing status
❹   Edit a folder
❺   View folder on dashboard
❻   Upload audio to a folder
❼   Download files from folder. See Section 7.3, "Bulk file download" for more details.
❽   Indicates how recently files were last processed. Hovering over the indicator displays the time of last completion.

6.1.   Create a Folder

You can create a new Folder by clicking the blue '+' under the **Monitored Folder** section shown in Figure 6.1, "V-Spark Folder Settings". A window displays that requests information about the new Folder, as shown in Figure 6.2, "Creating a Folder".

Figure 6.2. Creating a Folder

The following is a description of each field in this screen:

❶ **Organization**: Dropdown of which organization and company the folder belongs to.

❷ **Folder Name**: The name of the folder. Folder names are case-sensitive.

❸ **Servers**: From the dropdown, select the name(s) of the V-Spark servers that you want to use for ASR. You must specify at least one active server in order to create a folder.

> **Note**
>
> You may see an 'x' next to a language model name in the Folders table with the message, *"One or more servers does not have this model anymore."* This can occur if you have more than one server selected, and those servers do not share the same language models. This will only impact ASR if the model has been removed from all servers.

❹ **# of speakers**: The number of speakers in the audio files that are going to be placed into the folder. All language models work with all supported audio formats.

❹ **Audio Type**: For 1 channel audio, select *Mono*. For 2 channel audio, select *Stereo*. If you don't know what type of audio you have, use the **Audio Evaluator** tool described in Section 7.1, " The Audio Evaluator ".

> **Note**
>
> If your 1 channel audio contains two speakers, V-Spark will automatically diarize, or split, the audio according to speaker. For calls containing more than 2 speakers, create your folder with "1 speaker" and "mono" settings to prevent diarization.

❺ **Use Purify Text**: Cleans the text transcript of any numbers for Payment Card Information (PCI) or other sensitive numbers that are in the audio source.

❻   **Use Purify Audio**: Cleans the audio MP3 that gets generated of any locations where numbers exist for Payment Card Information (PCI) or other sensitive numbers that are in the audio source so that these numbers cannot be heard. Removing PCI information from audio and text protects a company from exposure in case of a data security breach.

> **Note**
>
> When the `Use Purify Text` and `Use Purify Audio` options are used with the 1-channel, 2-speaker settings, redaction accuracy is somewhat reduced. For maximum redaction accuracy, select 1-channel, 1-speaker in conjunction with the `Use Purify Text` and `Use Purify Audio` options. Note that this selection will prevent diarization, meaning that the 2 speakers will not be separated and distinctly labeled as different speakers on the File Details page.

Once the form has been filled out, click the "Next" button. The dialog shown in Figure 6.3, "Configuring Additional Folder Settings" displays.

Figure 6.3. Configuring Additional Folder Settings

This dialog enables you to set the following folder options:

❶   **Link to Applications**: From the dropdown, select applications to use for analysis. See Section 6.4, "Linking/Unlinking Folders and Applications".

❷   **Models**: Select which language models to use for the folder. Folders cannot be created without selecting at least one model. Models are important in determining the accuracy of the transcription process because they are domain specific. A domain can be voicemail, survey, call center, earnings

calls, medical transcription, etc. Each domain has its own jargon so selecting the right one for each speaker is important for capturing each word. Each channel needs to have a Model selected. If you are unsure which model is best for your audio, select the *Voicemail* model. Available models are the following:

- **Voicemail**: Designed for audio files with 1 speaker, includes more conversational audio than the *Survey* model

- **Call Center**: Designed for audio files with 2 speakers discussing products, services, billing, etc.

- **Survey**: Designed for audio files with 1-speaker responding to automated questions about their service

- **Earnings Calls**: Designed specifically for audio of earnings calls

❸ **Which channel is the agent on?**: For stereo files only. As shown in Figure 6.3, "Configuring Additional Folder Settings", select either 0 or 1, where 0 refers to the left audio channel and 1 refers to the right audio channel. This will be used in the display of the transcripts to highlight which speaker side is the agent. If later on you realize that the assigned Agent channel is incorrect, create the folder again using the other channel as the agent.

❹ **Configure callback delivery method**: Selecting this option will automatically send the JSON files (and, optionally, MP3 or Text) to a location of your choosing. See Figure 6.4, "Configuring Callback Options".

❺ **Add/remove custom metadata fields**: Selecting this option will allow you to add or remove custom metadata fields in a following screen as shown in Figure 6.5, "View and Edit Folder Metadata".

❻ **Add/remove ASR options**: Selecting this option will you to add and remove ASR tags and view existing ASR options as shown in Figure 6.6, "View and Edit ASR Options".

After completing the settings on Figure 6.3, "Configuring Additional Folder Settings", clicking **Next** displays the dialog shown in Figure 6.4, "Configuring Callback Options". This dialog enables you to configure the callback delivery method and specify which kinds of files to automatically send.
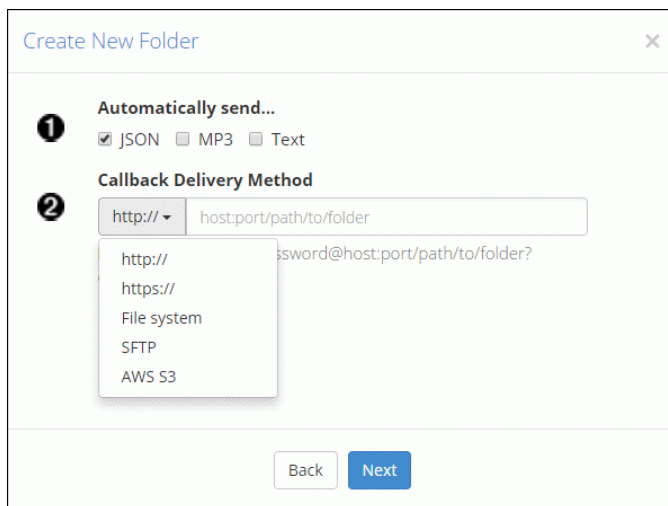
Figure 6.4. Configuring Callback Options

❶   Select file type to send automatically via callback. Choose from JSON, MP3, and Text.
❷   Select callback delivery method from the dropdown

Clicking **Next** displays the dialog shown in Figure 6.5, "View and Edit Folder Metadata". This dialog enables you to upload a text file that identifies the name of the metadata fields which you want to extract

from the transcription of the audio that you will subsequently upload. See Section 8.1, "Configuring Custom Metadata Fields" for more information about adding these fields; see Section 8.6, "Viewing Custom Metadata" for information about viewing the metadata associated with your audio.

Figure 6.5. View and Edit Folder Metadata

Clicking the **Next** displays the dialog shown in Figure 6.6, "View and Edit ASR Options". This dialog enables you to view and edit ASR tags. For detailed information about available ASR options, see "**Using the V-Blaze API**".

