



ZOOM Quality Management Suite 5.1

CallREC User Guide

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About ZOOM International

ZOOM International provides interaction recording and quality management solutions for Contact Center & Unified Communications environments focused on Avaya, Cisco, and Genesys platforms. ZOOM QM Suite improves contact center quality and performance by offering multichannel interaction recording, screen capture, agent evaluation, live monitoring, speech analytics and workforce management integration.

ZOOM International has a diverse client base around the world including financial institutions, healthcare organizations, telecommunication providers and emergency services.

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Introduction

Document Purpose

This document describes the ZOOM CallREC 5.1x user interface and contains guides for all its features.

Audience

This document is intended for Users and administrators of ZOOM CallREC.

Expected Knowledge

Readers of this document are expected to have basic web browsing skills, and understand terms used in a contact center.

Typographical Conventions

Names of functions and buttons are in bold. For example: **Upload**.

File names, file paths, command parameters and scripts launched from the command line are in non-proportional font.

Referred documents are in italics. For example: see the document *This is a Document* for more information.

```
Code is placed on a gray background and bordered
```

Hyperlinks are shown in blue and underlined: <http://www.zoomint.com>.

Browser Recommendations and Technical Requirements

A minimum screen resolution of 1024 x 768 is necessary to use the QM Suite applications comfortably.

The following supported browsers are recommended for the Web GUI. The Windows Media Player is needed for CallREC. The Java plugin is required for Universal Player in ScoreCARD.

The browsers for PCs are shown in order of preference. The fastest performing browsers are first:

1. *Google Chrome*: Please download the latest version. Check issues using the latest browser version before reporting them. The user must install the *Windows Media Player* plugin below:

<http://www.google.com/support/chrome/bin/answer.py?hl=en&answer=95697>

2. *Internet Explorer 9*

3. *Internet Explorer 8* with *Google Chrome Frame* plugin. The *Google Chrome Frame* plugin can be obtained here:

<http://code.google.com/chrome/chromeframe/>

4. *Internet Explorer 7* with *Google Chrome Frame* plugin. This version of IE should be upgraded to IE9 as soon as possible.

5. *Firefox 3.6.16+* Admin rights required for installation. The user must install the *Windows Media Player* plugin below:

<http://www.interoperabilitybridges.com/windows-media-player-firefox-plugin-download>

6. *Opera 9+*

7. *Safari 5*

8. *Internet Explorer 8* without the *Google Chrome Frame* plugin. The performance is slow.

The following browsers are not recommended:

Internet Explorer 7 without the *Google Chrome Frame* plugin runs too slowly.

Internet Explorer 6 is not supported.

Use Safari or Firefox with Mac OS 10.

Important:

Web browsers require a media player plug-in (*Windows Media Player 9+* for Windows PCs, *VLC* for Macs and Linux) for audio and video media review, and at least *Adobe Flash Player 9.x* runtime installed for viewing reports.

Internet Explorer Security Settings:

Windows XP

The following recommendations are encouraged for the Web GUI running on Windows XP:

- Check that the CallREC URL is included in the "Trusted sites". If not, include it there. If the user doesn't have administrator privileges, contact the system administrator or set security level of the zone that contains the server to Low.
- Check that there is no proxy enabled in the web browser. If there is, try to disable it. The proxy can affect the functionality.
- Set the security level of trusted sites to Low.

Windows 7

The following recommendations are encouraged for the Web GUI running on Windows 7:

- Check that the CallREC URL is included in "Trusted sites". If not, include it there. If the user doesn't have administrator privileges, contact the system administrator or set security level of the zone that contains the server to Low.
- Check that there is no proxy enabled in the web browser. If there is, try to disable it.
- Set the security level of trusted sites to Low.
- Disable protected mode for all zones. If protected mode is Enabled for the internet zone, it affects the functionality, even if the server is in trusted sites, this is for Internet Explorer only.

Technical Requirements for Playing Audio and Video Media

The following media players are recommended for successful video and audio playback.

The media players are listed in order of preference, for the reasons supplied below:

1. *Microsoft Windows Media Player*: Plays all audio and video media on the Windows 7 OS. Previous versions of Windows, for example, Vista and XP, need additional codecs to play video media.
Download the K-Lite Codec Pack (BASIC or BASIC Mirror versions) from: http://www.free-codecs.com/K_Lite_Codec_Pack_download.htm.
2. *VLC*: Plays combined video and audio recordings, including dual-screen recordings of 1920x1080 or larger. It is not integrated into browsers, for example, *Internet Explorer* and *Firefox*, for audio playback. *VLC* is recommended for Macs and Linux-based systems for combined audio

and video reviewing. *VLC* can be downloaded at:

<http://www.videolan.org/vlc/>.

3. *QuickTime*: Plays audio and is integrated into *Internet Explorer*, but does not support playing mp3 audio and H.264 format video together for combined audio and video playback.

1

Getting Started with CallREC

This chapter describes how to open CallREC, log in, and change the password, the language, and time zone.

Chapter Topics:

- 1.1 Opening CallREC
- 1.2 Changing the Login Screen Language
- 1.3 Logging in to CallREC
- 1.4 Changing the Password
- 1.5 Logging Out of CallREC

1.1 Opening CallREC

Type the CallREC URL in the browser address box.



Figure 1: The Browser Address Box

The Login screen opens.



Figure 2: Opening CallREC

1.2 Changing the Login Screen Language



Figure 3: Login Screen Language

To change the language that the login page displays in, before logging in, select the required language from the drop-down list. The language used in the login page changes to the selected language. Changing the language only affects the current user without affecting any other user.

1.3 Logging in to CallREC

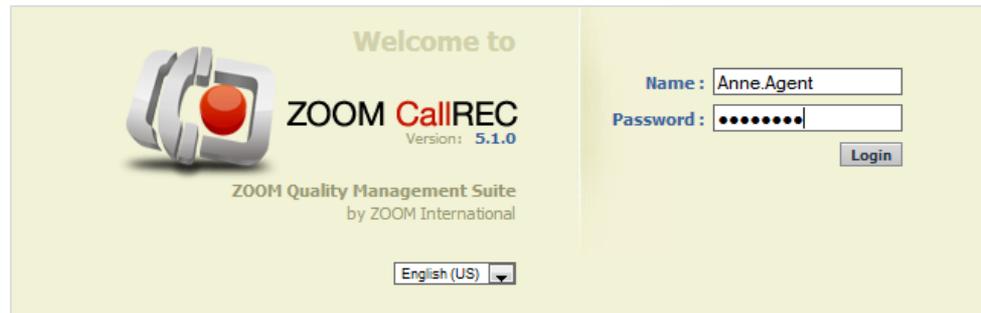


Figure 4: Logging into CallREC

To log in to CallREC:

1. Type the user name in the **Name:** field.
2. Type the password in the **Password:** field.
Usernames and passwords are case sensitive.
3. Click **Login**. CallREC opens to the **Recorded calls** tab.

1.4 Changing the Password

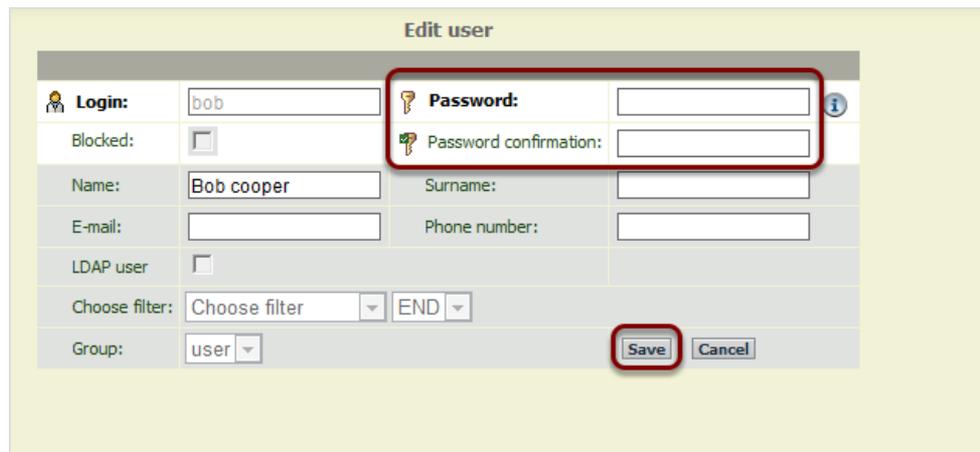
To change the password:

Log in. Navigate to **Users**:



Figure 5: From Users Tab

1. Click **Edit**. The **Edit user** form opens.



Edit user	
 Login:	<input type="text" value="bob"/>
Blocked:	<input type="checkbox"/>
Name:	<input type="text" value="Bob cooper"/>
E-mail:	<input type="text"/>
LDAP user:	<input type="checkbox"/>
Choose filter:	<input type="text" value="Choose filter"/> <input type="button" value="END"/>
Group:	<input type="text" value="user"/>
	<input type="button" value="Save"/> <input type="button" value="Cancel"/>

Password:
Password confirmation:

Figure 6: Edit User Form

2. Type the new password in the **Password:** and **Password confirmation:** fields.

If the browser automatically fills in the **Password:** when the **Edit user** form opens, then disable the **Remember password for sites** option in the browser.

3. Click **Save**.

1.5 Logging Out of CallREC

Certain changes in configuration do not display until the user logs out and back in again.

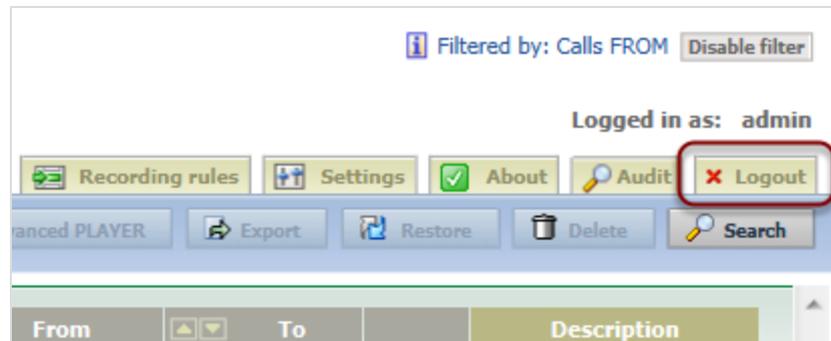


Figure 7: Logout of CallREC

To log out of CallREC, click **Logout**. Closing the browser also logs the user out of CallREC.

2

User Settings

This chapter describes how to changes settings in the Personal setup, Language,Time Zone. and Column setup.

Chapter Topics:

- 2.1 Changing the Language That CallREC Displays
- 2.2 Changing the Time Zone That CallREC Displays
- 2.3 Changing Which Columns Display in the Recorded Calls Tab

2.1 Changing the Language That CallREC Displays

To change the language that the main CallREC application displays, log in to CallREC.

Navigate to **Settings > User Setup > Personal Setup**.

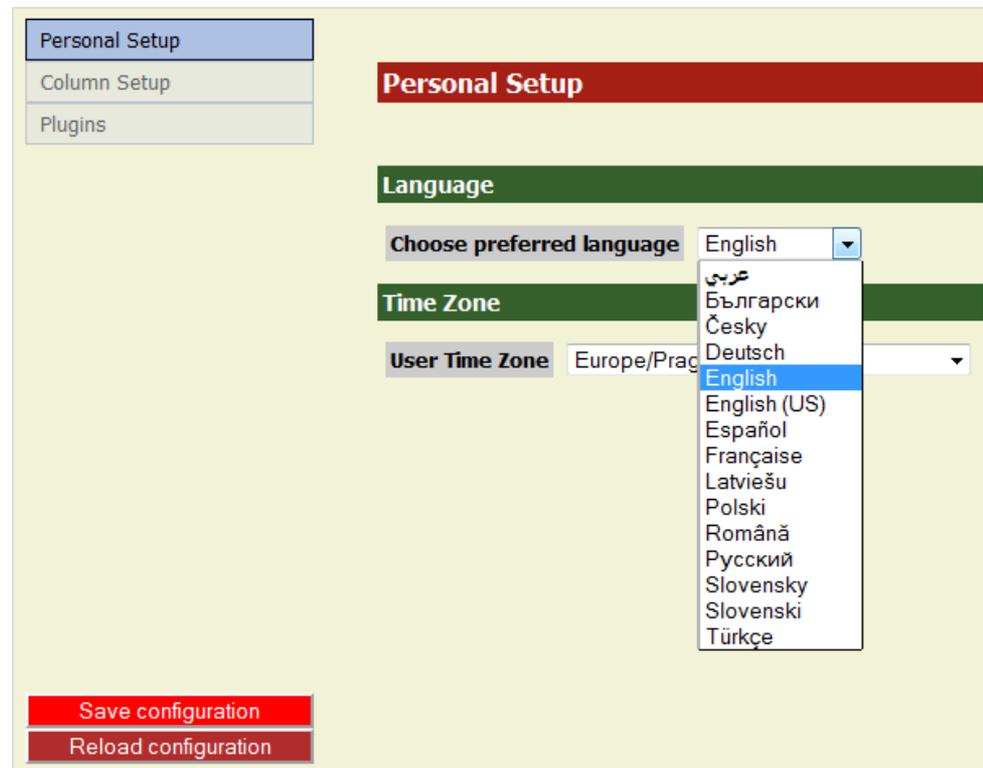


Figure 8: Changing the Default Language

1. Select the language from the **Choose preferred language** drop-down list.
2. Click **Save configuration**.

Refresh the web page by clicking on another tab in CallREC, or by clicking **Refresh** in the web browser.

The labels in CallREC display in the language selected. Some user interface elements may not change language because of naming restrictions and integration with other systems. Changing the language only affects the current user without affecting any other user.

2.2 Changing the Time Zone That CallREC Displays

The **Time Zone** setting affects all dates and times that CallREC displays. To change time zone , navigate to **Settings > User Setup > Personal Setup**.

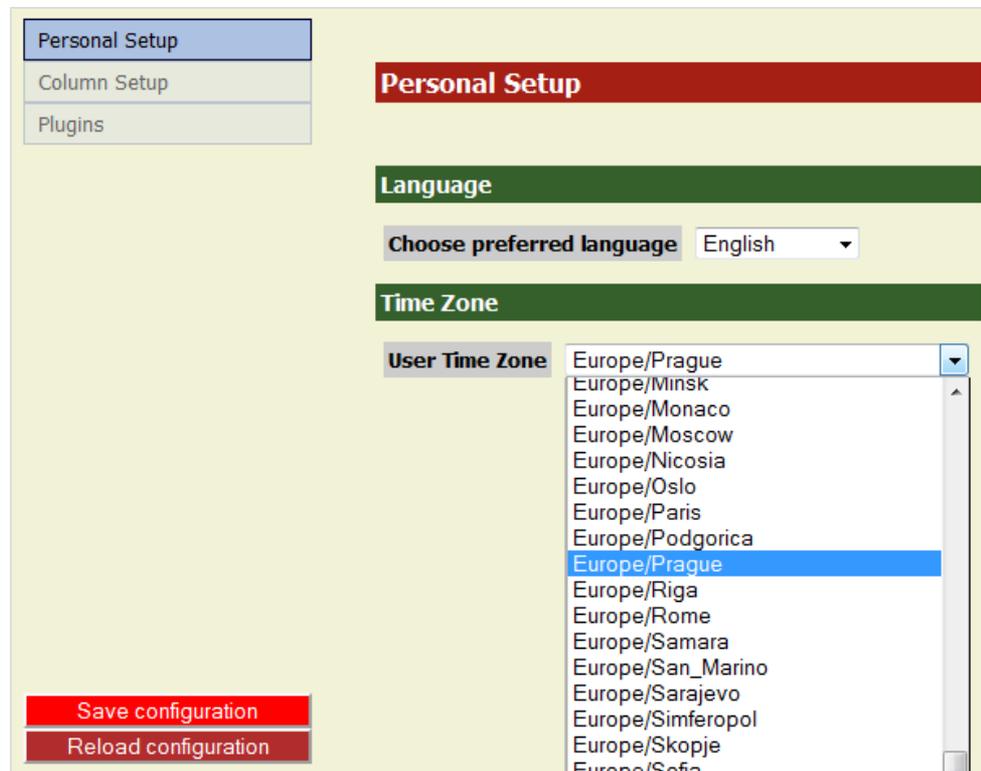


Figure 9: Changing the Default Time Zone

1. Select the time zone from the **User Time Zone** drop-down list.
2. Click **Save configuration**.

Refresh the web page by clicking on another tab in CallREC, or by clicking **Refresh** in the web browser. Changing the time zone only affects the current user without affecting any other user.

2.3 Changing Which Columns Display in the Recorded Calls Tab

The **Recorded calls** tab contains call information to help the user select calls to play. Add or subtract columns to control how much information displays. These selections only affect the users own view of listed calls.

The number and type of columns available for selection depends on the system configuration, and is set by the system administrator.

Navigate to **Settings > Configuration > User Setup > Columns setup.**

Personal Setup
Column Setup
Plugins

Columns Global Setup

Setup rights

Settings below will affect column view if this checkbox is checked

Basic columns

Column name	Visible	Description
Date	<input checked="" type="checkbox"/>	
Call start time	<input checked="" type="checkbox"/>	
Call end time	<input type="checkbox"/>	
Length of call	<input type="checkbox"/>	
Calling number	<input checked="" type="checkbox"/>	
Called number	<input checked="" type="checkbox"/>	
Description	<input checked="" type="checkbox"/>	

LiveMON columns

Column name	Visible	Description
Duration	<input checked="" type="checkbox"/>	
Calling number	<input checked="" type="checkbox"/>	
Called number	<input checked="" type="checkbox"/>	

Save configuration
Reload configuration

Figure 10: User's Setup - Columns

1. Select the columns to display in the **Recorded calls** tab.
2. Click **Save configuration**.

The columns display in the **Recorded calls** tab.

3

Using CallREC

This chapter describes how to use CallREC and deals with how to listen to calls, add notes, and search for calls.

Chapter Topics:

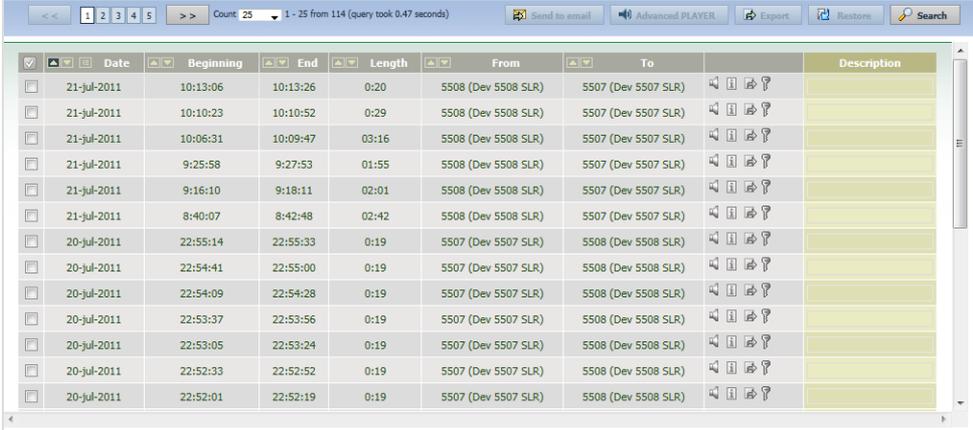
3.1 Viewing Recorded Calls

3.2 The List of Icons Used in the Recorded Calls Tab

3.3 Selecting Recorded Calls for Playback in a Media Player

3.1 Viewing Recorded Calls

Log in to CallREC, the **Recorded calls** tab opens by default. The **Recorded calls** tab displays calls recorded by CallREC.



