adportas

RecKall
v. 8

Voice and video call recording
system for *Adportas CCKall*

adportas ™

Index.

adportas

RecKall
v. 8

1. Introduction.

Adportas RecKall is a recording system for both voice and video call that integrates with the *Adportas CCKall IP Contact Center* and is intended for recording internal and public network calls, incoming and outgoing, permanently or on-demand.

Using an application installed in each agent's PC, *Adportas RecKall* records its screen activity while the agent is assisting a client over a phone call, synchronizing the audio and video files generated and then attaching these to the application for later review from the agent or supervisor web interface.

Adportas RecKall can be configured in three capture modes:

Active Recording: Active voice recording over *SIP trunk* connection from *IP* phones to *Cisco CUCM* and *BiB* (*Built-in Bridge*), centralizing administration and reducing hardware investment for each branch.

Passive Recording: Passive voice recording over *SPAN*, capturing network traffic by replicating audio *RTPs* from telephones registered in the system using the preconfigured switch network port directed to the *Adportas RecKall* server.

Active Recording Skype for Business: Active voice recording of the *Microsoft Skype for Business* platform (1), where the IP central (*Microsoft Skype for Business* Server 1) directs the call towards the *Adportas Microsoft Skype for Business Active Recording* (1) module (*UCMA* application) over a *MSLP* script for audio capturing and later consolidation as a recording.

2. *Adportas RecKall in Adportas CCKall* architecture.
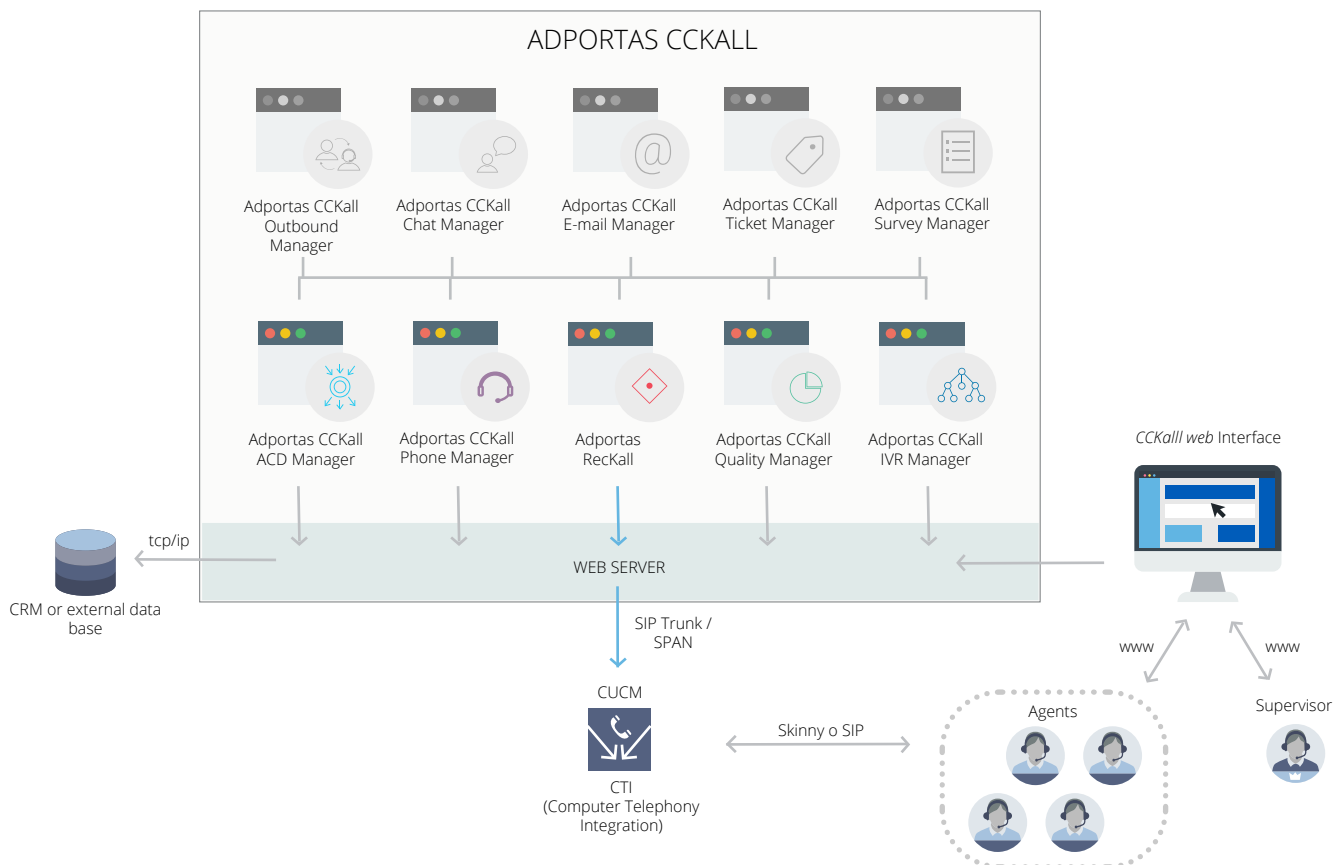
3. *Adportas RecKall* main features.

3.1 Recording.
· *Active Recording, Passive Recording* or *Microsoft Skype for Business* [1] recording modes.
· Recording of incoming and outgoing calls.
· Permanent recording.
· On-demand recording.
· Recording encrypted calls (128-bit key).
· Screen activity recording.
· Centralized recording of multiple *CUCM* clusters.
· Whispering recording.
· Recording transferred calls sequences and conference calls.
· Recording *Jabber* client and extension mobility (records the extension regardless of endpoint).