Figure 6.6. View and Edit ASR Options

❶   Add ASR tags
❷   View existing ASR options
❸   Create folder and prepare to upload your audio

Once a Folder is created it can be viewed it on the **Dashboard** either by using the ❺ **View on dashboard** button, shown in Figure 6.1, "V-Spark Folder Settings", or by selecting **Dashboard** from the **Settings menu** and using the **Breadcrumb Menu** to select the correct **Organization** and **Folder**, as shown in Figure 6.7, " Locating a Folder ".
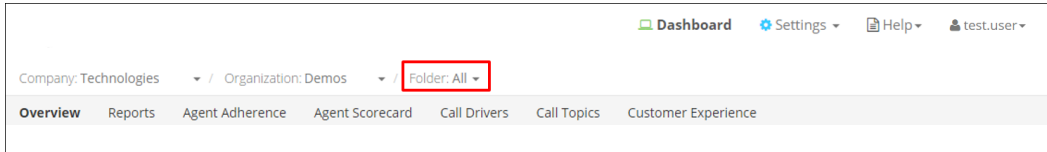
Figure 6.7. Locating a Folder

6.2.   Modify a Folder

To edit an existing Folder, select the edit icon on the left side of the Folder you want to modify, as shown in Figure 6.1, "V-Spark Folder Settings". An **Update Folder** window will pop up exactly the same as the **Create New Folder** window, where you can modify the folder information.

6.3.   Delete a Folder

To delete an existing Folder, select the delete icon on the right side of the Folder, as shown in Figure 6.1, "V-Spark Folder Settings". The red pop-up warning screen shown in Figure 6.8, "Deleting a folder" highlights the data that will be deleted when the Company is deleted. You will be required to confirm the deletion before it will occur. Confirm the deletion by entering the name of the folder that will be deleted, and selecting **Yes, delete this folder**. The folder name is shown near the top of the dialog.
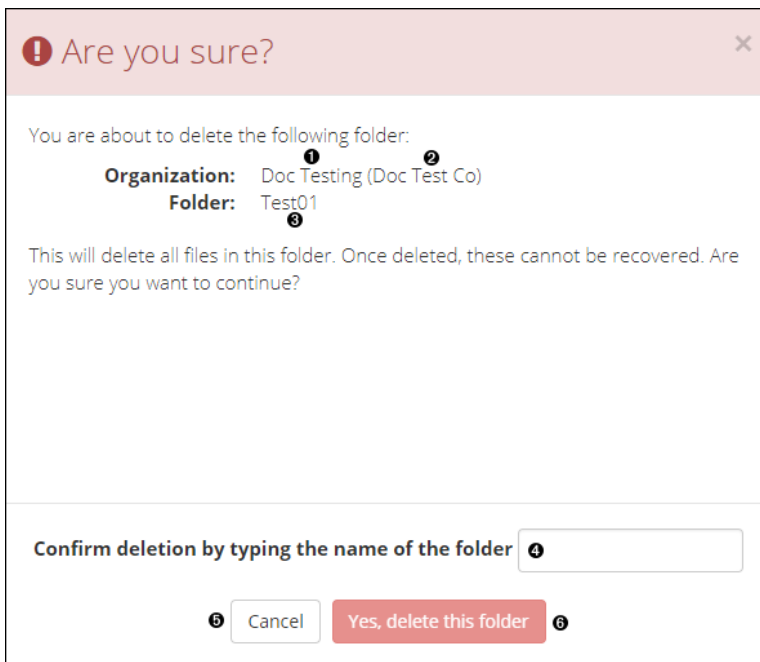
Figure 6.8. Deleting a folder

❶   Organization the folder belongs to
❷   Company the Folder's Organization belongs to
❸   The name of the Folder
❹   Type the name of the folder here to confirm
❺   Select **Cancel** to return to the Folder list
❻   Select **Yes, delete this folder** to confirm the deletion

6.4.   Linking/Unlinking Folders and Applications

Applications and folders can be linked or unlinked in the Create/Edit Folder window or the Create/Edit Applications window to enable or disable application scoring. Only folders and applications within the same Organization can be linked. A folder can be linked to multiple applications and vice versa.

In the Create/Edit Folder window, shown in Figure 6.3, "Configuring Additional Folder Settings", there is a dropdown under ❶ **Link to Applications** where you can select which applications to link to the folder.
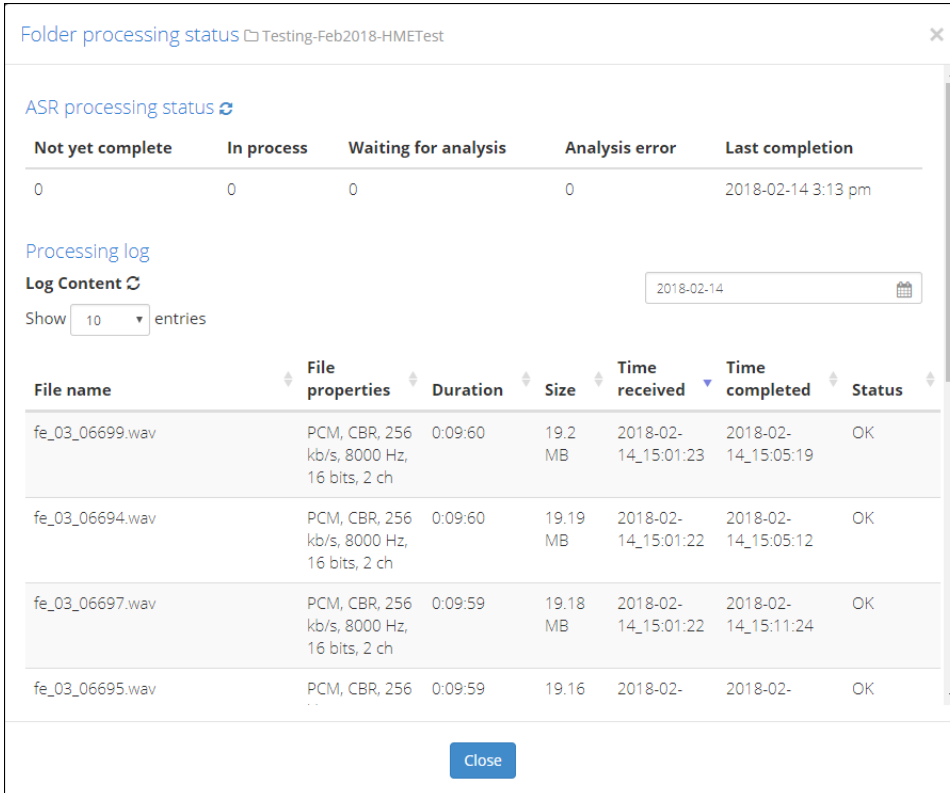
Similarly, in the Create/Edit Applications window, shown in Figure 9.2, "Creating an Application", there is a dropdown under ❻ **Link to Folders** where you can select which folders to link to the application.

Once a folder is linked to an application, you will be able to reprocess the application to calculate new scores for that folder. See Section 9.3, "Reprocessing an Application" for more information.

Folders and applications are unlinked by deselecting them from the drop downs mentioned above. When unlinked, a **Delete** data job will then appear in the **Application Jobs Queue** and all of the scores for that application and folder pair will be deleted.

