# CALLN BY TELSTRA™
## INTELLIGENT CLOUD BASED CALL RECORDING

# ASTERISK RECORDING CLIENT
## CallN Hosted Call Recording

## Installation

# Document History

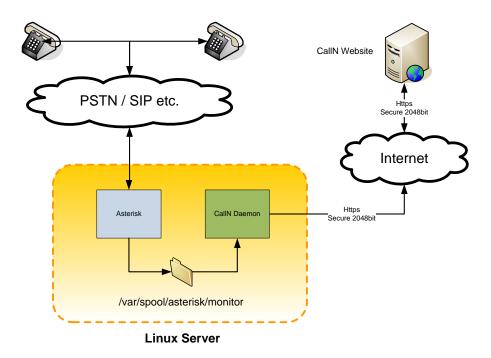| Date | Spec | Summary of Changes | Revised by |
|---|---|---|---|
| 12/11/2012 | 1.0.0 | Initial version | Paul Johansen |
| 13/1/2015 | 1.0.1 | Bring into line with software version 1.0.1 | Paul Johansen |

# Table of Contents

# Chapter 1: Overview

The callN Asterisk recording client works by using the native Asterisk call recording function to record telephone calls and then a piece of CallN installed software will upload these calls to your CallN hosted call recording account via a secure link over the internet.

Step 1. Asterisk records calls by using the **Monitor** function which places the recordings into the directory /var/spool/asterisk/monitor

Step 2. The CallN daemon uploads these call recordings to your CallN hosted call recording account.

Also the CallN daemon will send periodic heartbeats to CallN so that outage notifications may be enabled within your account.

**Overview Diagram**

# Chapter 2: Configuring Asterisk

The goal of this section is to have calls recorded and placed into the /var/spool/asterisk/monitor directory with a filename structure that the callN software can interpret.

## Edit the dialplan

Edit the /etc/asterisk/extensions.conf file and insert a **MixMonitor()** command to start recording.

Here is an example ;-
```
; Start recording this call to /var/spool/asterisk/monitor
; The output filename is <yyyymmdd>_<hhmmss>_<callerid>_<destinationid>_<uniqueid>.wav
exten => s,n,System(mkdir -p /var/spool/asterisk/monitor/tmp)
exten =>
s,n,Set(RECORDINGFILENAME=${STRFTIME(${EPOCH},GMT,%C%y%m%d)}_${STRFTIME(${EPOCH},GMT,%H%M%S)}_${C
ALLERID(num)}_${CALLERID(dnid)}_${UNIQUEID})
exten => s,n,MixMonitor(/var/spool/asterisk/monitor/tmp/${RECORDINGFILENAME}.wav,,mv
/var/spool/asterisk/monitor/tmp/${RECORDINGFILENAME}.wav /var/spool/asterisk/monitor/)
```

 The location within the dialplan will be very specific to your setup. For more information on dialplans please view the following link http://www.voip-info.org/wiki/view/Asterisk+config+extensions.conf

## Reload the new dialplan

For any changes in the dialplan to take effect, the file must be reloaded.

```
[pbx1.vic.calln.com:~]# asterisk -rvvv
pbx1*CLI> dialplan reload
```

## Verify Recording

Place a few calls for various call conditions e.g. inbound / outbound to verify that call recording is working and files are placed into the /var/spool/asterisk/monitor direrctory.

```
[pbx1.vic.calln.com:~]# cd /var/spool/asterisk/monitor
[pbx1.vic.calln.com:/var/spool/asterisk/monitor]# ls -l
total 472
-rw-r--r-- 1 root root 471084 Nov 12 15:52 20121112_045234_189_0398353535_pbx1.vic.calln.com-
1352695954.134.wav
[pbx1.vic.calln.com:/var/spool/asterisk/monitor]#
```

# Chapter 3:  Pre-requisites of the CallN Daemon

The CallN daemon requires some software development packages on the host machine before it can be built and installed.