3.2 System.
· *Linux CentOS* operating system, version 6 or higher.
· Compatible with *CUCM* version 8.0 or higher.
· Compatible with *VMWare* (virtualizable system).
· Integration of main site with branches.
· *G.729A, G.711 μ-Law* and *G.711 A-Law CODECs* support.
· Open or encrypted format storage: .PCM (*G.729 CODEC*), .WAV (*G.711 CODEC*) and .OGG (*Speex CODEC*).
· 1:10 audio file compression .
· Optical media, shared folder and external systems backups.
· High availability recording system (grabbers/concentrators).

3.3 Agent and supervisor web interface.
· Search engine by criteria: recording *ID*, counterpart *ANI*, extension, type of call, date, duration, areas, metadata, etc..
· Additional metadata integration.
· Multiple profiles for flexible user and supervisor configuration.
· Monitor specific *ANIs*.
· Administration of recording groups (areas).
· Tag marks on playback for easy location of important points and commentary insertion.
· Integrated audio player and video download.
· User activity traceability.
· Reports and system health control panel.

4. User web interface.
4.1 User administration (supervisor interface).
Create, modify and delete users within the system, and assign extensions.

adportas CCKall v. 8

| Monitoring | Users | Extensions | Traceability | Recordings | Statistics | Backups | Black List | Metadata |

Add new user

Personal data

Nick _____ (*)
Name _____ (*)
Password _____ (*)
Repeat password _____ (*)
Profile [monitor ∨]

(*) Required field.

User permissions:
- ● Playback all user recordings.
- ○ Playback only marked recordings.
- ☐ Playback only.
- ☐ Business data editing.
- ☐ Statistics viewing.
- ☐ File deleting.

Assign extensions ⊕

[CANCEL] [ADD USER]

☐	Nº	NICK	NAME	PROFILE	REGISTRATION DATE	REGISTRATION TIME
☐	1	bsmith	Beatrix Smith	monitor	17/04/2017	18:25:46
☐	2	sdavis	Santiago Davis	administrator	17/04/2017	17:52:48
☐	3	kcorrea	Karen Harris	monitor	17/04/2017	17:51:25
☐	4	rthomas	Robert Thomas	monitor	17/04/2017	17:50:53
☐	5	sberg	Sonia Berg	administrator	17/04/2017	16:38:29
☐	6	dtaylor	Dan Taylor	monitor	17/04/2017	16:37:17
☐	7	acoleman	Armand Coleman	monitor	17/04/2017	16:36:57
☐	8	tella	Thia Ella	monitor	17/04/2017	16:38:29
☐	9	zjakina	Zunita Jaque	monitor	17/04/2017	16:37:17
☐	10	rbrown	Rafael Brown	monitor	17/04/2017	16:36:57
☐	11	sbroen	Stacy Broen	monitor	17/04/2017	16:38:29
☐	12	lparra	Lia Parra	monitor	17/04/2017	16:37:17
☐	13	treyes	Telma Ray	monitor	17/04/2017	16:36:57
☐	14	mramos	Mario Ramos	monitor	17/04/2017	17:50:53
☐	15	mikea	Mariana Ikea	monitor	17/04/2017	16:38:29
☐	16	hcox	Hector Cox	monitor	17/04/2017	17:50:53
☐	17	swilliams	Susan Williams	monitor	17/04/2017	16:38:29
☐	18	tclark	Thomas Clark	monitor	17/04/2017	15:38:21
☐	19	jmartinez	Josefina Martínez	monitor	17/04/2017	15:38:00

⊖ Delete Selected

Extension assignment.
Define user playback and download privileges for extensions already assigned in *Adportas RecKall*.

adportas CCKall v. 8

| Monitoring | Users | Extensions | Traceability | Recordings | Statistics | Backups | Black List | Metadata |

Edit existing user

Personal data

Nick [baraneda]
Name [Beatriz Araneda]
Password _____ (*)
Repeat password _____ (*)
Profile [monitor ∨]

(*) Leave blank to keep current password.

User permissions:
- ● Playback all user recordings.
- ○ Playback only marked recordings.
- ☑ Playback only.
- ☑ Business data editing.
- ☐ Statistics viewing.
- ☐ File deleting.

Assign extensions ⊕

[CANCEL] [SAVE]

Assigned extensions

235 - Fanuel King
273 - John Carter
300 - Manuel Watson
301 - Martin Foster
302 - Albert Myers
303 - Mae Yon

← ADD
REMOVE

Available extensions

103 - Mesa-Corp Sandra Wilson
106 - RM-PIA Claudia Moore
108 - L.A. - Albert Powell
110 - Fernando Nelson
123 - RM-PIA Lupe Godoy
235 - Fanuel King
273 - John Carter
300 - Manuel Watson
301 - Martin Foster
302 - Albert Myers
303 - Mae Yon
304 - Frany Silva
310 - Mabel Álvarez
402 - Polonio Lee White
823 - Loreto García
824 - Diego Thompson
825 - Mónica Nora Pérez
826 - Salar - Fabio Casas
934 - Patricia Estuardo
2928 - Edward Campbell
29183 - Long River - Andy Russell
29303 - Marisol Oyarsún
29304 - Estefanía Mena
29305 - Hugo Candias
29306 - Fabián León Soto
30088 - Grace Harris
34999 - Melissa Perry
35000 - Gino Godoy

