



# CALLN HOSTED CALL RECORDING BROADSOFT SETUP GUIDE

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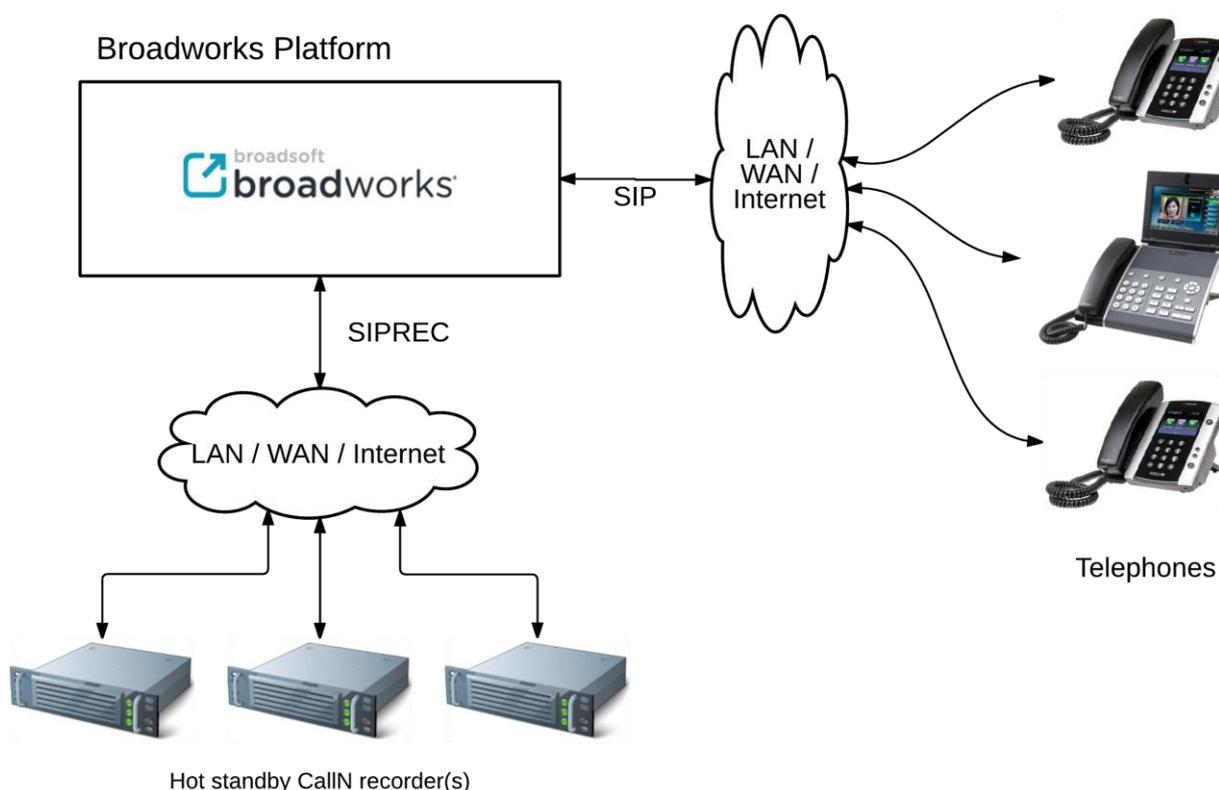
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# 1. Introduction

This document describes how to configure your Broadsoft platform and the CallN recording client software for the purpose of recording calls.

# 2. Connectivity

CallN utilises the SIPREC interface provided by the Broadsoft platform to record telephone calls.



## 2.1. Broadsoft SIPREC recording – Failover and Redundancy

CallN provides DNS failover support based on pointing the recording service to a DNS name and not a static IP. Because the Broadworks platform supports DNS SRV records for SIPREC interface, we can provide multiple recording servers. Multiple recording servers with automatic failover from the primary to a secondary server. Installation would require assigning a DNS domain name to each existing server and then creating an SVR record for each. Sample below:

Example of DNS SVR records

#	_service._proto.name.	TTL	class	SRV	priority	weight	port	target.
	_sip._tcp.example.com.	86400	IN	SRV	10	40	5060	calln1.example.com.
	_sip._tcp.example.com.	86400	IN	SRV	10	30	5060	calln2.example.com.
	_sip._tcp.example.com.	86400	IN	SRV	10	30	5060	calln3.example.com.
	_sip._tcp.example.com.	86400	IN	SRV	20	0	5060	calln4.example.com.

