Loway presents

QueueMetrics - CallCabinet Integration Tutorial

QueueMetrics-CallCabinet Integration

In this tutorial, we will detail how to setup your QueueMetrics or QueueMetrics-Live system in order for it to retrieve call recordings stored with Atmos CallCabinet Call Recording Solution.

Atmos CallCabinet for QueueMetrics-Live provides QueueMetrics' customers with secure and accurate cloud call recordings for their Asterisk PBX based call centers. It includes a pluggable listener module that allows customers to listen to recordings that are being stored remotely in the cloud.

This guide is divided in two sections: first, we will setup our Asterisk system so that it will automatically store our recordings on CallCabinet, after that we will setup our QueueMetrics system to be able to retrieve the recordings for QA purposes.

Asterisk Setup

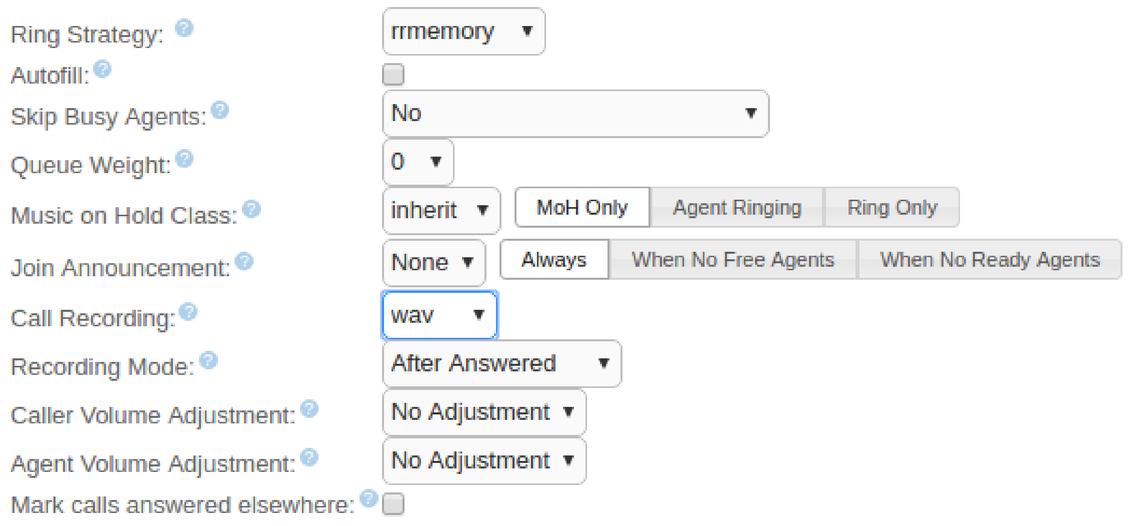
Prerequisites:

In order to store your files on CallCabinet we must make sure CCModule is installed and running on your system. For more information on how to setup CCModule, please refer to the following guide:

www.callcabinet.com/knowledge-base/setting-atmos-call-recording-asterisk

Now we need Asterisk to record our calls and place them in our repository folder (the folder specified in Ccconfig.txt). In this example we will use a Elastix-FreePbx system on a Centos 7machine.

First, let’s turn on the recording feature for all calls on our queue.



Ring Strategy:	rrmemory
Autofill:	☐
Skip Busy Agents:	No
Queue Weight:	0
Music on Hold Class:	inherit [✓ MoH Only] Agent Ringing Ring Only
Join Announcement:	None [✓ Always] When No Free Agents When No Ready Agents
Call Recording:	wav
Recording Mode:	After Answered
Caller Volume Adjustment:	No Adjustment
Agent Volume Adjustment:	No Adjustment
Mark calls answered elsewhere:	☐

Now, we need to enable a Post-Recording script that renames and moves the recordings to our repository (Default is /home/callcabinet/recordings). We will use a script called moverec.sh from Atmos, copy and paste the following lines and save them as moverec.sh

```
#Logic in the script is as follows:

#1) Calculate call duration (note - this goes from the call start time, which is not necessarily the start of the call recording):

CALLSTART=${5}T${6}

CALLSTARTSEC=`date -d "${5} ${6}" "+%s"`

CALLENDSEC=`date  "+%s"`

#Confirm the location of the recordings as set in the CCModule

CCSTAGING=/home/callcabinet/recordings

FOLDERS=`date +"%Y/%m/%d"`

CALLDUR=$((CALLENDSEC-CALLSTARTSEC))

if [ "$CALLDUR" -le 0 ]

then

   CALLDUR=0

fi
```