4.2 Extensions (supervisor interface).
Add, modify or delete extensions.

Nº	EXTENSION	DESCRIPTION	MAC (DEVICENAME)	BRANCH
1	101	Mesa-Corp Beatrix Williams	46ystr466rsgr	Head office
2	102	Ohio - API Santiago Smith	8f6r9fuseu39f	Head office
3	104	CR-FLV Karen Correa	j32fg9fjas9dsp	Head office
4	105	CR- ATI Robert Thomas	9s87agk3nv7w	Head office
5	106	CR- ATI Sonia Berg	9f0dkae87f1l2	Head office
6	108	RM- RTI Alonso Retamal	3u50sfg356hd	Head office
7	109	RM- ATC Armand Jones	97gj3no23ifj43	Head office
8	110	RM- ITC Thia Ella	3iia82lf82h4sg	Head office
9	111	CR- API Zunita Jaque	kd8f62mf7z0k	Head office
10	112	LTED Rafael Mena	9bo2jn3u4ofs	Head office
11	115	CR- ITC Doménica García	8jdn3u37hfofh	Head office
12	117	Texas - ATC Lia Jackson	9w7feif5ds3tb	Head office
13	118	Texas - ITC Telma Brown	7a9djfu10dijfs	Head office
14	119	Florida - API Robert Martin	8sjfhaiflmaneu	Head office
15	120	CR- CPI Mariana Ikea	8fgsk4dfsgse9	Head office
16	123	CR- ATI Hector Harris	87ajjeug7afvg	Head office
17	124	CR- ATC Susan Clark	8a8g7ksidlaop	Head office
18	125	Georgia - Thomas White	8jen352ibiyw3	Head office
19	127	Georgia - Tomás Hernandez	8jen3598biyw0	Head office

Extension search

Extension
Description
Mac (Devicename)
Branch — Head office
SEARCH

Add extension

Extension (*)
Description (*)
Mac — Ej. 0019065c9b2e (*)
Branch — Head office (*)
☐ Extension mobility enabled
CANCEL   ADD
(*) Required field.

⊖ Delete selected

4.3 Traceability (supervisor interface).
This option registers logins for all users entering the portal, including activity details such as play-back, recording download, adding, modifying or deleting users, extension or blacklist; backup and business data modification, among others. Includes an integrated search engine by user, activity and date.

Activity search

Nick
Type of activity — All
From date — 17/04/2016 / 00:00
Until date
SEARCH

Nº	NICK	PROFILE	DATE	TIME	IP	ACTIVITY	DETAILS
1	sbrown	administrator	20/04/2017	18:25:46	192.168.100.143	modify extension	User sbrown has modified extension 4544. Modifications: MAC changed from "68dfba5c5a6" to "sep68bddf5c5a6"
2	sberg	administrator	17/04/2017	17:52:48	192.168.100.143	modify extension	User sberg has modified extension 4534. Modifications: MAC changed from "68bsrtwa5c5a6" to "sep68dgsgsfgc5a6"
3	kbennet	monitor	18/04/2017	17:51:25	192.168.100.143	modify extension	User kbennet has modified extension 4545. Modifications: MAC changed from "78dfbhrh55a6" to "set62535c5a6"
4	rthomas	monitor	17/04/2017	11:50:53	192.168.100.143	modify extension	User rthomas has modified extension 4544. Modifications: MAC changed from "68bsrtwa5c5a6" to"sep68dgsgsfgc5a6"
5	sberg	administrator	07/12/2016	15:32:48	192.168.100.143	modify extension	User sberg has modified extension 4522. Modifications: MAC changed from "45bsrtwa5c5a6" to "s5445dgsgsfgc5a6"
6	sberg	administrator	17/07/2016	10:52:22	192.168.100.143	modify extension	User sberg has modified extension 6534. Modifications: MAC changed from "64g463a5c5a6" to"sep56457rsg5a6"
7	sberg	administrator	17/04/2016	10:00:48	192.168.100.143	modify extension	User sberg has modified extension 4634. Modifications: MAC changed from "34gd465a5c5a6" to "sep6845636fy56"

4.4 Search voice and video recordings.

Search recordings by registration number, extension, counterpart, type, date, beginning / end times, duration, etc. Allows playback of video and audio files from all calls stored in the system.

Supervisor interface.

adportas CCKall v. 8

| Monitoring | Users | Extensions | Traceability | Recordings | Statistics | Backups | Black List | Metadata |

Recordings search

Registration number:
Extension: All
Counterpart:
Type: All
From date: 17/04/2017 / 00:00
Until date:
Minimum duration:
Branch: All
Description: Home
Tag:
Listened: All

SEARCH

Number of recordings
Search: 346 / Total: 1163

Overall duration: 60:47:12

REG. N°	EXT.	COUNTERPART	TYPE	DATE	BEGINNING	ENDING	DURATION	DESCRIPTION	LISTENED	TAG	AUDIO	VIDEO
534746	5018	985284530	↓	17/04/2017	18:25:46	18:25:52	00:00:05	home	✓			
534747	5701	635246246	↑	17/04/2017	17:52:48	17:52:58	00:00:10	home	-			
534748	5708	474573575	↓	17/04/2017	17:51:25	17:52:05	00:00:39	home	✓			
534749	5701	73573	↓	17/04/2017	17:50:53	17:52:33	00:01:40	home	-			
534750	5713	984734556	↑	17/04/2017	16:38:29	16:42:55	00:04:26	home	-			
534751	5708	245678893	↰	17/04/2017	16:37:17	16:38:26	00:01:09	home	-			
534752	5708	324257884	↓	17/04/2017	16:36:57	16:37:16	00:00:19	home	-			
534753	5018	235346457	↰	17/04/2017	16:38:29	16:42:55	00:04:26	home	-			
534754	5701	635246246	↓	17/04/2017	16:37:17	16:38:26	00:01:09	home	-			
534755	5708	474573575	⅄	17/04/2017	16:36:57	16:37:16	00:00:19	home	-			
534756	5701	73573	↓	17/04/2017	16:38:29	16:42:55	00:04:26	home	-			
534757	5713	985284530	↓	17/04/2017	16:37:17	16:38:26	00:01:09	home	-			
534758	5708	978552352	↰	17/04/2017	16:36:57	16:37:16	00:00:19	home	✓			
534759	5713	985284530	↓	17/04/2017	17:50:53	17:52:33	00:01:40	home	-			
534760	5708	978552352	↰	17/04/2017	16:38:29	16:42:55	00:04:26	home	-			
534761	5713	985284530	↓	17/04/2017	15:38:30	15:42:55	00:04:25	home	✓			
534762	5708	978552352	↓	17/04/2017	15:38:29	15:42:55	00:04:26	home	✓			

Download selected audio files   1 2 3 4 5 6 7 »

00:22   Listening to registration n° 534759   Tag   Download track   08:27

Agent interface.

