

# SmartTAP

## SmartTAP 360° Recording

Version 5.0

smart**TAP** 360°

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## Abbreviations and Terminology

Microsoft Skype for Business and Microsoft Lync are used interchangeably in this document unless otherwise specified.

## Related Documentation

Document Name
SmartTAP Release Notes
SmartTAP Installation Guide

## Document Revision Record

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27162	Version 3.2. Recording Profiles. IM. Recording consent. User / Device Attributes. Media Folder. Recording purge date. Messages tab.
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27165	Managing Licenses, Defining Credentials, Alarm History, Configuring Alarm Notifications, Windows Event Log, SCOM Integration, Call tagging, Configuring HTTPS, Searching for Calls, Listening to / Emailing / Downloading a Call, Using the Evaluation feature, Searching for messages and Live Monitoring.
27166	Updated note under the Listening to / Emailing / Downloading a Call section.
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LTRT	Description
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# 1 About SmartTAP

AudioCodes' SmartTAP for Microsoft Skype for Business is a certified and secure call recording solution that enables the recording of key business interactions within a Microsoft Skype for Business environment. SmartTAP is compatible with VoIP, TDM, and hybrid telephony environments.

SmartTAP is an enterprise-wide compliance and liability recorder. Though most recorders in the market focus on Contact Center features, SmartTAP is deployed across the enterprise to capture calls, either on-demand or, in some cases, full time, when calls about compliance and liability occur more frequently.

With an integral Skype for Business recording toolbar, enterprise users can record with SmartTAP anywhere and anytime they are on Skype for Business calls.

SmartTAP can initially be deployed on a small scale and be scaled up to support many thousands of users using the product's linear scalability feature.



SmartTAP includes audio video and instant messaging recording capabilities.

The screenshot displays the SmartTAP 360 interface. On the left, there is a sidebar with navigation options: System, Users, Status, Calls, and Messages. The 'Calls' section is active, showing a list of calls. The main area displays a table of call records with columns: Name, Start Time, Duration, Direction, Called Party, Release Cause, Recording Type, Tags, Media Type, and Media Status. Below the table, there is a video player showing a call recording of two women in a call center environment. The video player includes a timeline and playback controls.

Name	Start Time	Duration	Direction	Called Party	Release Cause	Recording Type	Tags	Media Type	Media Status
Thomas (+3051), Anna	Jan 14, 2019 10:41:45 AM	00:00:16	INCOMING	user3051	NORMAL	FULL_TIME			
Thomas (+3051), Anna	Jan 14, 2019 10:40:23 AM	00:00:52	OUTGOING	user3056	NORMAL	FULL_TIME			
Thomas (+3051), Anna	Jan 14, 2019 10:39:52 AM	00:00:20	INCOMING	user3051	MISSED	FULL_TIME			
Thomas (+3051), Anna	Jan 14, 2019 10:37:04 AM	00:02:02	INCOMING	user3051	NORMAL	FULL_TIME			

The screenshot displays the SmartTAP interface for instant messages. The top section shows a header for the message conversation: 'Instant Messages between 12/1/18 09:07 AM and 12/26/18 11:07 AM'. Below this, there is a table with columns: User, First Message Time, Last Message Time, Messaging Parties, and Chat Type. The main area shows a chat conversation between 'Mast, Danielle' and 'sip:user2@sfb2019.lab'. The chat messages are displayed in a timeline format, with each message showing the sender's name, the message text, and the timestamp. The interface includes search filters for Begin Time, End Time, and Search text, as well as a 'Participants' list and an 'Export To' button.

User	First Message Time	Last Message Time	Messaging Parties	Chat Type
Mast, Danielle	Dec 26, 2018 11:05:45 AM	Dec 26, 2018 11:06:32 AM	Mast, Danielle; sip:user2@sfb2019.lab	CHAT

## SmartTAP Benefits

SmartTAP benefits organizations and enterprises as follows:

- Recordings can be used for customer analytics to provide intelligence of customer dealings to serve at the basis for improving key performance indicators and thereby enhance customer satisfaction and loyalty.
- Minimizes exposure to disputes and mitigates the risk of reputation damage
- Improves internal policy compliance
- Complies with the increasing level of corporate and governmental regulation for customer dealings

## Competitive Advantages

- **User Friendly**
  - Intuitive Web-based screens make training easy. No downtime for training.
  - All browser-based access with no additional client desktop software.
  - Supports any Wi-Fi tablet or smartphone.
- **Economical**
  - Large system features at a fraction of the cost.
  - Linear growth of SmartTAP concurrent conversations – no forklift upgrades.
  - Add one license at a time, or a hundred.
  - Lowest total cost of ownership.
  - Centralized architecture reduces hardware investments.
- **Scalable**
  - Start with as little as 8 concurrent recording channels and scale upwards.
  - 300 concurrent recording sessions per recording server.
  - Supports for single site, multi-site and cloud deployments.
  - Start with recording and then expand capabilities with easy-to-add modules.


## Features Overview

The table below lists and describes AudioCodes' SmartTAP recording features.

**Table 1-1: SmartTAP Features**

Feature	Details
Status Page	<ul style="list-style-type: none"> <li>■ Displays the current user call status</li> <li>■ Live Call Monitoring</li> <li>■ Notes can be added to an active call</li> <li>■ Allows switching between Grid and List View</li> <li>■ Pause / Resume Recording</li> <li>■ Record or Save on Demand</li> </ul>
Record or Save on Demand	<ul style="list-style-type: none"> <li>■ Record on Demand (ROD): Recording contains audio from the point network administrator decides to record the call.</li> <li>■ Save on Demand (SOD): Recording contains audio from the beginning of the call.</li> <li>■ Recording using ROD or SOD is manually selected from the GUI or Skype for Business client extension.</li> <li>■ Any target provisioned as ROD or SOD can manually control start/stop recording.</li> <li>■ Any user with appropriate security profile credentials can manually trigger a recording of another user's calls.</li> </ul>
PCI Compliance	<ul style="list-style-type: none"> <li>■ Capability to pause / resume a recording during sensitive areas of a conversation with a customer, e.g., when taking Credit Card details.</li> <li>■ Manual process, executed from the Status page.</li> </ul>

Feature	Details
Recording Profiles	<ul style="list-style-type: none"> <li>■ Can be created and assigned to multiple parties to define the recording method.</li> <li>■ Full Time Recording – Automatic audio or video recording.</li> <li>■ Record on Demand – Audio recording is manually triggered from the Status page in the Web interface or Skype for Business Conversation Window Extension (CWE) toolbar</li> <li>■ Save on Demand – Audio or Video recording is manually triggered from the Status page in the GUI or from the Skype for Business CWE toolbar</li> <li>■ PCI (Payment Card Industry) Pause / Resume Recording (Optional) – Audio recording is manually triggered from the Status page in the GUI or from the Skype for Business CWE toolbar.</li> <li>■ IM recording – automatic Instant Message recording.</li> </ul>
Security Profiles	<ul style="list-style-type: none"> <li>■ Can be created and assigned to multiple parties to define security access in SmartTAP.</li> <li>■ All recordings can be performed using another user's ROD or SOD.</li> </ul>
LDAP Integration	<ul style="list-style-type: none"> <li>■ Allows SmartTAP to use Active Directory users, groups, and security groups</li> <li>■ LDAP Filtering by user, group or security group.</li> </ul>
Legal Hold	<ul style="list-style-type: none"> <li>■ The user's retention process does not purge their recordings when placed on legal hold.</li> </ul>
Audit Trail	<ul style="list-style-type: none"> <li>■ Search audit trail based on date range, user, set of users.</li> <li>■ Filtering of search results directly in the results screen, sorting ascending/descending by clicking column header, shortcuts to the beginning/end page within the results screen.</li> <li>■ Export of Audit Trail results and call Meta Data to Excel file.</li> </ul>
Flexible and Powerful Call and Instant Message Search Capabilities	<ul style="list-style-type: none"> <li>■ Search criteria based on date range, time of day range, user, set of users, group, set of groups, etc.</li> <li>■ Easily filter search results, sorting ascending/descending by clicking column header, shortcuts to the beginning/end page within the results screen.</li> <li>■ Use of a * symbol 'wild card' to apply a filter.</li> <li>■ Columns can be added to / removed from the results screen.</li> <li>■ Search for calls based on Calling (Caller ID), Called or Answering Party</li> <li>■ Search for calls based on assigned Call Tag, including Notes.</li> <li>■ Search for Instant Messages based on included strings.</li> <li>■ Easily export Call Meta Data from search results to Excel file.</li> <li>■ Easily export an Instant Message conversation to a PDF file.</li> </ul>
Playback (Call Listen/Download/Email)	<ul style="list-style-type: none"> <li>■ Fast-forward / Rewind or select playback position controls.</li> <li>■ Volume control.</li> </ul>

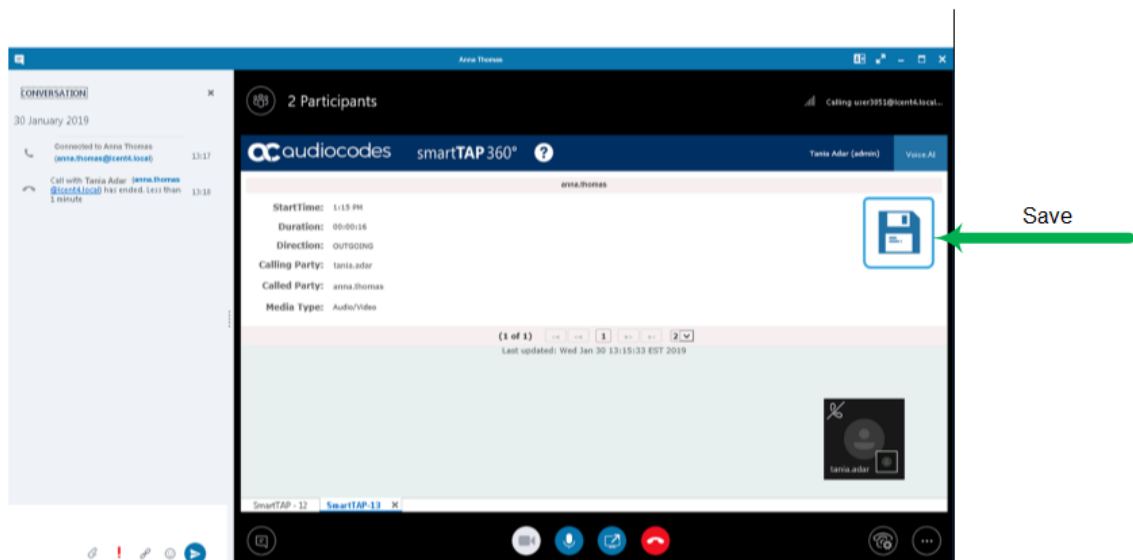
Feature	Details
Call and Instant Message Retention	<ul style="list-style-type: none"> <li>■ Number of retention periods can be added and applied to specific user(s).</li> <li>■ Recordings are automatically deleted based on retention period.</li> <li>■ Option to retain recordings based on evaluation status.</li> </ul>
Automatic Email Notifications	<ul style="list-style-type: none"> <li>■ Automatic email notifications when Alarms are triggered or thresholds are exceeded (Recording licenses or Storage capacity).</li> </ul>
Encryption of Stored Recordings	<ul style="list-style-type: none"> <li>■ Option to encrypt stored audio recordings.</li> </ul>
Recordings Storage in Local Drive, NAS or SAN	<ul style="list-style-type: none"> <li>■ Recordings stored in local hard disk or in NAS/SAN through Windows share (SMB).</li> </ul>
Compression of Stored Recordings	<ul style="list-style-type: none"> <li>■ Audio recordings stored as G.711 (normal compression) or G.729a (high compression).</li> </ul>
Agent Evaluation	<ul style="list-style-type: none"> <li>■ Evaluation forms can be created: agents evaluations, review evaluations, and reports can be generated.</li> </ul>
Distributed Architecture	<ul style="list-style-type: none"> <li>■ One SmartTAP may be deployed across multiple physical locations.</li> <li>■ Recording on remote locations is not interrupted even if connection to main site is down.</li> </ul>
Multiple Call Protocols and Physical Interfaces Share the Same UI	<ul style="list-style-type: none"> <li>■ One SmartTAP server is capable of recording diverse call signaling and voice protocols.</li> <li>■ SmartTAP records PSTN, Lync, Analog, and VoIP simultaneously and transparently to end users.</li> </ul>
Skype for Business Client Toolbar	<ul style="list-style-type: none"> <li>■ Auto extended Skype for BusinessCWE for convenient access to features like ROD / SOD, PCI and Call Tagging</li> </ul>
Call Tagging	<ul style="list-style-type: none"> <li>■ User definable tags  i.e., Customer Name, Account Number, Malicious Call, etc.</li> <li>■ Default Notes tag available by default.</li> <li>■ Tags are easily added live from the Status page or from Skype for Business CWE, or post call, from the Calls tab.</li> </ul>
Single Sign-On	<ul style="list-style-type: none"> <li>■ A user gains access into the SmartTAP GUI or Skype for Business client toolbar after validation of their SmartTAP security profile and authentication of their credentials against Active Directory.</li> </ul>
SIPRec	<ul style="list-style-type: none"> <li>■ Session Initiation Protocol (SIP) establishes an active recording session and reporting of metadata to the SRS (SmartTAP) of the active communication session traversing the SRC (AudioCodes SBC or Gateway).</li> <li>■ <a href="https://datatracker.ietf.org/doc/draft-ietf-siprec-protocol/">https://datatracker.ietf.org/doc/draft-ietf-siprec-protocol/</a></li> </ul>