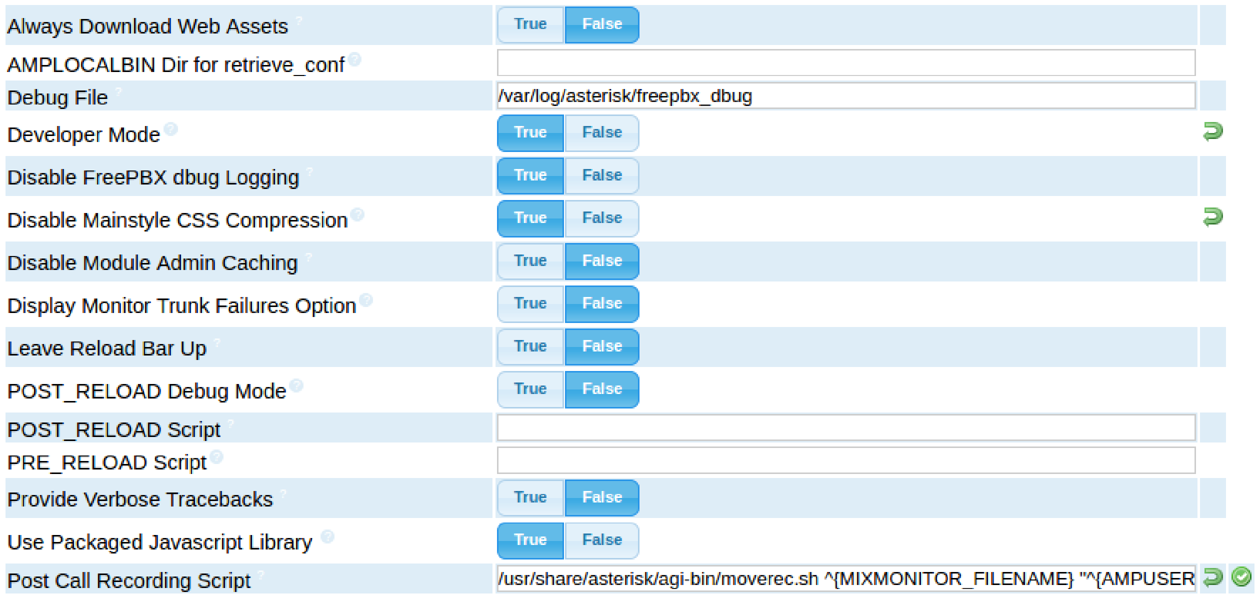
```
#2) Call Direction (there are easier ways to do this)

# Determine in our out call from prefix

FILEBASE=`basename $SRCFILE`

CALLDIR=${FILEBASE%%-*}



if [ "$CALLDIR" = "IN" ]

then

    CALLDIR="INCOMING"

    REMOTENUM=$CALLER

    if [ -z "$AMPUSER" ]

    then

        AMPUSER=`echo $FILEBASE | cut -d '-' -f 2`

    fi

    USEREXT=$AMPUSER

fi


if [ "$CALLDIR" = "OUT" ]

then

    CALLDIR="OUTGOING"

    USEREXT=$AMPUSER

    REMOTENUM=$CALLED

fi


if [ "$CALLDIR" = "force" ]

then

    CALLDIR="OUTGOING"

    USEREXT=$AMPUSER
```

```
	REMOTENUM=$CALLED
fi


if [ "$CALLDIR" = "" ]
then
	CALLDIR="INCOMING"
	USEREXT=$AMPUSER
	REMOTENUM=$CALLED
fi


#3) Rename the file
SRCFILE=$1
DSTFILE=${CALLSTART}_${CALLDUR}_${CALLDIR}_$4_$7_${8}.WAV
mkdir -p /home/callcabinet/recordings/${FOLDERS}
mv ${SRCFILE}* ${CCSTAGING}/${FOLDERS}/${DSTFILE}
```

We then place the moverec.sh into /usr/share/asterisk/agi-bin/. This script automatically renames and replaces your recordings in your repository, using a specific name format that contains various information about the recording, so that it can be easily retrieved later on.

We must make sure that the variable CCSTAGING is set to our repository folder, in our case this is /home/callcabinet/recordings.

Now, in order for the script to work, we must instruct FreePbx to execute it as a Post-Recording operation. To do so let’s go to FreePBX Advanced Settings.



