

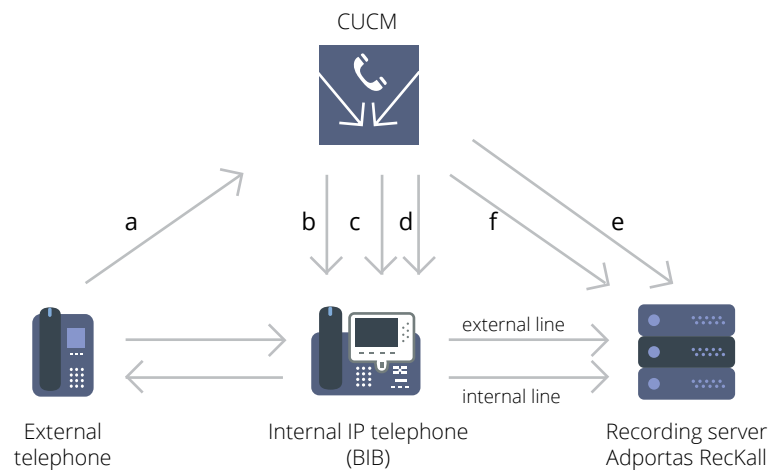


1. Description.

Active Recording is a recording technique used for implementing a recording solution for VoIP. When a call needs to be recorded, the *Cisco Unified Communications Manager Call Control* includes the recording server in the conversation in active mode over a conference *BIB* (Built-in Bridge) registered in the system.

For a recording to be made using *Active Recording*, a *SIP trunk* must be created between the *IP telephony central (CUCM)* and the recording server (*Adportas RecKall*), and then configure the *Active Recording* option in the *CUCM* for those phones to be recorded. When any of these phones receives or makes a call, the *CUCM* will send two invitations via *SIP trunk* to the *Adportas RecKall* server to begin two conferences with the phone in question. After these invitations have been accepted, the telephone will send two audio *RTPs* (one from the telephone itself and another one for the counterpart) to the recording server, which in turn will capture, mix and index these audio signals, and once the call has been terminated, it will incorporate it as a new recording in the system.

1.1 Permanent Active Recording.

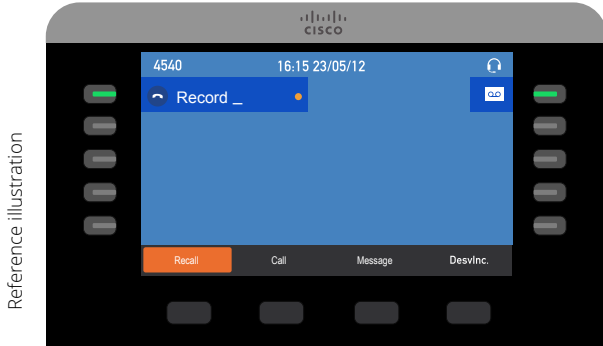


- a.** A call is made from an external phone to an *IP* telephone being monitored by the recording server.
- b.** The *IP* central (*CUCM*) routes the call to the internal *IP* telephone. The internal user answers the call. The monitored *IP* telephone starts to interchange audio streams with the external phone.
- c.** Since the monitored *IP* telephone has been configured for active recording, the recording session for the media streams is automatically triggered. The *IP* central (*CUCM*) makes a recording call to the *Built-In Bridge* in the monitored *IP* telephone requesting submission of voice of internal user.
- d.** The *IP* central (*CUCM*) makes a second recording call to the *Built-In Bridge* of the monitored telephone requesting submission of voice from external telephone.
- e.** The recording server receives and responds the call recording configuration messages from the *IP* central (*CUCM*) for the monitored telephone's voice via *SIP* protocol. The monitored *IP* telephone begins sending the voice audio streams from its user to the recording server.
- f.** The recording server receives and responds the call recording configuration messages from the *IP* central (*CUCM*) for the external phone via *SIP* protocol. The monitored *IP* telephone begins sending the voice audio streams from the external phone to the recording server.

Once the previous sequence has ended, the calls between the monitored telephone and the recording server end and the process of incorporating the new recording into the system begins.