<input type="checkbox"/>	Date	Beginning	End	Length	From	To	Description
<input type="checkbox"/>	21-Jul-2011	10:13:06	10:13:26	0:20	5508 (Dev 5508 SLR)	5507 (Dev 5507 SLR)	
<input type="checkbox"/>	21-Jul-2011	10:10:23	10:10:52	0:29	5508 (Dev 5508 SLR)	5507 (Dev 5507 SLR)	
<input type="checkbox"/>	21-Jul-2011	10:06:31	10:09:47	03:16	5508 (Dev 5508 SLR)	5507 (Dev 5507 SLR)	
<input type="checkbox"/>	21-Jul-2011	9:25:58	9:27:53	01:55	5508 (Dev 5508 SLR)	5507 (Dev 5507 SLR)	
<input type="checkbox"/>	21-Jul-2011	9:16:10	9:18:11	02:01	5508 (Dev 5508 SLR)	5507 (Dev 5507 SLR)	
<input type="checkbox"/>	21-Jul-2011	8:40:07	8:42:48	02:42	5508 (Dev 5508 SLR)	5507 (Dev 5507 SLR)	
<input type="checkbox"/>	20-Jul-2011	22:55:14	22:55:33	0:19	5507 (Dev 5507 SLR)	5508 (Dev 5508 SLR)	
<input type="checkbox"/>	20-Jul-2011	22:54:41	22:55:00	0:19	5507 (Dev 5507 SLR)	5508 (Dev 5508 SLR)	
<input type="checkbox"/>	20-Jul-2011	22:54:09	22:54:28	0:19	5507 (Dev 5507 SLR)	5508 (Dev 5508 SLR)	
<input type="checkbox"/>	20-Jul-2011	22:53:37	22:53:56	0:19	5507 (Dev 5507 SLR)	5508 (Dev 5508 SLR)	
<input type="checkbox"/>	20-Jul-2011	22:53:05	22:53:24	0:19	5507 (Dev 5507 SLR)	5508 (Dev 5508 SLR)	
<input type="checkbox"/>	20-Jul-2011	22:52:33	22:52:52	0:19	5507 (Dev 5507 SLR)	5508 (Dev 5508 SLR)	
<input type="checkbox"/>	20-Jul-2011	22:52:01	22:52:19	0:19	5507 (Dev 5507 SLR)	5508 (Dev 5508 SLR)	

Figure 11: List of Recorded Calls

Each call displays with information about the call in columns.

Change the **Count** to increase or decrease the number of calls displayed on one page.

Click << or >> to move through the pages of recorded calls.

3.2 The List of Icons Used in the Recorded Calls Tab

The recorded call icons show statuses and warnings of calls.

 Play audio: Launches the media player so that the user can listen to the call.

 Call details: Opens the information window so the user can add text and see call details.

 Export: Enables the user to open or save the call file.

 Video: Mixes the video

 Video mixed: Exports the call to the user's computer to play the call screen recording.

 Only one stream recorded warning icon. Warns that the user can only hear one side of the conversation.

 Warning icon: Point to the warning icon for more information. A tool tip appears with the reason for the warning. Reasons include, for example, "No stream recorded."

 Archived call: The call is archived.

 Deleted call: The call is deleted.

 Deleted call available for restore: Restores deleted and archived calls so that the user can open them again.

 Restoring call: Shows that the call is in the process of being restored.

 Restored call: Shows the call is restored and available for playing.

 Call unlocked: The call can be deleted

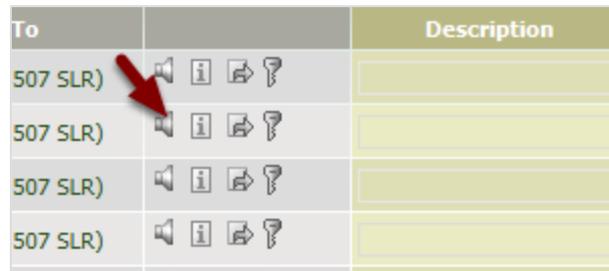
 Call protected: The call protected from deletion.

 Synchronized and used, This shows the status of synchronized calls in a multi-server environment.

 Synchronized and not used.

 Video not mixed: This shows that a ScreenREC video recording is available for the call, but the audio for the call associated with the video is not available.

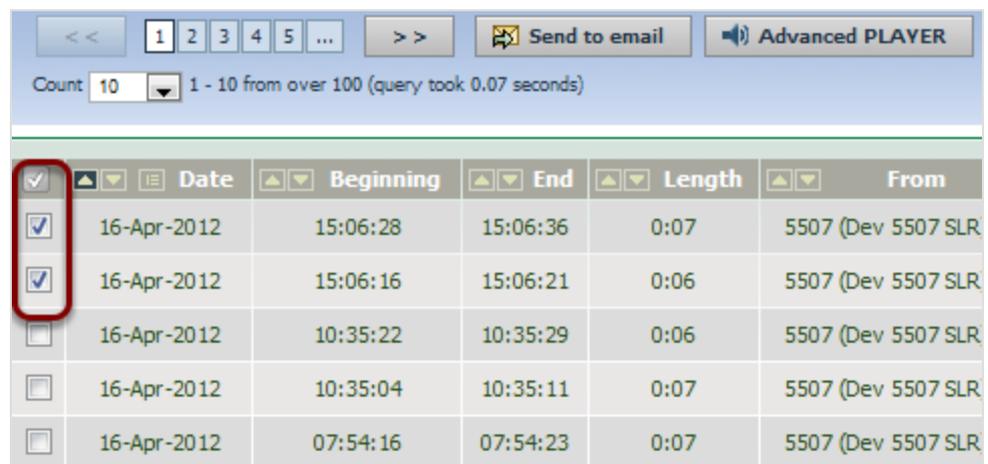
3.3 Selecting Recorded Calls for Playback in a Media Player



To		Description
507 SLR)	   	
507 SLR)	   	
507 SLR)	   	
507 SLR)	   	

Figure 12: Recorded Call Icons

Click the play audio icon  to open a media player to play a call. The media player appears at the bottom of the screen. To end the playback press stop or pause on the media player.



<input type="checkbox"/>				Date		Beginning		End		Length		From
<input checked="" type="checkbox"/>				16-Apr-2012		15:06:28		15:06:36		0:07		5507 (Dev 5507 SLR)
<input checked="" type="checkbox"/>				16-Apr-2012		15:06:16		15:06:21		0:06		5507 (Dev 5507 SLR)
<input type="checkbox"/>				16-Apr-2012		10:35:22		10:35:29		0:06		5507 (Dev 5507 SLR)
<input type="checkbox"/>				16-Apr-2012		10:35:04		10:35:11		0:07		5507 (Dev 5507 SLR)
<input type="checkbox"/>				16-Apr-2012		07:54:16		07:54:23		0:07		5507 (Dev 5507 SLR)

Figure 13: Selecting Multiple Recorded Calls

To play more than one call, select the check boxes of the calls. The buttons along the blue bar above the recorded calls table activate. The buttons available to the user are defined by the user privileges. Send the selected recordings via email, play them using the Advanced Player, export them to the local computer, restore them if they are archived, or delete them.

3.3.1 Playing Recorded Calls

Navigate to Recorded calls.

1. Find the call.

To		Description
507 SLR)	   	
507 SLR)	   	
507 SLR)	   	
507 SLR)	   	

2. Click the play audio icon  for that call to launch the integrated player and open the call's stereo recording.

The media player uses standard playback controls. Play, pause, stop, fast forward, and adjust the volume.



Figure 14: Integrated Player - Internet Explorer and Media Player

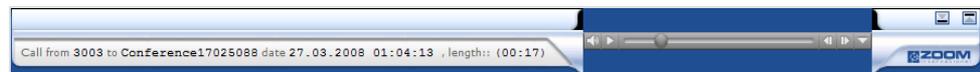


Figure 15: Integrated Player - Other Browsers and Apple QuickTime

3.3.2 Listening to Several Calls in a List using Advanced Player

<input type="checkbox"/>			Date		Beginning		End		Length		From
<input checked="" type="checkbox"/>			16-Apr-2012		15:06:28		15:06:36		0:07		5507 (Dev 5507 SLR
<input checked="" type="checkbox"/>			16-Apr-2012		15:06:16		15:06:21		0:06		5507 (Dev 5507 SLR
<input type="checkbox"/>			16-Apr-2012		10:35:22		10:35:29		0:06		5507 (Dev 5507 SLR
<input type="checkbox"/>			16-Apr-2012		10:35:04		10:35:11		0:07		5507 (Dev 5507 SLR
<input type="checkbox"/>			16-Apr-2012		07:54:16		07:54:23		0:07		5507 (Dev 5507 SLR

Figure 16: Selecting Multiple Recorded Calls

To play more than one call:

1. Select the check boxes of the calls.

The buttons along the blue bar above the recorded calls table activate.

2. Click **Advanced PLAYER**. The Advanced Player window opens.

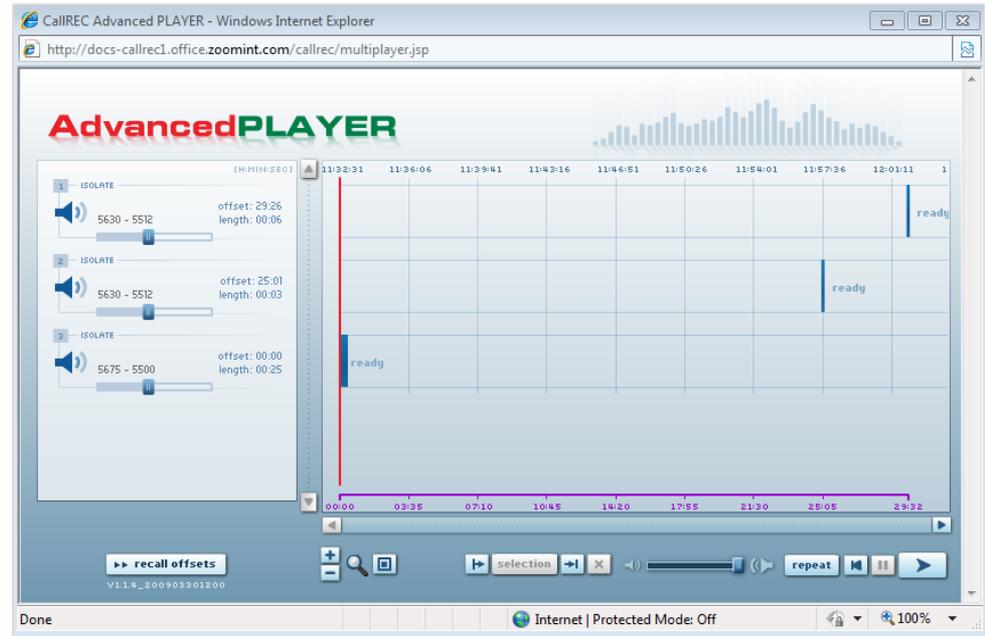


Figure 17: The Advanced Player Window

3. Drag and drop the calls to adjust the order and mix of call playback.

3.3.3 Adding, Deleting, or Modifying Notes in the Call Description Field

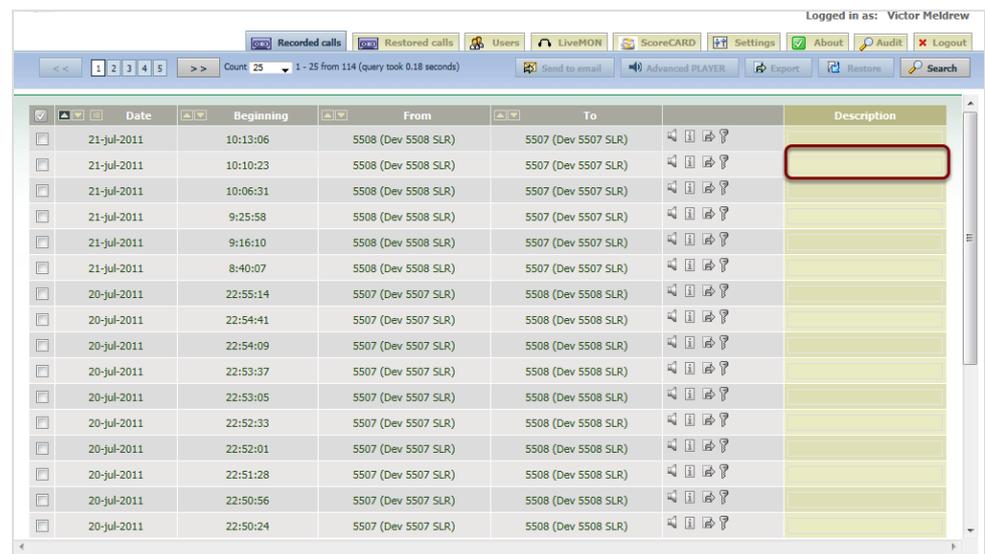


Figure 18: Description of Fields on RHS

To add, delete, or modify text in the description field, click inside the **Description** field.

1. Add descriptive text notes to a call recording.
2. These notes display to all users who have access to the call recording.
Add initials to the notes to identify who made the notes.

3.3.4 Adding Notes Using the Call Details Icon

The user may add, delete, or modify notes to the **Call description** and display call information.

From	To		Description
5508 (Dev 5508 SLR)	5507 (Dev 5507 SLR)	🔊 ⓘ 🗑️ 🔑	
5508 (Dev 5508 SLR)	5507 (Dev 5507 SLR)	🔊 ⓘ 🗑️ 🔑	
5508 (Dev 5508 SLR)	5507 (Dev 5507 SLR)	🔊 ⓘ 🗑️ 🔑	
5508 (Dev 5508 SLR)	5507 (Dev 5507 SLR)	🔊 ⓘ 🗑️ 🔑	

Figure 19: The Information Buttons

Click the call details icon ⓘ . A new window opens that displays call data and enables the user to add text notes.

Call description

Couple Information

Call ID	386
Couple ID	386
Call Status	No problem
Synchro Tool	
Delete Tool	
Mixer Tool	
Restore Tool	
Archive Tool	
ScoreCARD Usage	
Synchronization ID	16967553192.168.7.51:26592192.168.7.59:16384_1

Figure 20: Call Description Window

1. Click inside the **Call description** box. Type in notes. Use consistent terms, for example: “sale”, “complaint”, or “training”. Add initials to the notes to identify who made the notes during a search.
2. Click **Save description**.

The information is added to the call data record and stored on the database.

To delete or modify a note:

1. Click the call details icon  .
2. Click inside the **Call description** box. Delete or modify the notes.
3. Click **Save description**.

The information is updated to the call data record and stored on the database.

3.3.5 Playing Conference and Transferred Calls

CallREC records data traffic between pairs of connected telephones. A conference call or transferred call is actually a series of these pairs.

- Recording 1 – call between the caller and the operator.
- Recording 2 – call between the operator and the called party.
- Recording 3 – call between the caller and called party.

To listen to the entire call, the user must open all pairs together in Advanced Player. Select the checkboxes of the calls to be reviewed, and click Advanced Player.

CallREC identifies conference calls with a `ConferenceNumber` identifier. The `ConferenceNumber` is the same for the entire collection of call pairs.

<input type="checkbox"/>	May 15, 2008	3:36:26 AM	1001	Conference16803309	26093	16803309	  
<input type="checkbox"/>	May 15, 2008	3:36:26 AM	1113	Conference16803309	26093	16803309	  
<input type="checkbox"/>	May 15, 2008	3:36:26 AM	1112	Conference16803309	26093	16803309	  

Figure 21: Identifying Conference Calls

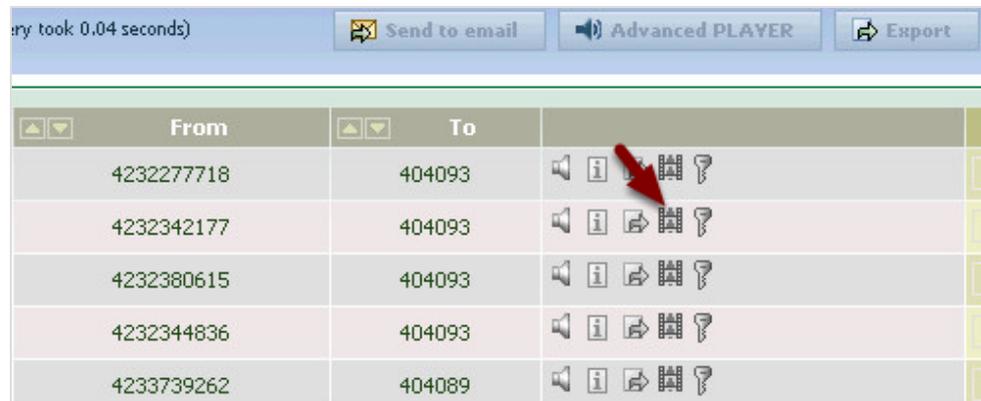
Transferred calls are kept as independent, but related, recordings, or couples. To sort related calls so that they appear together in the recorded calls list, click the **Order Calls** icon at the top of the **Date** column.



Figure 22: Order by Related Calls Icon

3.3.6 Playing ScreenREC Video Recordings

ZOOM ScreenREC enables the user to watch a video recording of an agent's desktop while listening to the call recording. The user can see and hear what the agent saw and heard.

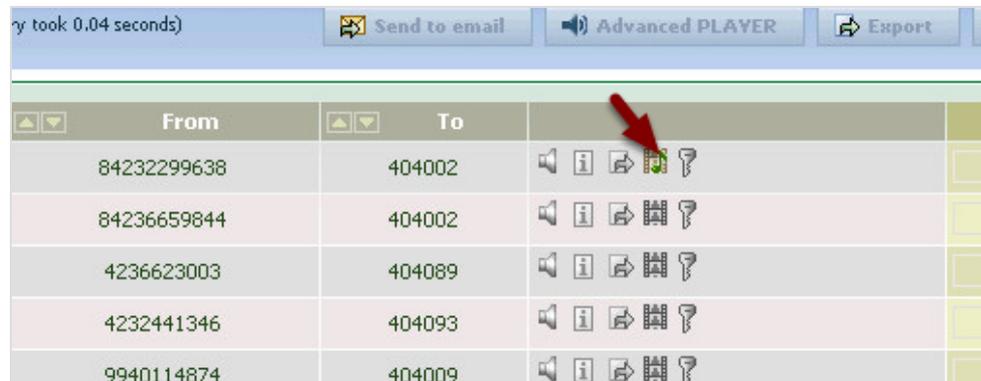


The screenshot shows a call recording interface with a table of recorded calls. The table has columns for 'From' and 'To' phone numbers. To the right of each row are several icons: a speaker, an information icon, a video icon, a play icon, and a key icon. A red arrow points to the video icon in the first row.

From	To	Icons
4232277718	404093	Speaker, Info, Video, Play, Key
4232342177	404093	Speaker, Info, Play, Video, Key
4232380615	404093	Speaker, Info, Play, Video, Key
4232344836	404093	Speaker, Info, Play, Video, Key
4233739262	404089	Speaker, Info, Play, Video, Key

Figure 23: Recorded Calls with Screen Capture

1. Click the video icon . to mix the video. When mixed the icon changes to .



The screenshot shows the same call recording interface as Figure 23, but the video icon in the first row is now a mixed video icon (a video icon with a green play button). A red arrow points to this icon.

From	To	Icons
84232299638	404002	Speaker, Info, Mixed Video, Play, Key
84236659844	404002	Speaker, Info, Play, Video, Key
4236623003	404089	Speaker, Info, Play, Video, Key
4232441346	404093	Speaker, Info, Play, Video, Key
9940114874	404009	Speaker, Info, Play, Video, Key

Figure 24: Mixed video

2. Click mixed video icon  to export the mixed video.

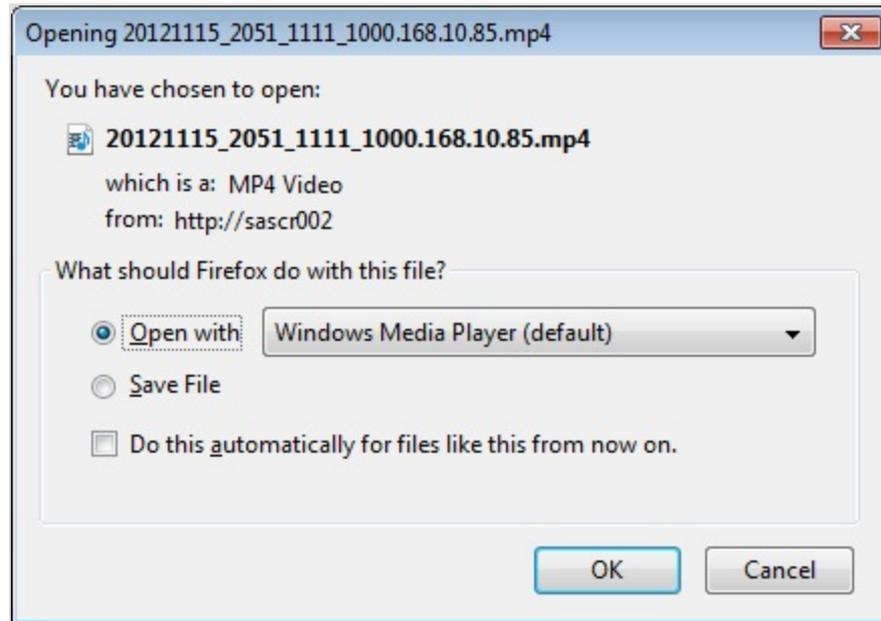


Figure 25: Recorded Calls with Screen Capture

3. Click **Open with** to launch the video, or click **Save File** to store the file on the computer. The messages vary depending on which browser is used. The user must have the H.264 video codec installed to launch videos. For more information, contact the system administrator.