WELCOME AGENT
Joe Williams

↓13 ↑10 ↘3   Search

adportas CCKall v. 8

PENDING

Incoming call: +56 221934254 9:05
Call on hold: 992729292 9:01
Call to: 92102840 9:00

RECORDINGS SEARCH

Registration number:
Extension: All
Counterpart:
Type: All
From date: 17/04/2017 / 00:00
Until date:
Minimum duration:
Branch: All
Description: home
Tag:
Listened: All

SEARCH

Number of recordings
Search: 346
Total: 1163

Overall duration: 60:47:12

TELEPHONE
Call/Answer   Hang up
Transfer   Conference   History

RECKALL
Recordings

E-MAIL
CHAT
SOCIAL MEDIA

CONTACTS

AGENTS
Search contact
● Carlos Díaz
● Rolando Zimmers
● Daniel Soto

GROUPS
⅄ Billing
⅄ Sales

SUPERVISORS
● Diego Urzúa

CLIENTS
No connected customers

REG. N°	EXT.	COUNTERPART	TYPE	DATE	BEGINNING	ENDING	DURATION	DESC.	LISTENED	TAG	AUDIO	VIDEO
534746	5018	985284530	↓	17/04/2017	18:25:46	18:25:52	00:00:05	home	✓			
534747	5701	635246246	↰	17/04/2017	17:52:48	17:52:58	00:00:10	home	-			
534748	5708	474573575	↓	17/04/2017	17:51:25	17:52:05	00:00:39	home	✓			
534749	5701	73573	↓	17/04/2017	17:50:53	17:52:33	00:01:40	home	-			
534750	5713	984734556	↰	17/04/2017	16:38:29	16:42:55	00:04:26	home	-			
534751	5708	245678893	↓	17/04/2017	16:37:17	16:38:26	00:01:09	home	-			
534752	5708	324257884	↑	17/04/2017	16:36:57	16:37:16	00:00:19	home	-			
534753	5018	235346457	↑	17/04/2017	16:38:29	16:42:55	00:04:26	home	-			
534754	5701	635246246	↓	17/04/2017	16:37:17	16:38:26	00:01:09	home	-			
534755	5708	474573575	⅄	17/04/2017	16:36:57	16:37:16	00:00:19	home	-			
534756	5701	73573	↰	17/04/2017	16:38:29	16:42:55	00:04:26	home	-			
534757	5713	985284530	↓	17/04/2017	16:37:17	16:38:26	00:01:09	home	-			
534758	5708	978552352	↓	17/04/2017	16:36:57	16:37:16	00:00:19	home	✓			

Download selected audio files   1 2 3 4 5 6 7 »

00:22   Listening to registration n° 534758   Tag   Download track   08:27

adportas
RecKall
v. 8

4.5 Tag insertion (supervisor interface).
The recording playback engine allows tagging and marking points of interest in any call for later use, and include any necessary commentaries.

4.6 Recording of transferred calls (supervisor interface).
Adportas RecKall records transferred calls and any transfer sequence generated for internal control.
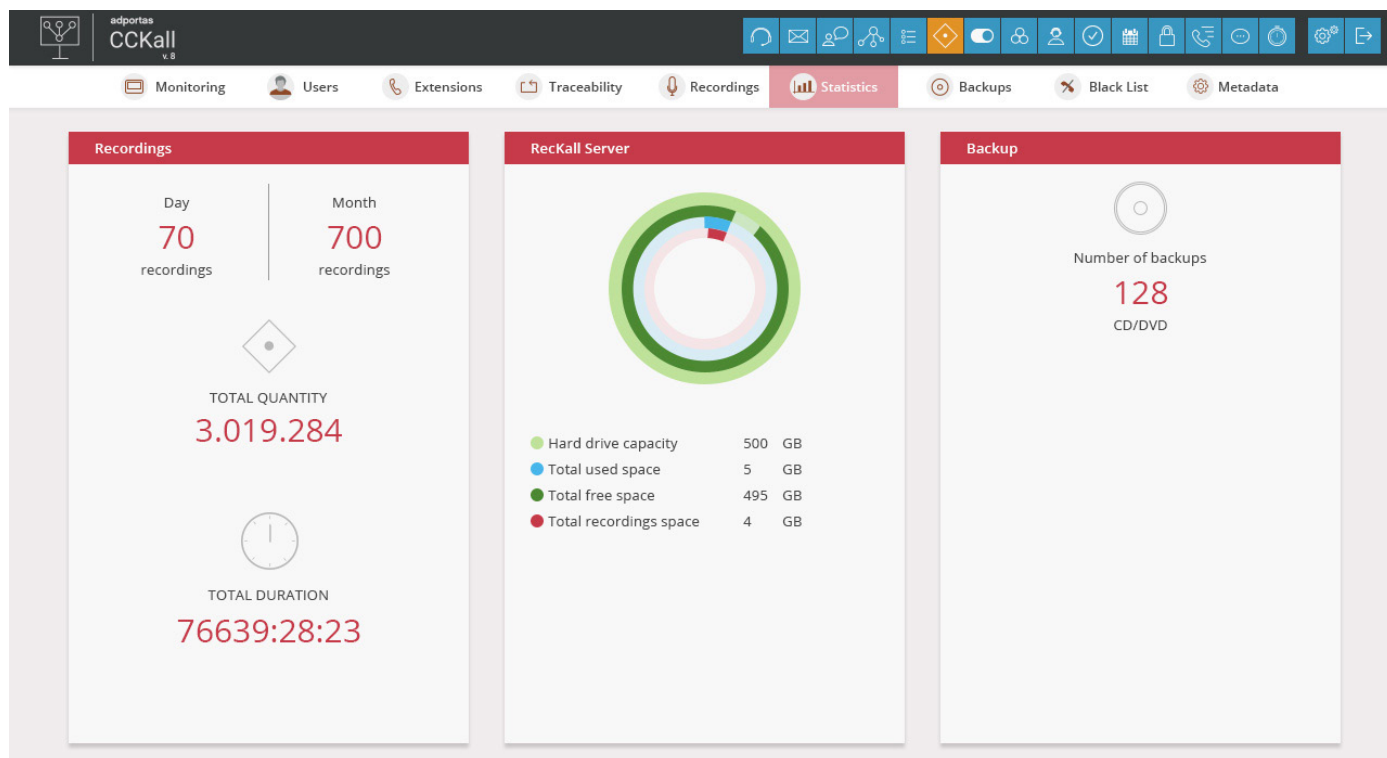
4.7 Statistics (supervisor interface).

