

SHORETEL PROFESSIONAL SERVICES

ShoreTel CCI Viewer

User & Installation Guide



ShoreTel CCI Viewer

DESCRIPTION & USAGE GUIDE

INTRODUCTION

ShoreTel Professional Services has developed a web based viewer for the CDR table which is the output of the CCIR Transform Service (after processing the ShoreTel Contact Center CCIR database). See the ShoreTel CCIR Transform Service documentation for a full description.

Once installed on a Windows server, the Contact Center Interaction (CCI) viewer website is accessible from any web browser. It allows the user to view Contact Center calls in a tabular form as well as filter the view so as to display only those records that are desired. A custom link can be created to link other web based applications using ShoreTel's unique call ID ("GUID").

The CCI Viewer requires the CCIR Transform Service be installed and running.

INSTALLATION

The CCI Viewer is a Windows web install package consisting of CCIViewerWebSetup.exe and CCIViewerWebSetup.msi files. Copy both these files to a permanent location anywhere on the desired server and execute CCIViewerWebSetup.exe. The website can be installed on any Windows 2003 or later server running IIS 6 or above. Any server that meets Microsoft's minimum requirements for Windows 2003 and IIS 6 will be sufficient.

Important: If installing on Windows 2008 R2 (or any 64-bit Windows with IIS 7 or greater), you must **first** refer to the additional "ShoreTel CCI Viewer Installation Notes" document to verify and configure IIS. You do not need that document if installing on a 32-bit Windows server running IIS 6.

The default virtual directory is "CCIViewer" which would make the starting URL <a href="http://<SERVER>/CCIViewer/Home.aspx">http://<SERVER>/CCIViewer/Home.aspx. During installation, you may specify a different virtual directory.

Note the Application Licensing Server and appropriate licenses must be installed in order to utilize the CCIR Transform Service and the CCI Viewer. See your ShoreTel partner for details or a trial license.

To uninstall, using Windows "Add or Remove Programs" control panel, find "ShoreTel CCI Viewer" then select "Remove".

When upgrading from one version to another, copy all files out of

C:\Inetpub\wwwroot\CCIViewer\App_Data (assuming default virtual directory of "CCIViewer") to a safe place, uninstall the current version, install the new version, then restore the application data files.

CONFIGURATION

Once installed, before first use, it is important to edit the settings file, CustomAppSettings.xml, which will have been installed at C:\Inetpub\wwwroot\CCIViewer\App_Data (assuming default virtual directory of "CCIViewer").



The settings file, CustomAppSettings.xml allows the administrator to set the location of both the CCIR database and the ShoreTel CDR database (the Director server). The CCI Viewer website will not function if these settings are not correct. In addition, a custom URL link to an external website can be enabled (to link call entries to the ShoreTel Call Recorder Player, for example).

The contents below show the default settings (lines are numbered in this document for reference). Only the 4 lines in bold red are configuration statements...the remaining lines are comments.

```
1. <!-- Server and MySQL port must point to CCIR DB server. Port usually 6306 or 4306. -->
2. <CCIRServer host="localhost" port="6306" conntimeout="60" cmdtimeout="60" />
3. <!-- Server and MySQL port must point to ShoreTel Director server -->
4. <!-- Note 3306 is default port but starting with ST version 10, port should be set to
5. <CDRServer host="localhost" port="4309" conntimeout="60" cmdtimeout="60" />
6. <!-- Indicate ShoreTel Application License server which is usually the ShoreTel Director
    server. -->
7. <LicenseServer host="" />
8. <!-- Setting for custom GUID Link column. Can be used to link to other products (if
    associated by GUID) -->
9. <!-- Links can be specified per call media type: voice, web (chat), and email. %% will
   be substituted with the GUID value -->
10. <!-- Possible attributes are: -->
11. <!-- voicelink, voicelinktext, and voicelinktooltip for VOICE calls -->
12. <!-- weblink, weblinktext, and weblinktooltip for WEB (aka CHAT) "calls" -->
13. <!-- emaillink, emaillinktext, and emaillinktooltip for EMAIL "calls" -->
14. <!-- Example for linking to ShoreTel's Call Recorder Player is below. Just the voice
    link attributes defined in this case. -->
15. <!-- <CustomLink enable="Yes"
    voicelink="http://10.10.10.10/stpscallrecorderplayer?File=%%" voicelinktext="Listen"
    voicelinktooltip="Click to find call in Call Recorder Player" /> -->
16. <CustomLink enable="No" />
```

The entries specifying CCIRServer (line 2) and CDRServer (line 5) must be configured properly for the website to function. Optionally, the CustomLink entry (line 16) can enable the creation of web links to other URLs based on the unique call ID value known as GUID. If enabled and defined here, each end user can then choose to have the "Custom Link" column appear in their viewer page.