Always Download Web Assets	True [✓ False]
AMPLOCALBIN Dir for retrieve_conf	
Debug File	/var/log/asterisk/freepbx_dbug
Developer Mode	[✓ True] False
Disable FreePBX dbug Logging	[✓ True] False
Disable Mainstyle CSS Compression	[✓ True] False
Disable Module Admin Caching	True [✓ False]
Display Monitor Trunk Failures Option	True [✓ False]
Leave Reload Bar Up	True [✓ False]
POST_RELOAD Debug Mode	True [✓ False]
POST_RELOAD Script	
PRE_RELOAD Script	
Provide Verbose Tracebacks	True [✓ False]
Use Packaged Javascript Library	[✓ True] False
Post Call Recording Script	/usr/share/asterisk/agi-bin/moverec.sh ^{MIXMONITOR_FILENAME} "^{AMPUSER

As we can see, there is a field called Post Call Recording Script. Here is where we must indicate the location of our moverec.sh script, together with a few parameters the script needs to work properly. If you saved moverec.sh in the /usr/share/asterisk/agi-bin/ folder, you should write:

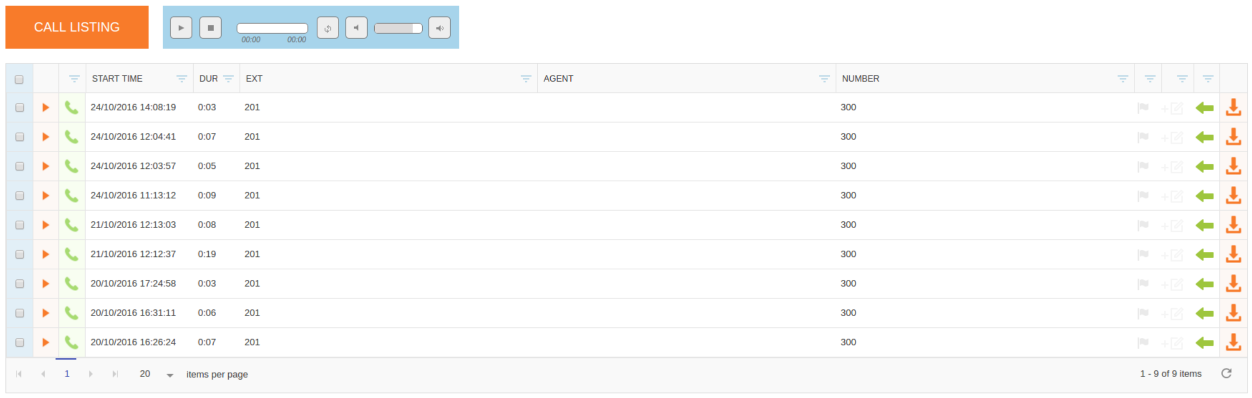
```
/usr/share/asterisk/agi-bin/moverec.sh  ^{MIXMONITOR_FILENAME}  "^{AMPUSER}"  "^{CALLERID(number)}"
"^{CDR(dst)}" ^{CDR(start)} "^{CDR(src)}" ^{UNIQUEID}
```

Remember that the moverec.sh script must be executable by the asterisk user.

The last thing we need to do is to make sure that in the CCconfig.txt configuration file, we set the following parameters like this:

```
FileNameDelimiter:<_>

FileNamePos1:<DateTime>

FileNamePos2:<Duration>

FileNamePos3:<Direction>

FileNamePos4:<Number>

FileNamePos5:<Ext>

FileNamePos6:<CustomerInternalRef>

Treesupport:<yes>
```

If everything has been correctly set up, you should now find your recordings in your CallCabinet web repository.



START TIME	DUR	EXT	AGENT	NUMBER
24/10/2016 14:08:19	0:03	201		300
24/10/2016 12:04:41	0:07	201		300
24/10/2016 12:03:57	0:05	201		300
24/10/2016 11:13:12	0:09	201		300
21/10/2016 12:13:03	0:08	201		300
21/10/2016 12:12:37	0:19	201		300
20/10/2016 17:24:58	0:03	201		300
20/10/2016 16:31:11	0:06	201		300
20/10/2016 16:26:24	0:07	201		300

1 20 items per page 1 - 9 of 9 items

QueueMetrics Setup

To make sure QueueMetrics looks for your recordings on your CallCabinet online repository, you need only three things:

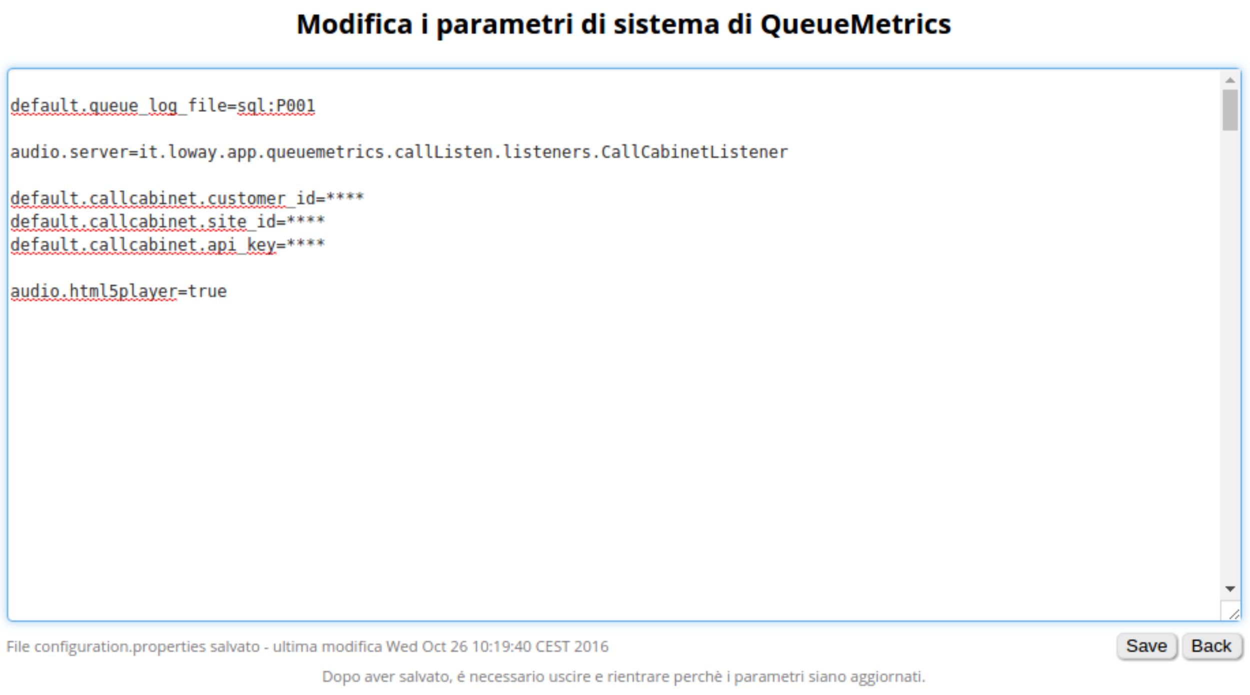
- Your CallCabinet Customer ID.
- Your CallCabinet Site ID.
- The Valid CallCabinet API Key.

The Customer ID and the Site ID are sent to you when you activate your CallCabinet account, as for the API Key you need to request it from the CallCabinet support at support@callcabinet.com .

Once we have all of the above information, from QueueMetrics homepage we must go to Edit System Parameters and edit the following parameters:

```
audio.server=it.loway.app.queuemetrics.callListen.listeners.CallCabinetListener

default.callcabinet.customer_id=****

default.callcabinet.site_id=****

default.callcabinet.api_key=****

audio.html5player=true
```

Make sure you replace the ** characters with your Customer ID, Site ID and API Key. The audio.html5player=true parameter instead, enables us to listen to the recordings directly on our browser.



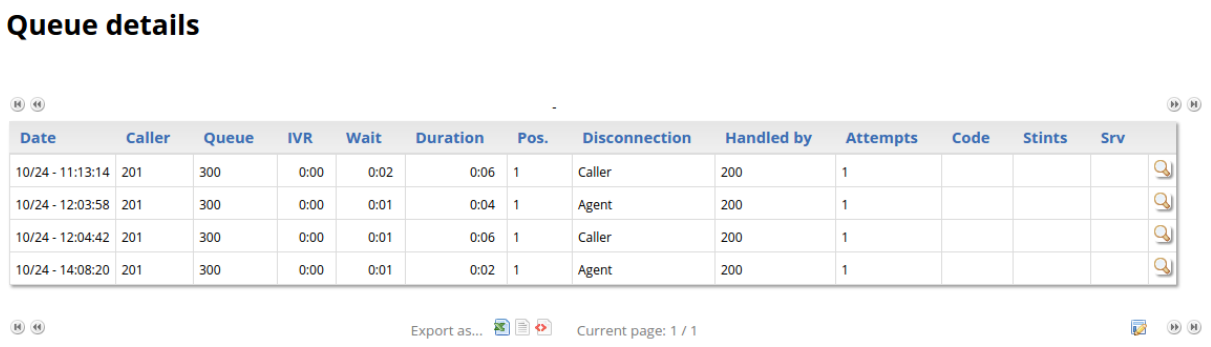
Modifica i parametri di sistema di QueueMetrics

```
default.queue_log_file=sql:P001

audio.server=it.loway.app.queuemetrics.callListen.listeners.CallCabinetListener

default.callcabinet.customer_id=****
default.callcabinet.site_id=****
default.callcabinet.api_key=****

audio.html5player=true
```