Online display of overall number of recordings, storage space and number of backups.

4.8 Backups (supervisor interface).

Configure automatic recording backups by type, time, day, month and contact e-mail for backup messages.

4.9 Black list (supervisor interface).
Enter telephone numbers requiring special monitoring in case of contact by incoming or outgoing calls. When a call is placed from a monitored *ANI*, *Adportas RecKall* sends an e-mail with the recording *ID*.

Nº	NAME	PHONE	E-MAIL(S)	DESCRIPTION
1	Rodolfo Magaña	+56993452002	rmagana@hotmail.com	Constantly disrespectful client

Add extension to black list

Name (*)
Phone (*)
E-mail(s) (*) (**)
Description

CANCEL   ADD

(*) required field.

(**) This field can contain several e-mails separated by a comma.

Delete selected

4.10 Metadata (supervisor interface).
Enter additional data to any recording, for internal control.

Business data configuration

ID	Field	Tag	Display on recordings search form	Display on recordings search results	Required	Pattern
RID01	Data	Data	☑	☑	☐	
RID02	Tag	Tag	☑	☑	☐	
RID03			☐	☐	☐	
RID04			☐	☐	☐	
RID05			☐	☐	☐	
RID06			☐	☐	☐	
RID07			☐	☐	☐	
RID08			☐	☐	☐	
RID09			☐	☐	☐	
RID10			☐	☐	☐	

SAVE

Note: The pattern or regular expression helps specify the format for values within this field.

4.11 Monitoring (supervisor interface).

Monitor system health over detailed reports such as *CUCM RecKall* Validation, Un-recorded Calls, Performance, Days without Recording and Notification Schedule, which are sent by e-mail on a daily basis to previously specified users. Controls daily recording inactivity, time and pause duration and sends e-mail alerts in case of detection.

4.11.1 Main panel.

Panels indicate system health in real time and a chart shows number of concurrent calls, monitored by time frames ranging from actual time until last 30 days.
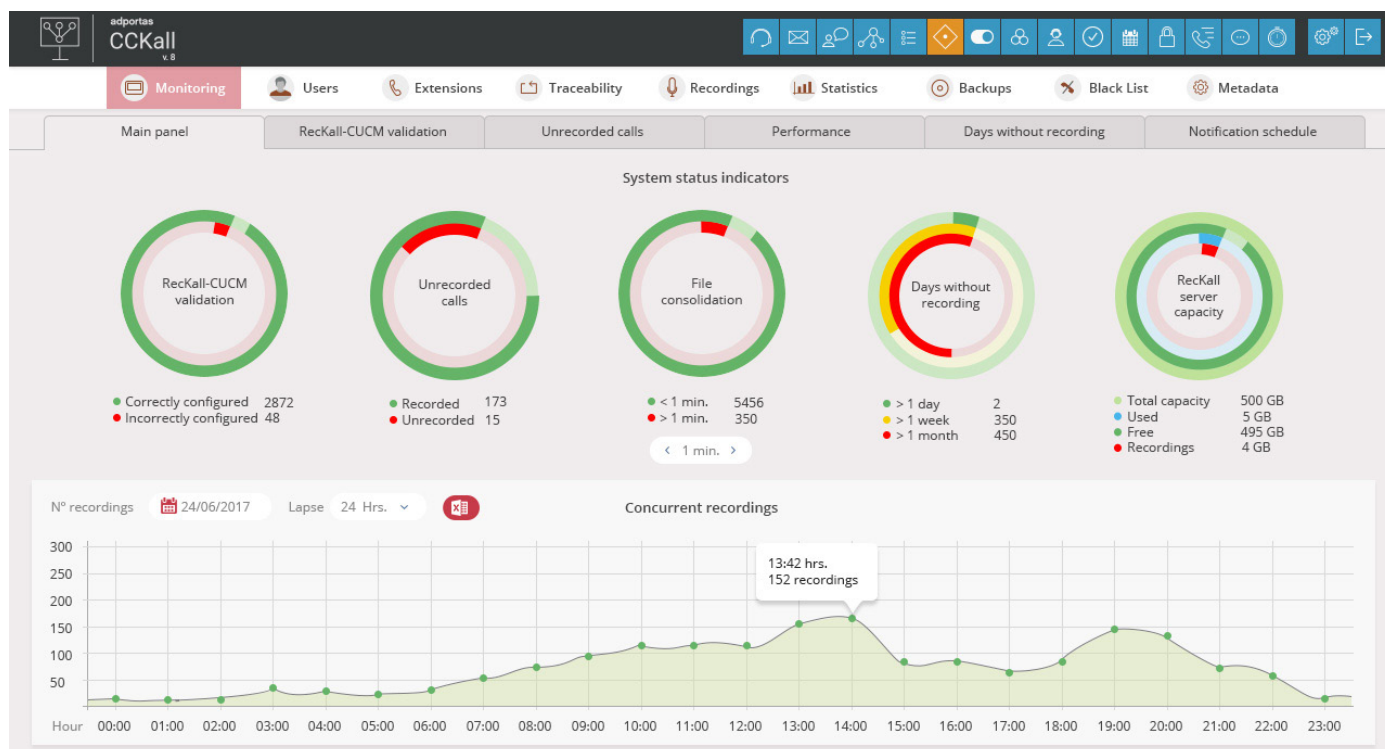
4.11.2 CUCM-RecKall validation.