Feature	Details
REST API	<ul style="list-style-type: none"> <li>■ Allows third-party applications integrated with SmartTAP to add users, retrieve metadata, download recorders, target users, etc. Refer to separate documentation for more details.</li> <li>■ Initiate ROD or SOD from a third-party application using the API.</li> <li>■ Support for Server Sent Events (SSE). Third-party applications can receive call state events for targeted users / endpoints using SSE. Use events to determine when to ROD or SOD, Live Monitor, etc.</li> </ul>
Call Recording Announcement Server	<ul style="list-style-type: none"> <li>■ Custom prompt to be played to external call participants so that their calls may be recorded in Skype for Business environments. Example: 'Your call may be recorded...'</li> <li>■ Custom IVR menu to request recording consent from external call participants and trigger recording when consent is given.</li> <li>■ Advantages: <ul style="list-style-type: none"> <li>✓ Plays announcement to inbound PSTN call participants</li> <li>✓ Deploys on Physical or Virtual Servers</li> <li>✓ Supports N+1 Resiliency</li> </ul> </li> </ul>
SmartTAP Media Proxy (Skype for Business)	<ul style="list-style-type: none"> <li>■ The software Proxy Service is an RTP Proxy for recorded user / device calls.</li> <li>■ A recorded call's media is redirected through the proxy, allowing SmartTAP to capture a copy of the SRTP conversation.</li> <li>■ Advantages: <ul style="list-style-type: none"> <li>✓ Proxy Server resides in the LAN</li> <li>✓ Inter and intra region calls stay on the private network</li> <li>✓ Allows easily recording internal, PSTN and conference calls</li> <li>✓ Deployable in remote locations to reduce network bandwidth</li> </ul> </li> </ul>
User / Device Attributes	<p>A SmartTAP user or device attribute has three purposes:</p> <ul style="list-style-type: none"> <li>■ Additional information can be added to the user account within SmartTAP, i.e., Ext, Tel URI, Address, etc., for informational purposes only.</li> <li>■ Designates to SmartTAP what to use to trigger recording, i.e., adds a SIP_URI attribute and provides a value assigned to the user. If the user makes a SIP call, SmartTAP triggers a recording based on the SIP_URI.</li> <li>■ Enhances integration by mapping SmartTAP attributes to Active Directory attributes, in order to auto-populate user / device information within SmartTAP.</li> </ul>
Automatic Instant Message Recording	<ul style="list-style-type: none"> <li>■ Recording of instant messages for person-to-person chat between two users or group chat between two or more users.</li> </ul>
Video Recording	<ul style="list-style-type: none"> <li>■ Recording Profile: Full Time Recording and Save on Demand Video</li> </ul>

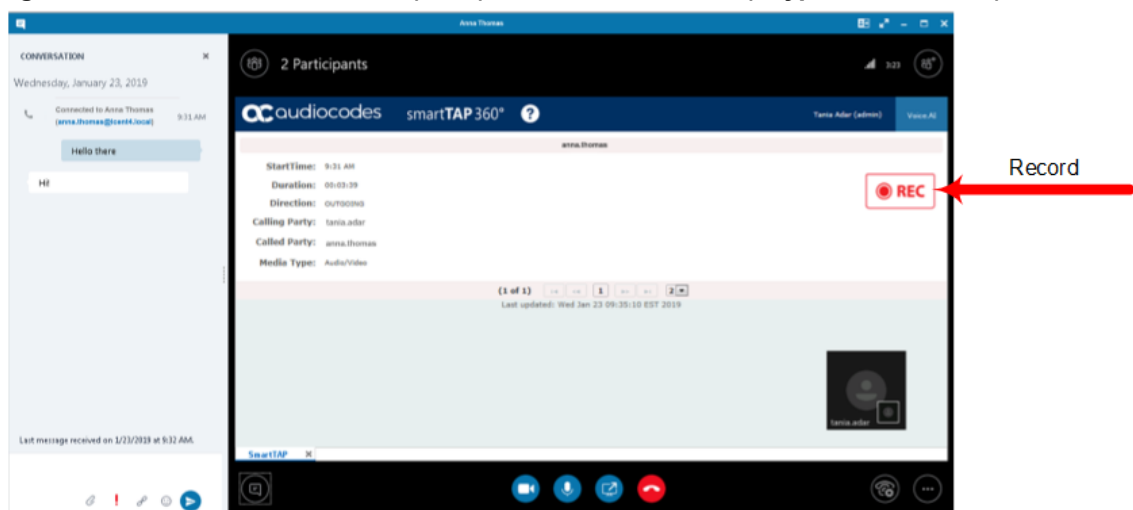
Feature	Details
	<ul style="list-style-type: none"> <li>■ Playback video from the Calls List and Evaluation menu</li> <li>■ Download audio and video call types (together).</li> </ul>
Desktop Recording	Skype for Business desktop sharing over VBSS (Video Based Screen Sharing) recording is supported
Timeline View	View call results data for a specific user/device over a time line. Each call type is represented on the timeline by a unique icon.
Automatic Registration of Managed Devices	Managed device other than of type 'Host' register automatically with the application server by sending periodic heartbeats. Devices also update their connection status information whenever the connection state changes information.
New User Interface Design	-The SmartTAP User interface design and layout has been updated to the look and feel for AudioCodes product family.
Call Type-based recording	It is now possible to define specific call types to be recorded through SmartTAP recording profiles. For example, it is possible to select recording of the following call types: in domain, PSTN, external, response group calls and more.
Selective Announcement service	The Announcement service can be enabled for recording profile and activated on calls for the users that are associated with the recording profile.
Beep tone generation	Playing recording beep tone to the local call parties is possible with SmartTAP Media Proxy.
Test calls	Enhanced System Health Monitoring with an option to activate periodic test calls and with alarms.
Communication status icons	SmartTAP inter-components communication status shows the statuses reported by managed devices for its connections with other components in the system.
Malicious call recording enhancement	Enables users to save a call recording after the call was ended for a predefined time.
OVOC Management	SmartTAP server components can be monitored from OVOC (starting from OVOC version 7.6.100) including the sending of alarms and statuses.
Support for Skype For Business 2019	SmartTAP Announcement and Application servers can be installed on the Skype For Business 2019 platform.
Original Call Reason	Original call release reason is presented as part of the call recording meta-data.
Scalability	SmartTAP SIPRec solution scalability enhancement with an option to reroute a call to another recording server when the server is at the maximum capacity.

Feature	Details
SmartTAP low-end Profile	SmartTAP low-end profile system can be deployed on the Mediant 1000B OSN4B 256 GB SSD alongside the SBA with up to 250 users and 8 trunks.
Multilingual support	The SmartTAP interface supports the following languages: <ul style="list-style-type: none"> <li>■ English</li> <li>■ German</li> <li>■ Spanish</li> <li>■ French</li> </ul>

**Figure 1-1: Save on Demand (SOD) in SmartTAP Client (Skype for Business)**



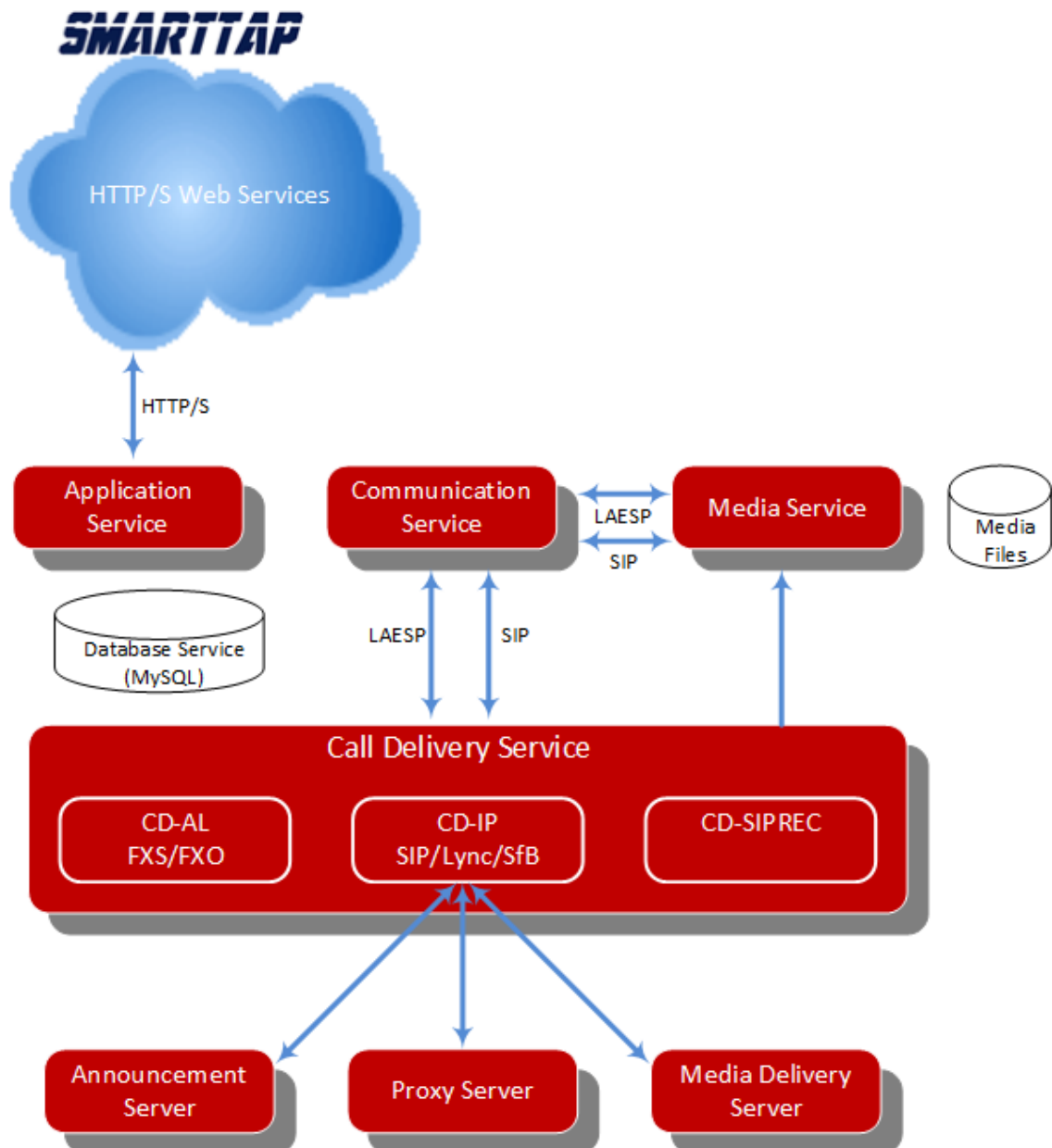
**Figure 1-2: Record on Demand (ROD) in SmartTAP Client (Skype for Business)**



## Architecture

The figure below illustrates SmartTAP architecture.

Figure 1-3: SmartTAP Architecture



## About this Guide

This guide helps enterprise network administrators obtain full benefit from the SmartTAP Call Recording System. The guide comprises the following sections:

Table 1-2: About this Document

Section	Description
<a href="#">Logging In</a> on page 11	Shows how to log in to the SmartTAP Web Interface.
<a href="#">Getting Acquainted with the GUI</a> on page 12	Gets the network administrator acquainted with the SmartTAP management GUI.