## Debian

```
[pbx1.vic.calln.com:~]# apt-get update
[pbx1.vic.calln.com:~]# apt-get install gcc g++ libcurl4-openssl-dev make
[pbx1.vic.calln.com:~]#
```

## CentOS

```
[pbx1.vic.calln.com:~]# yum install gcc gcc-c++ curl-devel make
[pbx1.vic.calln.com:~]#
```

# Chapter 4:  Installing the CallN Daemon

Following this procedure will install the callN daemon and place it into the running state.

## Download the software

View the latest version of the client from http://www.calln.com/download.aspx

```
[pbx1.vic.calln.com:~]# cd /usr/src
[pbx1.vic.calln.com:/usr/src]# wget http://www.calln.com/downloads/calln_asterisk_client.1.0.1.tgz
[pbx1.vic.calln.com:/usr/src]# tar -xvf calln_asterisk_client.1.0.1.tgz
[pbx1.vic.calln.com:/usr/src]# rm -f calln_asterisk_client.1.0.1.tgz
```

## Build the software

The software needs to be compiled for your machine.

```
[pbx1.vic.calln.com:/usr/src]# cd CallNUpload
[pbx1.vic.calln.com:/usr/src/CallNUpload]# make all
```

## Install the software

The install procedure will request initial configuration, install the daemon on your machine and start it for the first time.

```
[pbx1.vic.calln.com:/usr/src/CallNUpload]# make install
Enter your domain name:
<Enter your calln domain name here>
Enter your username:
<Enter your calln username here>
Enter your password:
<Enter your calln password here>
Copying CallNUpload to /usr/bin
Copying CallNUpload.conf to /etc
Creating log folder /var/log/calln
Copying init.d script
Loading CallNUpload in init.d
update-rc.d: using dependency based boot sequencing
Installation complete, starting CallNUpload
Starting CallNUpload...
CallNUpload has started
[pbx1.vic.calln.com:/usr/src/CallNUpload]#
```

# Chapter 5:   Configuring the CallN Daemon

In the future, if you wish to change settings related to which calln account to upload to or your password etc then you can edit the configuration file and restart the daemon.

## The configuration file

Edit the /etc/CallNUpload.conf file.

Here is an example ;-

```
LogPath=/var/log/calln
CallRecordingPath=/var/spool/asterisk/monitor
Domain=mycompany
UserName=myusername
Password=mypassword
```

## Restarting the daemon

```
[pbx1.vic.calln.com:~]# /etc/init.d/CallNUpload restart
Stopping CallNUpload                          Terminated
Starting CallNUpload...
[pbx1.vic.calln.com:~]#
```

# Chapter 6:   Maintenance

General maintenance tasks. These should not be necessary in the day to day running of the software.

## Stopping the daemon

```
[pbx1.vic.calln.com:~]# /etc/init.d/CallNUpload stop
Stopping CallNUpload                           Terminated
[pbx1.vic.calln.com:~]#
```

## Starting the daemon

```
[pbx1.vic.calln.com:~]# /etc/init.d/CallNUpload start
Starting CallNUpload...
[pbx1.vic.calln.com:~]#
```

## Restarting the daemon

```
[pbx1.vic.calln.com:~]# /etc/init.d/CallNUpload restart
Stopping CallNUpload                           Terminated
Starting CallNUpload...
[pbx1.vic.calln.com:~]#
```

## Log files

The log files are useful in diagnosing problems and may be requested via support staff.

They are located in /var/log/calln

```
[pbx1.vic.calln.com:~]# cd /var/log/calln
[pbx1.vic.calln.com:/var/log/calln]# ls -l
total 660
-rw-r--r-- 1 root root 397948 Nov 13 23:18 2012-11-13 CallNUpload.log
-rw-r--r-- 1 root root 263844 Nov 14 21:43 2012-11-14 CallNUpload.log
[pbx1.vic.calln.com:/var/log/calln]#
```

# Chapter 7:   UnInstalling the CallN Daemon

Following this procedure will stop and uninstall the callN daemon from your machine.

```
[pbx1.vic.calln.com:~]# cd /usr/src/CallNUpload
[pbx1.vic.calln.com:/usr/src/CallNUpload]# make uninstall
```