6.5.   Folder Processing Status

The **Folder Processing Status** can be accessed in the **Folders** section by clicking the icon to the left of the folder name, as seen in Figure 6.9, " Displaying Folder Processing Status ".

Figure 6.9. Displaying Folder Processing Status

6.5.1. ASR Processing Status

The ASR Processing Status shows the status of files as they move through the following stages:

- **Not yet complete**: The number of files waiting to be transcribed.

> **Note**
>
> If audio is uploaded with corresponding JSON files, the count will include the number of JSON files as well as audio files.

- **In process**: The number of files being transcribed.

- **Waiting for analysis**: The number of files that are waiting to be analyzed by V-Spark.

- **Analysis error**: The number of files that were processed by the ASR engine, but which could not be properly ingested by the Analysis engine.

> **Note**
>
> If the **Analysis error** column displays a non-zero value, you can move the mouse over **Analysis error** value to see the time and date of the most recent update to this column. If you see this number increasing contact your System Administrator for assistance.

- **Last completion**: Displays the last time files were analyzed by V-Spark for this folder.

Hovering over the values for each column will display the datetime of the last update. Analysis error will only have a datetime if the count is greater than zero.

6.5.2. Processing Log

The Processing Log displays the following information:

- **Log files**: Dates which have log files will be emphasized when using the date picker. All logging is based on the system's timezone.

- **Time received**: When the upload is completed and the file is sent to the speech-to-text (STT) engine.

- **Time completed**: When the STT engine finishes the transcription and sends the file back to V-Spark.

- **Status**: Once a file is processed, its status can be:

  - `OK` - the file was transcribed without errors

  - `RELOADED` - the file was a previously transcribed JSON transcript

  > **Note**
  >
  > JSON transcripts that are `RELOADED` do not include `start_time` and `stop_time` fields in the re-processed JSON transcript that they produce.

  - `UNSUPPORTED` - the file could not be transcribed. You can use The Audio Evaluator , to see whether your audio is supported.

- `BAD_META` - the file contained malformed metadata and could not be processed. The associated audio file will still be processed and contain its own status in the log file.

- **Show entries**: Limits the number of entries displayed at a time. The default number is 10, but you can also opt to view 25, 50, or 100 files entries at a time by clicking the dropdown labeled **Show entries**. You can shift between sets of images by using paging controls that are available at the bottom of this dialog.

Chapter 7.   Audio Management

Before uploading files to a folder, use the V-Spark tool called the **Audio Evaluator** to help make sure the audio format is supported.

7.1.   The Audio Evaluator

The tool is located at the V-Spark homepage under **Will my audio work?** as well as on the **Help** page, as shown in .

Figure 7.1. Locating the Audio Testing Application

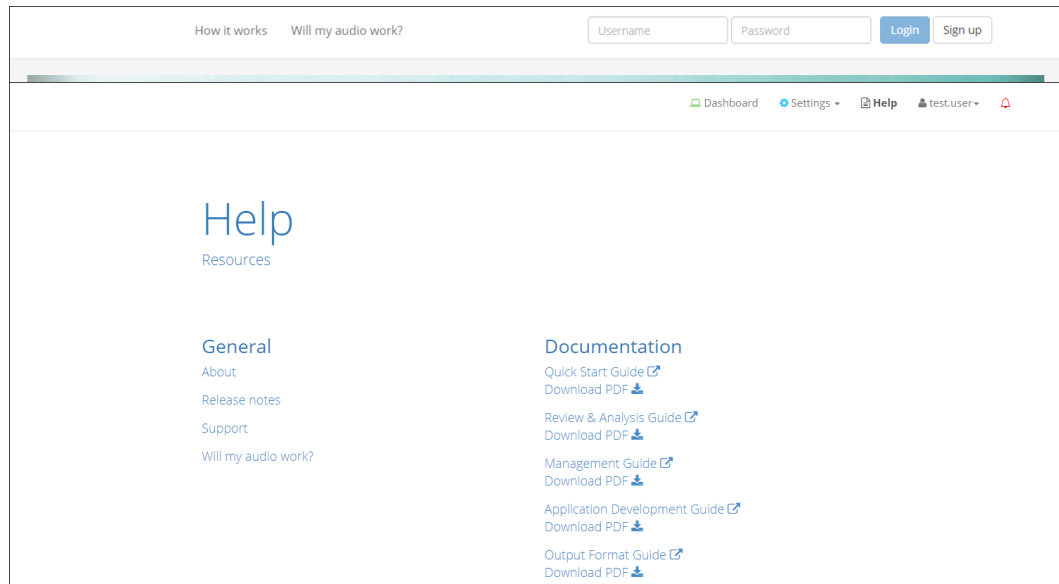shows the output of the Audio Evaluator for an audio file whose format is supported by V-Spark. Audio Evaluator provides information about the file including whether the audio format is supported by V-Spark natively and whether the audio is a *Mono* or *Stereo* file.
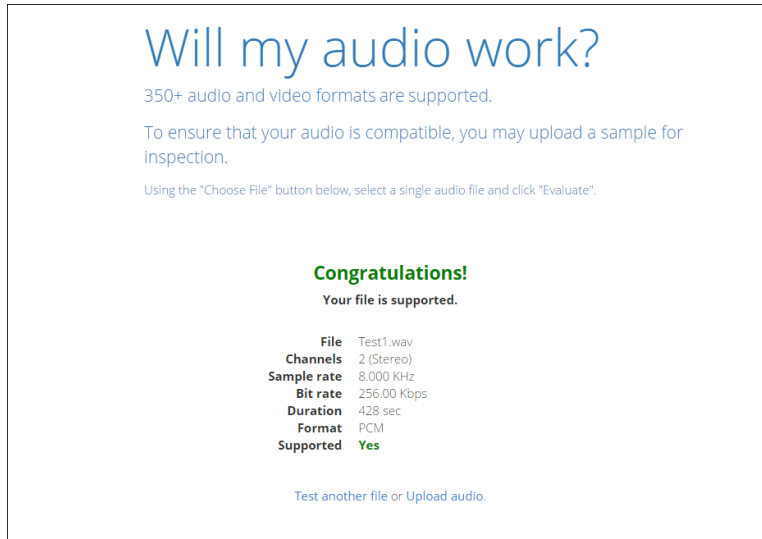
Figure 7.2. Information About a Supported Audio File

The two rows labeled "Supported" and "Channels" are the most important. Channels is needed when creating a folder for transcription, and a green "Yes" for Supported means the file format is supported by V-Spark. If the result comes back as "No", contact your Voci Sales Representative.

7.2.   Upload audio to a Folder

There are 3 ways to upload audio files to V-Spark. The first is a manual and convenient method using the web browser, as shown in Figure 7.3, " Uploading Audio via HTTP ". The second is for uploading audio via web services. The third is a manual upload via the file system command line. For V-Spark Cloud users, only the first two upload methods are available. The names of uploaded files can be any Unicode (and therefore ASCII) characters.

The types of files that are uploaded using the V-Spark web interface can be:

• zip files containing one or more audio files and optional metadata files in JSON or XML format

• Any single file with or without a file extension. These should generally be audio files, but any type of file can be uploaded, with or without a file extension. Files that are not supported by V-Spark will show as being `UNSUPPORTED` in the processing log.