Section	Description
<a href="#">Performing Initial Configuration</a> on page 18	Describes the steps to take to perform initial SmartTAP configuration in order to record a call.
<a href="#">Searching for Messages</a> on page 149	Searching for Messages
<a href="#">Searching for Calls</a> on page 103	Searching for Calls
<a href="#">Testing the Initial Configuration</a> on page 20	Shows how to record a call to test the initial configuration.
<a href="#">Configuring Advanced Features</a> on page 22	Details the user interface, features and procedures.
<a href="#">Single Sign-On for SmartTAP</a> on page 156	Shows how to simplify the login process for domain users with Single Sign-On (SSO).
<a href="#">SmartTAP Skype for Business Toolbar</a> on page 172	Shows how to use the SmartTAP Skype for Business toolbar.
<a href="#">Media Exporter</a> on page 175	Describes the Bulk Media Exporter tool to download Meta Data and Call Records.
<a href="#">API Integration</a> on page 180	Describes the API Reference.
<a href="#">Recording Health Monitor</a> on page 181	Describes the Recording Health Monitor utility
<a href="#">Announcement Server (Skype for Business)</a> on page 187	Describes the setup and use of the Annoucement Server (Skype for Business)

## 2 Logging In

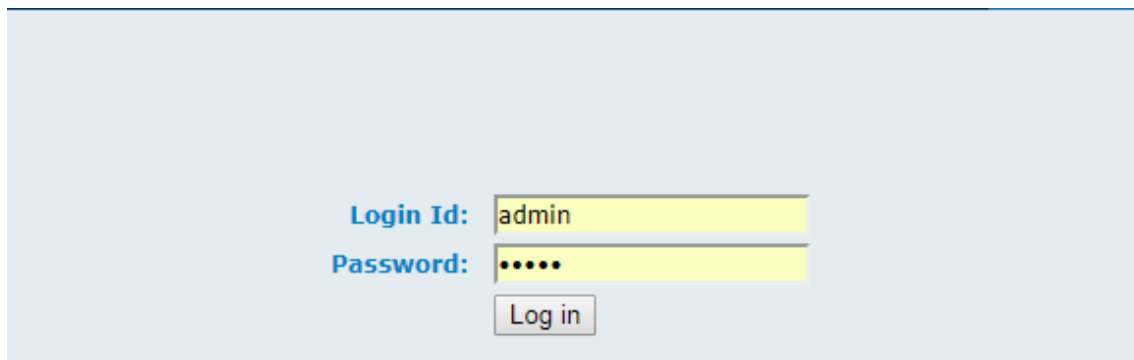
After the SmartTAP software is installed, an Admin user account is created by default. This user account allows the administrator to access the SmartTAP's Web-based management tool for the first time and start initial configuration and administration (see Chapter [Performing Initial Configuration](#) on page 18).

This section shows network administrators how to log in for the first time.

➤ **To log in for the first time:**

1. Access the SmartTAP user interface from a browser.
2. Enter the SmartTAP server IP address or hostname; the Login page opens.

**Figure 2-1: Login Page**



3. Use the table below as a reference.

**Table 2-1: Default Admin Credentials**

Field	Value
Login ID	admin
Password	admin

4. Click the Log in button.

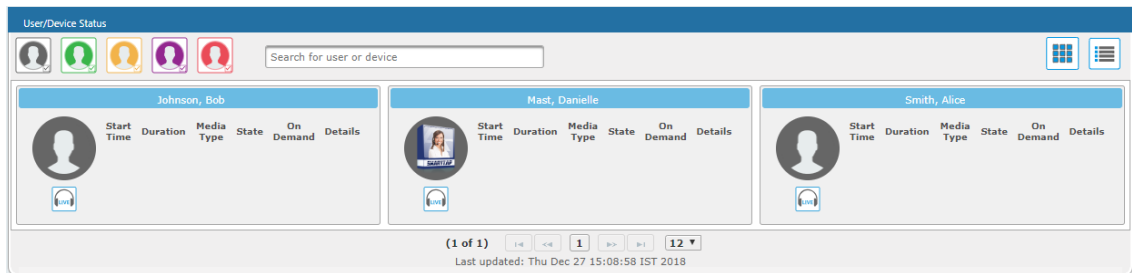
### 3 Getting Acquainted with the GUI

This section introduces the SmartTAP management GUI.

The figure below shows the main screen. The following areas are identical across all GUI screens:

- Upper banner (see the figure below)
- Navigation (see the next page)
- Results display & data entry area (see the next page)
- Execution results area (in the case of some commands) (see the next page)

**Figure 3-1: SmartTAP Main Screen – Upper Banner**

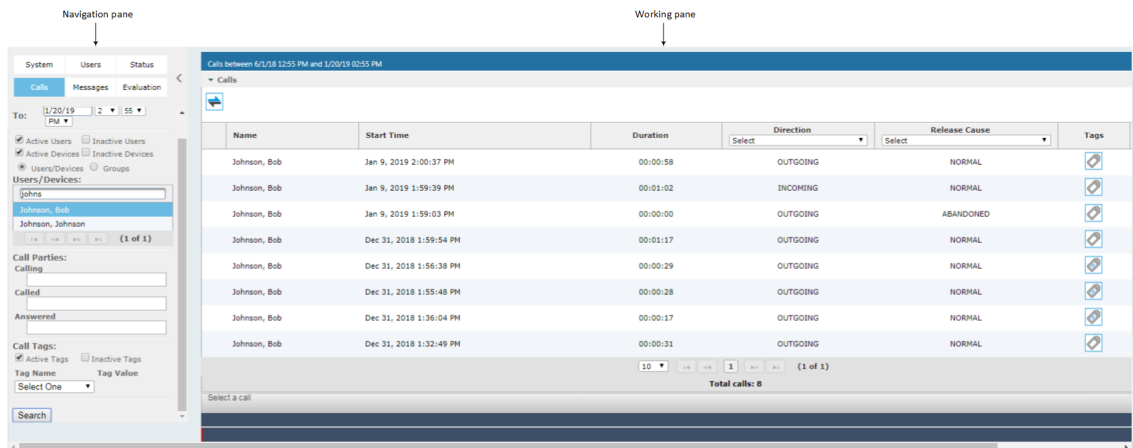


The table below describes the active buttons on the toolbar.



**Table 3-1: SmartTAP Main Screen – Active Buttons on the Toolbar**

Button	Icon	Description
Home		Go to the Home Page (default start page)
Help		Displays help for the currently displayed content
Language Toggle		Toggles between the following interface languages: <ul style="list-style-type: none"> <li>■ English</li> <li>■ German</li> <li>■ Spanish</li> <li>■ French</li> </ul>
Log off		Log off user (identified to the left of this button)

**Figure 3-2: SmartTAP Main Screen**

The figure above shows the following three areas below the upper banner:

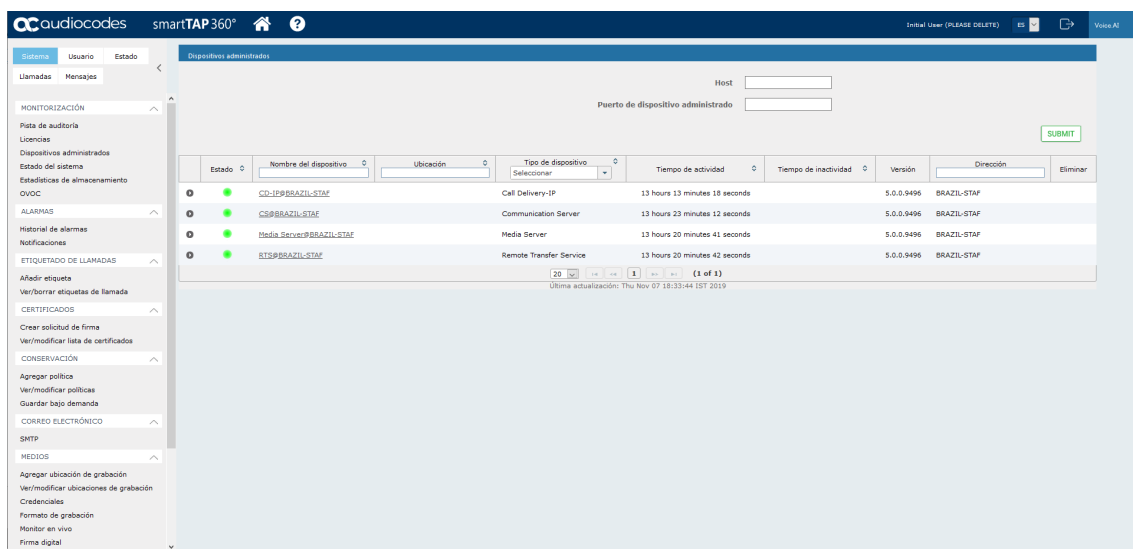
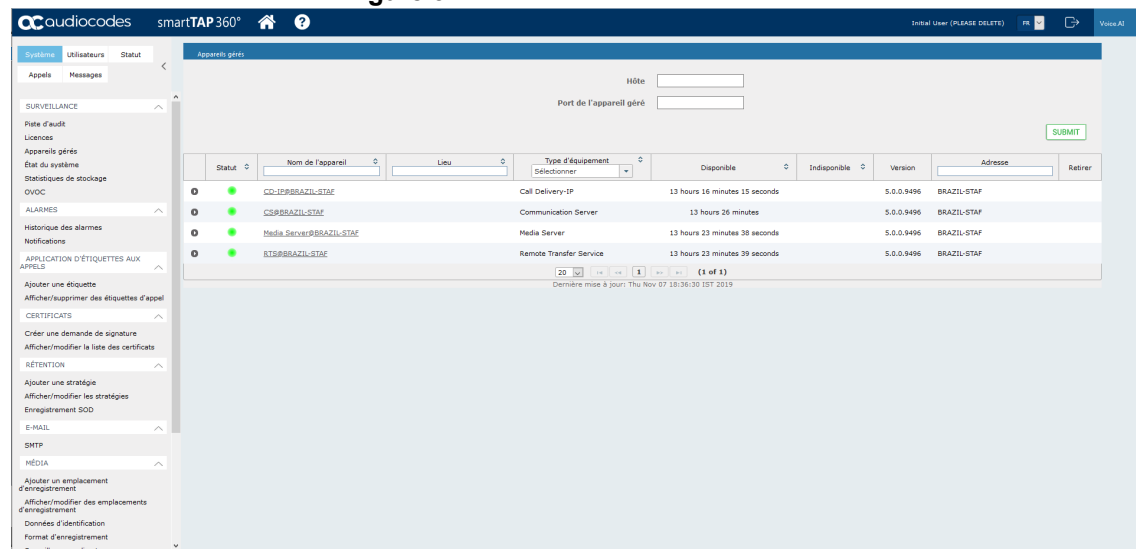
- Navigation area, allowing users to perform queries, configuration, and all the other features available on the platform.
- Results display and data entry area, showing displays associated with the items selected in the Navigation area.
- Command execution results and data entry display area, displayed when an executed command results in failure/success:
  - Green font = successful execution
  - Red font = failed execution, with the reason for the failure
- Multilingual support:

You can toggle in the Toolbar to display the user interface in the following languages:

- English (default)
- German
- Spanish
- French

Figure 3-3: Multilingual Support

Figure 3-4:



## Determining User/Device Status












The User/Device Status screen is accessible by clicking the Home button on the upper banner, or by selecting **Status** tab > **User Call Status**. The screen features two views:


- Grid
- List

Both of the above options offer the same functionality, therefore either can be used..

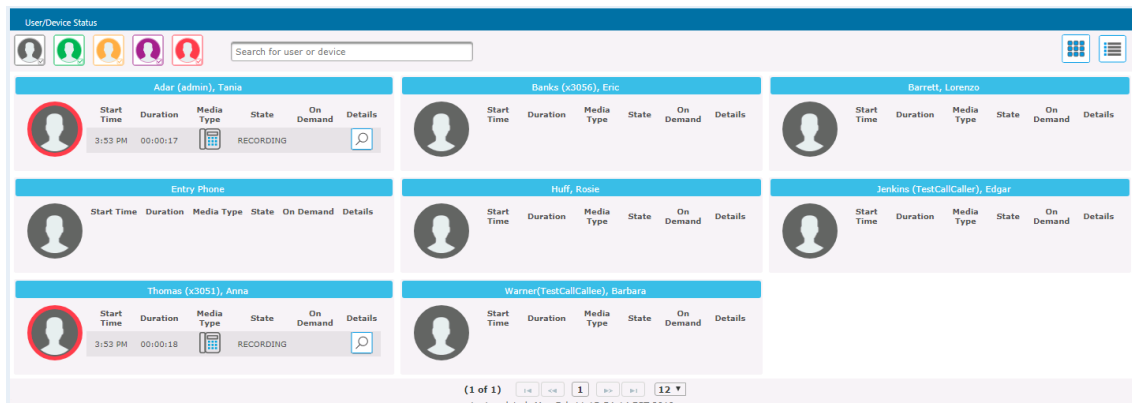
The figure below shows the List View 

Figure 3-5: List View

User/Device Status								
<div>  <input type="text" value="Search for user or device"/> </div>								
	Name	Start Time	Duration	Direction	Media Type	State	On Demand	Details
	Adar (x3051), Tania	Jan 17, 2019 5:40:36 PM	00:00:45	INCOMING		RECORDING		
	Banks (x3056), Eric	Jan 17, 2019 5:40:36 PM	00:00:45	OUTGOING		RECORDING		
	Barrett, Lorenzo							
	Huff, Rosie							
	Jenkins, Edgar							
	Warner, Barbara							

The figure below shows the Grid View 

**Figure 3-6: Grid View**





The figure below shows a user status with an active call:










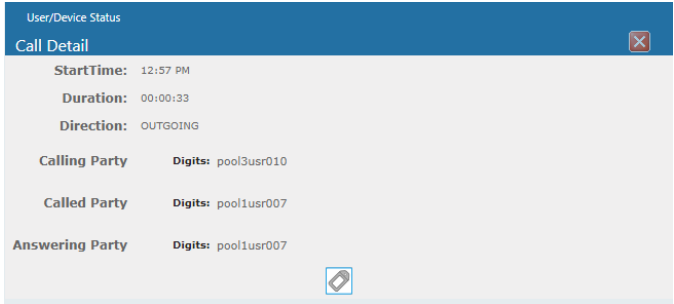





**Figure 3-7: User/Device Status with an Active Call**


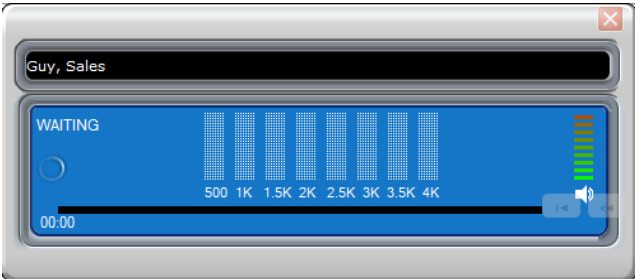


The screen provides near real-time information on the targeted users and their recording status. The table below describes the Status screen features.