File configuration.properties salvato - ultima modifica Wed Oct 26 10:19:40 CEST 2016

Dopo aver salvato, é necessario uscire e rientrare perchè i parametri siano aggiornati.

We should be ready now, let's go back to the HomePage and take a look at any report containing some of the calls that we recorded.

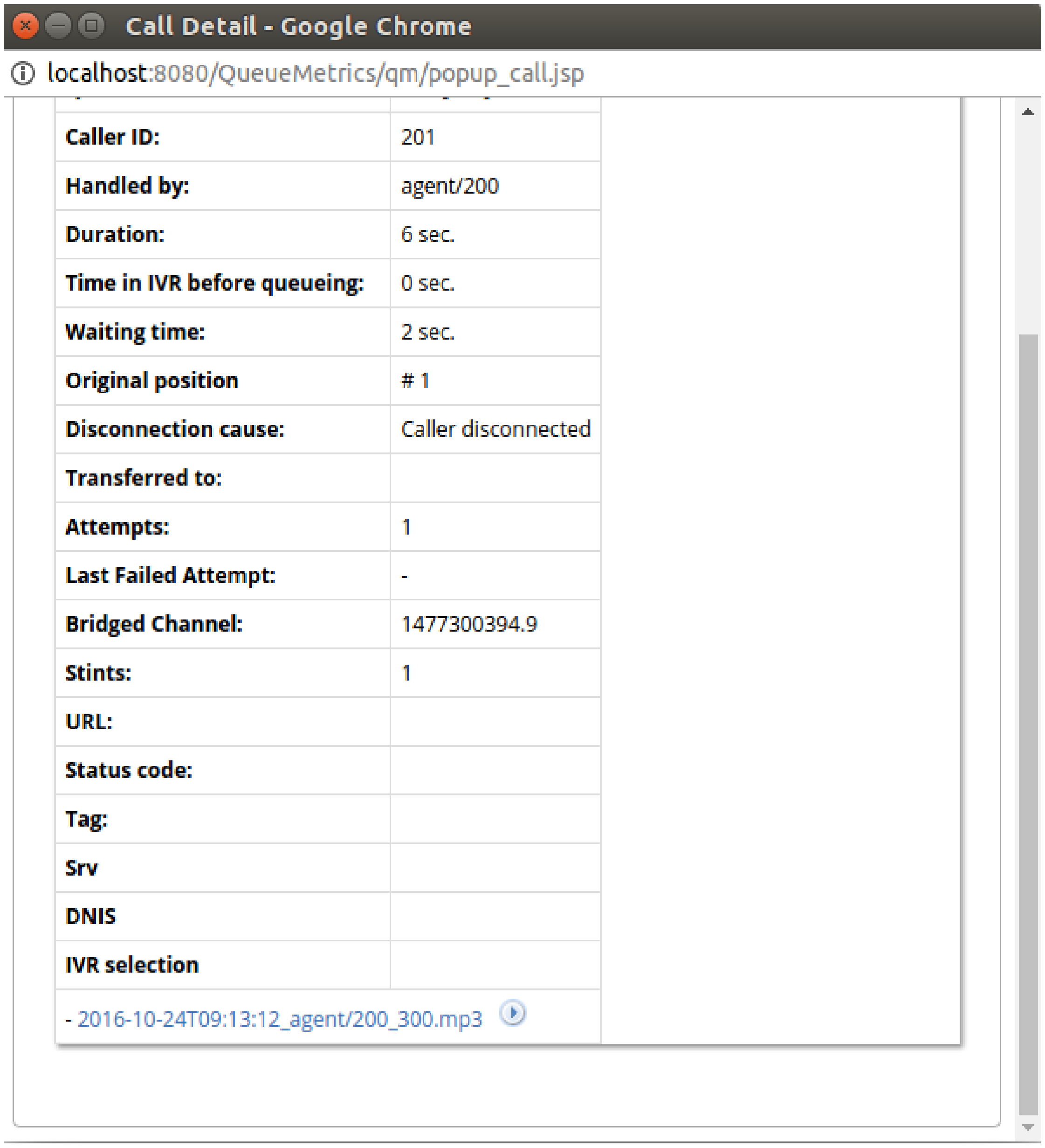


Queue details

Date	Caller	Queue	IVR	Wait	Duration	Pos.	Disconnection	Handled by	Attempts	Code	Stints	Srv	
10/24 - 11:13:14	201	300	0:00	0:02	0:06	1	Caller	200	1				
10/24 - 12:03:58	201	300	0:00	0:01	0:04	1	Agent	200	1				
10/24 - 12:04:42	201	300	0:00	0:01	0:06	1	Caller	200	1				
10/24 - 14:08:20	201	300	0:00	0:01	0:02	1	Agent	200	1				

Export as... Current page: 1 / 1

If we click on the Call Detail Icon (the magnifying glass icon on the right), we can see at the bottom that QueueMetrics retrieves the recordings related to that call's Call ID.

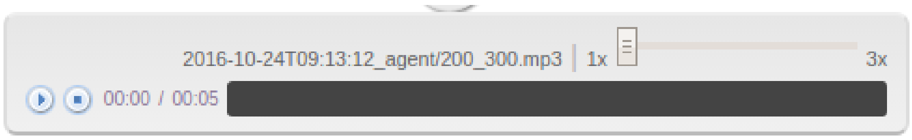

Call Detail - Google Chrome
localhost:8080/QueueMetrics/qm/popup_call.jsp

Caller ID:	201
Handled by:	agent/200