> **Note**
>
> Previously processed JSON transcripts can be re-uploaded to any folder in V-Spark using any of the following methods without the speech-to-text engine needing to re-transcribe the files. In this case, the audio and transcript files must be uploaded in a zip file and share the same file name, except for the extension. (For example, an audio file called *File1.wav* should have a corresponding JSON transcript file called *File1.json*).

See Section 6.5, "Folder Processing Status" for more details about checking the status of processed and pending files.

Once you have successfully uploaded your audio, transcripts of all the audio files in a folder can be downloaded by going to the Folders section and using the yellow download button shown in Figure 6.1, "V-Spark Folder Settings".

7.2.1. Web-based Audio Upload

As shown in Figure 6.1, "V-Spark Folder Settings" item ❻, there is a blue upload icon to the right of each folder that allows you to upload a single audio file or a zip of audio files to be ingested into V-Spark. File size is limited to 1 GB. Once your file has been uploaded, you can navigate to the **Dashboard** page and select your folder from the Directory. After a few minutes you will start to see your audio data appear.

When you upload audio files, you will see a Request ID in the pop-up window after your upload has been confirmed, as shown in Figure 7.3, " Uploading Audio via HTTP ". This Request ID will appear in the transcript JSON file, enabling you to track each JSON transcript back to the original upload.
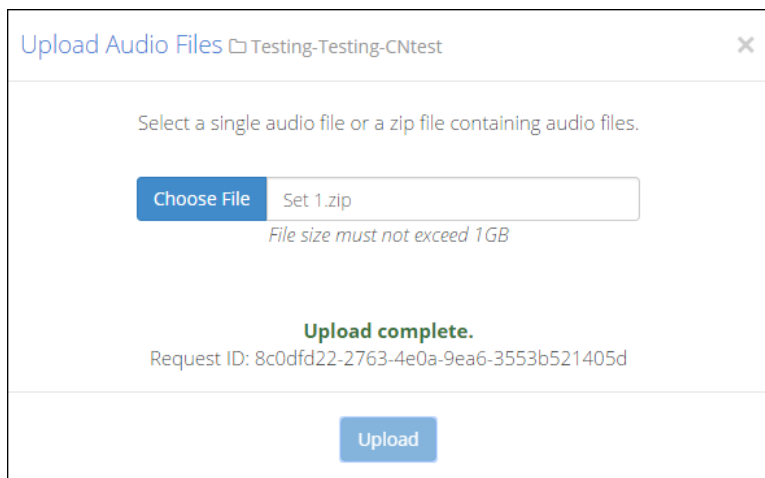
Figure 7.3. Uploading Audio via HTTP

7.2.2. Web Services Audio Upload

Audio files can also be uploaded using a POST request made to V-Spark's `/transcribe` API with the audio data to be decoded. **File size is limited to 250 MB**. POST must be encoded as a multi-part/form-data request, with the audio to be decoded in a file field and the V-Spark Authorization token in the token field. The V-Spark Authorization token can be found on the Settings page with Company information, as shown in Figure 7.4, "Location of the V-Spark Authorization Token".

Figure 7.4. Location of the V-Spark Authorization Token

The following is an example POST to a V-Spark installation on the host example.company.com made using the **curl** command:

```
curl -F token=00112233445566778899aabbccddeeff \
     -F "file=@path/to/sampleaudio.zip;type= application/zip" \
     -X POST http://example.company.com:3000/transcribe/org_shortname/samplefolder
```

Note that `org_shortname` in this sample **curl** command refers to the Short Name assigned to the target organization, which can be found on the Settings page with Organization information, as shown in Figure 7.5, "Location of the V-Spark Organization Short Name".

Figure 7.5. Location of the V-Spark Organization Short Name

Users who have Amazon Web Services (AWS) Simple Storage Service (S3) configured can also import zipped input directly from S3 via the V-Spark API. Please see the "Using the V-Spark 3.4.3 API" for more information.

7.2.3. File System Audio Upload

On the V-Spark server, a new folder is created when a system administrator or a user with company or organization-level permissions creates a Folder. The default location of the folder is in `/var/lib/vspark/managers/ORG_SHORTNAME/FOLDER`. To add file for transcription from the system on which V-Spark is running, audio files should be placed in the `/var/lib/vspark/managers/ORG_SHORTNAME/FOLDER/input/` folder using the Linux **mv** or **cp** commands.

> **Note**
>
> An organization's short name is prefaced with `company short name-`.

The following example shows a sample command for Folder: *folder1*, Company short name: *company*, and Organization short name: *company-org*.

```
mv file1.wav file2.wav /var/lib/vspark/managers/company-org-folder1/input
```

> **Note**
>
> Audio files processed will be *deleted* from the input directory after processing. Archival MP3 files will be generated from the input audio file. To change the default location of the folders, you can modify the configuration file.

7.3. Bulk file download

Bulk download of MP3s, JSON files, and text transcripts are available via the orange download icon shown in item ❼ of Figure 6.1, "V-Spark Folder Settings". Downloads are sent as one or more zip file(s), with up to 10000 files per zip file.

> **Note**
>
> The maximum size of this zip file is 2 GB. Trying to download files that produce a zip file larger than 2 GB will fail with an error message. To work around this issue, you can download

multiple sets of files, using a smaller date range for each or by downloading specific types of files together.

Chapter 8.   Metadata Management

Audio files may include custom metadata including agent identification and recorded date, as well as custom metadata that users create.

8.1.   Configuring Custom Metadata Fields
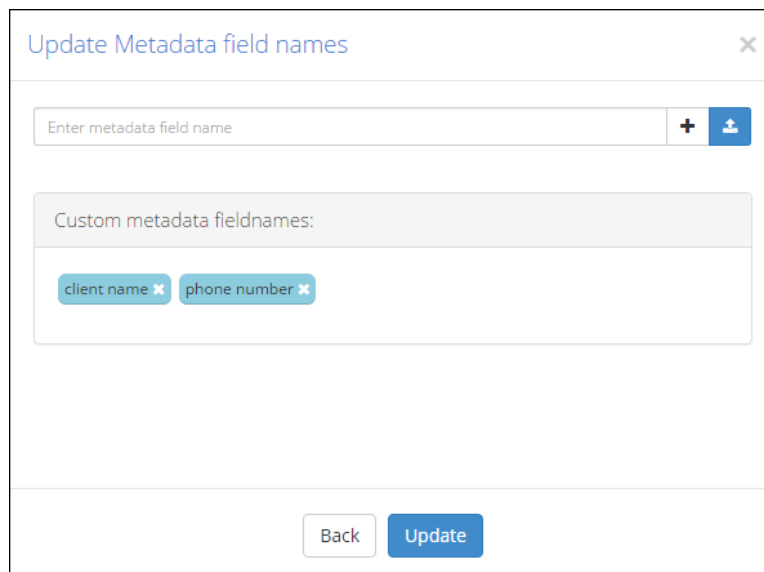
Figure 8.1. Adding Custom Metadata Fields to a Folder

When you create or edit an existing folder, you can configure custom metadata fields for that folder.