In addition, LicenseServer (line 7) should be specified to point to the Application License server host name or IP address. If the LicenseServer host value is not specified then the value of CDRServer host will be used as the license server.

The CCIRServer host and port values must reflect the location of the CCIR database server and the associated MySQL port number. The port number is normally 6306 in this case.

The CDRServer host and port values must reflect the location of the ShoreTel Director server which contains the core CDR database. The CDRServer port value should be 3306 in ShoreTel versions prior to 10 and 4309 in versions 10 and above.

In both of the above lines the "conntimeout" and "cmdtimeout" control the maximum time the application will wait for connection establishment and command execution, respectively, when communicating with the associated database. It is recommended you do not change these unless instructed.

The CustomLink entry (line 16) may be configured to provide a link, per call row, to an external system. The external system must be able associate calls by call GUID which is a unique ShoreTel value, per call. For example, the ShoreTel Call Recorder Player can be referenced using this Custom Link. Note the GUID may not be available for all types of calls, however.

To enable the links, set the value enable to "Yes". Then, for each media type (voice, web, and email), you can indicate 3 parameters defining the link's URL, the text that will appear in the Custom Link column of the CCI Viewer, and the "tool tip" which will appear on mouse over that column. The string %% represents a placeholder where the call's GUID value will be substituted. You should only define links for the media



types that apply. For example, with the ShoreTel Call Recorder Player link, you would only define the "voice" type links. Viewer entries for other media types (web and email) would show an empty value in the Custom Link column.

For example, to create links to the ShoreTel Call Recorder Player website, the following would be the CustomLink entry (replacing localhost with the appropriate server location of the player). In addition, to appear in the Viewer page, the user would also have to be sure the "Custom Link" column was added to the "Visible Columns" in the Filters page.

```
<CustomLink enable="Yes" voicelink="http://localhost/stpscallrecorderplayer?File=%%"
voicelinktext="Listen" voicelinktooltip="Click to find call in Call Recorder Player" />
```

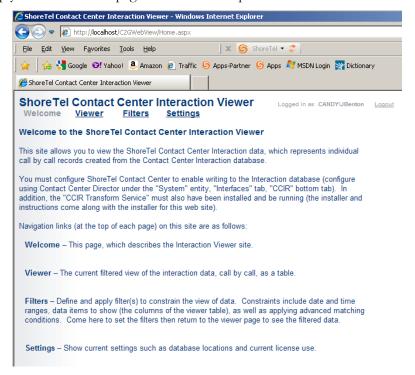
With the above example setting, the Custom Link column would have the value "Listen" for all voice media calls. When clicking on the "Listen" link, a new browser window would open, directing to the ShoreTel Call Recorder Player site, additionally filtered to find that particular voice call (by GUID value).

Once this file has been saved with the proper settings, the website is ready for use.

WEBSITE

As mentioned the default starting URL for the website is <a href="http://<SERVER>/CCIViewer/Home.aspx">http://<SERVER>/CCIViewer/Home.aspx where <a href="http://<SERVER>/cciviewer/Home.aspx">http://<SERVER>/cciviewer/Home.aspx where sERVER> is the name or IP address of the server where installed. In the screen examples, "localhost" is shown. The website uses Windows Authentication and will automatically log the user in if that user is logged into their machine using domain credentials. If the user comes from outside the domain, they will be prompted for a valid user and password by their Internet Explorer.

The Home page simply shows the list of pages and their description:



The website consists of 4 pages, with links just under the title:

• **Welcome** – This shown description page.