3.3.7 Protecting Calls from Deletion

<input type="checkbox"/>	Feb 25, 2013	8:08:16 AM	8:08:29 AM	0:13	5687 (Peter)	5507 (Dev 5507 SLR)					
<input type="checkbox"/>	Feb 25, 2013	8:08:11 AM	8:08:16 AM	0:04	5687	Conference21219375					
<input type="checkbox"/>	Feb 25, 2013	8:08:11 AM	8:08:16 AM	0:04	5655	Conference21219375					
<input type="checkbox"/>	Feb 25, 2013	8:08:11 AM	8:08:16 AM	0:04	5507	Conference21219375					
<input type="checkbox"/>	Feb 25, 2013	8:08:09 AM	8:08:11 AM	0:02	5687 (Peter)	5655					

Figure 26: Protecting Calls

To protect a call from deletion.

Click the call unprotected to lock a call.

The call protected icon appears.

Protecting a recorded call means that it cannot be deleted from the database.

<input type="checkbox"/>	Feb 25, 2013	8:08:16 AM	8:08:29 AM	0:13	5687 (Peter)	5507 (Dev 5507 SLR)					
<input type="checkbox"/>	Feb 25, 2013	8:08:11 AM	8:08:16 AM	0:04	5687	Conference21219375					
<input type="checkbox"/>	Feb 25, 2013	8:08:11 AM	8:08:16 AM	0:04	5655	Conference21219375					
<input type="checkbox"/>	Feb 25, 2013	8:08:11 AM	8:08:16 AM	0:04	5507	Conference21219375					

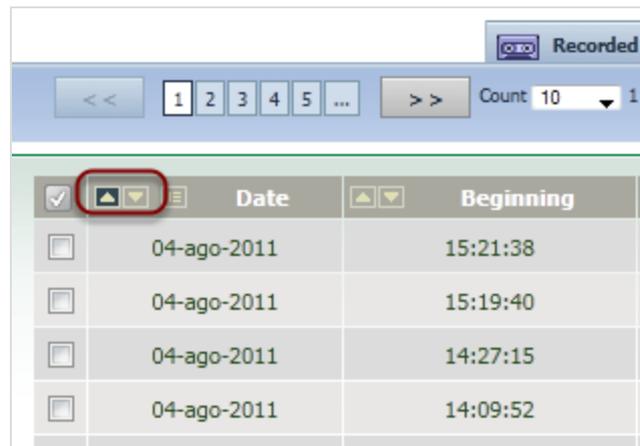
Figure 27: Protected Call

To remove protection from a call.

Click the call protected icon  to remove protection from a call. The call unprotected icon  appears.

When calls are archived, they can be deleted from the active database unless they are protected.

3.3.8 Changing the Order that Calls Display in, on the Recorded Calls Page



<input checked="" type="checkbox"/>		Date		Beginning
<input type="checkbox"/>		04-ago-2011		15:21:38
<input type="checkbox"/>		04-ago-2011		15:19:40
<input type="checkbox"/>		04-ago-2011		14:27:15
<input type="checkbox"/>		04-ago-2011		14:09:52

Figure 28: Up and Down Controls for Changing the Recording Order

Calls automatically display in date and time order, with the most recent calls first.

Change the order by using the up and down arrows at the top of each column.

The calls displayed in CallREC depend on the filters saved on the system. Disable all filters to displays available records.

3.3.9 Sending Calls to Email

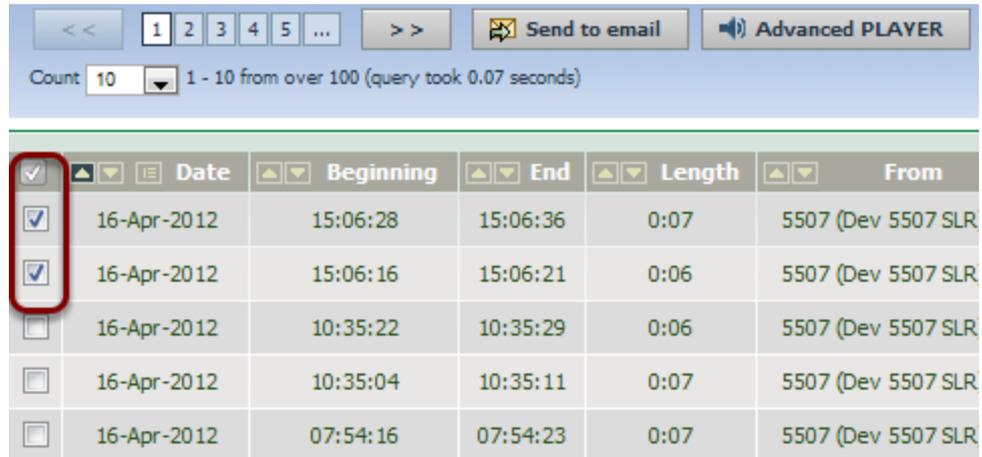


Figure 29: Selecting Multiple Recorded Calls

To email CallREC recorded calls as .mp3 file attachments.

1. Select the checkboxes of one or more recorded calls by in the first column.
2. Click **Send to mail**. The **Send calls to email** window opens.

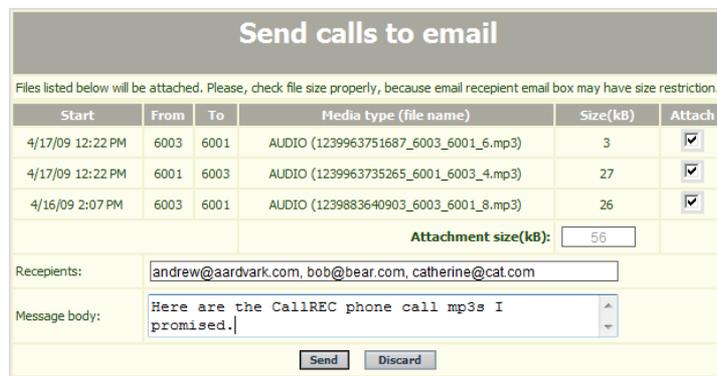


Figure 30: Sending Calls to Email

3. Type email addresses in the **Recipients:** field. Use commas to separate emails.
4. Type the message in the **Message body:** field.
5. Click **Send**.

CallREC sends the attached calls to all the email addresses entered.

4

Searching and Using Filters in CallREC

This chapter describes how to search and use filters in CallREC.

-
- Chapter Topics:
- 4.1 Opening the Search Filter Dialog
 - 4.2 Understanding Search Filters
 - 4.3 Default Search Filter
 - 4.4 Using Advanced Searches
 - 4.5 Using Saved Filters
 - 4.6 Saving Search Filters
 - 4.7 Disabling Filters
 - 4.8 Deleting Saved Filters
 - 4.9 Using Filters in Permanent Rules

4.1 Opening the Search Filter Dialog

ZOOM CallREC uses search filters to identify call records.

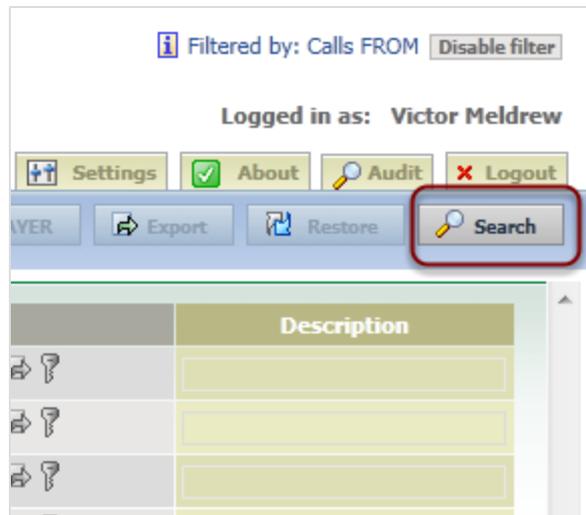


Figure 31: The Search Button

To search for calls and video recordings, click **Search**. The **Search filter** dialog box opens.

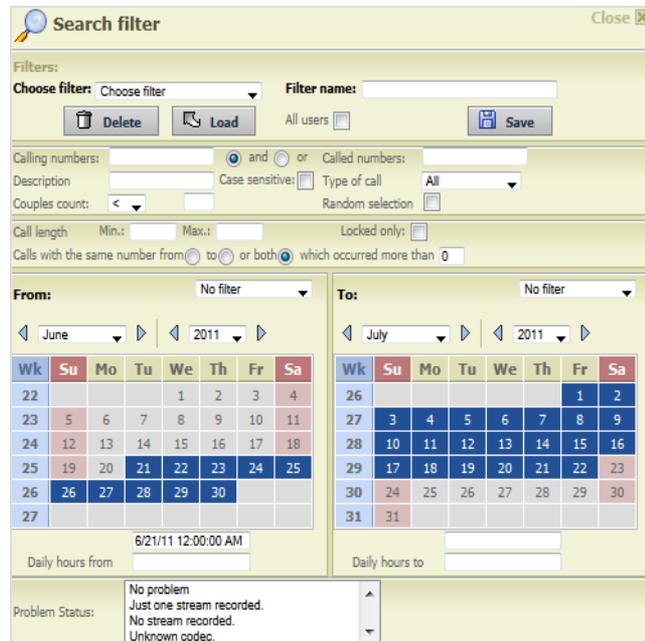


Figure 32: Search Filter

4.2 Understanding Search Filters

Search filters enable users to find calls within the CallREC database, and the same filters can be used to define user access rights within the **Users** tab.

In most installations, the system administrator provides basic recording and search filters during set-up. Each group and user can be provided with default filters specific to their roles. For example, a supervisor can have a filter that only displays calls handled by a particular group of agents. The supervisor only sees calls from those agents in the Recorded calls Tab.

To search for a specific call or screen recording, the supervisor identifies call attributes, like an agent phone number, and a time range. CallREC only displays the agent's calls that were recorded during that time range.

If the supervisor uses the same searches repeatedly, they can save the search as a filter to be used at a later time. This search filter can be made available to other users of the CallREC system. A filter can not be deleted while in use.

Filters identify calls based on call attributes.

Call attributes include:

- Signaling information, for example, IP addresses and telephones that were used in the calls.
- Date or time information, for example, when calls start and stop.
- Duration of call.
- Type of call.
- Call recording status, for example, locked calls only.

Advanced searches enable the user to set filters based on external information, including customer name, skills type, wrap up code, and agent evaluation data fields added to the database by the system administrator.

4.3 Default Search Filter

A permanent filter limits the search range of calls to 31 days by default, to improve the performance of searches. This filter prevents a gap of more than 31 days between the **To:** and **From:** search parameters; an error displays if a longer search period is specified.

Without any problem status selected, the search includes calls with all statuses.

Choose from:

- **No Problem.**
- **Just one stream recorded.**
- **No stream recorded.**
- **Unknown codec.**
- **Decoding error.**
- **Error communicating with recorder.**
- **Cannot capture files.**
- **Decoder failure (IO error).**
- **Different codecs for each stream.**
- **The file exceeds its maximum size.**
- **License problem.**
- **Incomplete stream saved.**

4.4 Using Advanced Searches

Navigate to: **Recorded calls > Search.**

Search filter Close

Filters:
Choose filter: Choose filter Filter name:
 All users

Calling numbers: and or Called numbers:
Description: Case sensitive: Type of call: All
Couples count: Random selection:
Call length: Min.: Max.: Locked only:
Calls with the same number from to or both which occurred more than

From: No filter **To:** No filter
June 2011 July 2011

Wk	Su	Mo	Tu	We	Th	Fr	Sa
22				1	2	3	4
23	5	6	7	8	9	10	11
24	12	13	14	15	16	17	18
25	19	20	21	22	23	24	25
26	26	27	28	29	30		
27							

6/21/11 12:00:00 AM
Daily hours from: Daily hours to:

Problem Status:

Condition connecting data above and below and or

Advanced search:
Condition between options displayed below and or
Case insensitive sensitive
Called Stream Payload:

Figure 33: Advanced Search Fields

Defining custom search criteria in **Advanced search:** extends the search capabilities to include external data available in the call management system. System administrators define **Advanced search:** criteria. Added external data fields for **Advanced search:** appear under the calendar controls in the search window.

4.5 Using Saved Filters

Navigate to: **Recorded calls > Search.**

The screenshot shows the 'Search filter' dialog box. At the top, there is a 'Filters' section with a 'Choose filter' dropdown menu, a 'Filter name' text box, and buttons for 'Delete', 'Load', 'All users', and 'Save'. Below this are various search criteria fields: 'Calling numbers', 'Description', 'Case sensitive', 'Type of call', 'Couples count', 'Call length' (with 'Min.' and 'Max.' fields), and 'Locked only'. There are also radio buttons for 'Calls with the same number from' and 'to' or 'both'. The 'Calls FROM' and 'Calls TO' sections each have a 'No filter' dropdown and a calendar view for the month of June and July 2011. Below the calendars are 'Daily hours from' and 'Daily hours to' fields. At the bottom, there is a 'Problem Status' dropdown menu and 'Cancel' and 'Search' buttons. The 'Load' button and the 'Search' button are highlighted with red boxes.

Figure 34: Search

To use a saved filter:

Saved filters appear in the **Choose filter:** drop-down list. Selecting a pre-existing filter enables the user to use recurring search criteria. Filters can be created by users, and shared, or they can be set-up by system administrators.

1. Select a filter from the **Choose filter:** drop down list.
2. Click **Load**. The filter settings appear in the **Search** window.
3. Click **Search**.

Only calls matching the filters display in the **Recorded calls** list in CallREC. To see all calls, disable the filters.

4.6 Saving Search Filters

To create a filter that displays only certain calls, the user must choose search criteria in the search window. Saving this search criteria creates a re-usable filter.

1. Select the search attributes. If the **From:** date is chosen, then the **To:** date with a separation of no more than 31 days must also be chosen, otherwise the dates are not saved.
2. Type a **Filter name:**
3. Select **All users** to make saved filters available to all users of the system. Otherwise, saved filters are available only to the user who created the filters.
4. Click **Save**.

The filter is now added to the filter drop-down list.

4.7 Disabling Filters

Navigate to: **Recorded calls**.

CallREC displays the search criteria that are currently active at the top right of the screen next to the **Filtered by:** indicator.

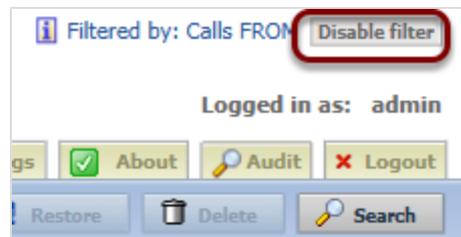


Figure 35: Clearing Filters

To return to displaying all records, click **Disable filter**. A permanent **Calls FROM** filter improves search performance by limiting the search range to a default of 31 days. This filter is visible and cannot be disabled, but the range value can be changed by an administrator.

4.8 Deleting Saved Filters

1. Select a filter from the **Choose filter:** drop down list.
2. Click **Delete**.

The filter is no longer available in the filter drop down list.

Important: If the filter is being used by other users of the system, CallREC does not enable the current user to delete the user who created the filter.

4.9 Using Filters in Permanent Rules

Filters can also be used as rules for restricting access to recorded calls. Supervisors and administrators can assign saved filters to **Groups** and **Users**. When filters are assigned to a group, then only those filtered recorded calls are available to the users within that group.

Permanent rule filters can be assigned to a group through the **Users** tab. Open a group, and click **Edit Filters**.

Multiple permanent rule filters can be assigned to a group by editing the group, and choosing saved filters from the **Choose filter:** drop down list. Use Boolean operators, **and**, or **or**, to combine filters. When saving the group, the permanent filters apply to all members of that group.

5

Searching for Call Records in CallREC

This chapter describes how to search for calls in CallREC.

Chapter Topics:

- 5.1 Searching for calls by Calling and Called Numbers
- 5.2 Alphanumeric Characters
- 5.3 Using Wild Cards to Search
- 5.4 Searching for Calls by Type
- 5.5 Searching for Calls by Date-Time Range
- 5.6 Searching for Custom Time Ranges
- 5.7 Searching for Calls During a Standard Time Range
- 5.8 Searching for Calls by Description
- 5.9 Searching for Calls by Couples Count
- 5.10 Searching for Calls by Call Length
- 5.11 Searching for Calls from the Same Numbers
- 5.12 Displaying Call Search Results Randomly
- 5.13 Searching for Calls by External Data

5.1 Searching for calls by Calling and Called Numbers

If either the calling or called numbers is known, it is possible to search for all the calls from, and to those numbers. Navigate to **Recorded calls > Search**.

The screenshot shows the 'Search filter' dialog box. At the top, there are 'Filters:' and 'Filter name:' fields. Below that are 'Delete', 'Load', and 'Save' buttons. The main section contains two input fields: 'Calling numbers: 124?' and 'Called numbers: 4*'. Between these fields are radio buttons for 'and' (selected) and 'or'. Below these are several other options: 'Case sensitive', 'Type of call', 'All', 'Couples count', 'Random selection', 'Call length' (Min. and Max.), 'Locked only', and 'Calls with the same number from to or both which occurred more than 0'. There are two calendar views for 'From' (April 2012) and 'To' (May 2012). Below the calendars are 'Daily hours from' and 'Daily hours to' fields. At the bottom, there is a 'Problem Status' dropdown menu and 'Cancel' and 'Search' buttons. A red box highlights the 'Calling numbers' and 'Called numbers' fields and the 'and' operator. Another red box highlights the 'Search' button.

Figure 36: Searching by Calling and Called Numbers

To find **Calling and Called numbers**:

1. Type the calling number in the **Calling numbers:** field. Use the wildcards “?” and “*” for ranges of numbers. The example above gives calling numbers from 1240-9 and any called number beginning in 4, that is from 4000 to 4999.
2. Select the operator value **and** or **or**. Using **and** returns records from the calling number range and called number range, using **or** returns records that contain either. This is often used when setting filters to listen to calls made or received by a specific user. The calling number and the called number would be the same number separated by **or** operator, this would return all calls that a certain agent had either made or received.
3. Type the called number in the **Called numbers:** field. Use wildcards “*” and “?” for ranges of numbers.
4. Click **Search**.

Only recorded calls found using the numbers, or range of numbers, that were typed in the **Calling numbers:** and **Called numbers:** boxes display in the **Recorded calls** list. This can be used for setting filters to listen to calls that were made or received by a specific user. The calling number and the called number would be the same value, separated by **or**. This would then return all calls that the user has either made or received.

To return to displaying all recorded calls, click **Disable Filter** at the top right of the screen.

5.2 Alphanumeric Characters

QM Suite supports extensions, DNs, and terminals that include alphanumeric characters. The following characters are supported:

Character Type	Valid Characters
Letters	A-Z, a-z
Numbers	0-9
Symbols	@ & + \$ % ' . , : ; ! ~ () [] # - _

Table 1: Valid Alphanumeric Characters for Extensions, DNs and Terminals

Ranges can only use numeric characters, for example: 1234-5678, or a regular expression. Multiple ranges must be separated by commas (,) with no additional spaces, for example: 1000-1900, 2000-2700, 3200-3500.

5.3 Using Wild Cards to Search

Wild card characters can be used in find fields as follows:

? character represents an arbitrary character

* character represents an arbitrary string

Examples of the use of wild cards are as follows:

Specifying a range: 200? selects the numbers from 2000 to 2009;

20?? selects the numbers from 2000 to 2099

Specifying all numbers: 2* selects all phone numbers which start with the number 2;

*2 selects all phone numbers which end with the number 2

5.4 Searching for Calls by Type

Navigate to: **Recorded calls > Search**.

CallREC is able to distinguish call patterns and determine which recordings belong to a type of call, such as a conference call between three different callers. The types of calls that the user can search for include the following:

- **All**
- **Normal**
- **Conference**

To search for calls by their type:

1. Select the **Type of call** from the drop down list.
2. Click **Search**.

Only recorded calls of the type selected display in the **Recorded calls** list.

To return to displaying all recorded calls, click **Disable Filter**.