To add custom metadata fields to a folder:

1.   If you are not already viewing the **Folders** page, choose **Folders** from the **Settings** menu.

2.   To update an existing folder, click the **edit icon** in the first column of the row that displays the folder you want to edit. To create a new folder, click the + button in the upper right of the table.

3.   From the second page of "Create/Edit Folder" window, select the checkbox next to **Add/remove custom metadata fields** and click **Next** to display the Figure 8.1, "Adding Custom Metadata Fields to a Folder", dialog.

4.   Add a metadata field name by manually entering it into the **Enter metadata field name** field and clicking + or pressing the enter key. You can also upload a text file of field names by clicking the **Upload** button next to the field and choosing the file from the file browser. The text file should contain the name of one metadata field on each line. For example:

```
client-phone
client-name
account-number
agent-name
```

All of the field names you add are listed under **Custom metadata field names**. You can remove field names by clicking the **'x'** next to them.

5. Save the list of custom metadata tags by clicking **Create/Update**. Changes will not be saved if you select **Back** or navigate away from the window before saving.

8.2.   Metadata Restrictions

All metadata uploaded to V-Spark will have the following restrictions:

• *All metadata fields are case-insensitive*, including reserved and custom labels. (Therefore, 'AgentID,' 'agentid,' and 'AGENTID' will all be treated as the same metadata field.)

• Custom metadata and labels may be composed of any valid Unicode characters, except for the reserved non-alphanumeric characters Colon (":", Unicode 003A) and Equals Sign ("=", Unicode 003D).

• If you plan to upload metadata via XML rather than JSON, your **metadata fields cannot contain spaces**.

• The following are reserved metadata fields which have unique functions in the V-Spark system:

agent	all	client
agent (apprx)	all (apprx)	client (apprx)
agent id	_all_phonetic	datetime
agentid	caller	duration
agent_phonetic	caller (apprx)	file
agent_phonetic_v3	caller_phonetic	filenamelowercase
agent_v3	caller_phonetic_v3	speakers
_all	caller_v3	

8.3.   Preparing Metadata Files

Once you have configured your metadata fields, you can upload your audio along with one metadata file per call. Currently V-Spark reads in JSON or XML files that have the same filename as the audio file, but with an .xml or .json extension in place of the original extension. For example, an audio file named ABC.wav would be uploaded with a metadata file named ABC.json or ABC.xml.

> **Note**
>
> Metadata timestamps without timezone information are interpreted with the organization's timezone and *not* the system timezone.

The following is an example of the XML format:

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<metadata>
  <agentid> 10005 </agentid>
  <datetime> 2015-06-02 13:29:20 </datetime>
  <agentname> John Smith </agentname>
  <client-phone> 123-456-7890 </client-phone>
</metadata>
```

The following is an example of the JSON format:

```
{
"metadata":
  {
    "agentid": "10005",
    "datetime": "2015-06-02 13:29:20",
    "agentname": "John Smith",
    "client-phone": "123-456-7890"
  }
}
```

> **Note**
>
> Any leading "-" at the beginning of your custom metadata values will be replaced with "#".
> For example, if you have a fieldname for Call Direction with a metadata value of "-inbound",
> the metadata value will be changed to "#inbound".

8.4.   Uploading Metadata and Audio

Metadata can be uploaded in the same way as audio files: via web-based interface, web services, or file
system as described in Section 7.2, "Upload audio to a Folder". The easiest way to upload metadata and
audio together is to place both sets of files in the same *zip* folder and import the *zip* using the upload
method of your choice. If you do not wish to zip your metadata and audio files together, metadata files
must be uploaded before the corresponding audio files.

> **Note**
>
> If you choose to upload JSON metadata files along with previously processed transcripts,
> your metadata files must use the extension .jsonmeta.

8.5.   File System Audio + Metadata Upload

If you do not wish to zip your metadata and audio files together, metadata files must be uploaded before
or at the same time as the corresponding audio files. To do this via file system upload, either (1) the entire
directory containing metadata and audio files must be placed in the input/ directory or (2) metadata files
must be added to the following folder *before* the audio files:

```
/var/lib/vspark/managers/ORG_SHORTNAME-FOLDER/input/
```

> **Note**
>
> This path is **case sensitive**.

For example, suppose that you have created a folder called "*voicemail*" owned by an organization named
"*Org*", which in turn is owned by a company with the short name "*Company*". An organization's Short
Name defaults to <company short name>-<organization name> when it is created, so in this case it
is "*Company-Org*" by default. (See Section 3.4, "Create an Organization" for more information.) The
directory to which audio and metadata must be loaded for the "*voicemail*" Folder is as follows:

```
/var/lib/vspark/managers/Company-Org-voicemail/input
```

It is very important that permissions are set correctly on all files *prior* to moving them into one of these
input folders, otherwise they will not be processed correctly, if at all. The simplest way to ensure this is

to *set permissions to 777 on all files before moving them into an input directory*. This can be most easily done by recursively changing the permissions of the directory containing the audio and metadata files.

For example, you have a directory containing audio and metadata files that you want transcribed. Let's say this directory's absolute name is **/home/user/data**. Use the following command to set the permissions of this directory and all files and subdirectories contained within this directory to 777 (a=rwx in symbolic terms):

```
chmod -R 777 /home/user/data
```

Now you can use the **mv** command to move the entire directory (recommended) into place. For example:

```
mv /home/user/data /var/lib/vspark/managers/Company-Org-voicemail/input
```

Now the directory "*data*" exists within "*input*". Once all files within "*data*" have been processed, "*data*" will be removed.

A second method is to move just the files, in which case the metadata must be moved *first* followed by the audio. For this example it is assumed that all metadata files have the extension ".xml" and all audio files have the extension ".wav":

```
mv /home/user/data/*.xml /var/lib/vspark/managers/Company-Org-voicemail/input
```

```
mv /home/user/data/*.wav /var/lib/vspark/managers/Company-Org-voicemail/input
```

The disadvantage of the second approach is that "*data*" could contain a mixture of XML and JSON formatted metadata, and it could contain a mixture of different audio formats like MP3, WMA, WAV, etc. If this is the case, ensure all of the metadata files are moved prior to moving the audio files.

In general, moving the data directory itself into the appropriate input directory is the best approach as this ensures that all metadata and audio files are moved into place at the same time with a single **mv** command, without regard for their file extensions.

Zip folders can also be uploaded via the file system. The following is an example command:

```
mv /home/user/data /var/lib/vspark/managers/Company-Org-voicemail/input
```

Now the directory "*data*" exists within "*input*". Once all files within "*data*" have been processed, "*data*" will be removed.

A second method is to move just the files, in which case the metadata must be moved *first* followed by the audio. For this example it is assumed that all metadata files have the extension ".xml" and all audio files have the extension ".wav":

```
mv /home/user/data/*.xml
/var/lib/vspark/managers/Company-Org-voicemail/input
```