**Table 3-2: Status Features**

Field	Description		
Name	Sorted ascending/descending by clicking header up/down arrows. Name field entry displays only entries with matching pattern.		
Call Started	The time the call started. Sortable by clicking the up/down arrows.		
Call Duration	The duration of the call. Sortable by clicking the up/down arrows.		
Call Direction	INBOUND or OUTBOUND. Sortable by clicking the up/down arrows. Call Direction dropdown displays only matching entries.		
User / Device Status	Not Filtered	Filtered	Status Filters 'Not Filtered' includes all users/devices in the displayed results. 'Filtered' hides all users/devices from the displayed results.
			Status Unknown: the targeted user has not made a call since the Application Server was started up.

Field	Description		
			Status Inactive: the targeted user has not made a call for more than five minutes.
			Status Idle: the targeted user has made a call within the last five minutes.
			Status Active: the targeted user is on a call but recording has not been initiated.
			Status Record: the targeted user is on a call and recording has been initiated.
Call Status	INACTIVE (user is not on a call)		
	RINGING		
	ACTIVE (the call is being recorded)		
	ACTIVE (the call is not being recorded)		
Call Info		<p>Click the icon to launch the Call Detail screen in order to view additional call data.</p> 	
Call Notes		Add a tag - live call or post call. Tags are defined by the system administrator and can be applied during a call or post call.	
Pause / Resume Recording		Select to pause the recording (for PCI compliance).	
		Select to Resume the recording (for PCI compliance).	
ROD / SOD		ROD (Record on Demand)	Click to start recording from the current point in the call. The audio file will contain audio from the trigger point on.
		SOD (Save on Demand)	Click to save the recording of the complete call.

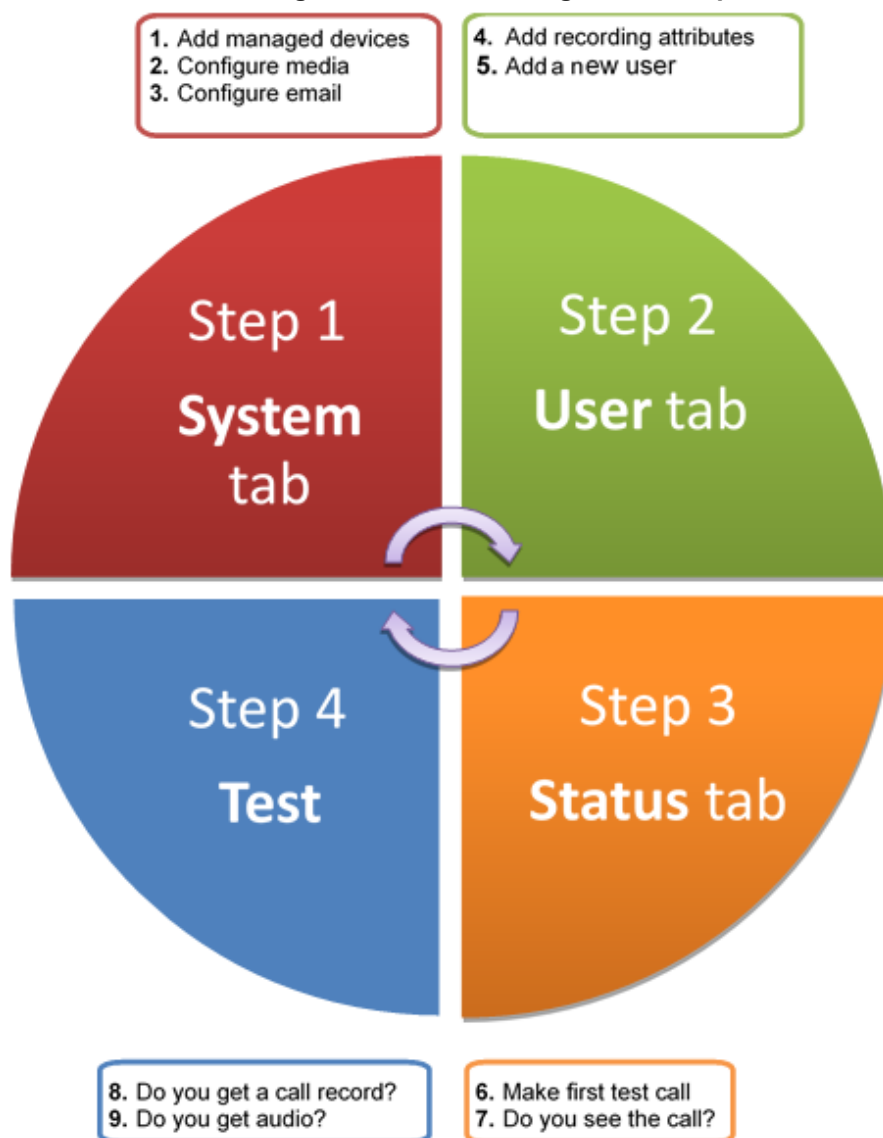
Field	Description	
Live Monitor		<p>Users with 'Live Monitoring' privilege can listen to active calls by clicking the Live Monitor microphone button. The following popup player launches:</p> 
Page Navigation buttons	These are shortcuts to the beginning/end, previous page/next page of the displayed entries. The dropdown allows changing the number of entries per page.	

## 4 Performing Initial Configuration

The figure below shows the steps to take to perform initial SmartTAP configuration (Step 1-Step 2) in order to record a call. Detailed instructions follow below it.

It's assumed SmartTAP software components were installed on the servers necessary for your environment, and were configured based on the SmartTAP Installation Guide.

**Figure 4-1: Performing Initial Setup**



➤ **To perform initial setup:**

1. Log in for the first time (see Chapter [Logging In](#) on page 11 for more information)
2. Configure media (see [Configuring Media](#) on page 51 for more information).
3. Configure email (see [Configuring Email Server Settings](#) on page 49 [Configuring Email Server Settings](#) on page 49 for more information).
4. Add a user attribute for recording purposes (see page [Managing Users](#) on page 73 for details).
5. Add a user (see under [Managing Users](#) on page 73 [Managing Users](#) for more information).
6. Make sure the new user is assigned a recording profile (see under [Managing Recording Profiles](#) on page 83 for more information).

7. Make sure the user's recording attribute field is populated (see [Managing Recording Profiles](#) on page 83 for more information).

## 5 Testing the Initial Configuration

Testing the initial configuration and then troubleshooting it if necessary can be performed (step 3 and step 4 respectively, as shown in [Performing Initial Configuration](#) on page 18). The objective is to validate the configuration and the recording functionality.

After making sure recording is functioning correctly, continue to Chapter [Configuring Advanced Features](#) on page 22 to set up advanced features like LDAP, Single Sign-On, etc.



### ➤ To test the initial configuration:

1. Navigate to the Status page (**Status** tab > **Status** folder > **User Status**).
2. Make your first test call.
  - a. Do you see the call trigger recording?
  - b. Do you get a call record?
  - c. Does the record contain audio?

## Making Sure a Recording is in Progress

This section shows how to make sure that a recording is in progress.


### ➤ To make sure that a recording is in progress:


1. Open the User/Device Status screen (**Status** tab > **Status** folder > **User Status**):
  - Click  on the upper banner
  - or-
  - Click the **Status** tab > **User Call Status**
- The  icon indicates that a recording is in progress.

## Listening to a Recording and Viewing a Video

This section shows how to listen to a recording and to view call video.

### ➤ To listen to a recording:

1. Click the **Calls** tab; the Search Calls screen opens.
2. In the Search Navigation screen (left side), enter the date range and select the type of Users and Devices.
  - Select either the Users/Devices or the Groups button. Selecting the Users/Devices option changes the display below to show a list of Users/Devices.
  - Selecting the Groups option changes the display below to show a list of Groups and Sub Groups (if the 'Search Sub Groups' option is selected).
3. Select one or more User/Devices or Groups by highlighting them in the list (see the notes on the Search Calls Navigation screen's field descriptions for how to select more than one User/Device or Group).
4. Click to start the search for calls matching the search criteria; the results are displayed in the Search Calls Results screen to the right.
5. Select the recording you wish to playback .
6. If the call is a video call type, select the 'Display Video' check box to display the call video as well.

7. Click the  button to start listening to the call or to watch the video.

## 6 Configuring Advanced Features

After performing initial setup and then testing it, n configure the advanced SmartTAP features described in this section.

### Viewing/Searching an Audit Trail

The Audit Trail feature allows the administrator to search the history of all user activity on SmartTAP. The Audit Trail is searchable but cannot be edited or deleted. You can view / search the user changes made to the SmartTAP database.

➤ **To view / search user activities:**

1. Open the Audit Trail screen (**System** tab > **Monitoring** folder > **Audit Trail**).



The System tab is only accessible to administrators assigned the Configure System option in their security profile.

**Figure 6-1: Audit Trail**

**Audit trail**

**Selection criteria**





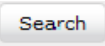


- Adar, Tania
- Alyil veedu dhruva, Fnu
- Analytics User, Analytics User
- Bauer, Eric
- Broker, Analytics
- Burke, Aemon
- Campos, Jose
- Carosella, Gino
- Conlon, Tom
- Da Silva, Sandy
- Dutta, Debajyoti
- EMEA, Oncall-1
- EMEA, Oncall-2
- Erps, Mike
- Garg, Amrita
- Groh, Gerald
- Herberger, Steven
- Honig, Menachem
- Hopkins, Steve
- Howell, Donald
- Hunter, Daryl
- Ilyae, Ina(Inai)
- Johnson, Bob
- Johnson, Johnson
- Jones, Bob
- Jones, Jones
- Joseph, Liziya(Manually Added )
- Kitlaru, Yaniv
- Kling, Brian
- Makowski, Jerry
- Marrocchi, Ulises (ulisesm)
- Mast, Danielle
- Munoz, Fernando

**From:** 12/31/18  
**To:** 12/31/18

**Search**

2. Use the table below as reference.

**Table 6-1: Audit Trail**

Field	Description
 Selection criteria	Click to hide the  area
 Selection criteria	Click to show the  area
<list of users>	Select the user to view by clicking the user name; hold <ctrl> to select multiple users; hold <shift> and click the top user and the bottom user to select all users within a range.
From:	Select the date from which to search.
To:	Select the date to which to search.
	Click to perform the search and display the results.
Name	Sorted ascending/descending by clicking header up/down arrows. If defined, the field entry displays only matching entries.
Action	Sorted ascending/descending by clicking header up/down arrows. Default is 'All Actions'. Field entry displays only entries with matching drop down menu.
Timestamp	Time of day when entry was created
Description	If defined, the field entry displays only matching entries.
	Click Excel icon to export Audit Trail.
Navigation buttons under the search display:  Buttons are shortcuts to the beginning/end, previous/next page of the displayed entries. The dropdown allows changing the number of entries per page.	

## Exporting an Audit Trail

You can export the audit trail to an Excel file for accountability purposes.

### ➤ To export the audit trail:

1. Open the Audit Trail screen (**System** tab > **Monitoring** Folder > **Audit Trail**).
2. Select the User or Users to view and date range.