5.5 Searching for Calls by Date-Time Range

Navigate to: **Recorded calls > Search.**

All calls are identified by their date, time, and duration. CallREC uses standard calendar controls to enable the user to identify their own time ranges. The user can also use pre-configured time ranges, or search during hourly ranges.

To search for pre-configured time ranges:

The screenshot shows the 'Search filter' dialog box. The 'From:' dropdown menu is open, showing pre-configured time ranges. The 'To:' dropdown menu is also open, showing 'No filter'. The 'Search' button is highlighted with a red box.

Figure 37: Search Pre-configured Time Range

1. Select a pre-configured range from the **From:** drop down list or the **To:** drop down list.

2. Click **Search.**

Only recorded calls from the time range selected display in the **Recorded calls** list.

To return to displaying all recorded calls, click **Disable Filter.**

5.6 Searching for Custom Time Ranges

Navigate to: **Recorded calls > Search.**

To search for Custom Time Ranges:

The screenshot shows the 'Search filter' dialog box. The 'From:' and 'To:' sections are highlighted with a red box. The 'From:' section shows a calendar for March 2012, with the date 17/03/12 00:00:00 selected. The 'To:' section shows a calendar for April 2012, with the date 17/04/12 00:00:00 selected. The 'Search' button is also highlighted with a red box.

Figure 38: Search Date Range

1. Select a starting date-time in the **From:** calendar control.
2. An ending date-time in the **To:** calendar control must also be selected.
3. Click **Search**.

Only recorded calls in the date-time range selected display in the **Recorded calls** list.

To return to displaying all recorded calls, click **Disable Filter**.

5.7 Searching for Calls During a Standard Time Range

Navigate to: **Recorded calls > Search.**

To search for **Daily hours**:

To display calls that were recorded during a standard daily time range, such as calls between 8 am and 10 am, use **Daily hours** to find the recorded calls.

Note: Use the time format HH:MM:SS AM/PM.

The screenshot shows the 'Search filter' dialog box. The 'Daily hours from' field is set to '17/03/12 00:00:00'. The 'Daily hours to' field is empty. The 'Search' button is highlighted with a red box.

Figure 39: Search Time Range

1. Type the **Daily hours from** starting time.
2. Type the **Daily hours to** ending time.
3. Click **Search**.

Only recorded calls that are within the **Daily hours** range selected display in the **Recorded calls** list.

Check the fields below the calendars to ensure that the selection criteria have been registered correctly. CallREC reads the fields below the

calendars for the selected date and time ranges, and not the calendars themselves.

To return to displaying all recorded calls, click **Disable Filter**.

5.8 Searching for Calls by Description

Navigate to: **Recorded calls > Search.**

The **Recorded calls** tab in CallREC displays comments typed in the **Description** column in call records by users. Users can search for calls using these comments.

The screenshot shows the 'Search filter' dialog box. It includes a 'Description' field for entering search terms, a 'Case sensitive' checkbox, and a 'Type of call' dropdown menu. There are also date pickers for 'From' and 'To' dates, and a 'Search' button highlighted with a red box.

Figure 40: Search by Description

1. Type the search terms in the **Description** field.
2. Select **Case sensitive**, if the search must match upper and lower case.
3. Click **Search**.

Only recorded calls containing comments matching the user terms display in the **Recorded calls** list.

To return to displaying all recorded calls, click **Disable Filter**.

Important:

Comments in the **Description** field must use standard terminology to make searching for calls more accurate.

5.9 Searching for Calls by Couples Count

Navigate to: **Recorded calls > Search.**

Each call has at least one couple. A couple is a pair of RTP streams that correspond to the two directions of media in a telephone conversation. A couple is created at the start of a call ,or call section, and ends when an event in the call signaling closes the RTP stream. When a user transfers a call, or has a conference call, each new connection is a new call couple. These related call couples can be found by the number of couples they have. Transferred calls are > greater than 1. Conference calls are > greater than 2.

1. Select <less than, = equal to, or >greater than from the drop down list.
2. Type the number of call couples.
3. Click **Search.**

Only recorded calls with the number of call couples selected display in the **Recorded calls** list.

To return to displaying all recorded calls, click **Disable Filter.**

5.10 Searching for Calls by Call Length

Navigate to: **Recorded calls > Search.**

CallREC enables the user to find calls based on their total length.

1. Type the minimum call length in the **Min.:** field (hh:mm:ss).
2. Type the maximum call length in the **Max.:** field (hh:mm:ss).

Note: There can be a combination of **Min.:** and **Max.:** or only using one value.

3. Click **Search.**

Only recorded calls within the length selected display in the **Recorded calls** list.

To return to displaying all recorded calls, click **Disable Filter.**

5.11 Searching for Calls from the Same Numbers

Navigate to: **Recorded calls > Search**.

CallREC enables the user to find phone numbers that are repeatedly connected to each other. If there is a customer who calls repeatedly, or an agent who makes many calls to the same number, it is possible to find these patterns.

1. Select **Calls from the same number**.
 - **from**: The same number calls the call center repeatedly.
 - **to**: The same agent calls outside repeatedly.
 - **both**: The same number calls the same agent repeatedly.
2. Type a number into the **which occurred more than** field.
3. Click **Search**.

Only recorded calls that meet the criteria display in the **Recorded calls** list.

To return to displaying all recorded calls, click **Disable Filter**.

5.12 Displaying Call Search Results Randomly

Navigate to: **Recorded calls > Search**.

The call search results randomizer helps a call quality controller to have a more objective perspective on call search results. To display the search results in random order, instead of by date-time order, select the **Random selection** checkbox.

5.13 Searching for Calls by External Data

When CallREC is integrated with other applications, such as a Cisco Unified Communications Manager or CIM, additional data can be passed from the external application to CallREC. CallREC can then use this data to find call records.

Important: The system administrator must enable **Advanced search:**, and add external data fields to CallREC before a search can be made for external data.

5.13.1 Searching for Calls by Agent Names

Navigate to: **Recorded calls > Search.**

In many call centers, agents can sit at any terminal. Each agent has a unique identifier in the Call Manager, name or ID number, that attributes call activity to the agent not the terminal.

1. In **Advanced search:**, select or type an **Agent Name.**
2. Click **Search.**

Only recorded calls involving the agent selected display in the **Recorded calls** list.

To return to displaying all recorded calls, click **Disable Filter.**

5.13.2 Searching with Other External Data

The system administrator can add additional fields, depending on the external data stored in systems that are integrated with CallREC.

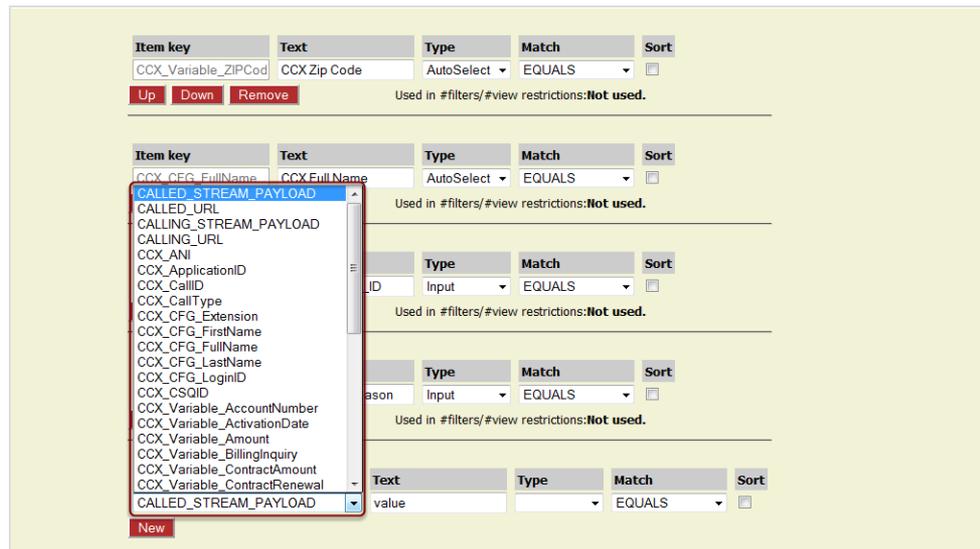


Figure 41: Selecting Data for Search Dropdown

The figure shows an example of the types of external data available in the **Item key** drop-down list.

Navigate to: **Recorded calls > Search**.

The screenshot shows a 'Search filter' window with the following sections:

- Filters:** Includes 'Choose filter' (dropdown), 'Filter name' (text input), 'Delete', 'Load', 'All users' (checkbox), and 'Save' buttons.
- Calling numbers:** Includes 'Calling numbers' and 'Called numbers' (text inputs), 'and' and 'or' radio buttons, 'Description' (text input), 'Case sensitive' (checkbox), and 'Type of call' (dropdown).
- Couples count:** Includes 'Couples count' (text input) and 'Random selection' (checkbox).
- Call length:** Includes 'Call length' (text input), 'Min.' and 'Max.' (text inputs), and 'Locked only' (checkbox).
- Calls with the same number from:** Includes 'to' and 'or both' radio buttons and 'which occurred more than' (text input).
- From:** Includes 'No filter' dropdown, month/year navigation (March 2010), and a calendar grid for March 2010.
- To:** Includes 'No filter' dropdown, month/year navigation (May 2012), and a calendar grid for May 2012.
- Daily hours from/to:** Includes 'Daily hours from' and 'Daily hours to' (text inputs).
- Problem Status:** Includes a dropdown menu with options: 'No problem', 'Just one stream recorded.', 'No stream recorded.', and 'Unknown codec'.
- Condition connecting data above and below:** Includes 'and' and 'or' radio buttons.
- Advanced search:** Includes 'Condition between options displayed below' (radio buttons), 'Case' (radio buttons for 'insensitive' and 'sensitive'), and a list of search criteria:
 - CCX ANI
 - CCX Login ID
 - CCX Activation Date
 - CCX Zip Code
 - JTAPI_CISCO_ID
 - CCX Call Type
 - CCX Account Number
 - CCX Service Type
 - CCX Full Name (dropdown menu showing 'Collections', 'Insurance', 'Sales')
 - Couple start reason
- Buttons:** 'Cancel' and 'Search' buttons at the bottom right.

Figure 42: Search with External Data

These fields display in the **Advanced search:** area, below standard searches.

1. Select **and** or **or** in the section **Condition connecting data above and below**.
 Selecting **and** means that the search only returns calls that satisfy both the criteria in the top of the form and the **Advanced search:** criteria.
 Selecting **or** means that the search returns calls that satisfy either the criteria in the top of the form or the criteria in the **Advanced search:** or both.
2. Select **and** or **or** in **Condition between the options displayed below**.
 Selecting **and** means that the search only returns calls that satisfy all the selected criteria in the **Advanced search:** criteria.
 Selecting **or** means that the search returns calls that satisfy at least one of the **Advanced search:** criteria.

Select case **insensitive** if the data does not need to match the case in the external data selected or **sensitive** if it does need to match the case in the external data selected.

3. Depending on how each External data Key has been set up, type the criteria or select from the drop-down lists for each key to be searched for.
4. Click **Search**.

6

Creating Recording Rules

This chapter describes how to create and implement recording rules. Recording rules determine which calls are recorded by CallREC. This manages the load on the CallREC system and avoids wasting system resources on unwanted recordings.

-
- Chapter Topics:
- 6.1 Recording Rules Overview
 - 6.2 Types of Recording Rules
 - 6.3 Rule Order
 - 6.4 Using Wild Cards for Recording Rules
 - 6.5 Identifying SIP Calls
 - 6.6 Creating a New Recording Rule
 - 6.7 Creating a Recording Rule to Record All Calls
 - 6.8 Hierarchical Recording Rules
 - 6.9 Creating a Recording Rule with External Data
 - 6.10 Adding External Data to Recording Rules
 - 6.11 Editing recording rules
 - 6.12 Deleting Recording Rules

6.1 Recording Rules Overview

Navigate to **Recording rules**.

Recording rules																
Rule	Rule type	Mask	Usage (%)	Days of week							From (hh:mm)	Till (hh:mm)	Priority	ScreenREC	ScreenREC Usage (%)	
				Mo	Tu	We	Th	Fr	Sa	Su						
Do not record	Phone number	685?	100%	<input checked="" type="checkbox"/>	00:00	24:00	▼	<input checked="" type="checkbox"/>	100%	Delete Edit						
Record	Phone number	6*	100%	<input checked="" type="checkbox"/>	00:00	24:00	▲▼	<input checked="" type="checkbox"/>	100%	Delete Edit						
Record	Phone number	5+	100%	<input checked="" type="checkbox"/>	00:00	24:00	▲	<input checked="" type="checkbox"/>	100%	Delete Edit						

Figure 43: Recording Rules Overview

Recording rules are always associated with groups of users, and identify which calls to record or not to record for those users. The recording rules in each group are processed in sequence in the order that they appear in the list from the top to the bottom. If there is no rule for the call or the condition is not met for the call, the processing is passed on to all subgroups. Processing takes place in all branches of the hierarchy in parallel.

Sequential processing of each group can be prevented by applying a mask filter, which limits the telephone numbers, and therefore processing, assigned to a group that would normally be always included in sequential rule processing. Additionally, the special Ignore rule is used for immediate switching of processing to remaining subgroups.

If a call doesn't match any rule in any of the groups or subgroups then it is not recorded.

Recording rules can be set for a range of phone numbers as well as a single phone number. Wild cards are valid when creating recording rules, and are described later in this section of the document.

Important:

Dates and times entered or displayed in recording rules always use the server time zone. All other dates and times in the CallREC Web UI use the time zone specified in **Settings > User Setup > Personal Setup**.

6.2 Types of Recording Rules

There are four main types of recording rules that can be defined:

- **Record:** the system records incoming and outgoing calls from the specified number, or range of phone numbers.
- **Pre-record:** the system records the calls, but does not save the recording unless the user sends a request.
- **Do not record:** the system does not record any calls from or to the specified number, or range of phone numbers.
- **Ignore:** a rule that stops the process of rule evaluation in the current group and passes the processing to subgroups. This is only used if there is a complicated hierarchy of rules.

If no recording rules are set, no calls are recorded.

6.3 Rule Order

Navigate to **Recording rules**.



Recording rules																	
Rule	Rule type	Mask	Usage (%)	Days of week							From (h:mm)	Till (h:mm)	Priority	ScreenREC	ScreenREC Usage (%)		
				Su	Mo	Tu	We	Th	Fr	Sa						Delete	Edit
Do not record	Phone number	665?	100%	<input checked="" type="checkbox"/>	00:00	24:00		<input checked="" type="checkbox"/>	100%	Delete	Edit						
Record	Phone number	6*	100%	<input checked="" type="checkbox"/>	00:00	24:00		<input checked="" type="checkbox"/>	100%	Delete	Edit						
Record	Phone number	5*	100%	<input checked="" type="checkbox"/>	00:00	24:00		<input checked="" type="checkbox"/>	100%	Delete	Edit						

Figure 44: Recording Rules Order

Recording rules are applied from top to bottom. The rule that appears at the top of the rules list is processed first, and then the second and so on. It is important to be aware that rules are applied in the following hierarchy:

1. **Record.**
2. **Prerecord.**
3. **Do not record.**

To move rules up or down, use the up and down arrow buttons.

Order **Do not record** rules above the **Record** rules.

If there is a rule to **Record** all calls above a rule to **Record** a specific range of numbers, then all calls are still recorded.

If there is a rule to **Record** a specific range of numbers above the rule to **Record** all calls, then all calls are recorded from the range of numbers.

Add global rules to the admin group and group-specific rules to the appropriate subgroup.

6.4 Using Wild Cards for Recording Rules

Navigate to **Recording rules**.

Recording rules																	
Rule	Rule type	Mask	Usage (%)	Days of week							From (hh:mm)	Till (hh:mm)	Priority	ScreenREC	ScreenREC Usage (%)		
				Su	Mo	Tu	We	Th	Fr	Sa						Delete	Edit
Do not record	Phone number	665?	100%	<input checked="" type="checkbox"/>	00:00	24:00	▼	<input checked="" type="checkbox"/>	100%	Delete	Edit						
Prerecord	Phone number	445?	100%	<input checked="" type="checkbox"/>	00:00	24:00	▲ ▼	<input checked="" type="checkbox"/>	100%	Delete	Edit						
Record	Phone number	6*	100%	<input checked="" type="checkbox"/>	00:00	24:00	▲ ▼	<input checked="" type="checkbox"/>	100%	Delete	Edit						
Record	Phone number	5*	100%	<input checked="" type="checkbox"/>	00:00	24:00	▲	<input checked="" type="checkbox"/>	100%	Delete	Edit						

Figure 45: Recording Rules Example

Setting the range: 200? selects the numbers from 2000 to 2009; 20?? selects the numbers from 2000 to 2099.

Setting all numbers: entering 2* selects all phone numbers which start with the number 2. Entering *2 selects all phone numbers which end with the number 2.

Incoming and outgoing: the special character > sets the range for specifying incoming or outgoing phone calls. For example: 2005> selects all calls made from the number 2005 and >2005 selects all calls that were made to the number 2005.

From To: the special character = specifies calls made between two phone numbers. For example 2005=3000 selects calls made between 2005 and 3000.

Wild cards can be combined. For example 20??> selects all outgoing calls from numbers 2000 to 2099.

6.5 Identifying SIP Calls

SIP (Session Initiation Protocol) requires the use of the @ symbol when identifying telephone numbers to create recording rules. For example:

- 1224@*
- 123*@*
- ?????@*

6.6 Creating a New Recording Rule

Recording rules are always assigned to groups. Select a group in the **Recording rules** tab before adding or editing recording rules.

Navigate to **Recording rules**. Select a group from the tree list on the left hand side of the screen.

Click **Insert new rule**. The **Insert new rule** form displays.

All time fields on this page are in following timezone: Europe/Prague								
Insert new rule								
Rule: Record	Rule type: Phone number							
Mask: 42*	Usage (%): 100							
Days of week								
Su	Mo	Tu	We	Th	Fr	Sa	From (hh:mm): 00:00	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Till (hh:mm): 24:00	
ScreenREC: <input type="checkbox"/>							ScreenREC Usage (%): 100	
Priority: High priority							Insert new rule	Cancel

Figure 46: Insert a New Rule

1. Select a rule from the **Rule:** drop-down list:
 - **Record**
 - **Do Not Record**
 - **Prerecord**
 - **Ignore.**
2. Select a rule type from the **Rule type:** drop-down list:
 - **Phone number**
 - **IP address**
 - **External Data.**
3. Type the **Mask:**, a phone number or range of numbers using wildcards. QM Suite supports alphanumeric characters for extensions, DNS, or terminals.
Type the **Usage (%)**:, for randomly recording only a percentage of all calls.

4. Select the **Days of week**.
5. Type the **From (hh:mm):** and **Till (hh:mm):** values to identify the daily time range to record calls.
Type the **ScreenREC Usage (%)** value, for randomly recording the screen of only a percentage of all calls.
6. Select the ScreenREC checkbox to also record agent desktops.
7. Click **Insert new rule**.



Figure 47: Apply Changes

Click **Apply changes**. The new recording rule is now active in CallREC.

6.7 Creating a Recording Rule to Record All Calls

At least one recording rule must be defined otherwise calls are not recorded. The simplest rule mask to record all calls is an asterisk *, as shown in the following screenshot.

Navigate to **Recording rules**.

Click **Insert new rule**.

All time fields on this page are in following timezone: Europe/Prague

Insert new rule						
 Rule:	Record	Rule type:	Phone number			
Mask:	*	Usage (%):	100			
Days of week				From (hh:mm):	00:00	
Su	Mo	Tu	We	Th	Fr	Sa
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ScreenREC:	<input type="checkbox"/>	ScreenREC Usage (%):	100			
Priority:	High priority	Insert new rule		Cancel		

Figure 48: Record all Calls Example

1. Type a phone number or asterisk * in the **Mask:** field.
2. Click **Insert new rule**.
3. Click **Apply changes**.

6.8 Hierarchical Recording Rules

Recording rules can be defined in every CallREC group, and groups are arranged in a hierarchy. Higher group recording rules are processed prior to subordinate groups, therefore the more restrictive rules should be at the top of the rule hierarchy.

6.8.1 Hierarchical Recording Rules Example

Navigate to **Recording rules**.

In CallREC groups are defined in a hierarchical order.



Figure 49: Group Hierarchy Tree Structure

1. The rules defined in the group at the top, for example **Admin**, have the highest priority.
2. The rules defined in groups 1,4, and 6 are processed next in parallel.
3. The rules defined in groups 2,3, and 5 are processed last in parallel because they have the lowest priority.