## 3. Configuration of BroadSoft

### 3.1. Configure System Level Call Recording Settings

System level call recording settings are listed as follows. The service provider should set these parameters as necessary to achieve the desired behaviours.

- *continueCallAfterRecordingFailure*: Set to “true” to enable calls to continue when there is a recording failure.
- *continueCallAfterVideoRecordingFailure*: Set to “true” to enable calls to continue when there is a video recording failure.
- *maxConsecutiveFailures*: Set to “10” to allow issues to occur during testing without making the call recorder “out of service”.
- *maxResponseWaitTimeMilliseconds*: Set to default “3000”. BroadWorks waits to this maximum time for the call recorder to respond to requests.
- *refreshPeriodSeconds*: Set to default “60”. BroadWorks waits this duration before retrying a call recorder marked as “out of service”.

```
AS_CLI/Service/CallRecording> get
  continueCallAfterRecordingFailure = true
  maxConsecutiveFailures = 1
  maxResponseWaitTimeMilliseconds = 3000
  refreshPeriodSeconds = 60
  continueCallAfterVideoRecordingFailure = true
```

### 3.2. Provision Call Recording Platform

Add the CallN call recording platform to the system via the Application Server command line interface (CLI).

- Name: Provide a unique name for the call recording platform.
- Net Address: Provide the call recording platform SIPREC interface IP address or fully qualified domain name.
- Port: Provide the call recording platform SIPREC interface IP port.
- Transport Type: TCP or UDP
- Media Stream: dual
- Schema Version: 3.0
- Support Video Recording: false

Example:

```
AS_CLI/Service/CallRecording/Platform> add Telstra x.y.z udp dual 3.0 false
```

### 3.3. Configure Group Call Recording Platform

Browse to Group → Resources → Call Recording Platform. Select the call recording platform added in section **Error! Reference source not found. Error! Reference source not found.** and then click **Apply**.

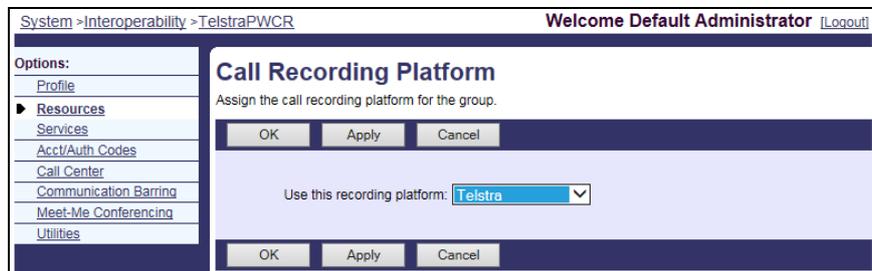


Figure 1 Configure Group Call Recording Platform

### 3.4. Authorize Call Recording User Service to Group

Browse to Group → Resources → Services. Make sure that Call Recording is selected under Authorized User Services.

### 3.5. Assign Call Recording User Service to User

Browse to *Group* → *Resources* → *Existing User Services*. Make sure that *Call Recording* is selected under *User Services*. Alternatively, browse to *<user>* → *Profile* → *Assign Services* to assign the *Call Recording* service to an individual user.

### 3.6. Configure Call Recording User Service

For each user configured with the Call Recording service, browse to *<user>* → *Call Control* → *Call Recording*. Configure the service settings as required.