```
mv /home/user/data/*.wav /var/lib/vspark/managers/Company-Org-voicemail/input
```

The disadvantage of the second approach is that "*data*" could contain a mixture of XML and JSON formatted metadata, and it could contain a mixture of different audio formats like MP3, WMA, WAV, etc. If this is the case, ensure all of the metadata files are moved prior to moving the audio files.

In general, moving the data directory itself into the appropriate input directory is the best approach as this ensures that all metadata and audio files are moved into place at the same time with a single mv command, without regard for their file extensions.

Zip folders can also be uploaded via the file system. An example command is shown below:

```
mv SampleAudio.zip /var/lib/V-Spark/managers/Company-Org-voicemail/input
```

As with audio/metadata file and directory moves, ensure that permissions on any zip files that are manually moved into an input directory have `777` permissions (`a=rwx` in symbolic terms) to ensure that Voci services can read and delete them.

Advanced: If you wish to restrict permissions on data files and directories with greater precision, you can do so by changing the ownership of the files/directories to that of the Voci services user and setting permissions appropriately. The Voci service user is "vocisrv". Files must have user-level read and write permissions, and directories must have user-level read/write/execute permissions.

8.6.   Viewing Custom Metadata

After V-Spark has processed the audio and metadata that you have uploaded, you'll be able to view your custom metadata in three places: the **Dashboard** Files View, the **File Details** page, and the JSON output file of your transcript.

If you navigate to the Dashboard Files View and select the appropriate folder from the **Breadcrumb menu** as shown in Figure 6.7, " Locating a Folder ", you can choose to perform a Text search on any of the metadata labels that you have configured, as shown in Figure 8.2, "Searching on Custom Metadata".
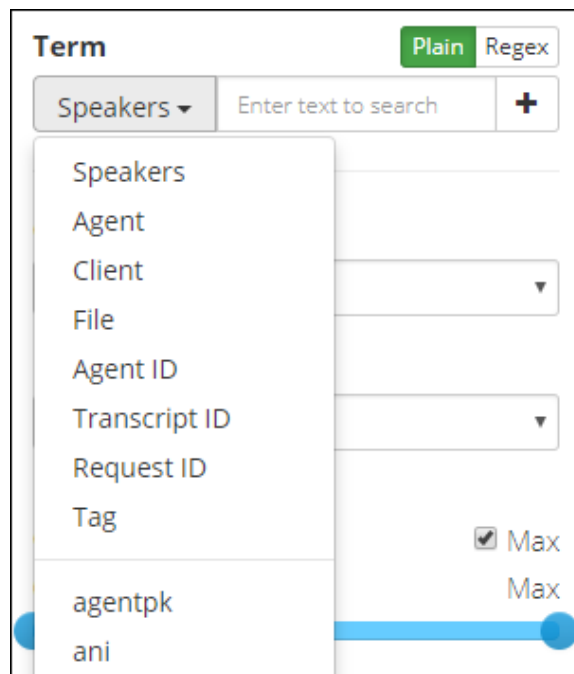

Figure 8.2. Searching on Custom Metadata

When custom metadata is used as a search term, the corresponding custom metadata for each file will appear in the search results, as shown in Figure 8.3, "Viewing Custom Metadata in Search Results".

Figure 8.3. Viewing Custom Metadata in Search Results

You can also view your metadata in the File Details window of any transcript that contains those custom metadata fields, as shown in Figure 8.4, "Viewing Custom Metadata in File Details".

Figure 8.4. Viewing Custom Metadata in File Details

Finally, your custom metadata is included in the `client_data` section of your JSON transcript, as shown in Figure 8.5, "Custom Metadata in JSON transcript".