The **Admin** group has highest priority and any recording rule defined for **Admin** always overrides any recording rule from subordinate groups, first match rule. If a recording rule is defined within a group, then the recording rule is passed on to all subordinate groups. If there is no recording rule from the group above then the rules from the subgroups are processed directly.

Groups must be prevented from creating recording rules that can affect groups on the same level

This sequential processing can be prevented by applying a subgroup (mask) filter. In this case the type of recording for this subgroup branch remains undetermined. This is better illustrated in the following examples:

Example 1:

- There is a rule in Group 4 "do not record calls from 42???"
- Group 5 has a rule "record calls from 4????".

The Group 4 rule has priority over the Group 5 rule so the rule in Group 4 is applied first. Group 5 does not record calls from 4200 to 4299. The result is that Group 5 only records calls from 4000 – 4199 and from 4300 – 4999.

Example 2:

- The rule in Group 2 is to "record calls from 4????".
- The rule in Group 3 is to "pre-record calls from 4????".
- The rule in Group 5 is "do not record calls from 4????".

The Group 2 rule has priority over Group 3 and Group 5 rules. A record rule has priority over a do not record rule. The result is that Calls from 4???? are recorded.

Example 3:

- The rule in Group 2 is to "record calls from 4????",
- The rule in Group 3 is to "pre-record calls from 4????"
- The rule in Group 5 is "do not record calls from 4????".
- We set the phone number for Group 1 to "42???" this restricts the influence of any rules created by any subordinate groups 2-6 to within the number range of 4200-4299.
- We set the number for Group 2 to "420?" this restricts the influence of group 2 to within the number range 4200-4209 even though the rule set is "record calls from 4????".

The result is calls that from 4200-4209 are recorded by the rule from Group 2, calls from 4210-4299 are pre-recorded from the rule in Group 3 and calls from 4000-4199 and 4300-4399 are not recorded.

6.8.2 Hierarchical Rule Administration Example

Navigate to **Recording Rules**.



Figure 50: Agent Group

The system administrator wants to delegate rule administration for each main group, groups 1, 2, 3 in the above diagram, to the respective agent group leader. This is accomplished as follows:

Each group is given the appropriate range of extension numbers as its phone number;.

For example:

- Group 1: 42?? covering extensions 4200-4299
- Group 2: 43?? covering extensions 4300-4399
- Group 3: 44?? covering extensions 4400-4499

Three ignore rules are created by the system administrator in the top-level **Admin** group.

- Ignore 42??
- Ignore 43??
- Ignore 44??

Each group leader creates additional rules for his or her group at the group level (that is, Group 1 leader creates rules when Group 1 is selected on the Recording Rules screen).

When a call is made to or from a group extension, all top-level Admin rules are ignored and only rules within that group are processed.

6.9 Creating a Recording Rule with External Data

Navigate to **Recorded calls**.

From	To		Description
5508 (Dev 5508 SLR)	5507 (Dev 5507 SLR)	   	
5508 (Dev 5508 SLR)	5507 (Dev 5507 SLR)	   	
5508 (Dev 5508 SLR)	5507 (Dev 5507 SLR)	   	
5508 (Dev 5508 SLR)	5507 (Dev 5507 SLR)	   	

Figure 51: The information Button

Select a record from a number that contains the desired data key and click the information icon . The **Call description** dialog opens and displays the available call data keys and values.

Call description

Couple Information

Call ID	69
Couple ID	69
Call Status	No stream recorded.
Synchro Tool	
Delete Tool	
Mixer Tool	
Restore Tool	
Archive Tool	
ScoreCARD Usage	
Synchronization ID	17521303192.168.7.8:24244192.168.7.7:19814_1
Protected Against Deletion	No

External Data

Key	Value
CALLED_STREAM_PAYLOAD	G.711 ulaw 64k (1104)
CALLED_URL	192.168.7.7:19814(1104)
CALLING_STREAM_PAYLOAD	G.711 ulaw 64k (1104)
CALLING_URL	192.168.7.8:24244(1104)
COUPLE_END_REASON	NORMAL
COUPLE_START_REASON	NORMAL
GROUP_ID	17521303
JTAPI_CALLED_TERMINAL_SEP	SEP000011120003
JTAPI_CISCO_CALLMANAGER_ID	1
JTAPI_CISCO_GLOBAL_CALL_ID	744087
JTAPI_CISCO_ID	17521303

Figure 52: Call Description

Copy the **External Data Key** required from the list, in this example, **GROUP_ID**. The **Call description** window is in a separate pop up, so it can be kept open for the following step.

Return to the top of the main window, navigate to **Recording rules** and select the group that the rule applies to, from the groups on the left hand side, in this example, Group A.

Create new rule for the group:  **Group A**

All time fields on this page are in the following time zone: Europe/Prague

Insert new rule

Rule: Record	Rule type: External Data														
Mask: GROUP_ID 1752130	Usage (%): 100														
Days of week <table style="margin: auto; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Su</td> <td style="padding: 2px;">Mo</td> <td style="padding: 2px;">Tu</td> <td style="padding: 2px;">We</td> <td style="padding: 2px;">Th</td> <td style="padding: 2px;">Fr</td> <td style="padding: 2px;">Sa</td> </tr> <tr> <td style="text-align: center; padding: 2px;"><input checked="" type="checkbox"/></td> </tr> </table>	Su	Mo	Tu	We	Th	Fr	Sa	<input checked="" type="checkbox"/>	From (hh:mm): 00:00 Till (hh:mm): 24:00						
Su	Mo	Tu	We	Th	Fr	Sa									
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>									
ScreenREC: <input type="checkbox"/>	ScreenREC Usage (%): 100														
Priority: High priority	<input type="button" value="Insert new rule"/> <input type="button" value="Cancel"/>														

Figure 53: Recording Rule Based on External Data

1. Select **External Data** in the **Rule type:** drop-down list.
2. In the **Mask:** field:
 - Paste the key into the mask then type a blank space after the key, to separate the **Key** and **Value**.
 - Go back to the **Call details** pop up and copy the **External Data Value**, then paste it after the blank space in the **Mask:** field, or type a value, wild cards are valid. QM Suite supports alphanumeric characters for extensions, DN's or terminals.
3. Click **Insert new rule**.
4. Click **Apply changes**.

The new recording rule using external data is now active in CallREC.

To test the rule, make a call from a group that should contain the data, and check the **Recorded calls** tab for the recorded call.

6.10 Adding External Data to Recording Rules

Recording rules can be based on external data sources integrated with CallREC. The following table contains an example of Cisco UCCE external data used for defining recording rules:

External Data Key	Sample Value
IPCC_AGENT_NAME	Doe John
IPCC_DIALED_NUMBER	8100
IPCC_CALLQ_TIME	0
IPCC_CALLTYPE	2
IPCC_ENTERED_DIGITS	8100
IPCC_FULLNAME *	John Doe
IPCC_RCK_DAY	148968
IPCC_SKILLG_ID	5003
IPCC_SKILLG_NAME	SALES_SG
IPCC_SKILLG_NUM	1

Table 2: Sample external data keys and values

* customizable field created by integration module

6.11 Editing recording rules

Navigate to **Recording rules**.

The user must have sufficient access rights to change recording rules. Do not change recording rules without considering the effect on the performance of the system.

Edit the recording rule

All time fields on this page are in following timezone: Europe/Prague

Rule: Record Rule type: Phone number

Mask: 5* Usage (%): 100

Days of week:

Su	Mo	Tu	We	Th	Fr	Sa
<input checked="" type="checkbox"/>						

From (hh:mm): 00:00

Till (hh:mm): 24:00

Active

ScreenREC

ScreenREC Usage (%): 100

Save Cancel

Figure 54: Recording Rule Editing

In the **Recording rules** tab, navigate to a group that has a recording rule.

Click **Edit**. The **Edit the recording rule** form displays.

Edit the rule as required. Click **Save**.

Click **Apply changes**.

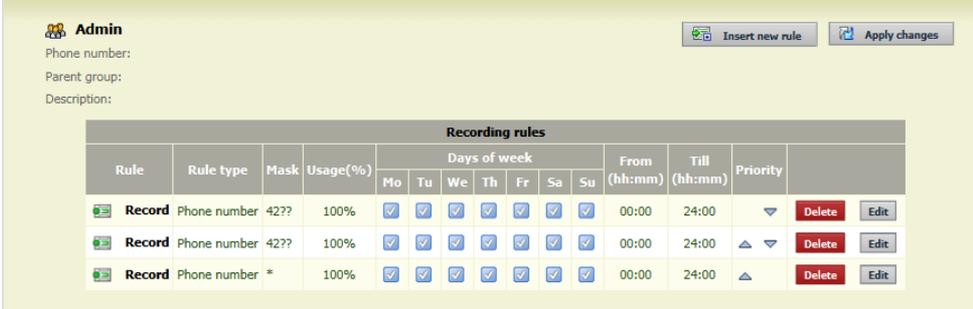
The changes to the recording rule apply immediately.

Turn a recording rule on and off with the **Active** checkbox that is only visible in the **Edit the recording rule** form.

6.12 Deleting Recording Rules

Navigate to **Recording rules**.

The user must have the rights to delete recording rules. Do not delete recording rules without considering the effect on the performance of the system.



Recording rules															
Rule	Rule type	Mask	Usage(%)	Days of week							From (hh:mm)	Till (hh:mm)	Priority		
				Mo	Tu	We	Th	Fr	Sa	Su					
<input checked="" type="checkbox"/> Record	Phone number	42??	100%	<input checked="" type="checkbox"/>	00:00	24:00	▼	Delete	Edit						
<input checked="" type="checkbox"/> Record	Phone number	42??	100%	<input checked="" type="checkbox"/>	00:00	24:00	▲ ▼	Delete	Edit						
<input checked="" type="checkbox"/> Record	Phone number	*	100%	<input checked="" type="checkbox"/>	00:00	24:00	▲	Delete	Edit						

Figure 55: Deleting Recording Rules

In the **Recording rules** tab, navigate to a group that has a recording rule.

1. Click **Delete**.
2. Click **Apply changes**.

The recording rule is deleted and calls within the deleted recording rule are no longer recorded, unless a new recording rule is created.

Click **Edit** and select the **Active** checkbox to activate a rule.

7

Using On Demand Prerecording

Prerecording enables the user to save particular the calls. All other calls are recorded, but not saved.

Prerecording differs from regular recording because it is On Demand. Prerecording is activated from the Cisco IP phones that support XML services. The system administrator must configure prerecording in both CUCM and CallREC.

Chapter Topics:

- 7.1 Prerecording Principles
- 7.2 Working with Calls in Progress
- 7.3 Saving a Completed Call
- 7.4 Tagging a Call with Call Information (External Data)

7.1 Prerecording Principles

Prerecording is the process of recording all calls, while only permanently saving the recordings identified by the phone user. This means that while a call is in progress, or shortly after a call has been completed, the phone user has the ability to save the call recording. If the user does not save the call within this time, the call recording is discarded.

The amount of time the user has to save the call can be adjusted by the system administrator. The default is 2 minutes.

7.2 Working with Calls in Progress

Note: The Cisco IP phone must be configured to provide prerecording services through CallREC. Depending on the IP phone model and configuration, some steps may be slightly different than described here. Consult the IP phone documentation and system administrator. When prerecording is configured for the Cisco IP phone, the user can choose to save any call in progress, or a call that has recently been completed.

7.2.1 Saving a Call in Progress:

Press the **Services** button on the Cisco IP phone.



Figure 56: Saving CallREC Services on the Cisco IP Phone

Select ZOOM CallREC from the list of options.



Figure 57: Saving a Call in Progress

Select **Save**.

The call recording is saved to the database, and when it is completed it is available for playback on the **Recorded calls** tab of CallREC.

7.2.2 Sending a Call in Progress as an Email Attachment

1. Press the **Services** button on the Cisco IP phone.
2. Select ZOOM CallREC from the list of options.
3. Select **Send by email**.

After the call is completed, CallREC sends an email with the call recording.

Important:

The email address is set when the Cisco IP phone is configured to include prerecording.

7.2.3 Saving a Call in Progress and Sending it as an Email Attachment

1. Press the **Services** button on the Cisco IP phone.

2. Select ZOOM CallREC from the list of options.
3. Select **Save and send by email**.

The call recording is saved to the database, and when it is completed it is available for playback on the **Recorded calls** tab of CallREC. In addition, the call recording is sent to email as an attachment.

7.2.4 Sending a Call Recording to a Different Email Address

1. Press the **Services** button on the Cisco IP phone.
2. Select ZOOM CallREC from the list of options.
3. Select **Send by email to**.



Figure 58: Inserting a New Email Address

4. Enter the email address. Use the # key to enter the @ symbol.
5. Select **Send**.

The call recording is sent as an attachment to the email address entered.

7.3 Saving a Completed Call

Prerecording enables the user to save calls that have already been completed. The user has a limited amount of time to save completed calls, typically 2-10 minutes.

Note: The user must save the call within the period set by the system administrator. Calls that are not saved within this time period cannot be recovered. PIN codes may be required, depending on the system setup.

1. Press the **Services** button on the Cisco IP phone.
2. Select ZOOM CallREC from the list of options.
3. Select **Prerecorded calls**.



Figure 59: Saving Completed Calls

4. Select the call from the list.
5. Select **Save**

The call recording is saved to the database, and is available for playback on the **Recorded calls** tab of CallREC.

7.4 Tagging a Call with Call Information (External Data)

If configured by the system administrator, the user can add supplementary call information to a current or completed call through another IP phone service; this action is known as ‘tagging’ a call. Call tagging is often used to categorize a call for later filtering. Typical tag options can be for example: “Presales”, “Sales”, and “Support”.

Call tagging automatically marks the call for recording and saves the tag data together with the call. Tag information is visible when browsing through recorded calls in the CallREC user interface.

Call tagging is not enabled by default for prerecording, so must be configured by the system administrator. The call must be tagged within the period set by the administrator.

To tag an in-progress or completed call:

1. The system administrator provides the name of the call information IP phone service.
2. Press the **Services** button on the Cisco IP phone.
3. Select the service, for example “CallREC call-info”, from the list of options.



Figure 60: Tagging a Prerecorded Call

4. Select the appropriate tag value and press **Select**.
5. CallREC tags the call with this value and marks the call for saving.

8

Using Restored Call Recordings

This chapter describes how to use restored calls.

-
- Chapter Topics:
- 8.1 Restoring Call Recordings
 - 8.2 Restoring an Archived and Deleted Call Recording
 - 8.3 Listening to Restored Calls
 - 8.4 Canceling Restoration

8.1 Restoring Call Recordings

The CallREC system administrator determines how long CallREC stores recorded calls in the main database. CallREC archives older call recordings, storing them offline, and then deleting the call recordings from the main database. Only the call data remains available, and is still displayed in CallREC. When a call has been archived but not deleted, it behaves as a normal call recording.

After a call has been both archived and deleted from the main database, the user must *restore* the call to be able to listen to it again. Restoring the call returns the deleted call recording to the database so the recording can be played in the system again.

Archived and deleted calls are identified with the deleted call available for restore icon  .

8.2 Restoring an Archived and Deleted Call Recording

1. Select archived and deleted calls in the **Recorded calls** tab.
2. Click **Restore**.

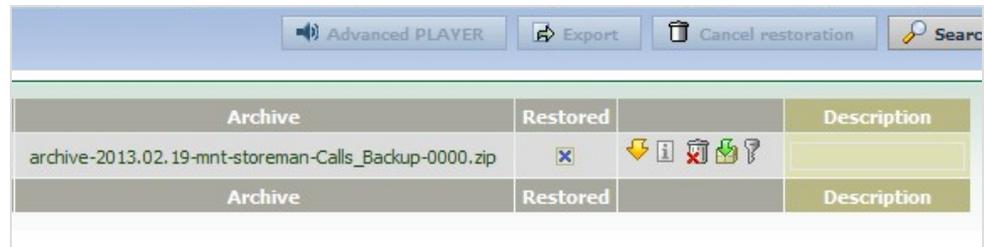


Figure 61: Selected Records Being Restored

3. The restoring call icon appears  .

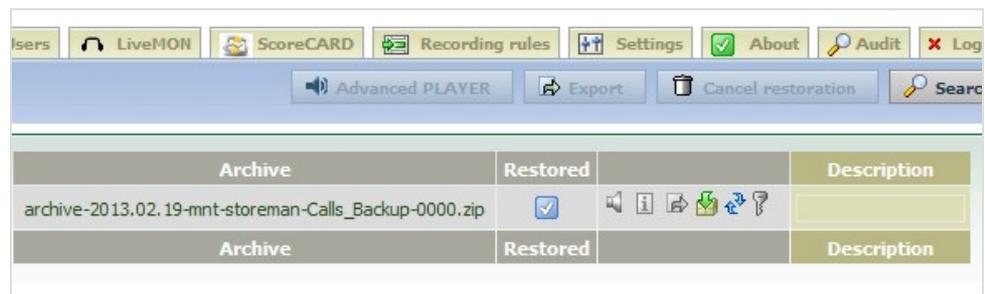


Figure 62: Selected Records Being Restored

When the call is restored, the restored call icon appears  .

The user can listen to these restored calls normally. Restored calls appear under both the **Restored calls** tab, and the **Recorded calls** tab.

Depending on the system configuration and storage policy, the restored call recordings usually appear in the **Restored calls** tab within 24 hours.

CallREC sends an email notifying the user that the call has been restored.

8.3 Listening to Restored Calls

To listen to restored calls, click on the call's speaker icon.

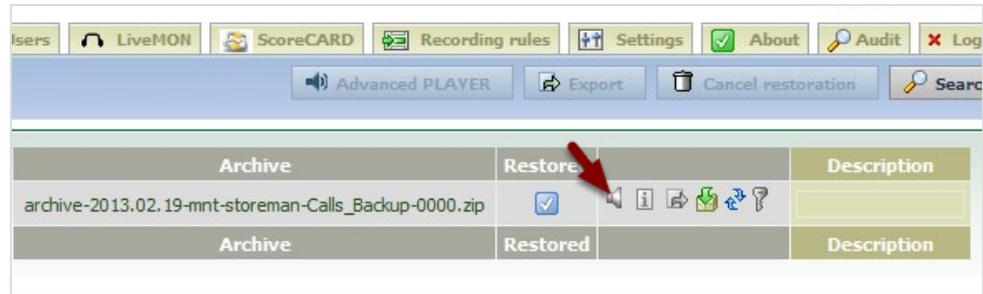


Figure 63: Restored Calls and Archived Calls in the Section “Recorded Calls”

Or select multiple files and click **Advanced PLAYER**.

8.4 Canceling Restoration

The user can cancel a call restoration before it is complete.

1. Open the **Restored calls** tab.
2. Identify calls to be canceled by selecting their checkboxes.



Figure 64: Canceling Call Restoration

3. Click **Cancel restoration**.
4. Click **OK** to confirm the cancellation.

The call restoration process for these calls is canceled and the calls are not available for playback unless they are restored again. The status icons may require some time to reset, depending on the system configuration.

9

Administering Groups and Users in CallREC

This chapter describes how to administer groups and users.

Chapter Topics: 9.1 Groups in CallREC
9.2 Administering Users

9.1 Groups in CallREC

CallREC uses groups to grant system access privileges, and determine recording and filtering rules. Individual users are assigned to a group, and inherit the group's access privileges and rules.



Figure 65: The Users Tab

To configure these privileges and rules click **Users**.

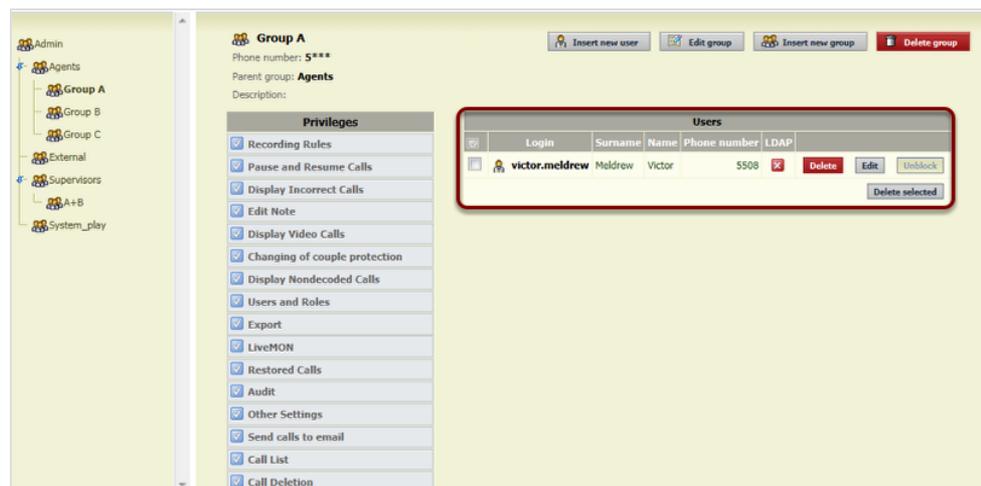


Figure 66: Tree View of Groups, Users, and Access Rights

The group with the most complete set of access rights is always called **Admin**. All the other groups are subordinate to **Admin**. Users in the **Admin** group inherit all access rights, including setting recording rules and filters.