3. Click  to see the results.

4. Click the Excel  icon.

Do you want to open or save <b>AuditTrail-data-2015_07_29.xlsx</b> from localhost?				
--	---	---	---	---

5. Click Open / Save to manage the Excel file.
6. Once opened, the following tabs can be seen:

- Tab #1 Search Criteria Details
- Tab #2 Audit Trail Data

## Managing Licenses

This section describes how to manage the SmartTAP licenses. This interface displays data on the purchased and loaded license items:

- Targeted user licenses
- Concurrent recording licenses

### Targeted User Licenses

The targeted user licenses enable SmartTAP users to be assigned to recording profiles for different types of communication recordings in an enterprise. The following Targeted recording licenses can be configured:

- **Audio & IM Targets:** this license sets the number of users that can be assigned to a Recording Profile for recording Audio and Instant Messages. Audio Concurrent licenses (described below) are required to record these users calls.
- **IM Targets:** this license sets the number of users that can be assigned to a Recording Profile for recording Instant Messages only. Other types of user communications i.e. audio or video recordings are not available under this license.
- **Video & Audio & IM Targets:** this license sets the number of users that can be assigned to a Recording Profile for recording Audio and Video and Instant Messages. Video & Audio Concurrent Recording licenses (described below) are required to record these users calls.



- Desktop Sharing recording does not require a target user license. Only the concurrent recording license can be enabled for users with Audio& IM targets or Video & Audio & IM targets.
- Check with your AudioCodes representative for which types of content can be recorded.

### Concurrent Recording Licenses














Concurrent recording licenses determine the maximum number of calls that can be simultaneously recorded. Ideally the concurrent calls license should equal the maximum number of simultaneous calls that can be made by the targeted users. The following Concurrent recording licenses can be configured:

- **Audio Concurrent Recordings:** this license determines the maximum number of concurrent Audio recordings of users that are assigned to an Audio enabled recording profile (Video disabled) .
- **Video & Audio Concurrent Recordings:** this license determine the maximum number of concurrent Video and Audio recordings of the users that are assigned to Audio and Video enabled recording profile.
- **Desktop Sharing Concurrent Recordings:** this license determines the maximum number of concurrent Desktop Sharing recordings of users that are assigned to an audio or video recording profile.

#### ➤ To view Managed Licenses:


1. Open the Licenses screen (**System** tab > **Monitoring** Folder > **Licenses**).

Figure 6-2: License Menu

Licenses							
<div>   CD-IP@qalab-ST-Pool2 </div> <div> Sales Order Number 2714587  Product Key AVD100Lic  Date Issued 02/26/2019  Customer Name AudioCodes-QA </div>							
License Usage							
Last Updated Sunday, December 8, 2019 11:00:43 AM							
License	Total	In Use	Available	Max. Consumed*	Notification Threshold Value	Set/Modify Threshold Value	
Audio & IM Targets	300	97	203	97		<input type="text" value="0"/>	
Audio Concurrent Recordings	100	0	100	1		<input type="text" value="0"/>	
IM Targets	10	0	10	0		<input type="text" value="0"/>	
Video & Audio Concurrent Recordings	10	0	10	2		<input type="text" value="0"/>	
Video & Audio & IM Targets	100	2	98	2		<input type="text" value="0"/>	
Desktop Sharing Concurrent Recordings	10	0	10	1		<input type="text" value="0"/>	
							<input type="button" value="Refresh"/>


## License Configuration Parameters

- **Total:** The total number of purchased licenses
- **In Use:** The number of licenses that are currently utilized reflects the number of recording enabled users or the number of user calls recorded at the time of the page refresh.
- **Available:** The number of licenses available to enable users for recording or to record concurrently.
- **Max Consumed:** The maximum number of concurrently used licenses to date. Each counter

can be manually reset by selecting the reset counter button  adjacent to each license entry. The counter is reset after the Call Delivery server is restarted and the screen is refreshed.



Following reset, the value for "Max Consumed" is equal to the value for "In Use" for the selected entry.

- **The Notification Threshold Value:** this value is measured in terms of the number of licenses; zero implies that no notifications are sent. For example, if the Notification Threshold Value 3 is configured for the "Audio & IM Targets" item, when 3 or more licenses are used for this item, the alarm "Resource Threshold Exceeded" is generated. When the license usage falls below the threshold, the alarm "Resource Threshold Cleared" is raised. See also [Alarms](#) on page 29.
- **Set/Modify Threshold Value:** Set or modify the Threshold value by selecting the adjacent  button for each license item.

In addition, general license information is displayed on the left-hand side of the screen including the Sales Order Number, Product Key, Date Issued and Customer Name.

## Viewing Managed Devices

SmartTAP architecture comprises several services which together perform all tasks and provide all functionalities for the recorder.

Since any of the services required for an installation may not be in a single server, the initial administrator (admin) must configure the services for SmartTAP to record calls.

A managed device other than of type 'Host' will register automatically with the application server. Such devices update their status by sending periodic heartbeats to the application server. Devices also update their connection status information whenever the connection state changes. A device of type 'Host' needs to be manually added to the application server in the Managed Devices screen. The Application server will periodically poll 'Host' type device to retrieve the device status information.



In a correctly setup deployment, all device types are added automatically, except for devices of type "Host". See [Adding a Device Manually to the Application Server](#) on page 28 [Adding a Device Manually to the Application Server](#) on page 28 for the procedure to add Host devices.

### ➤ To view managed devices:

- Open the Managed Devices screen (**System** tab > **Monitoring** Folder > **Managed Devices**):

**Figure 6-3: Managed Devices**

Managed Devices

Host

Managed Device Port

SUBMIT

	Status	Device Name	Location	Device Type	Up Time	Down Time	Version	Address	Remove
				Select					
		127.0.0.1:161		Host	14 days 20 hours 8 minutes 32 seconds			127.0.0.1	
		AC-MediaProxy@ST-CLUSTER-N1		Integration Specific	5 days 21 hours 24 minutes 8 seconds		4.3.0.9238	ST-CLUSTER-N1	
		AC-Plugin@QALAB-POOL4-FE1		Integration Specific	33 days 14 hours 47 minutes 39 seconds		4.2.0.9161	QALAB-POOL4-FE1	
		AC-Plugin@SFB19-POOL1-FE1		Integration Specific	18 days 20 hours 17 minutes 23 seconds		4.3.0.9238	SFB19-POOL1-FE1	
		AC_HealthMonitor@ST-CLUSTER-N1		Health Monitor	14 days 20 hours 7 minutes 40 seconds		4.3.0.9238	ST-CLUSTER-N1	
		CD-IP@st-cluster-n1		Call Delivery-IP	4 days 22 hours 7 minutes 55 seconds		4.3.0.9220	st-cluster-n1	
		CS@st-cluster-n1		Communication Server	5 days 23 hours 49 minutes 34 seconds		4.3.0.9240	st-cluster-n1	
		Media_Server@st-cluster-n1		Media Server	5 days 21 hours 26 minutes 22 seconds		4.3.0.9220	st-cluster-n1	
		RTS@st-cluster-n1		Remote Transfer Service	5 days 21 hours 26 minutes 40 seconds		4.3.0.9220	st-cluster-n1	

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(1 of 1)

Last updated: Mon Dec 31 12:06:26 IST 2018

- Use the table below as reference.

**Table 6-2: Managed Devices Field Descriptions**

Field	Description										
Host	Host Name or IP Address of the managed device to add. By default, the type of this device is set as 'Host'.										
Port	SNMP UDP Listening Port of the managed device to add.										
Status	Indicates the status of the managed device. <table> <tr> <td></td><td>Device status is UP: the device has registered and is sending heartbeats periodically at regular 30 second intervals.</td></tr> <tr> <td></td><td>Device status is UNKNOWN: the device has registered but has not yet send any heartbeat message.</td></tr> <tr> <td></td><td>Device Status is SETTLING: the device is in DOWN state and has started sending heartbeats again. If the device continues to send heartbeats without any timeout or failure for the settling period (two minutes by default), the status will change to green.</td></tr> <tr> <td></td><td>One of the connected devices is DOWN.</td></tr> <tr> <td></td><td>Device status is DOWN: the device stops sending heartbeat messages.</td></tr> </table>		Device status is UP: the device has registered and is sending heartbeats periodically at regular 30 second intervals.		Device status is UNKNOWN: the device has registered but has not yet send any heartbeat message.		Device Status is SETTLING: the device is in DOWN state and has started sending heartbeats again. If the device continues to send heartbeats without any timeout or failure for the settling period (two minutes by default), the status will change to green.		One of the connected devices is DOWN.		Device status is DOWN: the device stops sending heartbeat messages.
	Device status is UP: the device has registered and is sending heartbeats periodically at regular 30 second intervals.										
	Device status is UNKNOWN: the device has registered but has not yet send any heartbeat message.										
	Device Status is SETTLING: the device is in DOWN state and has started sending heartbeats again. If the device continues to send heartbeats without any timeout or failure for the settling period (two minutes by default), the status will change to green.										
	One of the connected devices is DOWN.										
	Device status is DOWN: the device stops sending heartbeat messages.										
Device Name	Display Name of the Device. Sorted ascending/descending by clicking header up/down arrows. If defined, the field entry displays only matching entries. <b>Note:</b> Clicking the Device Name link opens the control panel page for this device.										
Device Location	Devices location information. Sorted ascending/descending by clicking header up/down arrows. If defined, the field entry displays only matching entries.										
Device Type	Type of the device provided during registration. A manually added device has type 'Host'. In SmartTAP, valid device types are as follows: Unknown; Host; Call Delivery-IP; Call Delivery-SIPREC; Media Server; Communication Server; Integration Specific; Health Monitor; Remote Transfer Service and Media Delivery  Sorted ascending/descending by clicking header up/down arrows. The dropdown only displays matching entries. 'Unknown' devices are devices unreachable by the Application Server's Web service.										
Up Time	Time elapsed since the device status became UP.										
Down Time	Time elapsed since the device status became DOWN.										
Version	Version of the registered device.										
Address	IP address or Host name of the registered device.										
Remove	Delete button to remove managed device information from the system. An auto-registered device can only be deleted if its state is either 'DOWN' or 'UNKNOWN'										

Field	Description
	Submit button to add a managed device of type 'Host' to the system.
Filtering	Typing in a column input field or selecting a value from a drop down in column headings will filter the table entries by the value typed or the option selected.

## Inter-Components Communication

SmartTAP inter-components communication status helps to quickly detect connection issues and to take the appropriate actions. Each managed device reports the status of its connections with other components in the system.

**Figure 6-4: Inter-Component Communications**

Managed Device:

Host

Managed Device Port

SUBMIT

Status	Device Name	Location	Device Type	Up Time	Down Time	Version	Address	Remove
			Select					
	AC-MediaProxy@LCENT4POOL1ST2		Integration Specific	7 days 15 hours 16 seconds		2.1.0.0	LCENT4POOL1ST2	
	AC-Plugin@LCENT4FE1		Integration Specific	7 days 15 hours 17 minutes 49 seconds		2.1.0.0	LCENT4FE1	
	AC-Plugin@LCENT4FE2		Integration Specific	7 days 15 hours 19 minutes 6 seconds		2.1.0.0	LCENT4FE2	
	AC-HealthMonitor@LCENT4POOL1ST2		Health Monitor		7 days 1 hour 32 minutes 54 seconds	4.3.0.9260	LCENT4POOL1ST2	
	CD-IP@IcnM4pool1ST2		Call Delivery-IP	7 days 14 hours 59 minutes 34 seconds		4.3.0.42	IcnM4pool1ST2	
	CD-SIPREC@IcnM4pool1ST2		Call Delivery-SIPREC	7 days 14 hours 59 minutes 45 seconds		4.3.0.9260	IcnM4pool1ST2	
Status	Destination	Protocol	Destination Host	Destination Port	Last Up Time	Last Down Time		
	Communication Server	TCP	127.0.0.1	9000	2019-01-15 21:53:12.814			
	Application Server	HTTP	172.26.144.13	80	2019-01-23 09:25:08.569	2019-01-23 09:24:07.919		
	Communication Server	UDP	172.26.144.13	5060	2019-01-15 21:52:51.661	2019-01-15 21:51:41.505		
	CS@IcnM4pool1ST2		Communication Server	7 days 14 hours 59 minutes 58 seconds		4.3.0.9260	IcnM4pool1ST2	
Status	Destination	Protocol	Destination Host	Destination Port	Last Up Time	Last Down Time		
	Media Server	TCP	127.0.0.1	6023	2019-01-15 21:52:53.952			
	Application Server	TCP	172.26.144.13	9001	2019-01-15 21:52:58.762			
	Media_Server@IcnM4pool1ST2		Media Server	7 days 14 hours 59 minutes 29 seconds		4.3.0.9260	IcnM4pool1ST2	
	MediaDelivery@IcnM4ed1		Media Delivery	12 days 2 hours 38 minutes 27 seconds		4.3.0.9260	IcnM4ed1	
	MediaDelivery@IcnM4ed2		Media Delivery	12 days 2 hours 36 minutes 21 seconds		4.3.0.9260	IcnM4ed2	
	RTS@IcnM4pool1ST2		Remote Transfer Service	7 days 14 hours 58 minutes 55 seconds		4.3.0.9260	IcnM4pool1ST2	

➤ **To add a device manually:**

1. Open the 'Managed Devices' screen.
2. Enter the Host IP address of the new device.
3. Enter the published Managed Device Port of the new device (see the table below).
4. Click Submit.