Duration:	6 sec.
Time in IVR before queueing:	0 sec.
Waiting time:	2 sec.
Original position	# 1
Disconnection cause:	Caller disconnected
Transferred to:	
Attempts:	1
Last Failed Attempt:	-
Bridged Channel:	1477300394.9
Stints:	1
URL:	
Status code:	
Tag:	
Srv	
DNIS	
IVR selection	
- 2016-10-24T09:13:12_agent/200_300.mp3	

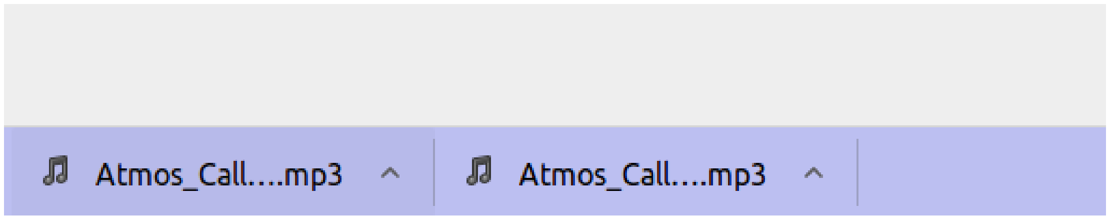
The name format QueueMetrics uses to represent a recording is the following:

```
DateTime_agent_queue.mp3
```

If we click on the Play icon just right of the recording name we can stream the recording directly without downloading it.



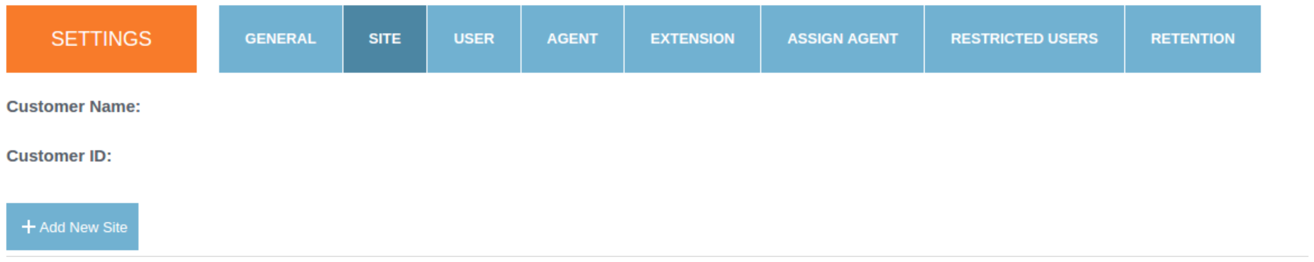
If we wish to download it instead, we can click on the recording name.



Multi-Site Configuration

QueueMetrics and CallCabinet both offer support for Multi-Site configurations, where the same customer has the need to monitor different PBXs with the need to differentiate between recorded files.

In CallCabinet, this is simply arranged by logging in the CallCabinet HomePage then going to Settings → Site → Add New Site.