```
"client_data": {
    "manager_name": "Melissa Thompson",
    "total_hold_time": "25",
    "skill": "0",
    ...
}
```

Figure 8.5. Custom Metadata in JSON transcript

Chapter 9.   Application Management

Applications score calls for particular sets of phrases that correspond to various **Upper-Level Categories** and **Lower-Level Categories**. The next few topics explain how to configure and manage applications, how to view application scores, and so on.

Selecting the **Applications** menu item from the **Settings** menu displays the Applications section, as shown in in Figure 9.1, "V-Spark Application Settings". In the Applications section, you can create and delete applications, monitor the application queue, modify application settings, access the application configuration editor, and reprocess an application.

Figure 9.1. V-Spark Application Settings

❶   View application jobs queue
❷   Create a new application
❸   Edit application settings
❹   Edit application categories and phrases
❺   View application on dashboard
❻   Reprocess an application
❼   Delete an application

9.1.   Create an Application

Creating a new Application can be done using the blue '+' shown in Figure 9.1, "V-Spark Application Settings" item ❷. The pop-up window is shown in Figure 9.2, "Creating an Application". A description of each field is shown below:

Figure 9.2. Creating an Application

❶   **Organization**: Pull down of which organization the Application belongs to.
❷   **Application Name**: The application name.
❸   **Default Score Type**: Choose the default score type to be displayed on graphs. Hit/Miss is selected by default. See the "*V-Spark 3.4.3 Application Development Guide*" for a detailed explanation of scoring.
❹

Figure 9.3. Application Template Options

Template Options: As shown in Figure 9.3, "Application Template Options", pick from three choices:

- **Build from scratch** - create a custom application

- **Use preset template** - use one of the templates that is provided with V-Spark

- **Copy from existing organization** - enables users to create a new application based on any existing application

❺ **Templates** - depending on the template option selected, this is a list of either preset templates or existing applications from other organizations to copy.

❻ **Link to Folders**: The name(s) of the Folders to monitor.

9.2.   Modify an Application

Applications can be modified by clicking on the edit icon to the left of the Application in the **Settings**, **Applications** section. The fields are the same as the **Create New Application** window.

9.3.   Reprocessing an Application

Applications can be reprocessed via the Applications section of the Settings page. There you will see the reprocessing button as shown in Figure 9.1, "V-Spark Application Settings". Once changes have been made to an application that could result in new scores such as a config modification or linking a new folder to the application, the reprocessing button will become active and green. (Inactive reprocessing buttons are gray.)
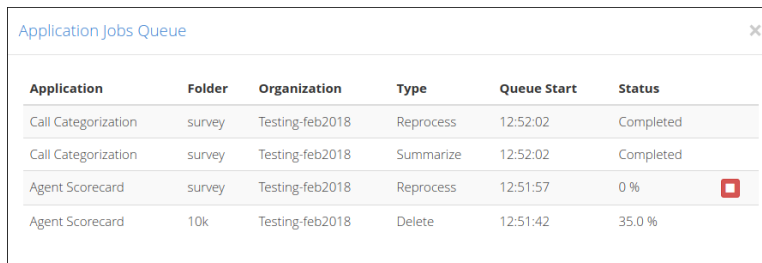
Figure 9.4. Using the Reprocess Applications Dialog

In the reprocessing window, you'll be able to select whether you want to recalculate application results for all of the application's folders, or just a few. By default, the folder dropdown lists all folders containing data that have not been reprocessed against the current application config. If you wish to reprocess data for a folder that doesn't appear in the dropdown, under the "Note" section you can click the "Click here"

hyperlink to list all of the folders within that organization and then select which ones to reprocess. You can also choose to reprocess all of the data in the selected folders, or just the data that was uploaded after a certain date. Reprocessing all data can be time-consuming, so select this option with care. See the "**V-Spark 3.4.3 Application Development Guide**" for more information.

Once you are satisfied with your selection, click the "Queue" button. The Application Jobs Queue dialog displays, as shown in Figure 9.5, "Viewing the Status of Reprocessing Applications".

Figure 9.5. Viewing the Status of Reprocessing Applications

This dialog enables you to monitor the progress of your application reprocessing. See Section 9.5, "Application Jobs Queue" for more information about the queue.

9.4.   Delete an Application

To delete an existing Application, select the delete icon on the right side of the Application, as shown in Figure 9.1, "V-Spark Application Settings". There you will have a prompt to verify deletion.

9.5.   Application Jobs Queue

The Application Jobs Queue dialog can be displayed using the application queue icon shown in Figure 9.1, "V-Spark Application Settings" and allows you to monitor the progress of various jobs including application reprocessing and folder application score deletion. The Application Jobs Queue window appears automatically after submitting a reprocessing or delete request.

The queue displays **Application**, **Folder**, and **Organization** names as well as what **Type** of job it is (Reprocess, Summarize, or Delete), **Queue Start**, and the **Status** of each job. **Queue Start** is a timestamp of when a job starts reprocessing after it has been added to the queue.

The **Status** column will indicate if a job is "Waiting..." to be reprocessed, or, if reprocessing has started, it will indicate the percent completed. "Reprocess" jobs will have a stop button visible in the status column, as shown in Figure 9.5, "Viewing the Status of Reprocessing Applications", in case you need to stop the job prematurely. Please note that a reprocessing job that is stopped early may have incomplete or inaccurate file scores which may or may not be shown on the dashboard. Applications that are reprocessing can not be edited with the application editor, so the stop reprocessing function is intended to be used if an application configuration change is needed for scoring. When finished, the **Status** will be "Completed" if successful, or "WARNING" or "ERROR". If there is a warning or error, contact your System Administrator for more information. All reprocessing jobs remain in the application queue for 30 minutes.

Chapter 10.   System Management

V-Spark provides multiple ways for a system admin to monitor and manage the system including the **Activity Log** and **System Settings** pages.

10.1. Viewing System Activity

Detailed logs of user activity and system status can be viewed by system administrators by selecting **Activity Log** from the **Settings** menu.
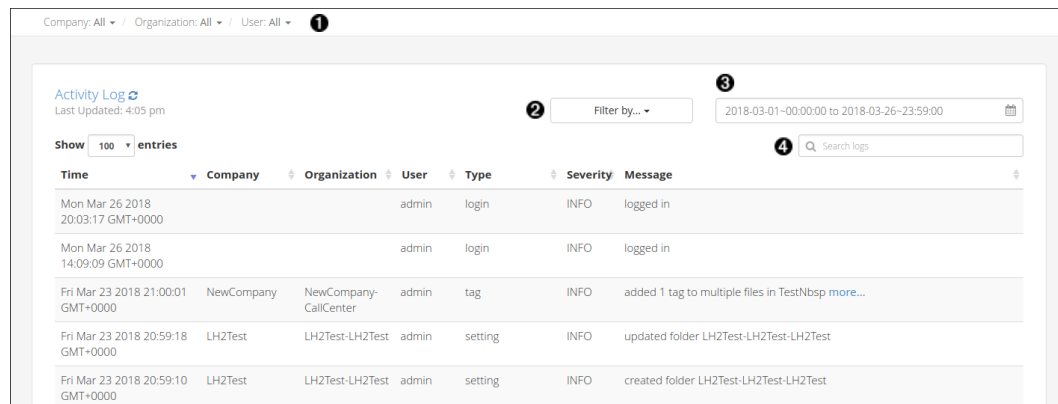
Figure 10.1. Viewing the Activity Log

The log entries that that are listed can be filtered by any or all of the following:

❶   **Company**, **Organization**, and **User**
❷   **type** - clicking **Filter by...** displays a list of **types**

- **API** - Creation, deletion, and updates to companies, organizations, folders, and applications made using the API

- **Application** - Reprocessing of applications

- **Audio evaluator** - Uploading of audio files for supported-format verification (Will my audio work?)

- **Callback** - Warnings and errors that occur during file callbacks

- **Data management** - Files cleaned up due to an organization's retention policy

- **Login** - User logins, logouts, and invalid login attempts. Only explicit user login and logout actions are logged, not session timeouts that force a user logout.

- **Setting** - Creation, deletion, and updates to companies, organizations, folders, and applications made using the UI

- **Update** - Database updates done in the background

- **Upload** - Uploading of audio/text files for initial transcription

- **User management** - Creation and approval of new user accounts as well as updates or deletion of existing user accounts

- **Tag** - File tagging

❷ **severity** - clicking **Filter by...** displays a list of **severities**

- **Info**

- **Warning**

- **Error**

❸ **date** - select a datetime range

❹ **key word** - may be one or more words, including numbers

Log entries can be sorted by clicking the column headings.

10.2. System Settings

System-wide settings can be modified on the **System Settings** page, shown in Figure 10.2, which can be viewed by selecting **System** from the **Settings** menu.
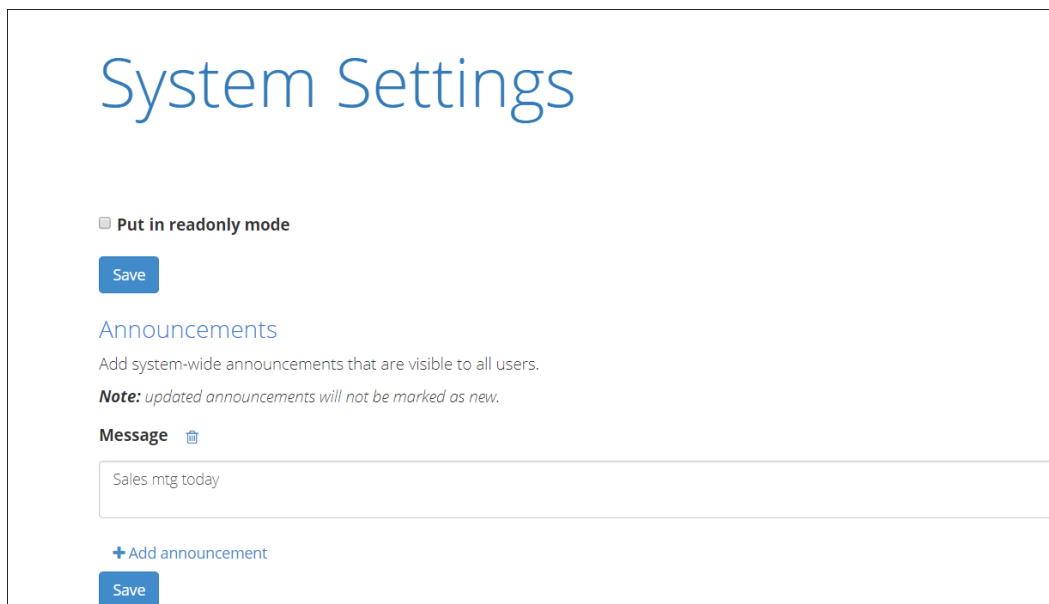
Figure 10.2. The V-Spark System Settings Screen

10.2.1. Creating, Editing, and Removing System Announcements