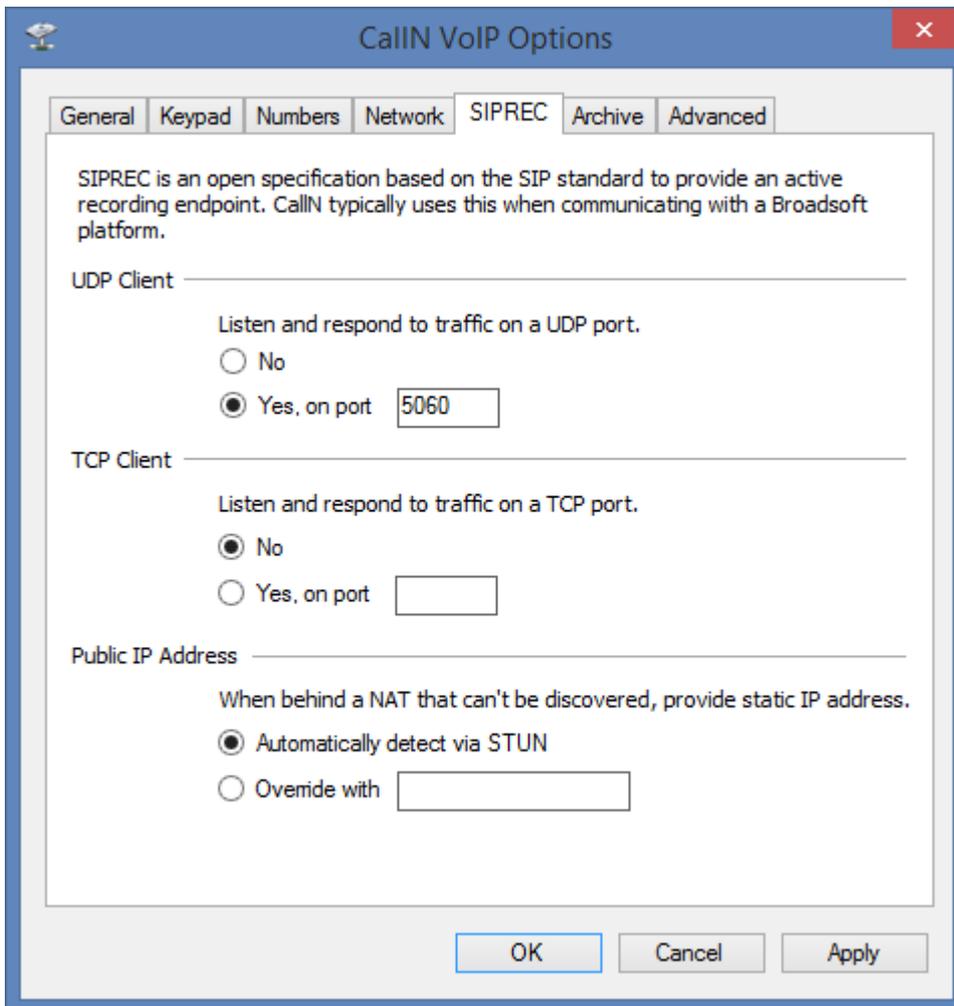


Figure 2 Configure Call Recording User Service

## 4. Configuration of CallN

### 4.1. Configure call recording client software

The recording client contains various settings to enable communication with a Broadsoft Platform. Please make sure they match the settings configured within the Broadsoft platform configured in section 3.2 – Provision Call Recording Platform.



**CALLN VoIP Options**

General | Keypad | Numbers | Network | **SIPREC** | Archive | Advanced

SIPREC is an open specification based on the SIP standard to provide an active recording endpoint. CallN typically uses this when communicating with a Broadsoft platform.

**UDP Client**

Listen and respond to traffic on a UDP port.

No

Yes, on port

**TCP Client**

Listen and respond to traffic on a TCP port.

No

Yes, on port

**Public IP Address**

When behind a NAT that can't be discovered, provide static IP address.

Automatically detect via STUN

Override with

OK Cancel Apply

#### 4.1.1. UDP Client

The UDP port number to listen on for incoming SIPREC messages.

#### 4.1.2. TCP Client

The TCP port number to listen on for incoming SIPREC messages.

#### 4.1.3. Public IP Address

When the machine is behind a firewall and the Public IP address cannot be discovered via STUN then enter an override public IP address in this field.

## 4.2. Configure machine firewall

### 4.2.1. Incoming rules

Make sure the machine allows the following inbound traffic.

Please note: When receiving traffic from the internet, it is also best practice to limit traffic to the incoming source IP address as well.

Protocol	Port	Description
UDP	5060	When listening as a SIPREC UDP client, the port that was selected. By default usually 5060.
TCP	5060	When listening as a SIPREC TCP client, the port that was selected. By default usually 5060.
UDP	16384 - 32767	Port range for RTP media.