In a standalone SmartTAP recorder, all managed devices reside in the same server and are associated with the local host or IP address.

**Table 6-3: Managed Devices**

Hostname of Device	UDP Port	Description
Host	161	Server Platform Host MIB

➤ **To make sure the device was added to the server:**

1. After adding a device, the new device is displayed in the list of devices.
2. Once the new device is discovered, 'Device Type' changes from 'Unknown' to the correct device type added.

## Alarms

This section describes the Alarms History and Alarm Notification screens.

### Alarm History

- Open the Alarm History screen (**System** tab > **Alarms** Folder > **Alarm History**).

**Figure 6-5: Alarm History**

Alarm History: Alarms between 1/21/19 and 1/21/19						
From: 1/10/19	To: 1/10/19	Search				
Name	Description	Source	Date	Summary	Detail	
Communication Down	Communication between processes has been lost.	st-cluster-n1/172.17.127.91	January 10, 2019 3:28:43 AM	Communication Lost	Managed Device AC-Plugin@SFB19-POOL1-FE1 failed to send heartbeat within specified time of 36000ms. Device Info Id: 19 Host: SFB19-POOL1-FE1 Type: INTEGRATION_SPECIFIC Display Name: null Last heartbeat received on 2019-01-10 03:28:02.111	
Communication Up	Communication between processes has been restored.	st-cluster-n1/172.17.127.91	January 10, 2019 3:31:02 AM	Communication Restored	Communication to managed device AC-Plugin@SFB19-POOL1-FE1 restored. Device Info Id: 19 Host: SFB19-POOL1-FE1 Type: INTEGRATION_SPECIFIC	
Communication Down	Communication between processes has been lost.	SFB19-POOL1-FE189	January 10, 2019 9:46:04 AM	Communication Lost	Managed Device AC-Plugin@SFB19-POOL1-FE1 at SFB19-POOL1-FE1 connection for MediaProxy was lost.	
Communication Up	Communication between processes has been restored.	SFB19-POOL1-FE189	January 10, 2019 4:04:12 PM	Communication Restored	Managed Device AC-Plugin@SFB19-POOL1-FE1 at SFB19-POOL1-FE1 connection for MediaProxy was restored.	
(1 of 1) [1] [2] [3] [4] [5] [6] [7] [8] [9] [10]						

Filtering of the display can be done according to date range and sort records according to name, description, source, summary and details.









### Alarm Notifications



SmartTAP features the ability to automatically send email alarm notifications to selected network administrators. The notification sent is based on the type of alarm generated by the system.

➤ **To configure alarm notifications:**



1. Open the View/Modify Alarm Notifications screen (**System** tab > **Alarms** Folder > **Notifications**).

**Figure 6-6: View/Modify Alarm Modifications**

View/Modify Alarm Notifications		
Alarm	Description	Modify
Link Down	A physical communication link has been lost.	
Link Up	A physical communication link has been restored.	
Communication Up	Communication between processes has been restored.	
Communication Down	Communication between processes has been lost.	
Resource Threshold Exceeded	The threshold of a limited resource has been exceeded.	
I/O Error	Disk or Peripheral Failure.	
System Resource Error	Failed to allocate system resource.	
Resource Threshold Cleared	The usage of a limited resource has been reduced below the threshold value.	


- Click Modify  on the Alarm that you wish to modify.
- Move the users to receive Email Notifications from the 'Non Recipients' side to the 'Recipients'.
- Use the assignment keys to assign recipients of the alarm notifications:
  - Click the >> or << keys to move all users between the Non-Recipients and the Recipients list.
  - Select users and then use the < or > keys to move users between the Non Recipients and Recipients lists (use the CTRL key to select multiple users).
- Click .

**Figure 6-7: Link Up Alarm Notification**

Communication Down Alarm Notification		
<b>Name</b>	Communication Down	
<b>Alarm Description</b>	Communication between processes has been lost.	
<b>Non Recipients</b>		<b>Recipients</b>
<div>pool1usr010</div> <div>pool1usr011</div> <div>User (PLEASE DELETE), Initial</div>	<div>&gt;&gt;</div> <div>&gt;</div> <div>&lt;</div> <div>&lt;&lt;</div>	
		<div></div> <div></div>

6. Use the table below as reference to the Viewing/Modifying Alarm Notifications screen.

**Table 6-4: Viewing/Modifying the Alarm Notifications Screen**

Field	Description
Alarm	Alarm name. Sorted ascending/descending by clicking header up/down arrows. If defined, field entry displays only matching entries.
Description	Alarm description. Sorted ascending/descending by clicking header up/down arrows. If defined, field entry displays only matching entries.
	Click to modify the list of users receiving this alarm notification.









**Table 6-5: List of Alarms and Possible Causes with Recommended Remedial Action**

Alarm	Explanation	Remedial Action
Link Up / Down	Caused by loss of signaling with network or passive tap connection	Check the host PC network connections. Analog or Digital Station Integration – Make sure the cable is properly connected to the device.
Communication UP / Down	Communication between SmartTAP software elements has been lost	<ul style="list-style-type: none"> <li>■ Run system_profile.exe (..\AUDIOCODES\Tools)</li> <li>■ Contact AudioCodes Support with the notification received.</li> <li>✓ If the notification is a failure from the Application Server polling the managed devices, it will indicate the address and port of the managed device it was trying to communicate with.</li> <li>✓ If it is from a trap from another device, the trap OID will indicate the specific failure between which devices.</li> </ul>
Resource Threshold Exceeded	The peak number of concurrent calls has exceeded the number of available licenses.	SmartTAP has insufficient purchased recording licenses to record the peak number of concurrent calls. You can also activate a warning notification alarm when a configured threshold value for a specific license parameter is reached (see <a href="#">Managing Licenses</a> on page 24 <a href="#">Managing Licenses</a> on page 24).
	The media storage location threshold has been reached.	<ul style="list-style-type: none"> <li>■ Check the resource threshold setting. It's possible that sufficient storage still remains and that the threshold just needs to be adjusted.</li> <li>■ Add additional storage capacity to the file server, for more media files (recordings). The file server is exterior to SmartTAP.</li> </ul>

Alarm	Explanation	Remedial Action
I/O Error	Sent if the Media Server fails to write media to disk.	<ul style="list-style-type: none"> <li>Check the Media Server and Media Server Transfer services and logs. Media Server Transfer is the bulk transfer of recordings from a local (branch) location to a centralized location.</li> <li>Make sure the appropriate permissions were provided to SmartTAP.</li> <li>Check if the permissions changed.</li> <li>Check the Media storage drive for possible disk failures.</li> </ul>
System Resource Error	Occurs when the Media Server fails to bind to a port.	<ul style="list-style-type: none"> <li>Run system_profile.exe (...\\AUDIOCODES\\Tools) and contact AudioCodes Support.</li> <li>Make sure UDP port range 40000-45000 is available.</li> </ul>

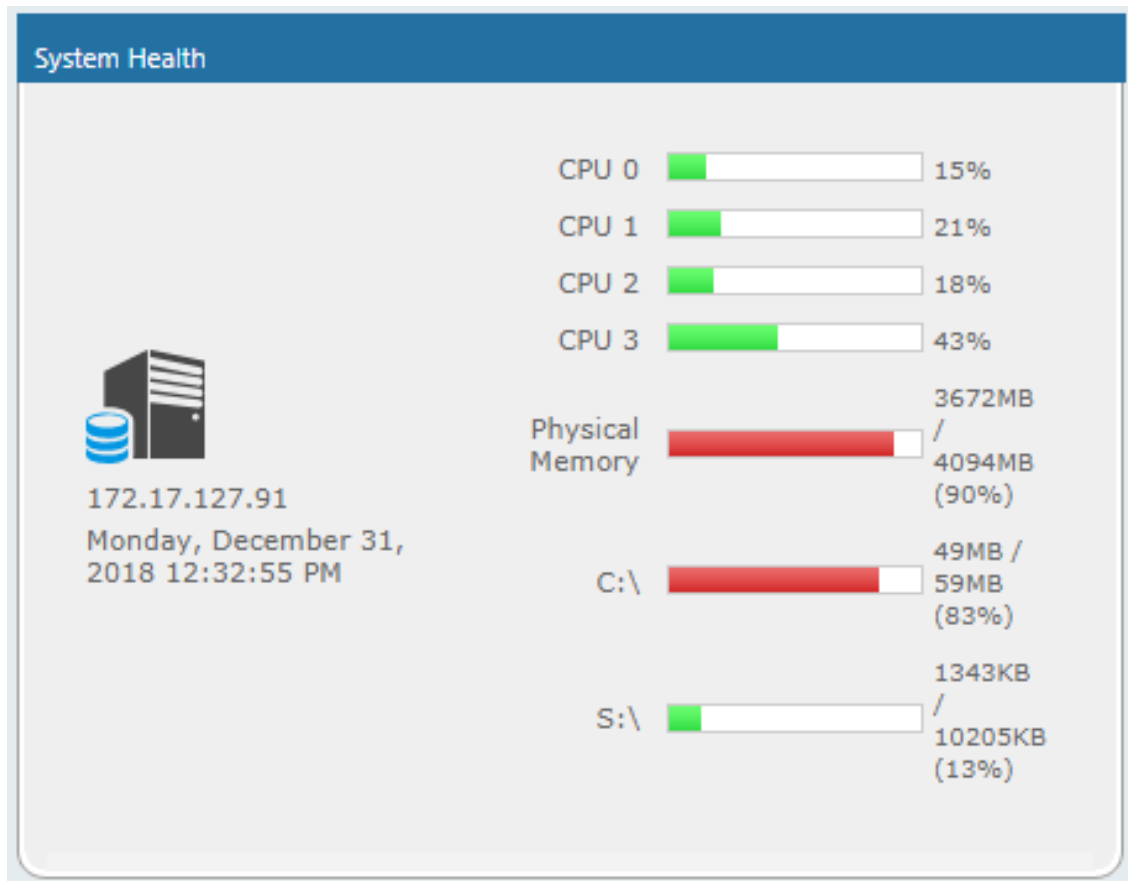
The figure below shows alarm notifications for the 'Resource Threshold Exceeded' notification; sent when the system utilization has exceeded the maximum number of available licenses. The 'Resource Threshold Cleared' notification is sent when the system license utilization falls back within the threshold limit.

**Figure 6-8: View/Modify Alarm Notifications**

View/Modify Alarm Notifications		
Alarm	Description	Modify
Link Down	A physical communication link has been lost.	
Link Up	A physical communication link has been restored.	
Communication Up	Communication between processes has been restored.	
Communication Down	Communication between processes has been lost.	
Resource Threshold Exceeded	The threshold of a limited resource has been exceeded.	
I/O Error	Disk or Peripheral Failure.	
System Resource Error	Failed to allocate system resource.	
Resource Threshold Cleared	The usage of a limited resource has been reduced below the threshold value.	

## Determining System Health

The health of the SmartTAP server is based on the host platform MIB. The System Health screen shown in the figure below displays the current health statistics of the server.

**Figure 6-9: System Health**

## Windows Event Log

By default alarms and events raised on SmartTAP are sent to the OVOC server as SNMP traps (see [Configuring OVOC Connection](#) on page 71) and are not sent by default to the Windows Event Log.

### ➤ To enable sending SmartTAP alarms and events to the Windows Event Log:

1. Using a text editor, open the MainAgent configuration file "System.config" from directory ...MainAgent\Config.
2. Search for string "useEventViewer="false" and change to "useEventViewer="true".
3. Save changes and exit.
4. Restart the **OVOC Main Agent** service.