1. The figure shows the full list of privileges. Any changes in a group's rights are reflected for all sub-groups and users assigned to that group. A subordinate group cannot have more **Privileges** than the parent group.
2. The tree view of groups. Set up unlimited groups and users, each using its own recording rules and filters. This controls which calls are recorded and who has access to those calls.
3. The figure shows that **Group A** only has one user presently with a full set of privileges.

9.1.1 Creating a New Group

To create a new group, navigate to **Users > Insert new group**.



Figure 67: Creating a New Group

The **Add new group** form displays.

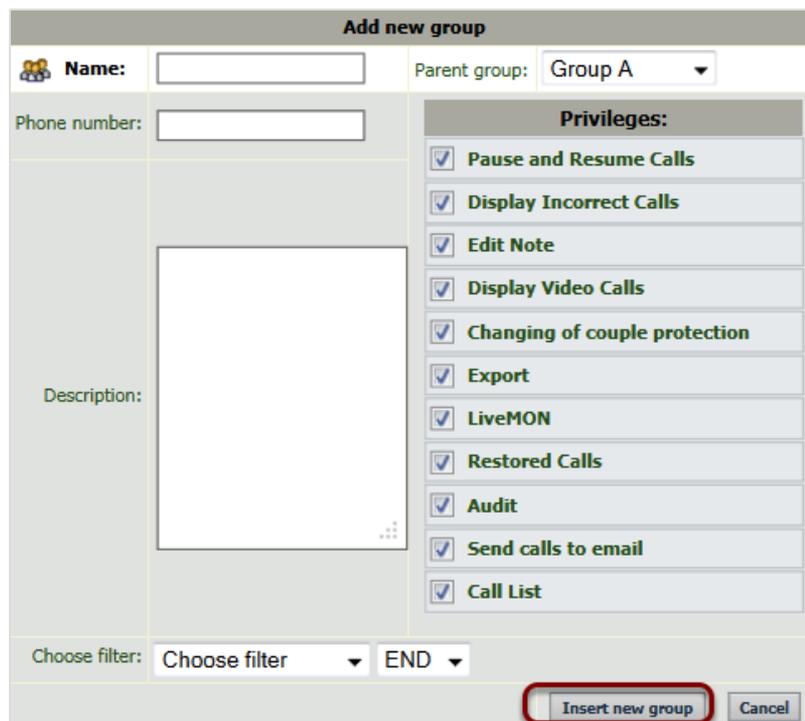
A screenshot of the 'Add new group' form. It has a title bar 'Add new group'. The form contains several fields: 'Name:' (text input), 'Phone number:' (text input), 'Description:' (text area), and 'Parent group:' (dropdown menu set to 'Group A'). On the right side, there is a 'Privileges:' section with a list of checkboxes, all of which are checked: 'Pause and Resume Calls', 'Display Incorrect Calls', 'Edit Note', 'Display Video Calls', 'Changing of couple protection', 'Export', 'LiveMON', 'Restored Calls', 'Audit', 'Send calls to email', and 'Call List'. At the bottom, there is a 'Choose filter:' dropdown set to 'Choose filter' and an 'END' dropdown. The 'Insert new group' button is highlighted with a red box.

Figure 68: Adding a New Group

1. Type the group **Name**:
2. Type the group **Phone number**:. The phone number can be a mask that indicates a range of numbers. Wild cards are valid. To include all numbers beginning with 6, type **6***. QM Suite supports alphanumeric characters for extensions, DNIs or terminals. To include all numbers in the system, that is, to use the settings of the parent group with no filter applied, use the wildcard ***** or leave the field blank.
3. Select the **Parent group**: from the drop-down list.
4. Type a **Description**: of the group.

5. Select **Privileges:** for the group. These privileges cannot be greater than the rights of the parent group.
 6. Select multiple pre-existing filters, and combine the filters with Boolean operators to restrict how call recordings display for the group.
 7. Click **Insert new group** to save the new group.
- The new group displays in the tree list of groups. Add users to this group.

9.1.2 Assigning Privileges

Privileges are inherited by all members of the group and any subgroups.

Privilege	Definition
Recording Rules	Add, and Edit recording rules.
Pause and Resume calls	Pause and Resume calls.
Display Incorrect calls	Display calls that are not recorded correctly, for example, calls that contain signaling data for the call but no audio recording. Recommended only for system administrators.
Edit Note	Add, and Edit call notes with the ability to add comments to call data records.
Display Video Calls	Enables viewing of ScreenREC recordings.
Changing of couple protection	Ability to remove protection from, for example, couples that can not be deleted.
Display Nondecoded calls	Displays calls which are not yet decoded and calls waiting to be decoded from the original format , PCAP, to the final format. MP3 or WAV.
Users and Roles	Ability to administer groups, users and access rights.
Export	Ability to export recordings in selected audio format.
LiveMON	Access to live call monitoring.

Privilege	Definition
Restored calls	Access to restored recordings from backup and archive.
Audit	Access to audit information, for example, logs .
Other settings	Access to system and configuration settings. Recommended only for system administrators.
Send calls to email	Ability for the user to send call recordings to specified email addresses.
Call list	Ability to play recordings. Disabling this option also disables Edit note, Export and Call deletion.
Call deletion	Ability to delete recordings.

Table 3: External Data for Recording Rules

9.1.3 Limiting Group Access by Phone Numbers

Users inherit access rights from their group. Specify a phone number filter for the group to restrict access rights further. This can be a single phone number, for example 2435, or a range of numbers, for example, 24??. Wild cards are valid.

These settings also apply to the calls that display in LiveMON.

9.1.4 Limiting Group Access by Boolean Filters

Navigate to **Users**.

Boolean operators combine several pre-existing filters together and display only the results to the members of the group. The tree list contains groups, users, and access rights.

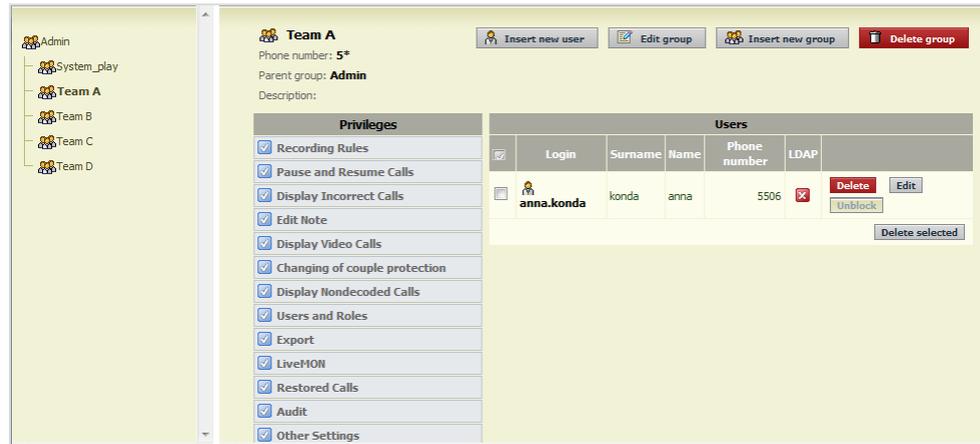


Figure 69: Edit Group

1. Select a group from the tree list of groups, on the left hand side of the screen.
2. Click **Edit group**. The **Edit group** form displays.

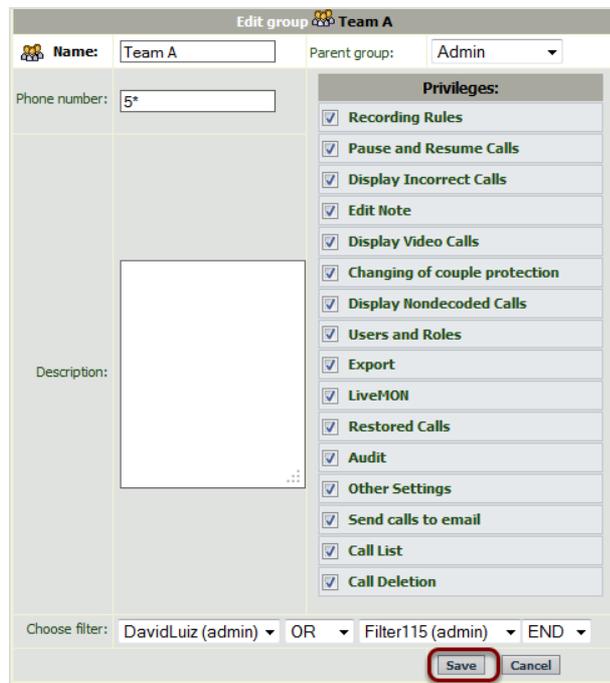


Figure 70: Edit Group Form

1. Choose a filter from the **Choose filter:** drop-down list.
2. If this is the only filter needed then select **END**. To use more than one filter, select a **AND** or **OR** to link the next filter. Using **AND** the group only views calls that satisfy both filters, using **OR** the group views all the calls from the first filter and all the calls from the second filter.

3. The **AND** or **OR** option displays an extra **Choose filter:** drop down . Choose additional filters, and connect them with operators to define the filter. The final Boolean operator must always be **END** to complete the filter definition.

4. Click **Save**.

The filter applies to all members of the group and its subgroups.

Users may also apply filters to their individual view of recorded calls. The group filters apply first, and then the user filters. The result is that the viewer views a restricted set of recorded calls.

To apply a filter using SIP, define the mask for the whole SIP number. For example, 12345@*.

These settings do not apply to the list of calls displayed in LiveMON. It only affects the list of calls that display in the **Recorded calls** list.

9.1.5 Editing Groups

Navigate to **Users > Edit Group**.

The screenshot shows the 'Edit group Team A' interface. It features a header with the group name and a 'Parent group' dropdown set to 'Admin'. Below this are input fields for 'Name' (Team A) and 'Phone number' (5*). A large text area is labeled 'Description:'. To the right is a 'Privileges:' section with a list of 14 items, each with a checked checkbox: Recording Rules, Pause and Resume Calls, Display Incorrect Calls, Edit Note, Display Video Calls, Changing of couple protection, Display Nondecoded Calls, Users and Roles, Export, LiveMON, Restored Calls, Audit, Other Settings, Send calls to email, Call List, and Call Deletion. At the bottom, the 'Choose filter:' section shows a sequence of dropdowns: 'DavidLuiz (admin)', 'OR', 'Filter115 (admin)', and 'END'. A 'Save' button is highlighted with a red circle.

Figure 71: Group Editing

1. Select or deselect **Privileges:**.
2. Change the **Phone number:** range.
3. Click **Save**.

The changes are saved and inherited by all members of the group and any of its subgroups.

9.1.6 Deleting Groups

Navigate to **Users**.

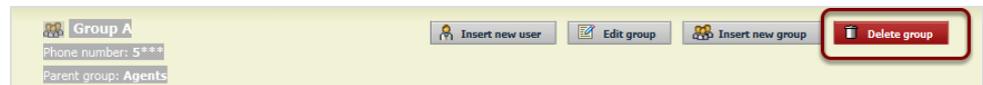


Figure 72: Group Deletion

Select a group from the tree list of groups on the left hand side of the screen.

1. Click **Delete group**.
2. Click **OK** to confirm deletion of the group.

The group and all its members are deleted from the system. If a user has created a filter that is in use, then the user who created the filter cannot be deleted.

Important:

If a group is deleted, then all its members and recording rules are also deleted and cannot be restored. Do not delete the group **System_play** because this group provides access for ScoreCARD to play calls.

9.2 Administering Users

Agents do not need to be users to be recorded. Only create user profiles for staff that actively use CallREC to listen to calls as a minimum. Users can only be created within groups and inherit the privileges and filters assigned to the group. Assign additional filters to the users, further restricting their access to recorded calls.

Users can be assigned to a different group, edited, or deleted. Users can change their own password. Administrators and supervisors can also edit user passwords.

9.2.1 Adding Users to Groups

Navigate to **Users**.

Open a group from the tree list of groups on the left hand side of the screen, and then create users to fill the group. Users inherit the rights of their group.

Click **Insert new user**. The **Add new user:** form displays.

Add new user:	
Login:	anne.agent
Password:
Password confirmation:
Name:	Anne
Surname:	Agent
E-mail:	Ann.Agent@CallCom
Phone number:	5506
Choose filter:	Choose filter ▼ END ▼
LDAP user	<input type="checkbox"/>
Insert new user Cancel	

Figure 73: Window for Adding a New User

1. Type the username in the **Login:** field.
2. Type the user's password in the **Password:** field. Confirm the user's password in the **Password confirmation:** field.
3. Type the user name, surname, email, and phone number in the **Name:**, **Surname:**, **E-mail:**, and **Phone Number:** fields. If the phone number field is blank, the user inherits the group phone number. QM Suite supports alphanumeric characters for extensions, DNs or terminals.

4. Choose filters assigned to this user. Add Boolean operators **AND** , **OR**, or **END** to connect multiple filters. The last operator must always be **END**.
5. If the user is found in the LDAP and CallREC is configured to access the LDAP, then the LDAP user checkbox is selected. Otherwise, leave this blank.
6. Click **Insert new user** to add the user to the group.

The user is now a member of the group and inherits all its privileges, recording rules, and filters.

9.2.2 Limiting User Access by Phone Numbers

Users inherit access rights from their group. The user can further restrict access rights by specifying a phone number filter for the user. This can be a single phone number, or a range of numbers. Wild cards are valid. This affects the list of calls in **Recorded calls**.

These settings also apply to the calls that display in LiveMON.

9.2.3 Limiting User Access by Boolean Filters

Navigate to **Users**.

Users inherit group access rights and filters. Add additional filters to a user, further limiting access. Set and save filters, and then apply the filters to individual users. Restrict user access to a very specific level, by combining these pre-existing filters with Boolean operators.

1. Choose a filter from the drop-down list.
2. Select a Boolean operator.
3. Choose additional filters, this connects them with operators to define the filter.
4. Click **Save**.

The user only has access to the calls enabled by the filters.

The group filters apply first, and then the user filters. The result is that the user sees only a highly restricted set of recorded calls.

To apply a filter using SIP numbers, define the mask for the whole SIP number. For example, 12345@*.

These settings do not apply to the list of calls that display in LiveMON. It only affects the list of calls that display in the **Recorded calls** list.

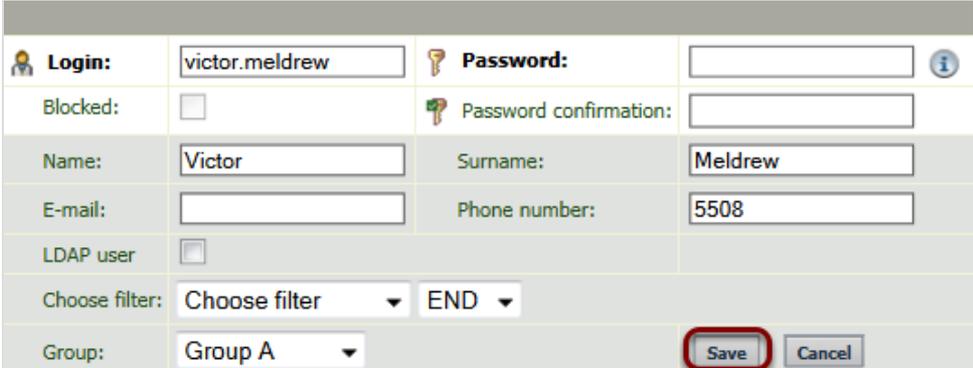
9.2.4 Editing Users

Navigate to **Users**.

Administrators, supervisors, and users can change user information, depending on access permissions.

Open the user's group from the tree list on the left hand side of the screen. A list of users displays.

Find the user in the list, and click **Edit**.



 Login:	<input type="text" value="victor.meldrew"/>	 Password:	<input type="password"/>	
Blocked:	<input type="checkbox"/>	 Password confirmation:	<input type="password"/>	
Name:	<input type="text" value="Victor"/>	Surname:	<input type="text" value="Meldrew"/>	
E-mail:	<input type="text"/>	Phone number:	<input type="text" value="5508"/>	
LDAP user	<input type="checkbox"/>			
Choose filter:	<input type="text" value="Choose filter"/>	<input type="text" value="END"/>		
Group:	<input type="text" value="Group A"/>	<input type="button" value="Save"/>	<input type="button" value="Cancel"/>	

Figure 74: Editing a user

1. Make changes as required.
2. Click **Save**. The changes apply to the user immediately.

9.2.5 Moving Users between Groups

Navigate to **Users**.

To move a user to another group:

1. Open the group that the user is a part of in the tree list on the left hand side of the screen.
2. Find the user in the list, and click **Edit**.
3. Choose a group from the **Group:** drop-down list.
4. Click **Save**.

The user is now a member of the new group and inherits all of that group's rights, recording rules, and filters.

9.2.6 Adding Users from LDAP

Navigate to **Users**.

To add users to CallREC from LDAP, the system administrator must configure both CallREC and the LDAP so they communicate together.

Using LDAP to add users to CallREC imports information for several users simultaneously, and maintains user information in the LDAP so it is updated in CallREC automatically.

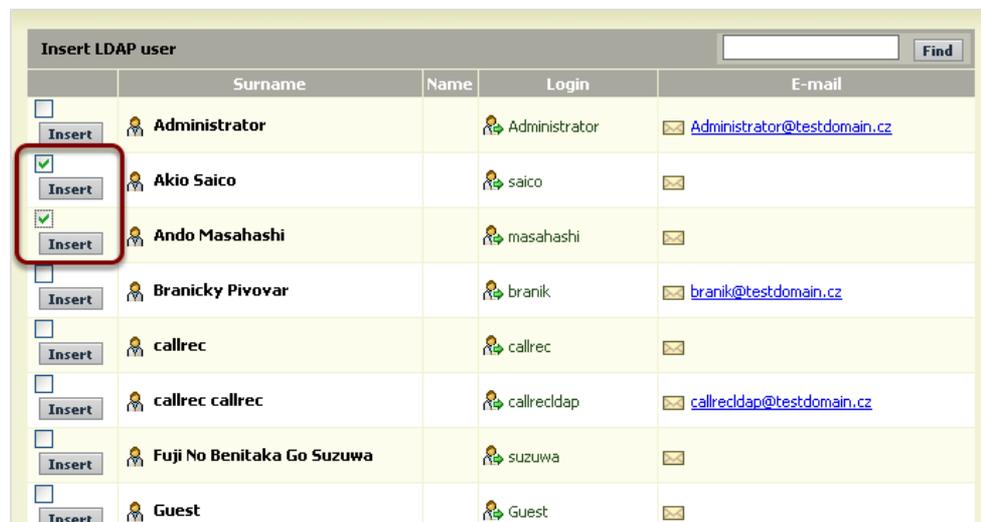


Figure 75: Inserting Users from LDAP

1. Open a group from the tree list on the left hand side of the screen.
2. Click **Insert new user**.
3. Click **Insert from LDAP**.

The **Insert LDAP user** form displays.

Select users to insert. Click **Insert**.

The LDAP information is imported into CallREC, and the LDAP users are inserted into the group, inheriting the group's rights, recording rules, and filters.

9.2.7 Deleting Users

To delete a user, navigate to **Users**.

Open the **Users Group** in the tree list on the left hand side of the screen.

Users						
<input type="checkbox"/>	Login	Surname	Name	Phone number	LDAP	
<input type="checkbox"/>	victor.meldrew	Meldrew	Victor	5508		<input type="button" value="Delete"/> <input type="button" value="Edit"/> <input type="button" value="Unblock"/>
<input checked="" type="checkbox"/>	lilly.valley	Valley	Lilly	5580		<input type="button" value="Delete"/> <input type="button" value="Edit"/> <input type="button" value="Unblock"/>
						<input type="button" value="Delete selected"/>

Figure 76: Deleting a User

Find the user in the list, and click **Delete**.