Displays a list of all registered extensions in the recording system that are currently with *CUCM* validation problems and a corresponding failure description. Searches can be made by filters such as branch office, extension, user and observations.

4.11.3 Unrecorded calls.
Displays a list of all placed calls that have not been recorded. Search filters branch office, *ID*, origin / destination, *MAC*, revised number, call reference *ID* and date.

Search

Branch	N.Y.
ID	
Origin	
Destination	
Mac	
Revised N°	
Call reference ID	
Call ID	
From date	
Until date	

SEARCH

N°	ID	ORIGIN	DESTINATION	MAC	REVISED N°	CALL REFERENCE	CALL ID	DATE	BRANCH
1	5130461	5018	13456	e0899d94fdc5	13456	88421432	35246434251	17/04/2017	N.Y.
2	5130424	5701	35251	e0899d94fdc5	35251	88426718	352463404638	17/04/2017	N.Y.
3	5130422	5708	35251	e0899d94fdc5	35251	86363836	34613453636	17/04/2017	N.Y.
4	5130413	5701	35208	e0899d94fdc5	35208	45737567	68746434251	17/04/2017	N.Y.
5	5130462	5713	35251	e0899d94fdc5	35251	34866521	4572463404638	17/04/2017	N.Y.
6	5130467	5708	35208	e0899d94fdc5	35208	45635208	9683453636	17/04/2017	N.Y.
7	5140461	5708	35208	e0899d94fdc5	35208	35252108	35246434252	17/04/2017	N.Y.
8	5130471	5018	35251	e0899d94fdc5	35251	35234251	35246340469	17/04/2017	N.Y.
9	5130469	227132378	35208	e0899d94fdc5	35208	35204638	34613453637	17/04/2017	N.Y.
10	5130483	5708	13456	e0899d94fdc5	13456	13453636	68746434252	17/04/2017	N.Y.
11	5130466	5701	35251	e0899d94fdc5	35251	98735251	4572463404656	17/04/2017	N.Y.
12	5130461	227130099	35251	e0899d94fdc5	35251	35252251	9683453639	17/04/2017	N.Y.
13	5130424	5018	35208	e0899d94fdc5	35208	78935208	35246340469	17/04/2017	N.Y.
14	5130422	5701	35251	e0899d94fdc5	35251	87735251	34613453637	17/04/2017	N.Y.
15	5130413	5708	35208	e0899d94fdc5	35208	89803528	68746434252	17/04/2017	N.Y.
16	5130462	5701	35251	e0899d94fdc5	35251	78075251	4572463404656	17/04/2017	N.Y.
17	5130469	5701	35251	e0899d94fdc5	35251	378075251	68746434252	17/04/2017	N.Y.

4.11.4 Performance.
Displays the average consolidation times for recordings in the system. Search filters branch office, minimum / maximum range and time average.

Search

Branch	Coast
Range	
Minimum	
Maximum	
Average	

SEARCH

RANGE	MINIMUM	MAXIMUM	AVERAGE	BRANCH
00:00 a 01:00	no data	no data	no data	Coast
01:00 a 02:00	no data	no data	no data	Coast
02:00 a 03:00	no data	no data	no data	Coast
03:00 a 04:00	no data	no data	no data	Coast
04:00 a 05:00	no data	no data	no data	Coast
05:00 a 06:00	no data	no data	no data	Coast
06:00 a 07:00	no data	no data	no data	Coast
07:00 a 08:00	00:01:14	00:01:14	00:01:14	Coast
08:00 a 09:00	00:00:20	00:01:35	00:00:44	Coast
09:00 a 10:00	00:00:20	00:01:47	00:00:58	Coast
10:00 a 11:00	00:00:25	00:02:00	00:01:01	Coast
11:00 a 12:00	00:00:21	00:01:22	00:00:52	Coast
12:00 a 13:00	00:00:18	00:02:10	00:02:10	Coast
13:00 a 14:00	00:00:23	00:01:23	00:01:23	Coast
14:00 a 15:00	00:00:19	00:01:19	00:01:19	Coast
15:00 a 16:00	00:00:21	00:01:22	00:00:51	Coast
16:00 a 17:00	00:00:29	00:01:06	00:01:06	Coast
17:00 a 18:00	00:00:21	00:01:22	00:00:51	Coast
18:00 a 19:00	00:00:21	00:01:22	00:00:51	Coast

Resume delay
Performance day: 04-26-2017

4.11.5 Days without recording.

Displays days without recording from registered extensions. Search filters branch office, name, extension, days without recording, last recording and status.

| BRANCH	NAME	EXTENSION	DAYS WITHOUT RECORDINGS	LAST RECORDING	STATUS
Coast	history 12	13456	never	Unrecorded	Enabled
Coast	history 9	35251	never	Unrecorded	Enabled
Coast	history 10	35251	never	Unrecorded	Disabled
Head office	historial 18	35208	never	Unrecorded	Disabled
Head office	history 11	35251	never	Unrecorded	Disabled
Branch	history 2	35208	never	Unrecorded	Enabled
Branch	history 5	35208	never	Unrecorded	Disabled
Branch	history 23	35251	never	Unrecorded	Enabled
Branch	history 21	35208	738	Unrecorded	Disabled
Head office	history 7	13456	523	2015-05-15 12:24:58	Disabled
Branch	history 4	35251	455	2015-03-15 12:21:26	Enabled
Branch	history 6	35251	233	11-01-2016 5:13:15	Enabled
Branch	history 16	35208	425	2015-05-15 12:24:58	Disabled
Branch	history 13	35251	344	2015-05-15 12:24:58	Disabled
Branch	history 20	35208	455	2015-03-15 12:21:26	Enabled
Head office	history 19	35251	352	11-01-2016 5:13:15	Disabled
Head office	history 1	35251	2	11-01-2016 5:13:15	Enabled
Head office	history 22	35251	352	11-01-2016 5:13:15	Disabled
Head office	history 24	35251	2	11-01-2016 5:13:15	Enabled

4.11.6 Notification schedule.

From this option you may configure the time intervals, days and schedules for lack of recording activity monitoring. One or more e-mails may be configured to receive notifications in case of recording failure of any registered extension.