The **Announcements** section of the System Settings page shown in Figure 10.2, "The V-Spark System Settings Screen" enables you to set and manage system-wide announcements. New announcements are displayed to all users the first time that they log in after an announcement is created. Announcements display in the top margin on the V-Spark login page.

In order to create an announcement:

1. Click the + **Add announcement** button. A textbox such as the one shown in Figure 10.3, "Working with Announcements" displays.

Figure 10.3. Working with Announcements

2. Enter the text of your announcement in the textbox, and click **Save** to save the new announcement.

When a user logs in, announcements that have been created since the last time that the user logged in will be displayed beside an icon that identifies them as being **New**. Announcements are only identified as being new the first time that a user logs in after the announcement was created. Subsequently, announcements are simply displayed until they are deleted.

To modify an existing announcement, edit the text for that announcement in its textbox. After you have finished your changes, click **Save** to save them. Updated announcements are not displayed as **New** when users log in. To cause an existing announcement to be identified as new, you must delete the old announcement and create a new one with the updated text.

To delete an announcement, click the **trash can icon** to the right of its **Message** label. In order to give you the chance to change your mind about the deletion, an **undo icon** displays to the right of the message label until you click **Save**. Clicking the **undo icon** at any time before clicking **Save** restores the deleted announcement.

10.2.2. Enabling and Disabling Readonly Mode

Readonly mode enables administrators to perform maintenance or diagnose performance problems while a V-Spark installation is still running. While a V-Spark system is in readonly mode, no new data can be processed and no changes can be made to the V-Spark installation. V-Spark can still be used to examine existing data that has already been processed.

> **Note**
>
> Putting a V-Spark installation into readonly mode only affects the V-Spark installation. The rest of the processes on the host where V-Spark is installed continue to operate normally.

The **Readonly** section of the page shown in Figure 10.2, "The V-Spark System Settings Screen" enables you to put a V-Spark installation into and take it out of readonly mode.

To put a V-Spark installation into readonly mode, click the checkbox to the left of the label **Put V-Spark into readonly mode**. As shown in Figure 10.4, "Enabling Readonly Mode", a text box displays into which

you can enter a message to notify users that the system has been put into readonly mode. Click **Save** to save the message and put the system into readonly mode.

> ### Note
>
> When any user logs into this V-Spark installation while the system is in readonly mode, the message that you entered will be displayed at the top of the screen, to the right of an **Important!** icon.

To take a system out of readonly mode, unclick the checkbox to the left of the **Put V-Spark in readonly mode** checkbox and click **Save**.

System Settings

☑ **Put in readonly mode**

System-wide readonly message

Test message....

Save

Figure 10.4. Enabling Readonly Mode

> ### Note
>
> V-Spark installations can also be put into readonly mode programmatically, by using the V-Spark API. (See the "*Using the V-Spark 3.4.3 API*" for information about using the API to enter and exit from readonly mode.)

10.2.3. Safe Mode and Low Storage Conditions

If the V-Spark system reaches a point of too little storage, it will automatically enter into **safe mode**. When a system enters safe mode, any file processing currently in progress will complete, and no new data can be added to the system. Users can still use V-Spark to examine data that has already been processed and can reprocess applications against that existing data. All V-Spark users will see a notification banner indicating that the system is in safe mode.

A V-Spark system may not be taken out of safe mode until a System Administrator takes action to correct the low storage condition.

Appendix A. Voci Glossary

ACT (See Average Call Time .)

Agent/Client Voice Clarity A measure of the speech recognizer's confidence in its transcription accuracy. Higher clarity scores indicate that the call was transcribed with higher accuracy.

AHT (See Average Handle Time .)

Application/Scorecard A feature of V-Spark that allows users to create custom analysis of calls by entering sets of search queries and filters to group calls into upper-level categories, lower-level categories, and leaf-level categories. Leaf-level categories have no lower-level categories of their own.

ASR (See Automatic Speech Recognition .)

Audio Source Refers to the number of channels in the original audio file. Mono indicates that the audio file has only one channel, while Stereo indicates that it has two channels.

Automatic Speech Recognition Technologies that leverage the independent, computer-driven transcription of spoken language into readable text (often known as *Speech to Text* or *STT*), enabling users to use speech rather than a keyboard as the source of input data for a computer system

Average Call Time The total amount of time that a customer is engaged with an agent, including call transfers, hold time, talk time, and so on.

Average Handle Time A call center metric that represents the total amount of work related to customer/agent transactions, including the Average Talk Time (ATT), hold time, and any administrative tasks that must be done for per-call record-keeping (often referred to as After Call Work, ACW), divided by the number of calls that were handled. This metric is used to summarize and analyze agent performance.

Call Silence Time The percentage of the call that was silent, i.e. when no speakers were talking.

Diarization The process of splitting mono audio into 2 channels, according to speaker. Higher diarization scores indicate that the speech recognizer separated speaker phrases more accurately.

JSON Short for JavaScript Object Notation. Allows for information to be stored in a hierarchical fashion within a single document.

JSON Transcript A transcript and associated metadata produced from an audio file, in JSON format. The Voci JSON format is documented in the *Voci JSON Output Format Guide*.

Overtalk Refers to portions of conversation where speakers talked over one another/at the same time. Overtalk scores measure the percentage of the call that was overtalk.

Purify

Refers to V-Spark's ability to automatically redact sensitive PCI (Payment Card Industry) numbers from your calls in order to protect cardholder data. This information can be redacted from just the call audio, just the call transcript, or from both audio and transcript.

Regex

Short for *regular expression*. Allows users to perform more complex searches using variables to stand in for characters, words, and character patterns.

RIFF

An acronym for *Resource Interchange File Format*. A generic file container format for storing data in tagged chunks. It is primarily used to store multimedia such as sound and video.

Stream

A sequence of computer data that is made available over time. This term is commonly used in the context of *streaming audio* or *streaming video* which you can listen to as the data is continually being delivered to the device that you are using.

Tags

Name/value pairs that are specified when an audio stream is sent to transcription, and which are used to modify the way in which audio is transcribed.

TAT

(See Turn-Around Time .)

Turn-Around Time

The amount of time between submitting an audio file for transcription and receiving the transcribed text.

Utterance

An uninterrupted chain of spoken language by a single speaker.

VAD

(See Voice Activity Detection .)

Voci JSON

JSON output produced by one of Voci's products that typically contains all or some of a transcript produced from an audio file, plus metadata. The Voci JSON format is documented in the *Voci JSON Output Format Guide*.

Voice Activity Detection

An early portion of the Automatic Speech Recognition process, voice activity detection identifies the portions of an audio file that correspond to speech. This improves performance by not spending processing time attempting to decode audio that is not relevant to speech, such as music, background noise, and so on.