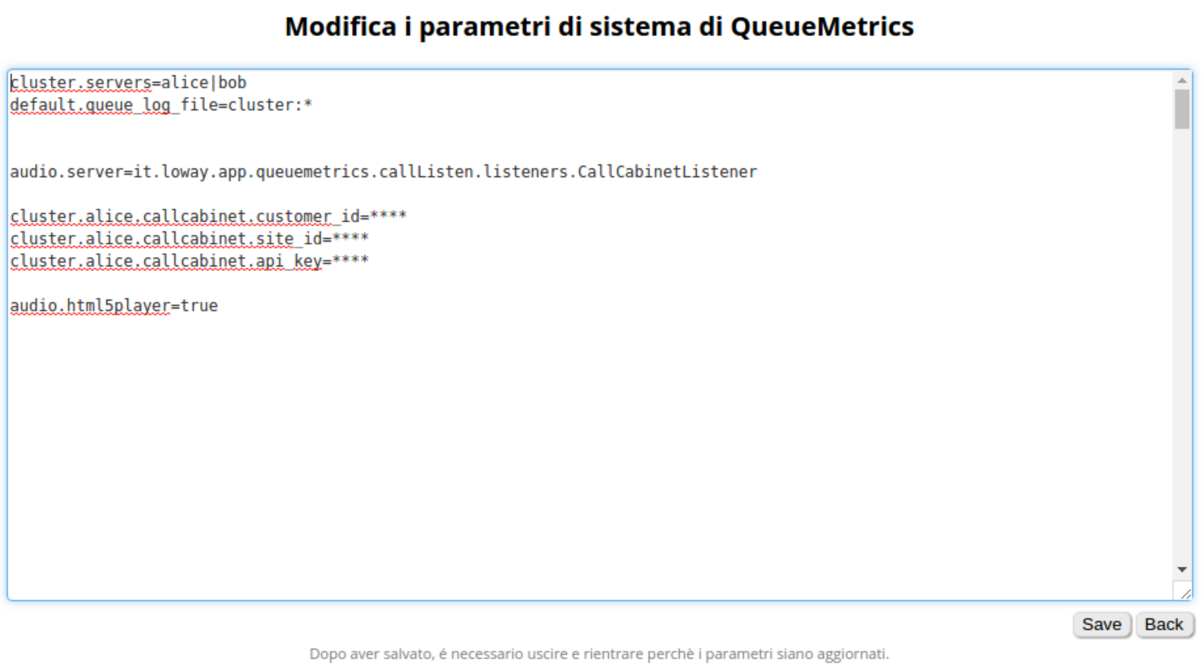
Doing this, will provide you with a different Site ID that will be used to access stored data coming from the New Site.

On the QueueMetrics side instead, we find the Cluster Functionality that is meant to allow the user to monitor different PBXs through the same QueueMetrics System.

In order to setup the Cluster Functionality correctly please refer to the QueueMetrics Manual.

manuals.loway.ch/QM_UserManual-chunked/ch20

Clusters allow the user to define different System Parameters for different PBXs, let’s take a look at how it would work in a situation where we have two different PBXs named respectively Alice and Bob.


Modifica i parametri di sistema di QueueMetrics

```
cluster.servers=alice|bob
default.queue_log_file=cluster:*


audio.server=it.loway.app.queuemetrics.callListen.listeners.CallCabinetListener

cluster.alice.callcabinet.customer_id=****
cluster.alice.callcabinet.site_id=****
cluster.alice.callcabinet.api_key=****

audio.html5player=true
```

Save
Back
Dopo aver salvato, é necessario uscire e rientrare perchè i parametri siano aggiornati.

As we can see we will have defined, in the Edit System Parameters page, the names of the different PBX Servers, with the system property:

```
cluster.servers=alice|bob
```

Different PBX names will be separated with the "|" Pipe symbol. To define which PBX we want QueueMetrics to monitor we use the property:

```
default.queue_log_file=cluster:*
```