### 4.2.1. Outgoing rules

Generally, by default traffic is not limited outbound, but make sure the machine allows the following outbound traffic.

Protocol	Port	Description
UDP	5060	When listening as a SIPREC UDP client, the port that was selected. By default, usually 5060.
TCP	5060	When listening as a SIPREC TCP client, the port that was selected. By default, usually 5060.
UDP	16384 - 32767	Port range for RTP media. Verify with Broadsoft.

## 4.3. Multiple recorder failover

You can deploy multiple CallN recorders in either a Load Sharing or Failover arrangement using standard DNS SRV techniques.

### 4.3.1. Load sharing example using UDP

In the below example you would configure your BroadSoft platform to direct the SIPREC traffic to 'calln.yourcompany.com'. This would equally share load across three machines.

#### SRV Records

Name	Priority	Weight	Port	Host	TTL
_sip udp calln.yourcompany.com.	1	1	5060	machine1.yourcompany.com.	1800
_sip udp calln.yourcompany.com.	1	1	5060	machine2.yourcompany.com.	1800
_sip udp calln.yourcompany.com.	1	1	5060	machine3.yourcompany.com.	1800

---

## 4.3.2. Hot standby example using UDP

In the below example you would configure your BroadSoft platform to direct the SIPREC traffic to 'calln.yourcompany.com'. This would send all traffic to machine1 unless it was down and then traffic will be redirected to machine2 and finally if both machine1 and machine2 are down traffic would be directed to machine3.

### SRV Records

Name	Priority	Weight	Port	Host	TTL
_sip.udp.calln.yourcompany.com.	1	1	5060	machine1.yourcompany.com.	1800
_sip.udp.calln.yourcompany.com.	2	1	5060	machine2.yourcompany.com.	1800
_sip.udp.calln.yourcompany.com.	3	1	5060	machine3.yourcompany.com.	1800

## 4.4. Configure CallN resellers website

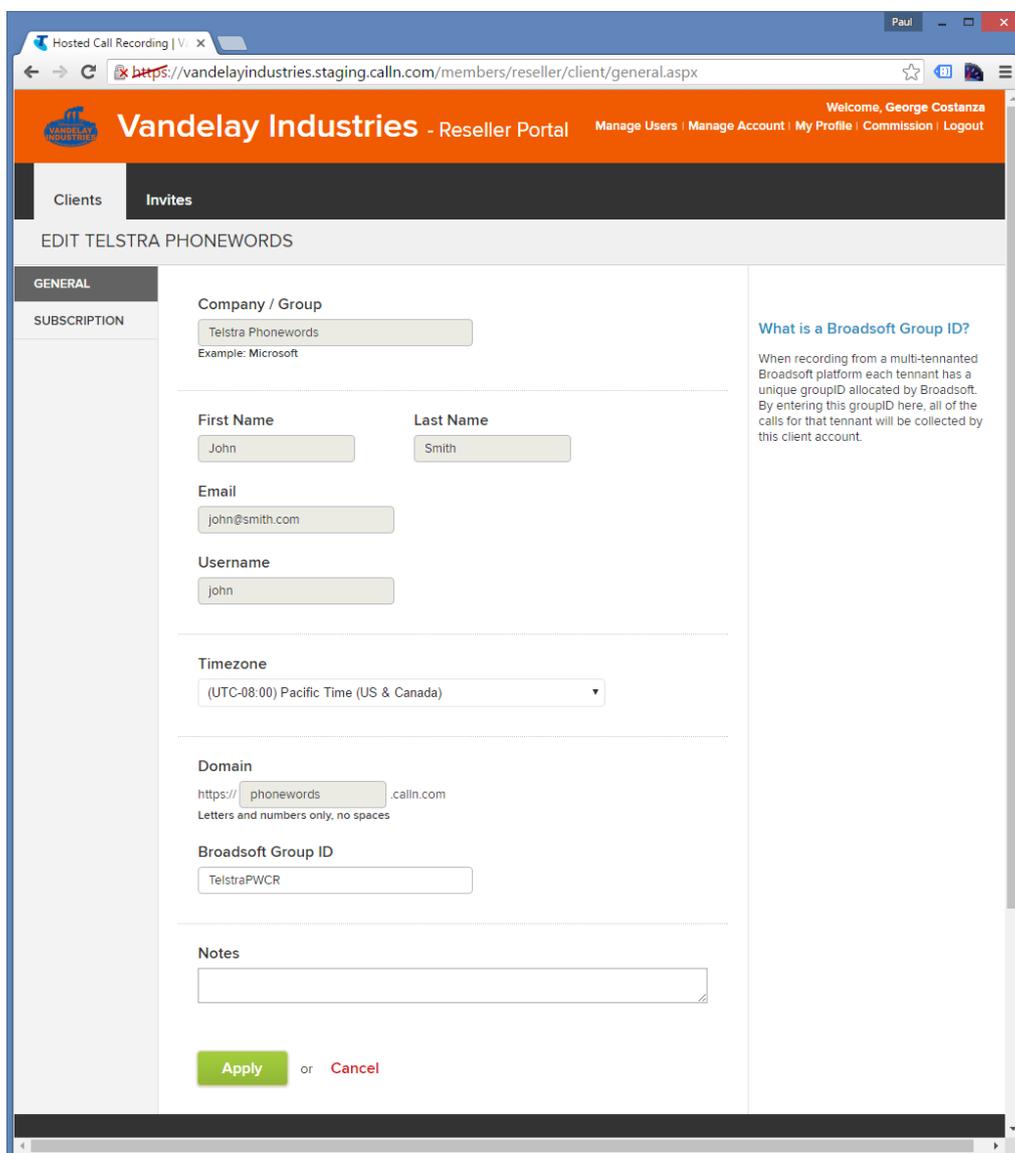
The next step is to associate a BroadSoft Group ID to each one of your clients so that all calls will be uploaded to the corresponding client account.