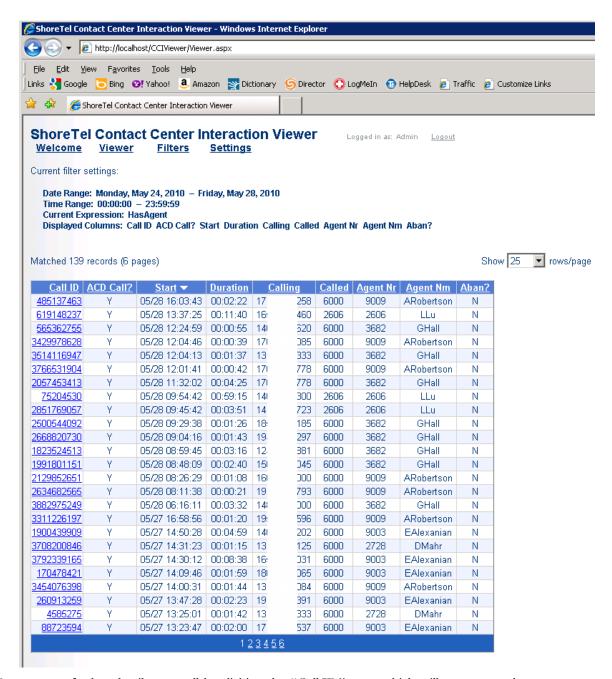
- **Viewer** The current filtered view of the CCIR data, call by call, as a table.
- **Filters** Define and apply filter(s) to constrain the view of data. Constraints include date and time ranges, data items to show (the columns of the viewer table), as well as applying advanced matching conditions. Come here to set the filters then return to the viewer page to see the filtered data.
- **Settings** Show current settings such as database locations and current license use.

The main pages are the Viewer and the Filters. The Viewer page shows the set of CCIR data as it has been transformed by the CCIR Transform Service. In addition, it applies whatever filters are enabled as shown and configured in the Filters page.

Viewer Page

Example of a Viewer page is below (calling numbers obscured in this document). At the top is the list of currently applied filters, in this case the data is from a single work week, May 24 through May 28, with time range of the entire day. The user defined expression "HasAgent" is applied (see Filters page description following). The columns displayed can also be changed using the Filters page.

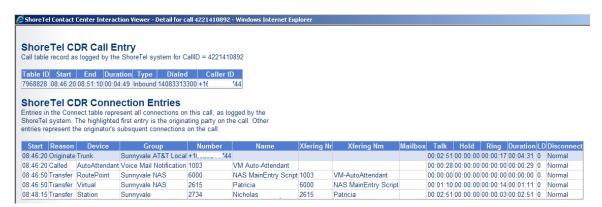




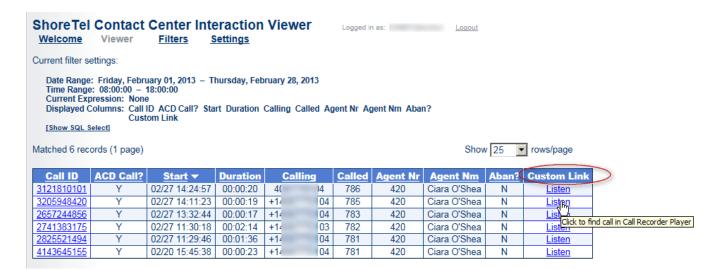
One may get further details on a call by clicking the "Call ID" entry which will pop up another page displaying the details of the call as found in the ShoreTel CDR database. An example is shown below. The first section shows the entry from the CDR "call table". The second section shows the entry from the CDR "connection table". The call record is a single entry concerning the call in general while the connection record shows the calling party, then each subsequent party to which the calling party was connected.

These values are directly from the ShoreTel CDR database. The call and connection tables are further defined in the ShoreTel System Administration Guide in the appendix concerning CDR.





Below is a screen shot showing the Custom Link configured per our example in the "Configuration" section of the document. Here the user has also selected Custom Link in the "Visible Columns" section of the "Filters" page.

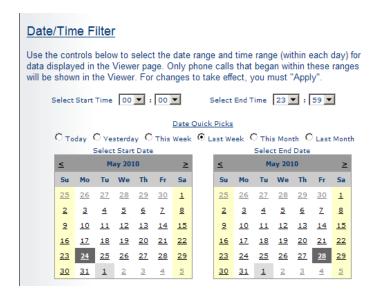


Filters Page

The Filters page allows you to constrain or expand the data that is shown in the Viewer page. There are 3 sections: Date/Time, Expression, and Visible Columns. Any changes to the filters must be applied (there is an "Apply" button on the page) before they take effect. The settings will be "remembered" for each validated user.