Figure 6-10: useEventViewer

```

107
108     localSnmpPort="161"
109     Description: Local SNMP port to receive requests from EMS
110     DefaultValue=161
111
112     alarmHistorySize="10000"
113     Description: Maximum size of history alarms
114     DefaultValue=10000
115
116     activeAlarmSize="1000"
117     Description: Maximum size of active alarms
118     DefaultValue=1000
119
120     abcInternalIP="169.254.100.1"
121     Description: IP address of the associate SBC over internal VLAN/PrivateNetwork
122     DefaultValue=169.254.100.1
123
124     httpLicenseMode="https"
125     Description: HTTP mode for licence requests. Can be 'http' or 'https'
126     DefaultValue=https
127
128     useEventViewer="false"
129     Description: Use Event Viewer as Alarms/Events destination
130     DefaultValue=false
131
132     publicOvocInternalIp="169.254.0.1"
133     Description: The internal ip of the public OVOC, incase connecting via PublicOvocConnector
134     DefaultValue=169.254.0.1
135
136     ovocConnectorAccessUrl="http://localhost:8867/"
137     Description: The url for sending requests to Public Ovoc connector
138     DefaultValue = "http://localhost:8867/"
139
140     -->
141     <system httpClientMode="http" adminAccessUrl="http://localhost:80/rs/audiocodes/recorder/api/"
142     useEventViewer="true"
143     />
144
Find result - 2 hits
Search "loadProperties" (2 hits in 1 file)
C:\Users\Administrator\AppData\Local\Temp\2\CS_install.log (2 hits)
Line 302: MSI (c) (CS:B4) [15:30:16:857]: Skipping action: LoadPropertiesFromRegistry_upgrade (condition is false)
Line 6313: MSI (s) (44:F0) [15:33:15:327]: Skipping action: LoadPropertiesFromRegistry_upgrade (condition is false)
Search "IS_LOCAL_HOST" (0 hits in 0 files)
Search "IS_LOCAL_HOST" (0 hits in 0 files)
Search "is_local_host" (0 hits in 0 files)

```

When the Alarm Notification is written to the Windows Event Log, the Application Server creates two types of log files under “Applications and Services Logs” category in the Windows Event Log:

- **SmartTAPCalls:** this log includes all alarms and events related to call recording that were logged while running according to the logging configuration. The source attribute of these alarms is “SmartTAPCalls” and Event ID=<EventID> <Task Category> where 1-Alarm and 2-Event.
- **SmartTGeneral:** this log includes all other alarm and events that were logged while running according to the logging configuration. The source attribute of these alarms is “SmartTGeneral” and Event ID=<EventID> <Task Category> where 1-Alarm and 2-Event.

Figure 6-11: Event Viewer SmartTAPCalls

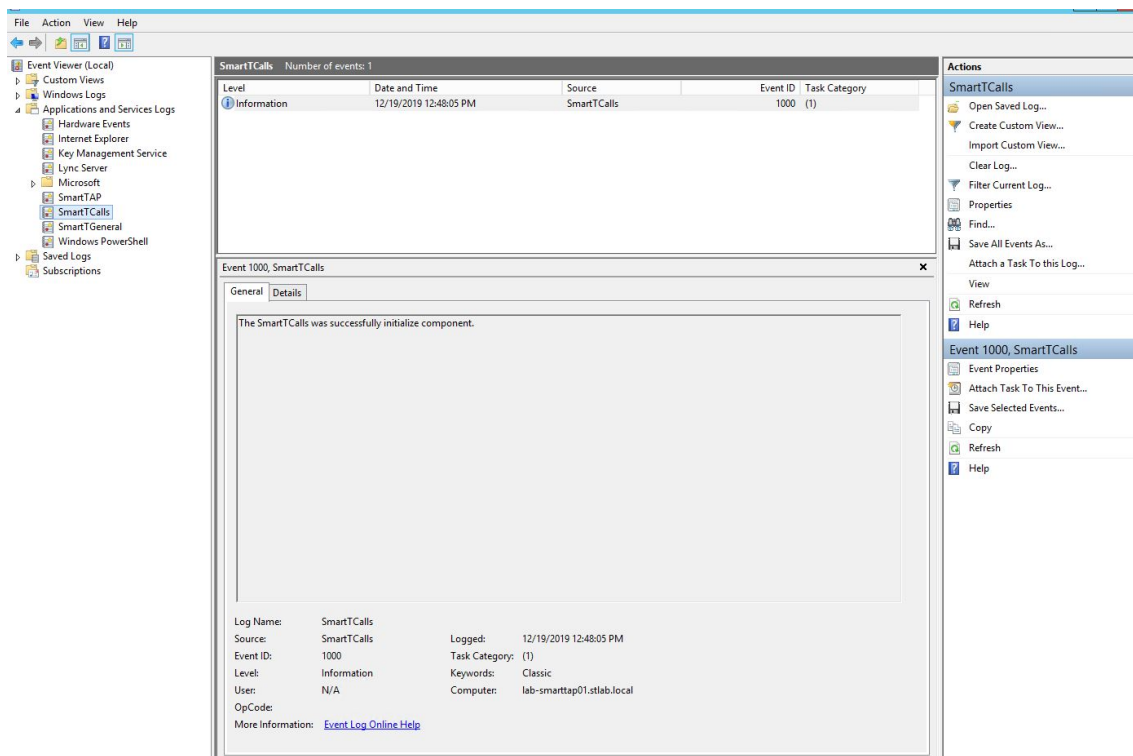
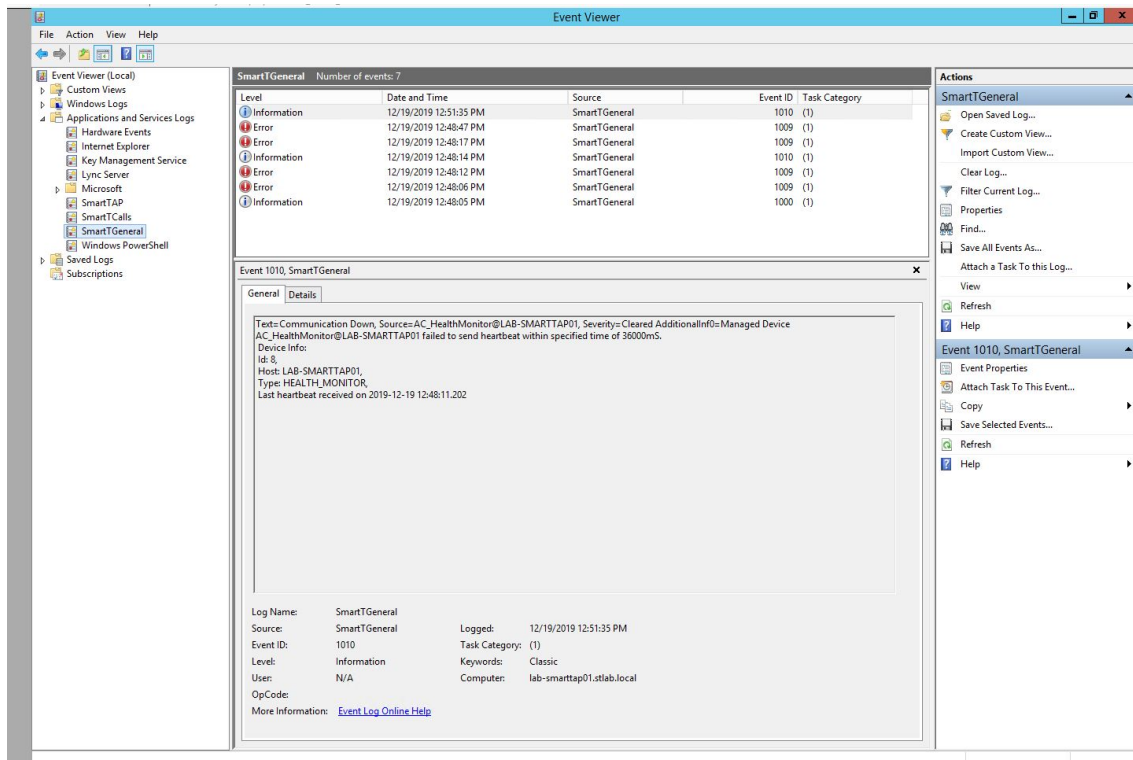


Figure 6-12: Event Viewer SmartTGeneral



## SCOM Integration

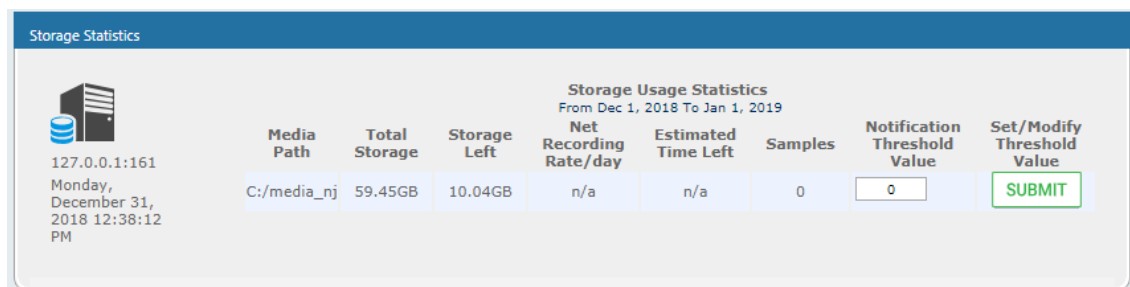
The SmartTAP platform can be configured to generate the event monitor or send an alert based on a Windows event to the Microsoft SCOM platform. In case of SmartTAP, the monitored events source should be configured to “SmartTAP” with Event ID 4096.

For more information, see the following link: [Monitor Event Log](#)

## Determining Storage Statistics


The SmartTAP server estimates the number of days remaining until the recordings storage device reaches its maximum. The Storage Usage Statistics screen shows parameters used for this calculation. The calculation not only takes account of size and rate of the new recordings, but also the size and rate for which older recordings (that exceeded the retention value) are deleted. The notification threshold allows the network administrator to set up an automated notification to trigger when the number of days of storage remaining falls below the Notification Threshold Value. TBD, save

Figure 6-13: Storage Statistics Screen






Use the table below as reference.

**Table 6-6: Storage Statistics Fields**

Field	Description
Media Path	Location in which the recordings are stored.
Total Storage	The total storage available for the media. Note: the drive's total storage is assumed. The storage reflects all media types (audio and video).
Storage Left	The current value of the remaining storage left for media.
Net Recording Rate / day	The net average storage space consumed per day, calculating the net between the recording rate and the deletion (retention) rate.
Estimated Time Left	Estimated time remaining before the Media Path is full.
Samples	Number of days used to calculate the Net Recording Rate.
Notification Threshold Value	Specify the % of space consumed before an alarm is triggered. > % value consumed = send alarm. Default: 0 (never notify).
	Apply changes

➤ **To receive the 'Resource Threshold Exceeded' alarm:**

- Configure the Notification Threshold value:
  - Access the Storage Usage Statistics (**System** tab > **Monitoring** Folder > **Storage Statistics**).
  - In the Storage Statistics screen, change 'Notification Threshold Value' to the number of days, to send notification, before the disk is full.
  - Click  to submit changes.
- Select the users who will receive the automated notification when the threshold is crossed:
  - Access the View/Modify Alarm Notifications (System tab > System Folder > Notifications menu).
  - Click Modify  on the 'I/O Error' Alarm.
  - Move the users to receive Email Notifications for this alarm from the 'Non Recipients' side to the 'Recipients'.
  - Click  to submit changes.



## Using Call Tagging

Call Tagging can be implemented in two ways: The network administrator can define tags allowing users to enter data manually on their screen during the course of a call, or via a third-party application. Calls can be tagged with relevant information and subsequently used for quick and easy retrieval. Call Tagging provides the following benefits:

- Categorizes calls by type or outcome, making searches easy (i.e., Malicious, Account ID, etc.). By default, the Notes tag is already defined within the system.
- Saves money by dramatically reducing the time to find individual recorded calls.

- Improves internal processes by using the call tags as searchable data fields for other applications.

**Table 6-7: Call Tagging Fields**

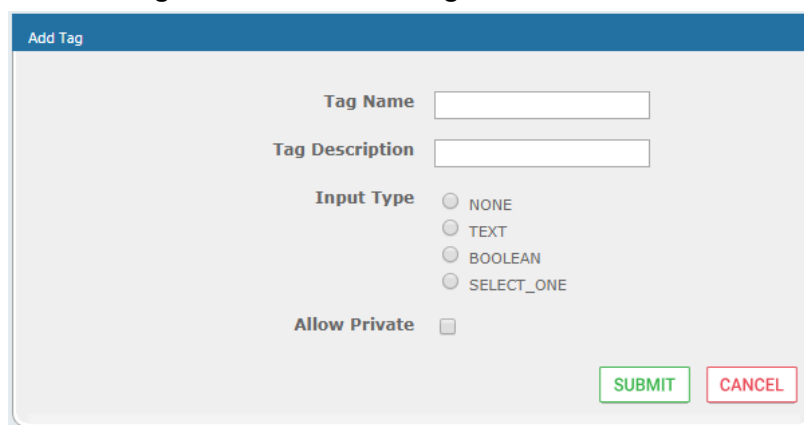
Field	Description
Tag Name	User-defined meaningful name to be displayed to administrators when selecting a tag from the management interface.
Tag Description	Administrator-defined description of the purpose of the tag..
Input Type	Define the field type for the tag: <ul style="list-style-type: none"> <li>■ None (Tag requires no administrator input)</li> <li>■ Text (the 'Notes' field supports a maximum of 256 characters)</li> <li>■ Boolean (Select/clear the checkbox: Yes / No or True / False)</li> <li>■ Select_One (Define a list of options for the administrator to choose from, i.e., Excellent, Very Good, Good, Poor)</li> </ul>
Allow Private	Allows an administrator to add the tag as private. Once tagged as private, only the specific administrator account will be able to view the tag.
	Applies changes.
	Cancels changes.