### 4.4.1. Login to your Reseller Portal

Your portal login details were provided to you previously via e-mail. Find them and login to the Portal.

### 4.4.2. Associate a BroadSoft Group ID to a client

Edit each of your Clients under the Clients tab and populate the correct BroadSoft Group ID. Click Apply.



The screenshot shows a web browser window with the URL <https://vandelayindustries.staging.calln.com/members/reseller/client/general.aspx>. The page title is "Vandelay Industries - Reseller Portal" and it includes a navigation bar with "Manage Users | Manage Account | My Profile | Commission | Logout". The user is logged in as "George Costanza".

The main content area is titled "EDIT TELSTRA PHONEWORDS" and has a sidebar with "Clients" and "Invites" tabs. The "GENERAL" tab is active, showing the following form fields:

- Company / Group:** Telstra Phonewords (Example: Microsoft)
- First Name:** John
- Last Name:** Smith
- Email:** john@smith.com
- Username:** john
- Timezone:** (UTC-08:00) Pacific Time (US & Canada)
- Domain:** https:// phonewords .calln.com (Letters and numbers only, no spaces)
- Broadsoft Group ID:** TelstraPWCR
- Notes:** (Empty text area)

At the bottom of the form, there are "Apply" and "Cancel" buttons. A help text box on the right side of the form explains: "What is a Broadsoft Group ID? When recording from a multi-tenanted Broadsoft platform each tenant has a unique groupID allocated by Broadsoft. By entering this groupID here, all of the calls for that tenant will be collected by this client account."

## 5. Interoperability Status

This section provides the known interoperability status of the CallIN with BroadWorks. This includes the version(s) tested, the capabilities supported, and known issues.

Interoperability testing validates that the device interfaces properly with BroadWorks via the Session Initiation Protocol (SIP) interface. Qualitative aspects of the device or device capabilities not affecting the SIP interface, such as display features, performance, and audio qualities are not covered by interoperability testing. Requests for information and/or issues regarding these aspects should be directed to CallIN.

### 5.1. Verified Versions

The following table identifies the verified CallIN and BroadWorks versions and the month/year the testing occurred. If the device has undergone more than one test cycle, versions for each test cycle are listed, with the most recent listed first.

In the following table, *Compatible Versions* identify specific CallIN versions that the partner has identified as compatible so should interface properly with BroadWorks. Generally, maintenance releases of the validated version are considered compatible and are not specifically listed here. For questions concerning maintenance and compatible releases, contact CallIN.