The Date/Time filter allows the setting of the range of dates and range of time within days that is displayed in the Viewer page. The default, when first logging into the CCI Viewer website is to display the current full day's calls.

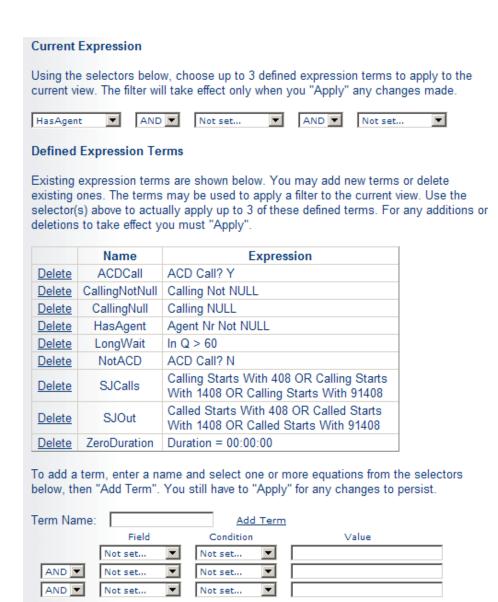




The Expression filter allows you to define expression terms that consist of conditional equations based on the data in the Viewer table. You can define equations such as "Duration > 01:00:00" and "ACD Call? = Y", then combine them to make an expression term which you might name "LongACD". You can create multiple terms and combine up to 3 of them to apply to the current Viewer data being displayed. The defined terms, as well as your currently applied expression, will be saved and will be remembered when you login again.

An example with various terms defined is shown below.





The Visible Columns section allows you to define which columns of data should be shown on the Viewer page. These columns are also the ones that can be used in the equations of the expression terms in the Expression Filter (except for Custom Link). The type of data helps you to determine what the form of the values will be. An Integer type will be a number. A Flag type will be a single character, "Y" or "N" (meaning yes/true or no/false).

The choices, once applied, will be remembered for your user name.



Visible Columns

Use the grid below to select which columns you want to appear in the Viewer page. For changes to take effect, you must "Apply".

Use the "Defaults" button to reset selections to their initial defaults, if desired. (You still need to "Apply" to effect the change.)

Defaults

Show	Column	Description	Type
V	Call ID	The primary call ID, unique within the ShoreTel system	Integer
	CC Call ID	Contact Center call ID, unique since the start of the CC process	Integer
	2nd Call ID	Call ID of associated secondary call, if any	Integer
V	ACD Call?	Was call an ACD type call?	Flag
✓	Start	Date and time the call started, as known to the Contact Center	DateTime
	End	Date and time the call ended, as known to the Contact Center	DateTime
✓	Duration	Duration of the call, as known to the Contact Center	Time
✓	Calling	Calling party number	String
V	Called	Called party number	String
	IRN	Contact Center IRN, if any	String
	IVR List	List of IVR applications transited by this call	String
	Svc List	List of Contact Center services transited by this call	String
	Grp List	List of Contact Center groups transited by this call	String
	CCS List	List of Contact Center scripts transited by this call	String
	Agent ID	Contact Center agent ID of first agent involved on this call	String
✓	Agent Nr	Agent extension of first agent involved on this call	String
✓	Agent Nm	Agent name of first agent involved on this call	String
	In Q	Number of seconds waited in Contact Center queue (voice calls only)	Integer
	In Ring	Number of seconds agent's phone rang (voice calls only)	Integer
	In Conn	Number of seconds connected to agent (voice calls only)	Integer
✓	Aban?	Was call abandoned?	Flag
	Xfer?	Was call transferred?	Flag
	Divert?	Was call diverted?	Flag
	OFlow?	Did call overflow?	Flag
	IFlow?	Did call interflow?	Flag
	MultiAgt?	Was more than one agent involved on this call?	Flag
	Conf?	Was call involved in a conference?	Flag
	OutDial?	Was call created by outbound dialing?	Flag
	CP Values	List of Call Profile names and values	String
	Wrap Value	Agent assigned numeric wrap value	String
	Wrap Code	Agent assigned named wrap code	String
	Media	Media type of the call (voice, web, email)	String
	AgentQ?	Was call presented to personal agent queue?	Flag
	Call Type	Contact Center call type (voice, chat, email, callback, abandoned, etc.)	String
	Calling Name	Calling party name	String
	Custom Link	Configured custom call based web link	String