The user is deleted and no longer has any access to the CallREC system.

Important:

Deleting users cannot be undone. Do not delete the user **scorecard** in the group **System_play** because this user provides access for ScoreCARD to play calls.

If a user has created a filter, and that filter is utilized by any other user of the system, the user who created the filter cannot be deleted.

9.2.8 Deleting multiple users

To delete multiple users, navigate to **Users**.

1. Open the **Users Group** from the tree list on the left hand side of the screen.
2. Find the users in the list.
3. Select the checkboxes for users to be deleted.
4. Click **Delete Selected**.

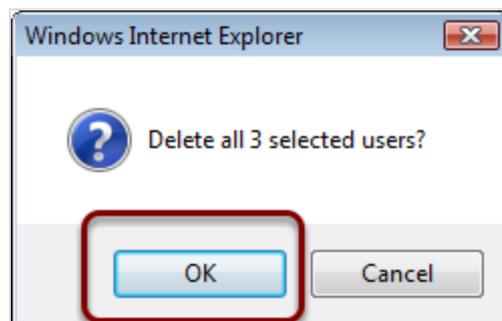


Figure 77: Deleting confirmation

5. Click **OK** to confirm the deletion.

All the users selected are deleted and no longer have access to the CallREC system.

Important: Deleting users cannot be undone. If a user has created a filter, and that filter is utilized by any other user of the system, the user who created the filter cannot be deleted.

10 LiveMON

This chapter describes how to open and use LiveMON.

-
- Chapter Topics:
- 10.1 LiveMON Overview
 - 10.2 Running LiveMON
 - 10.3 Understanding LiveMON
 - 10.4 Listening to Live Calls
 - 10.5 Saving Live Call Recordings
 - 10.6 Emailing Live Call Recordings
 - 10.7 Adding Editable External Data to Live Calls
 - 10.8 Sorting Live Calls

10.1 LiveMON Overview

LiveMON is a key assessment tool that enables a CallREC user to monitor an agent's calls in real time. LiveMON enables the management team to silently listen to a call with the option of recording the call on demand, and then saving or emailing the data.

While the rest of CallREC is devoted to monitoring saved calls, LiveMON is specifically designed to enable the user to monitor live calls as they occur.

Depending on the system settings, it may take a few moments before LiveMON launches.

LiveMON runs as a standalone JAVA application outside the internet browser. The user must have JAVA Runtime Environment installed for it to work. Download it free from this URL <http://www.java.com/en/download/>

10.2 Running LiveMON

To run **Live Monitor**:

Click on the **Live Monitor** tab in CallREC.

A prompt appears to download and open the application.

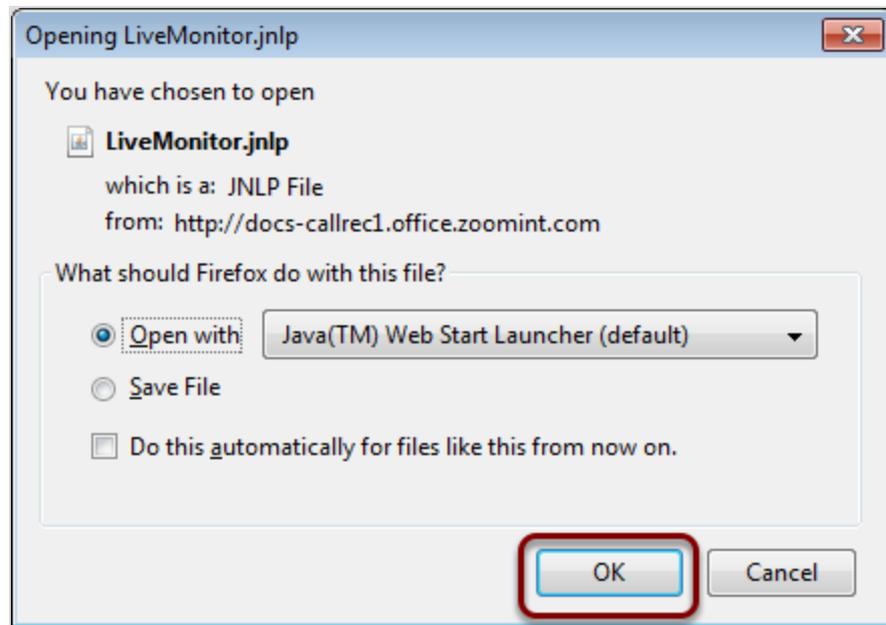


Figure 78: Download Prompt for LiveMON

Click **OK**. A security warning displays.

If the user does not have sufficient permissions they may have to contact the system administrator.



Figure 79: Security Warning

Click **Run**.

The LiveMON User interface opens.

10.3 Understanding LiveMON

LiveMON only displays calls in progress that are within the defined number range. The number range is specified by the filters for that user in CallREC. Since VoIP technologies work in real-time, high network latency can be an issue for LiveMON.

For example, if CallREC is deployed on a WAN that uses only T1 lines, @1.5Mbps, the network can have a latency of around 300ms, which makes use of LiveMON impractical.

In this scenario, LiveMON cannot be supported by ZOOM International.

Once a call is completed, it is no longer displayed in the list. Calls display according to when they started, with earlier calls appearing at the bottom of the list. The user can change the display order of LiveMON by right-clicking in any column heading.

Important:

LiveMON localization is based on the computer's regional settings that LiveMON is initialized on. For example, in Windows 7 it is at **Control Panel > Region and Language > Keyboards and Languages**.

10.4 Listening to Live Calls

When the user launches LiveMON, all the active calls in the system that the user is permitted to view, display in a list. For Active Recording the monitored calls must be being recorded, for Passive Recording all calls are available via the SPAN port. No specific recording rules are necessary for LiveMON. Supervisors can only view the selected calls within their assigned number range and if they have the LiveMON Privilege. Set the Privilege and Number range in the **Users** tab for the group that the supervisor belongs to using **Edit Group**.

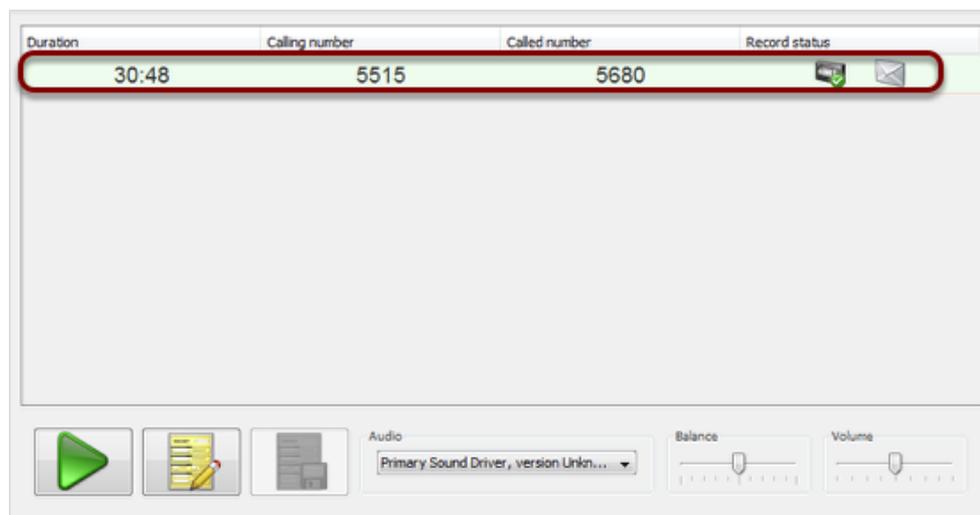


Figure 80: LiveMON User Interface

Select a call to monitor. In this case there is only one call available.

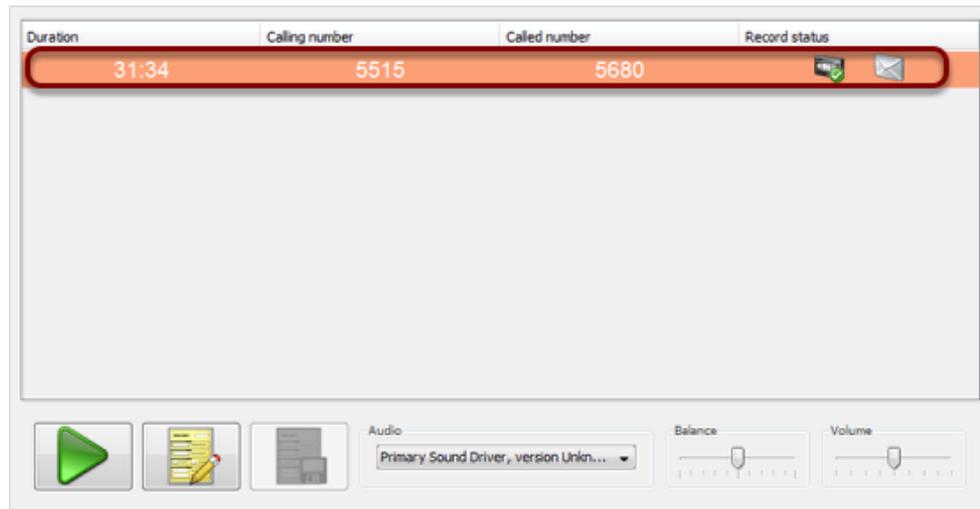


Figure 81: LiveMON User Interface Call Selected

The background behind the call details turns orange when selected.

Select a call from the list. To listen to the call click  on the user interface. LiveMON plays the conversation on the system. When playing the call this is replaced by . To stop listening to the call click .

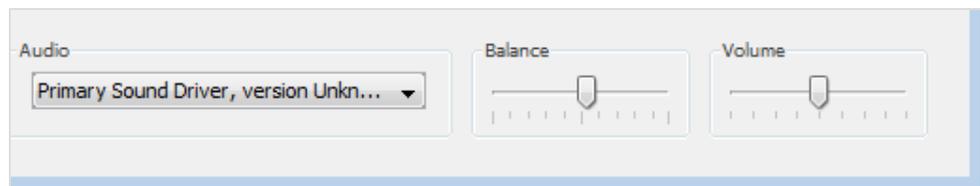


Figure 82: Volume and Balance

The user can adjust the call **Balance** and **Volume** as appropriate.

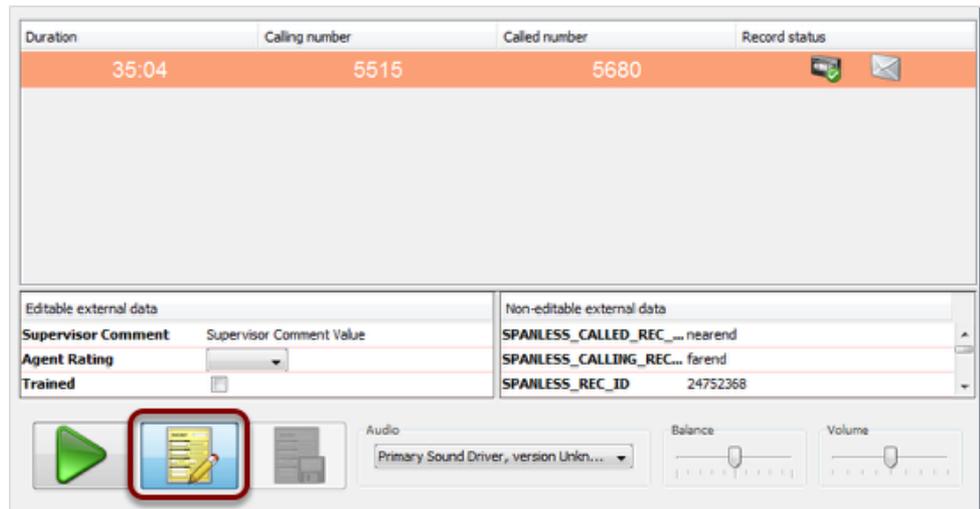


Figure 83: LiveMONCall External Data

To view the external data related to the call, click the icon on the bottom left as shown, this displays both editable and non-editable external data information panes.

10.5 Saving Live Call Recordings

LiveMON displays the current call recording status for each call within the call monitoring GUI. The status shown largely depends on the system configuration, however the user can select prerecorded calls to save them for later playback.

If a call is being recorded and can be saved, then the  icon is shown under the **Record status** header.

If it is not possible to save a call due to it not being recorded, then the  icon is shown under the **Record status** header.

If a call is being prerecorded, then the  icon is shown under the **Record status** header for the call.

If this is the case, and the user would like to save the call for later playback, click this icon. The icon then changes to show that it can be saved, and when the call is completed, it appears in the CallREC **Recorded Calls** tab. When a call is completed, it is not saved and appears in the **Recorded calls** list in the CallREC Web UI until it has been deselected in the LiveMON client.

10.6 Emailing Live Call Recordings

While a call is in progress an email icon is visible on the right of the call details.

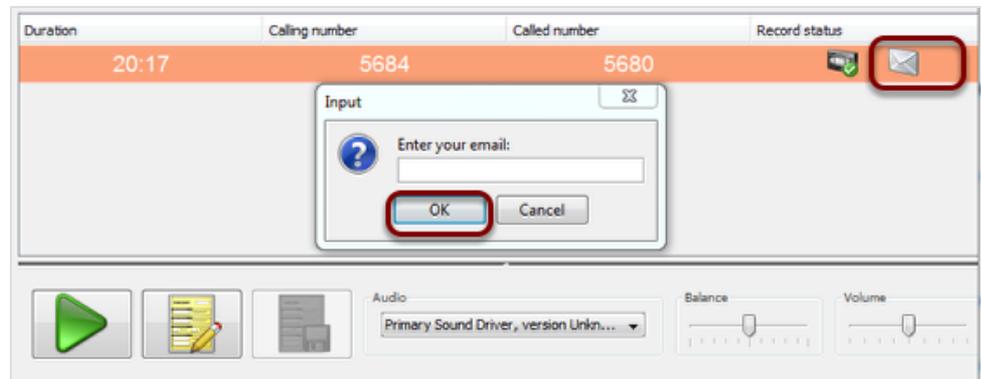


Figure 84: LiveMON Email Icon

1. Select **Send to Email**.
2. Type the email address in the **Enter your email:** section.
3. Click **OK**.

When the call is completed, the call recording is sent as an attachment to the email address entered.

10.7 Adding Editable External Data to Live Calls

When the user selects a call, they can add data to the call record. This information stays with the call and can be used to evaluate agents or add notes about the conversation.

Custom data fields can be added to LiveMON by the system administrator. The administrator must enable External Data Customization for these fields to be editable.

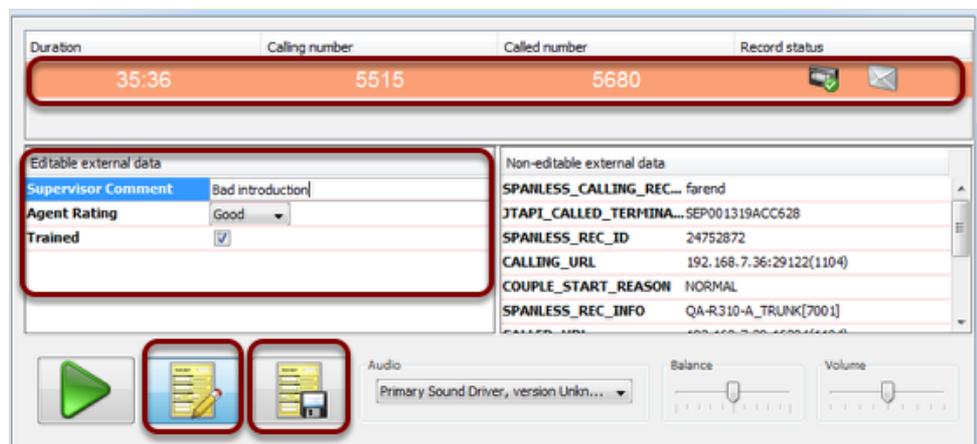


Figure 85: Adding Editable External Call Data

1. Select a call from the list.
2. Click the notes button to display the external data.
3. Add comments, select from available drop-down lists, or select the appropriate checkboxes.
4. To save the changes, click the save notes button.

When the call is completed this data is available in both CallREC and ScoreCARD, and can be used for filtering and searching for calls.

10.8 Sorting Live Calls

The user can change the display of LiveMON by right-clicking in a column heading. This enables the user to enter a filter, such as a phone number or agent name, and display only matching calls in the list.

To clear column display settings, and return to viewing all available calls, right-click in a column heading and then press Enter on the keyboard.

Setting duration thresholds:



Figure 86: Record status

The **Duration** column displays calls by how long they have remained connected. To screen out longer or shorter calls, the user can change the **Duration** threshold. Right-click on the **Duration** column heading.



Figure 87: Duration

Select Less than < or Greater than > and enter the number of minutes. Click ... to apply the **Duration** threshold.

Only calls under or over the threshold display in the LiveMON call list.

Displaying calls by **Record status**:

By default, LiveMON displays all calls in the CallREC system.

To change the display to only show calls with a specific recording status, right click on **Record status** a drop down list appears with the following Options:

- **Call is being recorded**
- **Call record status is not determined yet**
- **Call is not being recorded**
- **Call is being pre-recorded: click to save**
- **Call can be sent by email: click to send**

11

Advanced Player

This chapter describes how to use Advanced Player.

-
- Chapter Topics:
- 11.1 Using the Advanced Player
 - 11.2 Using the Advanced Player Controls
 - 11.3 Playing Multiple Calls
 - 11.4 Finding Related Calls
 - 11.5 Adjusting Call Offsets
 - 11.6 Isolating Calls
 - 11.7 Call Couple Examples

11.1 Using the Advanced Player

ZOOM CallREC includes an Advanced Player that enables the user to listen to multiple calls, select sections of calls, arrange the order of call playback, and isolate individual call streams.

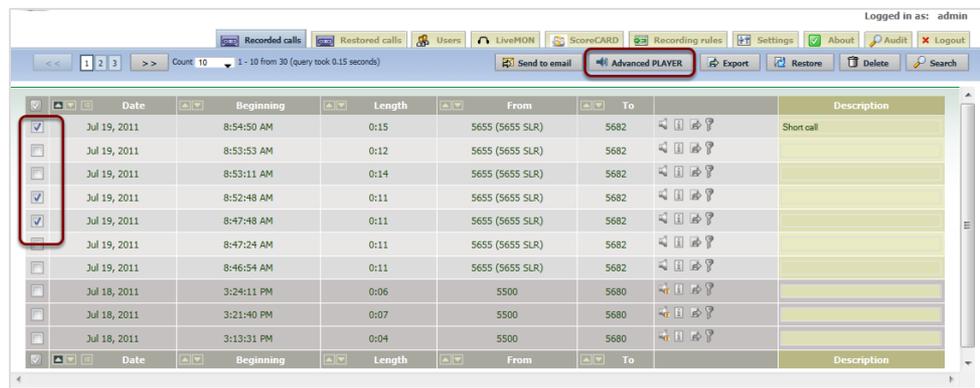


Figure 88: Opening Advanced PLAYER

To open **Advanced PLAYER**:

1. Select one or more call check boxes.
2. Click **Advanced PLAYER**. The calls are represented on the timeline as blue bars starting on the left and finishing on the right. The word **ready** appears on each blue bar when the call is downloaded and ready to play.
3. The user can click on the calls and drag them across the timeline from right to left to remove any gaps in the calls where no one was speaking. To do this click on a blue bar and drag it to the left until the left hand edge of the latter call is above or below the right hand edge of the preceding call.

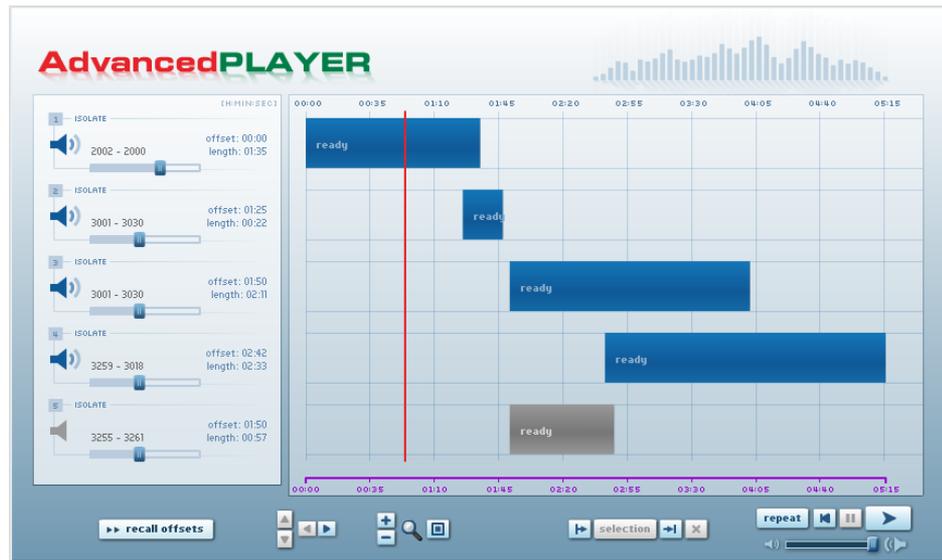


Figure 89: The Advanced PLAYER window

11.2 Using the Advanced Player Controls

The **Advanced PLAYER** uses standard audio playback, rewind, and repeat control buttons. The Master volume is controlled with a slider control.