Day	From	Until
☑ Monday	09:00	19:00
☑ Tuesday	09:00	19:00
☑ Wednesday	09:00	19:00
☑ Thursday	09:00	19:00
☑ Friday	09:00	19:00
☐ Saturday	10:00	16:00
☐ Sunday	10:00	16:00
☐ Holiday	09:00	14:00

SAVE CHANGES

5. Adportas RecKall functionalities.

5.1 Recording encrypted calls.
Encrypted calls solution diagram:
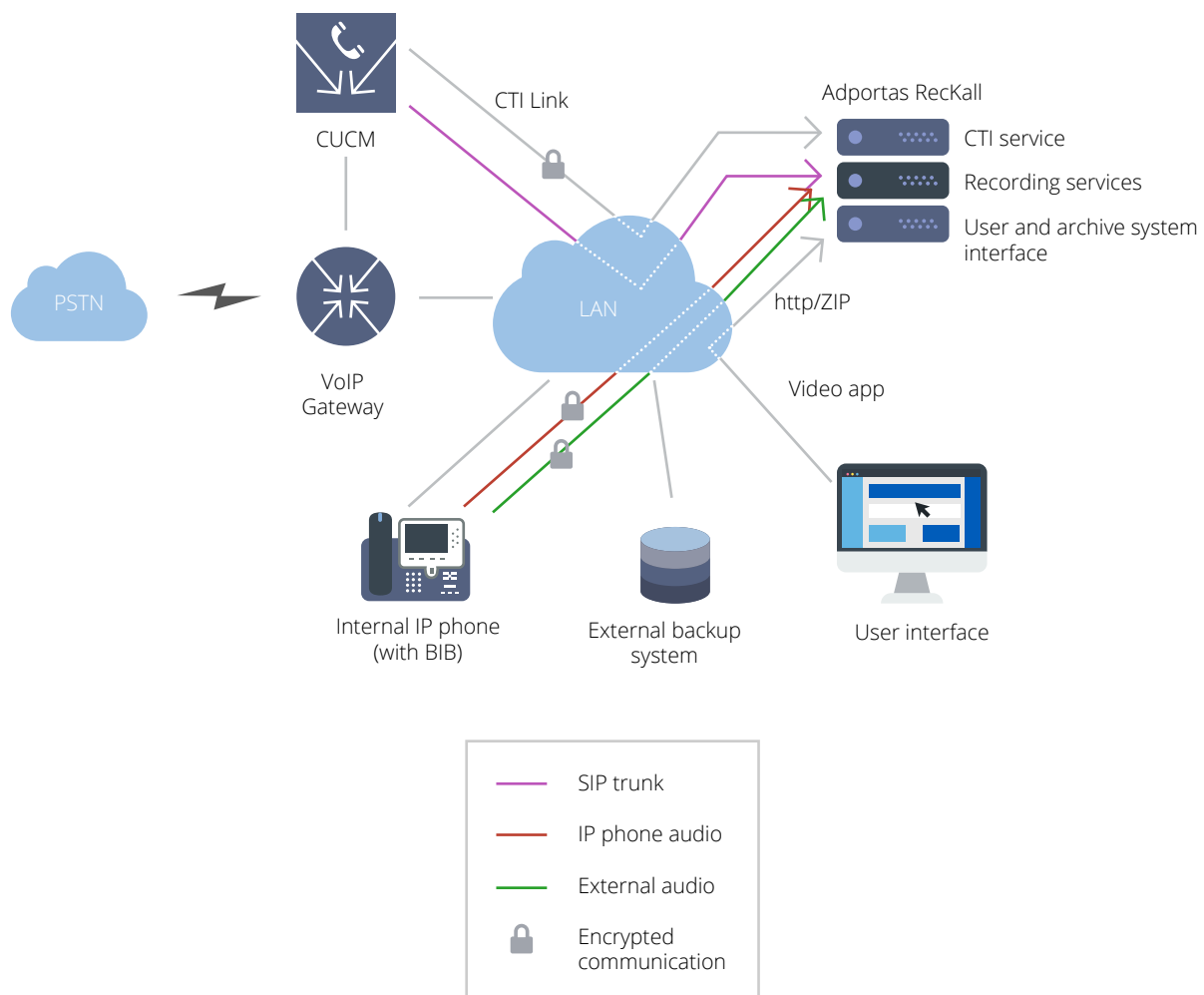
Considerations for encrypted call recording.
a. The *IP* central (*CUCM*) is configured for *IP* telephones to send and receive encrypted audio streams. This requires a previous incorporation of encryption keys provided by *Cisco* for this purpose.
b. The *IP* central (*CUCM*) requires a certificate provided by *Adportas* for *SIP* signal stream encryption between the *IP* central (*CUCM*) and the *Adportas RecKall* recorder.
c. Recorded telephones require both encryption and *Active Recording* support.

5.2 Screen activity recording.
Adportas RecKall records the screen activity during a telephone call over a *Java* application installed in the user's *PC*, synchronizing and storing audio and video files in the recording server once the call is ended.

5.3 Audio files.

5.3.1 Storage formats.
Adportas RecKall allows two format options for audio storage during configuration: *WAV* and *OGG*. When using WAV format, the file will maintain the same *G.711 CODEC* if this was used in the telephone conversation. If the conversation used *G.729 CODEC*, the generated *WAV* file will use *PCM*. In turn, *OGG* files will use the *Speex CODEC*.