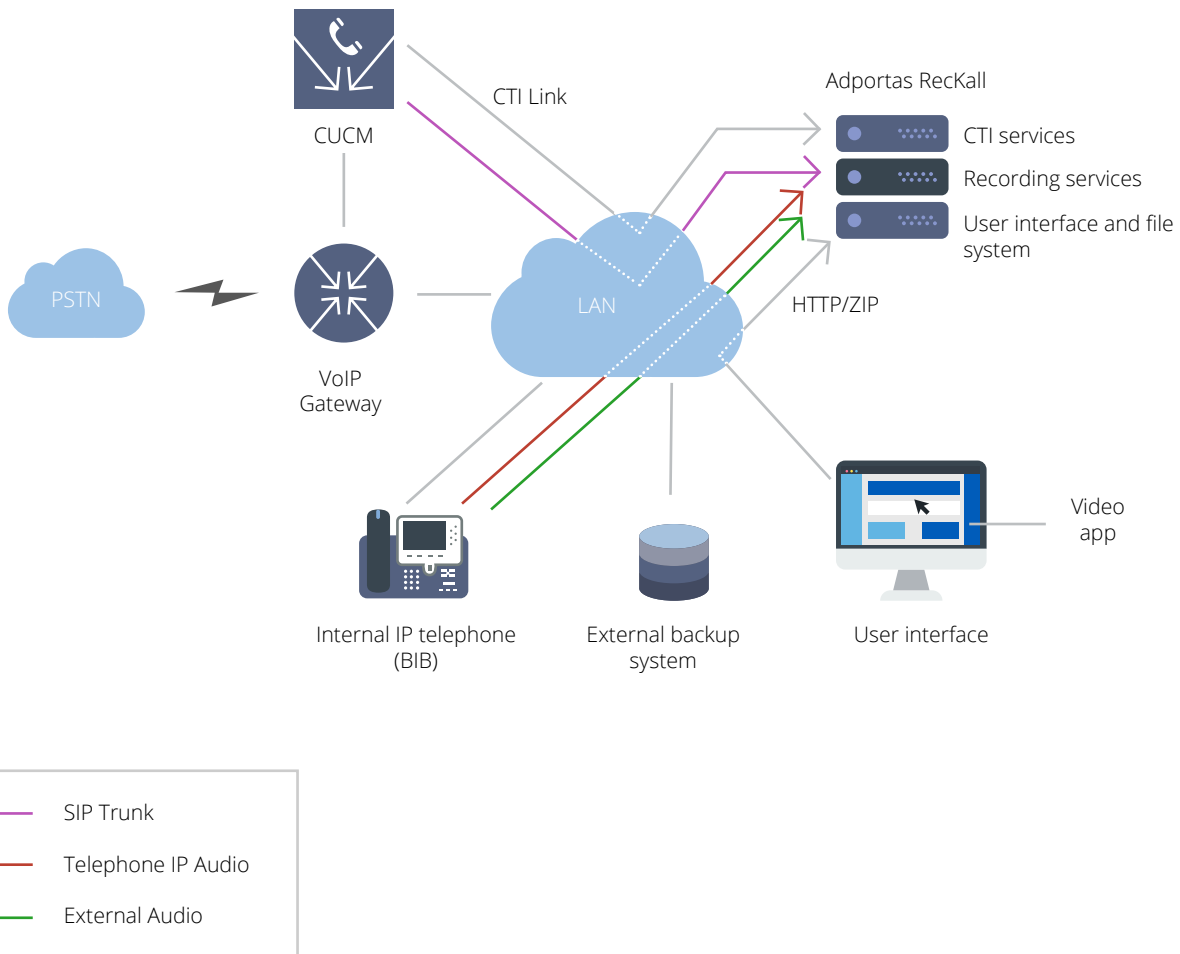
1.2. Active Recording On-Demand.

Adportas Reckall offers the option of on-demand telephone recording for specific calls or parts of these, depending on user requirements. Telephones with this configuration will be able to apply it by means of a speed dial button or an XML service for this purpose.



During recording a notification will appear on screen along with a "Stop" button, which ends the current recording.

2. Adportas Reckall architecture.



3. Main characteristics.

3.1 Recording.

- Active recording mode
- Recording of incoming and outgoing calls, both internal and public network
- Permanent recording
- On-demand recording
- Screen activity recording
- Encrypted call recording (128 bit key)
- Centralized recording of different *CUCM* clusters
- Transferred call sequence and conference recording
- Whispering recording (integrated to *Adportas ReckAll*)
- Extension mobility and Jabber client recording

3.2 System.

- *Linux CentOS 6* or higher
- Compatible with *CUCM* version 8.0 or higher
- *VMWare* compatible
- Use of *IP* telephone *Built-In Bridge* for audio send
- Direct audio *RTP* send from telephones to *Adportas ReckAll* server with, no switch or *SPAN* required
- *CTI* and *SIP* trunk signaling between *CUCM* and *Adportas ReckAll* recorder
- Main site and branch office integration
- *G.729A*, *G.711 μ-Law* and *G.711 A-Law CODECs* support
- Open or encrypted storage formats: *PCM (CODEC G 729)*, *WAV (CODEC G 711)* and *OGG (Speex CODEC)*
- Audio file compression (1:10)
- Optic media, shared folders and external systems backup
- Recording system (capturators/concentrators) on high availability

3.3 Administration web interface.

- Search by counterpart *ANI*, extension, type of call, date, duration, cost center, login, metadata
- Integration of additional metadata
- Multiple profiles for flexible configuration of users and supervisors
- Monitoring of specific *ANIs*
- Administration of recording groups (cost center)
- Mark tags during playback to find points of interest
- Integrated playback engine and video download
- User activity traceability
- System health control panel and reports

Requirements

Adportas ReckAll server	CTI user on <i>CUCM</i> with control over all recorded telephones
VLAN network visibility for recorded telephones	Create route pattern in <i>CUCM</i> for <i>Adportas ReckAll</i>
Third generation <i>Cisco IP</i> telephones or higher with <i>Built-In Bridge</i>	Create recording profile in <i>CUCM</i> for <i>Adportas ReckAll</i>
<i>SIP</i> trunk for telephone signaling between <i>CUCM</i> and <i>Adportas ReckAll</i>	Install <i>Adportas ReckAll</i> application in PCs for screen recording
Configuring <i>Active Recording</i> for telephones recorded on <i>CUCM</i>	

Limitations

It is not possible to record telephones connected to *Cisco ATAs* or *Cisco VGs* on *Active Recording*.