Figure 90: Advanced PLAYER playback controls

The user can enlarge the audio track display, make the display smaller, or reset the size to its original position. This enables the user to navigate between tracks and move their relative positions when they are replaying multiple call recordings.



Figure 91: Audio track size and reset

To mute an individual call, click the call's speaker icon. To adjust the volume up or down, use the call's volume slider. Click **Isolate** to hear only that call recording.

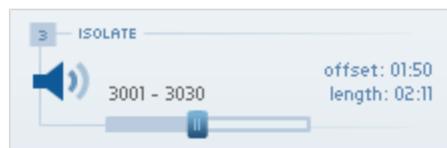


Figure 92: Call's Related Controls

Use the **Call Selection** controls to identify a section of recordings. Use the red cursor line to select the Start (<) and End (>) points. If the user clicks **Selection**, only the selection between these points plays. Click on X to clear the selection area.



Figure 93: Calls Selection Controls

11.3 Playing Multiple Calls

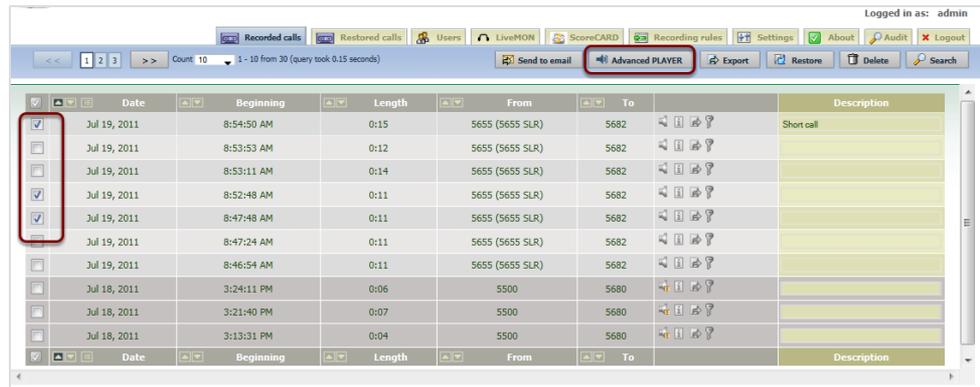


Figure 94: Opening the **Advanced PLAYER**

1. In the **Recorded calls** tab, select multiple calls by clicking their check boxes.
2. Click **Advanced PLAYER**. The **Advanced PLAYER** window opens with those calls ready to play in sequential order.

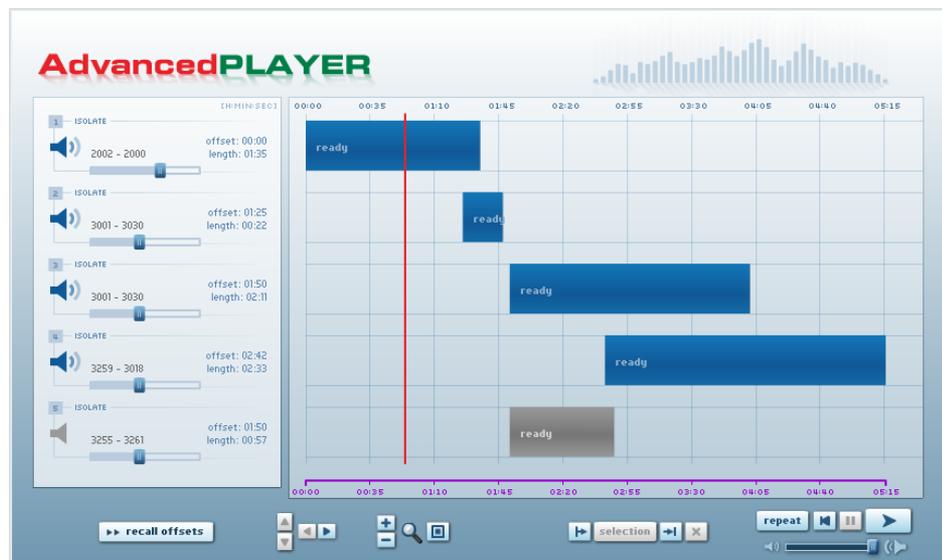


Figure 95: The **Advanced PLAYER** window

Use the red cursor line to move within the recordings. Click the **Play** button to hear the calls.

11.4 Finding Related Calls

If the user can only find one segment of a call, for example, where there has been a transfer or consultation, the user can search for the other sections of the call using the external data that is common to all parts of the call.

To search for the related segments of the call first, the user must have the following External Item keys available in the **Advanced search**:

For UCCX and UCCE use:

JTAPI_CISCO_ID

JTAPI_CISCO_GLOBAL_ID

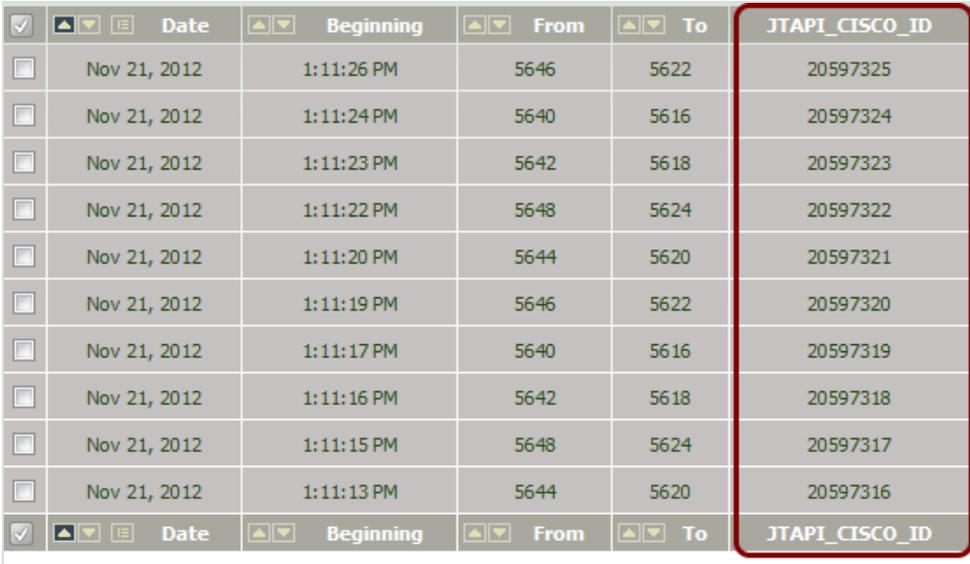
For Genesys CIM use:

GEN_TEV_CALL_Uuid

GEN_TEV_ConnID

11.4.1 Finding Related Calls Using an Item Key Value

In the **Recorded calls** list:



<input checked="" type="checkbox"/>	<input type="checkbox"/>	Date	Beginning	From	To	JTAPI_CISCO_ID
<input type="checkbox"/>		Nov 21, 2012	1:11:26 PM	5646	5622	20597325
<input type="checkbox"/>		Nov 21, 2012	1:11:24 PM	5640	5616	20597324
<input type="checkbox"/>		Nov 21, 2012	1:11:23 PM	5642	5618	20597323
<input type="checkbox"/>		Nov 21, 2012	1:11:22 PM	5648	5624	20597322
<input type="checkbox"/>		Nov 21, 2012	1:11:20 PM	5644	5620	20597321
<input type="checkbox"/>		Nov 21, 2012	1:11:19 PM	5646	5622	20597320
<input type="checkbox"/>		Nov 21, 2012	1:11:17 PM	5640	5616	20597319
<input type="checkbox"/>		Nov 21, 2012	1:11:16 PM	5642	5618	20597318
<input type="checkbox"/>		Nov 21, 2012	1:11:15 PM	5648	5624	20597317
<input type="checkbox"/>		Nov 21, 2012	1:11:13 PM	5644	5620	20597316

Figure 96: Recorded Calls list Showing Item key

If the Item key is displayed in a column, then copy and paste the value from the column corresponding to the call segment already found into the corresponding part of the **Advanced search**. If the item key is not in a

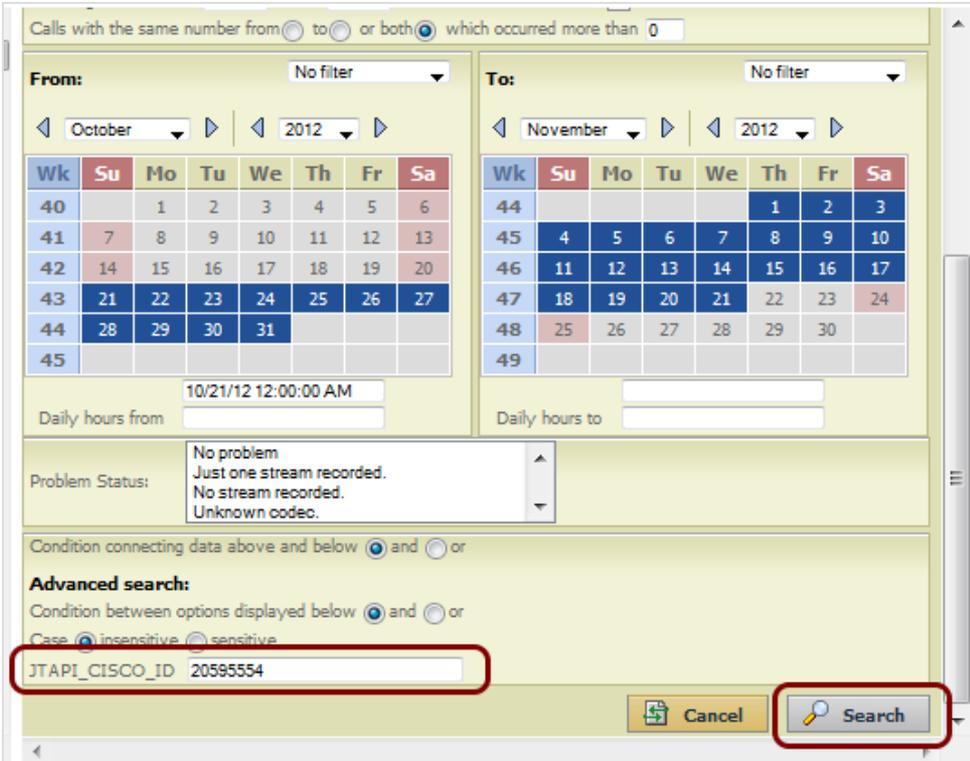
column click the call information icon  in the row corresponding to the part of the call that was found. The call description frame displays.

External Data	
Key	Value
CALLED_URL	192.168.7.8:24796(1104)
CALLING_URL	192.168.7.7:16382(1104)
COUPLE_END_REASON	NORMAL
COUPLE_START_REASON	HOLD
GROUP_ID	20597325
JTAPI_CALLED_TERMINAL_SEP	SEP000011110008
JTAPI_CALLING_TERMINAL_SEP	SEP000011120007
JTAPI_CISCO_CALLMANAGER_ID	1
JTAPI_CISCO_GLOBAL_CALL_ID	3820109
JTAPI_CISCO_ID	20597325

Call Description with External Data

Scroll down to find the appropriate Item key, for example, JTAPI_CISCO_ID and right click and copy the value.

Navigate to **Recorded calls > Search**. The search dialog box displays.



Search with the same number from to or both which occurred more than

From: No filter
 October 2012

To: No filter
 November 2012

10/21/12 12:00:00 AM
 Daily hours from Daily hours to

Problem Status: No problem
 Just one stream recorded.
 No stream recorded.
 Unknown codec.

Condition connecting data above and below and or

Advanced search:
 Condition between options displayed below and or
 Case insensitive sensitive

JTAPI_CISCO_ID 20595554

Cancel Search

Figure 97: Showing Item key

Paste the value into the field provided.

Click **Search**.

The search returns all the sections of the call.

In the **Recorded calls** list, select the checkboxes for all the segments of the call and then select **Advanced PLAYER**.

11.5 Adjusting Call Offsets

Call offsets are the gaps between calls. These gaps can be small, less than one second, or large. To close the gaps, use the mouse to drag the call tracks closer together.

To return all the offsets to their original positions, click **recall offsets**.



Figure 98: Recall Offsets Button

11.6 Isolating Calls

To hear only one of the selected calls, and mute all other calls, click **ISOLATE** next to the call identification information.

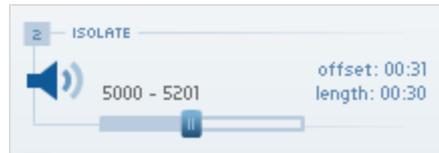


Figure 99: Isolating a Call

Clicking **ISOLATE** again turns all calls back on.

11.7 Call Couple Examples

The number of recorded call files created by CallREC depends on the type of call. Conference Calls, Transferred Calls, Barged Calls, and cBarge Calls are all handled differently, resulting in different combinations and lengths of recorded call files.

CallREC enables the user to play any individual call by clicking on it. The user can also select groups of related calls to be played back together. When the user plays back a group of related call recordings in **Advanced PLAYER**, they see and hear all call streams in their proper sequence.

11.7.1 Transferred Calls

- Caller A connects with Caller B.
- Caller B connects with Caller C, requesting a transfer.
- Call is accepted by Caller C, and Caller B hangs up.
- Caller A connects with Caller C.
- The result is three different files.

Caller A connects with Caller B. File 1 is created.

Caller B connects with Caller C. File 2 is created.

Caller A connects with Caller C. File 3 is created.

	A -> B	B Transfers to C	A + B
A	File 1	File 2	File 3
B		hanging-up	
C		File 2	File 3

Table 4: Storing transferred calls

When the user listens to a Transfer call in **Advanced PLAYER**, they see and hear all three call recording files.

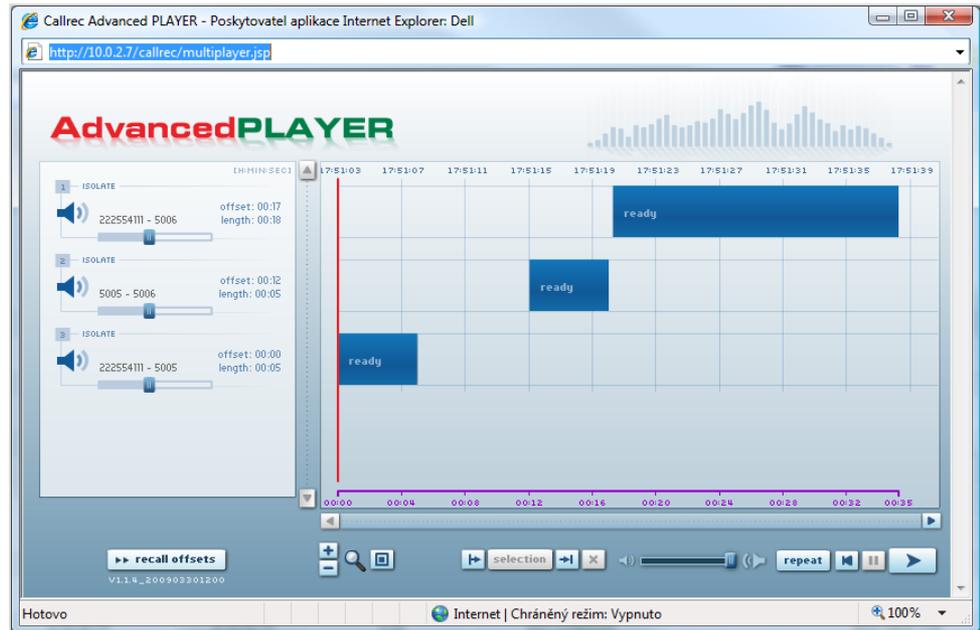


Figure 100: Transfer Call in **Advanced PLAYER**

11.7.2 Barge Calls

- Caller A connects with Caller B.
- Caller C listens to the conversation between Caller A and Caller B.
- The result is two different files.

Caller A connects with Caller B. File 1 is created.

Caller C listens to conversation. File 2 is created, containing only the portion of the call that Caller C hears. Compare the following table with that for cBarge Calls.

	A -> B	C Listen-in
A	File 1	
B		
C		File 2

Table 5: Storing listening-in (Barge)

When the user listens to a barge call in **Advanced PLAYER**, they see and hear both calls.

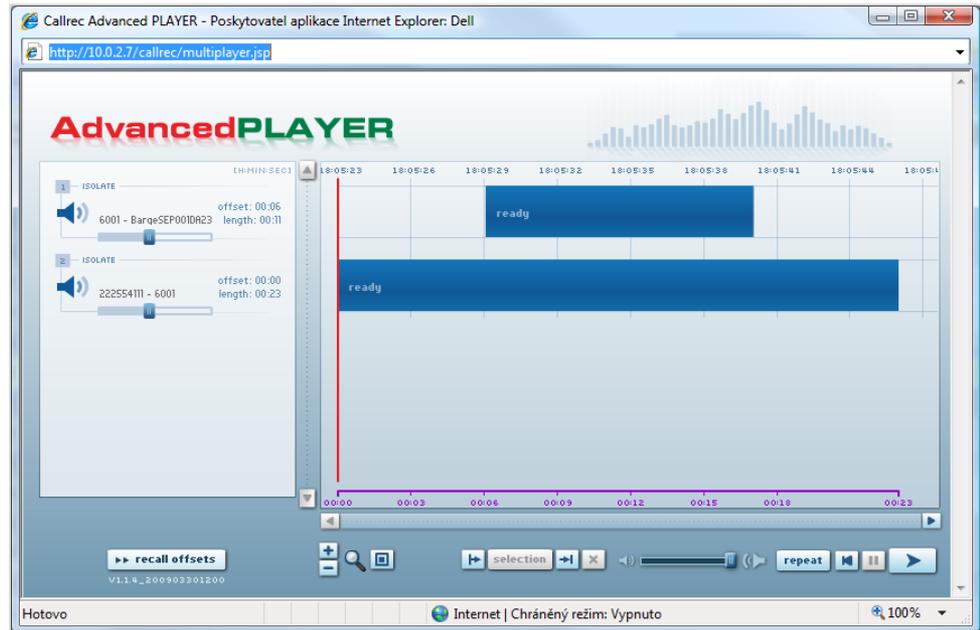


Figure 101: Barge Call in **Advanced PLAYER**

11.7.3 cBarge Calls

The cBarge model turns a two-sided call into a conference call when a third person listens in.

- Caller A connects with Caller B.
- Caller C listens in to the conversation between Caller A and Caller B.
- The result is four different files.

Caller A connects with Caller B. File 1 is created.

Caller C listens to the conversation. Files 2, 3, and 4 are created.

	A -> B	C Listen-in
A	File 1	File 2
B		File 3
C		File 4

Table 6: Storing listening-in (cBarge)

When the user listens to a cBarge call in **Advanced PLAYER**, they see and hear all four call recording files.



Figure 102: cBarge Call in **Advanced PLAYER**

11.7.4 Conference Calls

- Caller A connects with Caller B.
- Caller C joins the conversation in the middle, and leaves it before Caller A and Caller B finish their conversation.
- The result is six different files.

Caller A calls Caller B. File 1 is created.

Caller A calls Caller C, and invites them into a conference call. This is stored as File 2.

When Caller C joins the conference, Files 3, 4, and 5 are created.

When Caller C leaves the conference before its end, the call reverts to a classic two-sided call, and the remainder of the conversation is stored as File 6.

	A -> B	A -> C	A + B + C	A + B
A	File 1	File 2	File 3	File 6
B			File 4	
C		File 2	File 5	

Table 7: Storing a Conference Call

When the user listens to a Conference call in **Advanced PLAYER**, they see and hear all of the call recording files.



Figure 103: Conference Call in Advanced Player