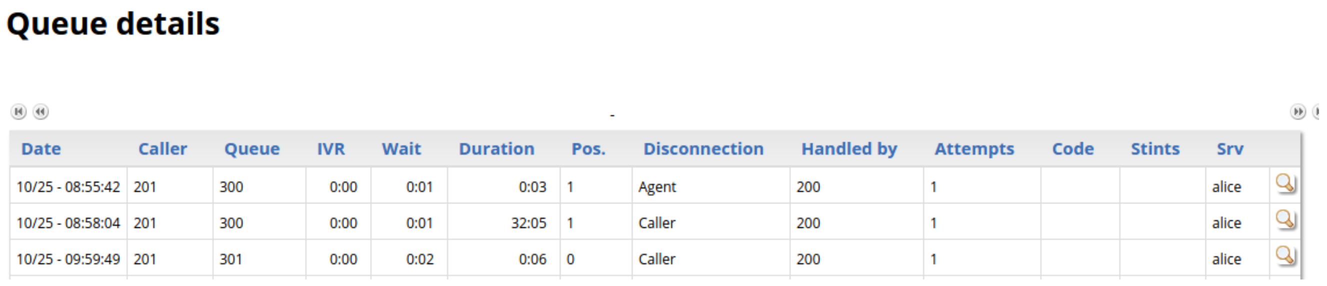
In this case we want QueueMetrics to monitor all of them so we use the "*" Star symbol, otherwise we could use the names of the different servers to monitor, separating them with the "|" Pipe symbol.

Now, we can define properties specific to each PBX Server, by using the following syntax:

```
cluster.alice.callcabinet.customer_id=****

cluster.alice.callcabinet.site_id=****

cluster.alice.callcabinet.api_key=****
```

So, by using the prefix `cluster.ServerName.SystemParameter` , where ServerName is the name of the PBX (e.g. "alice") and SystemParameter is the name of the System Property to be set (e.g. `default.callcabinet.site_id` , without the "default." prefix), we can allow the same properties to have different values depending on the server we are currently monitoring.

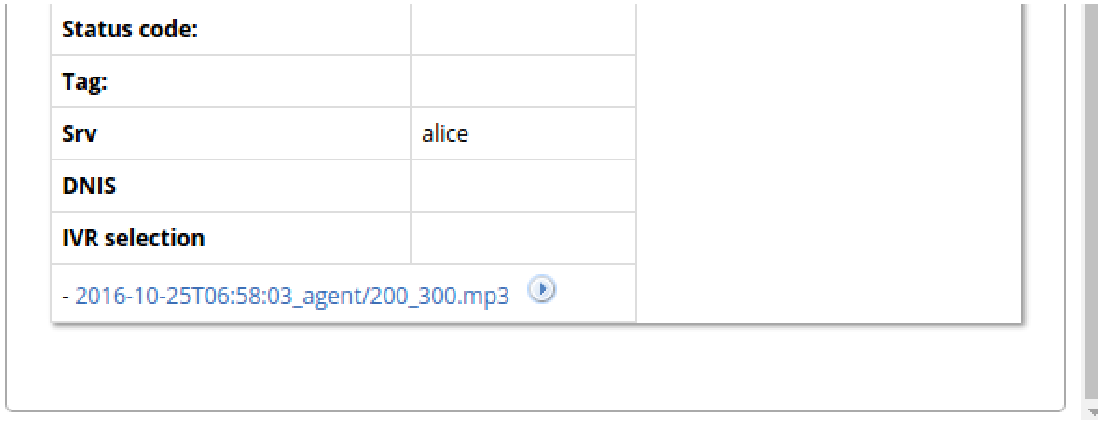
After logging out and back in again, to make sure the changes to the System Parameters can take effect, we can launch a new report and take a look at the Call Details.



Queue details

Date	Caller	Queue	IVR	Wait	Duration	Pos.	Disconnection	Handled by	Attempts	Code	Stints	Srv
10/25 - 08:55:42	201	300	0:00	0:01	0:03	1	Agent	200	1			alice
10/25 - 08:58:04	201	300	0:00	0:01	32:05	1	Caller	200	1			alice
10/25 - 09:59:49	201	301	0:00	0:02	0:06	0	Caller	200	1			alice

As we can see, now QueueMetrics populates the Srv field with the name of the PBX Server on which the call took place. If we open the Call Details, QueueMetrics will access CallCabinet using the Site_ID, Customer_ID and Api_Key, we specified for that particular PBX Server.



Status code:	
Tag:	
Srv	alice
DNIS	
IVR selection	
- 2016-10-25T06:58:03_agent/200_300.mp3	

That's all for this tutorial, make sure you check out our websites www.queuemetrics.com and www.queuemetrics-live.com.

For more information about Atmos CallCabinet for QueueMetrics-Live or in order to request your trial visit www.callcabinet.com/loway-queuemetrics-call-recording.

QueueMetrics References

For more technical information about QueueMetrics call center solution please refer to the User Manual.

Visit www.queuemetrics.com for a 30 days full featured trial.

Attend our Free Webinars for a live demonstration of QueueMetrics.