**NOTE:** Interoperability testing is usually performed with the latest generally available (GA) device firmware/software and the latest GA BroadWorks release and service pack at the time the testing occurs. If there is a need to use a non-verified mix of BroadWorks and device software versions, customers can mitigate their risk by self-testing the combination themselves using the *BroadWorks Call Recording Interoperability Test Plan*.

Verified Versions			
Date (mm/yyyy)	BroadWorks Release	CallIN Verified Version	CallIN Compatible Versions
06/2016	Release 21.sp1	1.25	None

### 5.2. Interface Capabilities Supported

CallIN has completed interoperability testing with BroadWorks using the *BroadWorks Call Recording Interoperability Test Plan*. The results are summarized in the following table.

The BroadWorks test plan is composed of packages, each covering distinct interoperability areas, such as *Basic* and *Call Control Services*. Each package is composed of one or more test items, which in turn, are composed of one or more test cases. The test plan exercises the SIP interface between the device and BroadWorks with the intent to ensure interoperability sufficient to support the BroadWorks feature set.

The *Supported* column in the following table identifies CallIN's support for each of the items covered in the test plan packages, with the following designations:

- Yes Test item is supported
- No Test item is not supported
- NA Test item is not applicable
- NT Test item was not tested

Caveats and clarifications are identified in the *Comments* column.

**NOTE:** DUT in the following table refers to the *Device Under Test*, which in this case is the Telstra Phonewords CallIN.

**BroadWorks Call CallN Interoperability Test Plan Support Table**

Test Plan Package	Test Plan Package Items	Supported	Comments
<b>Basic</b>	Recording Mode: Always	Yes	
	Recording Mode: Always with Pause/Resume	Yes	
	Recording Mode: On Demand	Yes	
	Recording Mode: On Demand with User Initiated Start	Yes	
	Session Audit	Yes	
	Session Timer	No	
<b>Call Control Services</b>	Call Hold	Yes	
	Call Waiting	Yes	
	Blind Transfer	Yes	
	Attended Transfer	Yes	
	Local Three-Way Call	Yes	
	Network Three-Way Call	Yes	
	Network N-Way Call	Yes	
	Call Park	NT	Not tested due to BroadWorks Lab issue.
	Directed Call Pickup with Barge-In	Yes	
<b>Virtual Subscriber Services</b>	Auto Attendant	Yes	
	Voice Messaging	Yes	
	Call Center	Yes	
<b>Miscellaneous Services</b>	Security Classification	Yes	
<b>Video</b>	Basic	No	
	Call Control Services	No	
	Virtual Subscriber Services	No	
<b>Failover</b>	Failover – Application Server	Yes	
	Failover – Media Server	NT	Not tested due to BroadWorks Lab issue.
	Failover – Call Recording Application	Yes	
<b>TCP</b>	Basic	Yes	
	Call Control Services	Yes	

## 5.3. Known Issues

This section lists the known interoperability issues between BroadWorks and specific partner release(s). Issues identified during interoperability testing and known issues identified in the field are listed. The following table provides a description of each issue and, where possible, identifies a workaround. The verified partner device versions are listed with an "X" indicating that the issue occurs in the specific release. The issues identified are device deficiencies or bugs, so typically not BroadWorks release dependent. The *Issue Number* is a tracking number for the issue. If it is a CallIN issue, the issue number is from CallIN's tracking system. If it is a BroadWorks issue, the issue number is from BroadSoft's tracking system. For more information on any issues related to the particular partner device release, see the partner release notes.

Issue Number	Issue Description	Partner Version			
		1.25			
<b>TIH-46824</b>	<b>No Audio after Retrieving Parked Call</b> All three parties have call recording on. There is no audio after the parked call is retrieved. Workaround: None.	x			
<b>TIH-46825</b>	<b>No Audio after Recalled Parked Call</b> All three parties have call recording on. There is no audio after the parked call is recalled. Workaround: None.	x			
<b>PR-47889</b>	<b>Recording Fails to Switch to Second MS.</b> If the first MS is not reachable or the MS fails mid call, the calls do not route to the secondary MS when the MS servers are statically defined. The route advance code is specifically designed around using the contacts returned from the NS query. Workaround: None.	x			