5.3.2 Encrypting audio files.
If needed, *Adportas RecKall* may be configured to encrypt telephone recording files. A specific software will then encrypt pending files with a 128 bit key, so that accessing the server's operating system will not necessarily imply unauthorized transfer or playback of recorded conversations. In turn, the final users may access these recordings over the *Adportas RecKall* web portal according to their profile and access configuration.

5.4 Backups.
Adportas RecKall can backup recordings on *DVD, Blu-ray* or on an external device over a shared folder.

5.4.1 Backup on shared folder.
On a daily basis and at a specific time defined by the user, the system searches for generated recordings with no backup, from oldest to newest, and copies them in a shared folder or other external device set for this purpose. These recorded files will be labeled using the format "*extension_counterpart_timestamp_calltype*".

5.4.2 DVD or Blue Ray backup.
Adportas RecKall periodically searches for recordings with no backup and verifies if their total is equal to or higher than the capacity of a *DVD* (4.7 GB) or a *Blu-ray* (25 GB). If the size is equivalent, the system generates an *ISO* image with these files and burns them on a blank *DVD / Blu-ray* placed in the recording server. If no *DVD / Blu-ray* is available, the system will send an e-mail to the registered administrator asking for an appropriate blank disc to be inserted for backup. A similar notification will be generated when the backup has been successful or if a problem has occurred.

To search recordings backups, the corresponding backup *DVD / Blu-ray* must be accessed. A special application included in the DVD / *Blu-ray* will open automatically.

5.5 High availability.
High availability within the *Adportas RecKall* recording system achieves high availability by configuring two different *IPs* within the *SIP trunk* assigned for recording, enabling *SIP* negotiation in both main and secondary recording servers. The *Call Manager* will make a random negotiation by sending a recording Invite to any of these two servers and the current call will be recorded in either of them.

Adportas RecKall will then copy all recordings made by the main server on the secondary server, and viceversa. Both servers will be in constant synchro at all times.

RecKall
adportas
v. 8

High availability diagram:

CUCM

Skinny-Sip

CTI-Sip

RTP traffic

IP phone

User interface

Adportas RecKall
main server

Synchronized
recording copying

Adportas RecKall
backup secondary
server
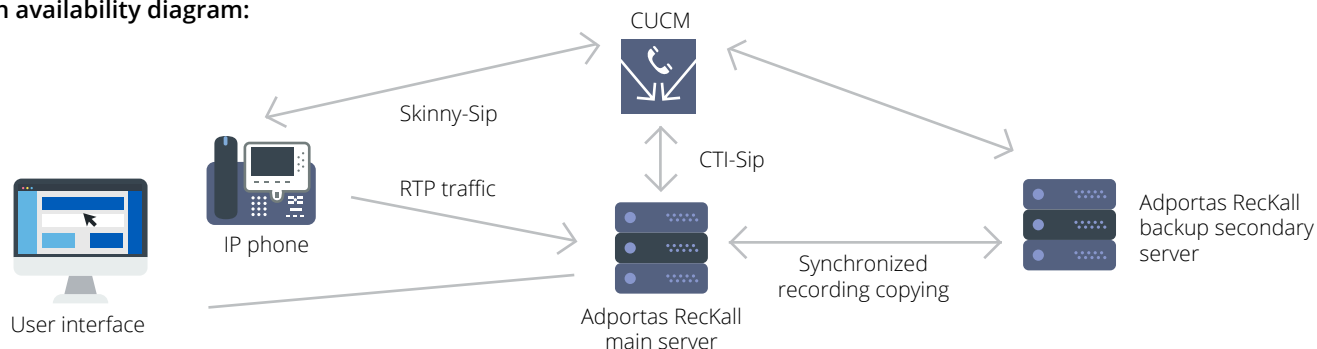
5.6 Integration with external solutions.

5.6.1 Audio recording recovery web service.
Third-party applications can consume a configurable web service offered by *Adportas RecKall* for recovering audio recordings and associated metadata from outside the *Adportas RecKall* solution. For this, the external solution must consume the Web Service available for this purpose by delivering unique or combined data equivalent to the one used by *Adportas RecKall* in its search engine. As a result, the Web Service is able to recover recordings and its respective metadata.

5.6.2 Recording control web service.
Third-party applications can consume a configurable web service offered by *Adportas RecKall* for "on-demand" recording control from outside the *Adportas RecKall* solution. This web service also enables entering complementary metadata to those generated by *Adportas RecKall* for each recording. The external application must consume this available web service by delivering unique data, either for initiating a recording in a given extension, ending a recording or including additional metadata in a specific recording.

Requirements

Adportas RecKall Active Recording Server
Voice VLAN web visibility for recorded telephones.
Third generation or higher Cisco IP Phone with *Built in Bridge*, *Jabber* or *Cisco Softphone*.
SIP Trunk for telephone signaling between *CUCM* and *Adportas RecKall*.
Active Recording configuration in telephones recorded by *CUCM*.
CTI user in *CUCM* with control over all recorded telephones.
Route pattern creation in *CUCM* for *Adportas RecKall*.
Recording Profile creation in *CUCM* for *Adportas RecKall*.
Installing *Adportas RecKall* application on *PCs* for screen recording.
Supports phones with *G.711 A-Law, G.711 μ-Law* or *G.729A CODECs*.

Adportas RecKall Passive Recording Server
Remote access via *VPN*.
Cisco IP telephones.
SPAN enabling.
CallManager V.8 or higher.
Port mirroring on recorded extensions.
Network port for main recording device.
Supports phones with *G.711 A-Law, G.711 μ-Law* or *G.729A CODECs*.

Adportas CCKall hardware requirements

10 to 50 licences
CPU: Quad core or higher.
Ram: 16 GB or higher.
Drive space: 500 GB or higher.

100 to 400 licenses
CPU: Hexa core or higher.
Ram: 24 GB or higher.
Drive space: 1 TB or higher.

Limitations

On *Active Recording* it is not possible to record telephones connected to *Cisco ATAs* or *Cisco VGs*.