## Adding a Call Tag





This section describes how to add a new call tag.

### ➤ To add a new Call Tag

1. Open the Call Tagging screen (**System** tab > **System** folder > **Call Tagging** > **Add Tag**).

**Figure 6-14: Add Call Tag Screen**

**Table 6-8: Call Tagging Fields**

Field	Description
Tag Name	Administrator-defined Tag name. Enter the tag name to the filter list.

Field	Description
Tag Description	Administrator-defined description of the purpose of the tag, to expedite management efficiency. Easily sorts column A-Z or Z-A.
Input Type	<p>Tag Type:</p> <ul style="list-style-type: none"> <li>■ None (Tag requires no user input)</li> <li>■ Text (the 'Notes' field supports a maximum of 256 characters)</li> <li>■ Boolean (Select/clear the checkbox: Yes / No or True / False)</li> <li>■ Select_One (Define a list of options for the user to choose from, i.e., Excellent, Very Good, Good, Poor)</li> </ul> <p>Mask (Use with Text Tag Types):</p> <p>May be defined for Text input type. If defined, the tag value must conform to the MASK. If undefined, the tag value can be any combination of printable characters:</p> <p>* (Any printable character)</p> <p># (Must be a digit: 0-9)</p> <p>A (Must be a letter: A-Z, a-z)</p> <p>\$ (Must be alpha or numeric: A-Z, a-z, 0-9)</p> <p>\ (Following character is a fixed literal character)</p> <p>' ' (All characters within single quotes are a fixed literal string)</p> <p>For example, the mask for a tag with the format 'Sales-#####A\$ will accept user inputs like Sales-1234567QA OR Sales-9876543P2, etc.</p>
	Click to view tag details.
	Click to delete tag.
	Apply changes.
	Cancel changes.

Previously added tags can be viewed and deleted from SmartTAP; however not modified.

## Viewing / Deleting a Call Tag

The View / Delete Call Tags screen below indicates how to view and/or delete a call tag.

**Figure 6-15: View/Delete Call Tags Screen**


View/Delete Call Tags					
Tag Name	Tag Description	Input Type	Input Format	View	Delete
Note	Notes about the call.	TEXT			
Company	Company Name	TEXT			
Malicious Call	Malicious Call	NONE			
Account ID	Customer Account ID	TEXT	AA'-'####		
Follow Up	Requires Follow Up	BOOLEAN			
Feedback	Customer Feedback	SELECT_ONE	[Great, Poor, Good, Very Good]		
Test	Test	TEXT			
Service Request	Ticket ID Number	TEXT	'SR#''####		
Sales Order	Sales Order Number	TEXT	'SO#''####		
Bus Dev	Interop Partner	NONE			
File	File related to the call	TEXT			
Content	Notes about the call.	TEXT			
Subject	Notes about the call.	TEXT			
Participants	Notes about the call.	TEXT			
ActionItem	Notes about the call.	TEXT			
text	Notes about the call.	TEXT			
Title	Notes about the call.	TEXT			
Participants	Notes about the call.	TEXT			
Listening Reason	Reason why a user played a call	TEXT			
guy	test	BOOLEAN			

20 | 1 | (1 of 1)

## Assigning Values to a Call Tag and Applying to Call

This section describes how to apply a call tag to a call.

### ➤ To apply a call tag:

1. Search for call records (as described in [Searching for Calls](#) on page 103)
2. Select the call record to tag and ensure that the Tags column is displayed.
3. Double-click the Tags icon in the call record.
4. In the Tag field, select the type of tag that you wish to add and enter the desired value in the Value field.
5. Select the Private check box to list a personal reminder (only visible to the person defining the tag).
6. In the Value field, enter the text note that you wish to assign to the tag. In the example below “Schedule Meeting” (see highlighted in the figure below).
7. Click .

**Figure 6-16: Assigning Value to Call Tag**

The screenshot shows the SmartTAP interface with a call log table. A modal window titled "Add and Remove Columns" is open, allowing the user to assign a value to a call tag. The modal contains a table with columns: Tag, Date Added, Added By, Value, and Private. The "Tag" column has a dropdown menu with "Select One" selected. The "Value" column has a text input field. The "Private" column has a checkbox. The "SUBMIT" button is at the bottom of the modal.

Name	Start Time	Duration	Direction	Release Cause	Tags	Media T
Johnson, Bob	Dec 31, 2018 1:59:54 PM	00:01:17	OUTGOING	NORMAL		
Johnson, Bob	Dec 31, 2018 1:56:38 PM	00:00:29	OUTGOING	NORMAL		
Johnson, Bob	Dec 31, 2018 1:55:38 PM		OUTGOING	NORMAL		
Johnson, Bob	Dec 31, 2018 1:36:38 PM		OUTGOING	NORMAL		
Johnson, Bob	Dec 31, 2018 1:32:38 PM		OUTGOING	NORMAL		

## Generating and Loading HTTPS Certificates

SmartTAP server by default operates in non-secure (HTTP) mode. This section describes how to optionally implement SSL/TLS (HTTPS) for the following:

- Securing the connection between your Web browser and the SmartTAP server
- Digitally signing audio files



SmartTAP supports HTTPS/TLS 1.2.

## Browser Connection Certificate Requirements

The certificate issued should contain the SAN (Subject Alternative Name) extension field, populated with all the correct URLs used to refer to the AS server:

- The FQDN (Fully Qualified Domain Name) of the AS server
- The Hostname (short server name, sans domain)
- The public IP of the AS server
- Any other CNAME used to refer to the AS server

In addition, ensure the following:

- All SAN entries are resolvable via the DNS configured on participating servers/workstations. Make sure the "DNS Suffixes" IPv4 setting is configured correctly.
- Whenever the network is installed with Microsoft Enterprise CA (as opposed to Microsoft Standalone CA), the Domain's root CA certificate is automatically distributed to all domain member servers and workstations. No further action is required.
- Servers/Workstations that are not members of the forest where Microsoft Enterprise CA is installed, and house SmartTAP components or used to manage SmartTAP via browser, should have the root CA certificate imported into Windows' "Trusted Root Certificates" store.
- When using 3rd party Certificate Management Suite to self-issue a private certificate chain (as opposed to using a Global CA to issue a Global Certificate), the root CA certificate and intermediate certificates should be imported to certificate local store (Root certificate to 'Trusted Root Certificates', Intermediate certificate to 'Intermediate certificates') on all servers where SmartTAP components reside, and all computers used to manage SmartTAP via its web interface.

## Step 1: Generate Certificate Signing Request (CSR)

To obtain a certificate, first generate a CSR (Certificate Signing Request) from the SmartTAP server. A CSR is an encoded file that provides you with a standardized way to send the necessary details to a trusted authority in order to have the certificate created. When you generate a CSR, the software prompts for the following information - common name (e.g., www.example.com), organization name, location (country, state/province, city/town).



- The CSR is listed in the Certificate list as a self-signed certificate if you choose not to get a signed certificate from a trusted authority.
- To create a CSR, SmartTAP will automatically use Key type = RSA, Key size = 2048 and Cryptographic Hash = SHA-256.

➤ This section shows how to generate a CSR. To generate a CSR:

1. Under the **System** tab, select **Create Signing Request**.

**Figure 6-17: Certificate Signing Request Screen**

2. Use the table below as reference when defining the fields.

**Table 6-9: Certificate Signing Request Screen**

Field	Description
CSR Alias	Internal name associated with the CSR request.
Common Name (CN)	Full hostname=FQDN (consists of hostname + domain name).
Subject Alternative Name (SAN)	<ul style="list-style-type: none"> <li>■ Email: Indicates the email address of the organization</li> <li>■ DNS: Indicates the name of the organization's DNS server</li> </ul>

Field	Description
	<ul style="list-style-type: none"> <li>■ IP_ADDRESS: Indicates the IP address of the organization</li> <li>■ URL: Indicates the URL of the organization's host server</li> </ul>
Business Name / Organization	The legally registered name of your organization/company.
Department Name/ Organization Unit	The name of your department within the organization (frequently this entry will be 'IT', 'Web Security', etc.).
Town / City	The city in which your organization is located.
Province, Region, County or State	The Province, Region, County or State in which your organization is located.
Country	<p>The country in which your organization is located.</p> <p>The following list of country codes is provided as a reference:  <a href="http://www.digicert.com/ssl-certificate-country-codes.htm">http://www.digicert.com/ssl-certificate-country-codes.htm</a> </p>
Email	This field is optional..
Public Key	Created automatically by SmartTAP.



It's inadvisable to abbreviate any information except for the country codes (i.e., enter New Jersey rather than NJ), to make sure there are no issues when you send the CSR to a trusted authority in order to generate the certificate, else it may be rejected.

3. Click **SUBMIT**; the CSR is automatically available for download from the browser.
4. Save the 'filename.csr' file and send it to the trusted authority.



Go to the View/Modify Certificate List to upload the official certificate from the trusted authority, in order to continue.



## Viewing/Modifying the Certificate List

**Figure 6-18: Viewing/Modifying the Certificate List**

View/Modify Certificate List								
Alias	Subject	Subject Alternative Name	Issuer	Expires On	Import	Export	View	Delete
SmartTAP	audiocodes.com, Compliance, AudioCodes, Somerset, NJ, US		audiocodes.com, Compliance, AudioCodes, Somerset, NJ, US	Tue Nov 03 18:34:26 IST 2015				
TEST_CSR	audiocodes.com, Sales, AudioCodes, Somerset, NJ, USA		audiocodes.com, Sales, AudioCodes, Somerset, NJ, USA	Fri May 13 18:41:30 IDT 2016				
<div> 20 &lt; 1 &gt; (1 of 1) </div>								

**Table 6-10: Viewing/Modifying the Certificate List**

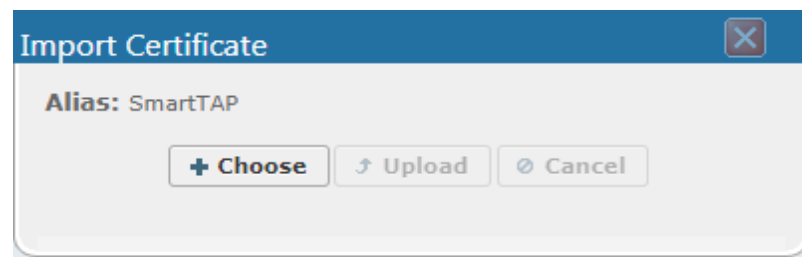
Field	Description
	Import signed Certificate 'filename.cer' from trusted authority

Field	Description
	Export Certificate to file to the local machine 'filename.cer'
	View Certificate

➤ **To import a certificate:**

- From the View/Modify Certificate List, click the Import icon.
- Click the Browse button and navigate to the location of the appropriate certificate file: 'filename.cer'

**Figure 6-19: Import Certificate**



- Once selected, click the Upload link.
- Once the upload completes, you should see a success message in the 'Command Execution Results' area.

• *Certificate for alias smarttap recorder successfully uploaded.*

➤ **To export a certificate:**

- From the View/Modify Certificate List, click the Export icon
- The Certificate should now be available for download to the local PC.



➤ **To view a certificate:**

- From the View/Modify Certificate List, click the View icon.

**Figure 6-20: View Certificate**

The 'View Certificate' dialog box displays the following information:

<b>Alias</b>	SmartTAP
<b>Version</b>	3
<b>Serial Number</b>	9876653531940505215
<b>Signature Algorithm</b>	SHA256withRSA
<b>Issuer</b>	CN=audiocodes.com,OU=Compliance,O=AudioCodes,L=Somerset,ST=NJ,C=US
<b>Valid From</b>	Mon Nov 03 18:34:26 IST 2014
<b>Valid To</b>	Tue Nov 03 18:34:26 IST 2015
<b>Subject</b>	CN=audiocodes.com,OU=Compliance,O=AudioCodes,L=Somerset,ST=NJ,C=US
<b>Subject Alternative Name</b>	
<b>Public Key</b>	RSA

The Public Key section shows a large text area containing the following hexadecimal string:

```
30820122300d06092a864886f70d01010105000382010f0
03082010a0282010100b6dbed7734595b1d574e6f6be2aa
1cd1ff9ce641934f6a4d2308e6f1a53f27ca35d1cfac6
a25770f4d4bbe8932774b1c4fe9b6185a9f00f9f4b3cbbc
0e263f9ce8a2e1de0c488e461435b673431059853aaa64f
90a899c571e6a19dc1bf68ba34df26a3a76f5328910f0fa
a2c495ffc5504c5291aa5d0c66cda7b9ba8d1cb21c7467a
56e175865a952f947dd20cc56a3b264c5ba2521c119a711
0f20a1dd213577d8432933dc5d8134aedd467f893b0bb0f
7eb844733eeaf36cf2c5438098f5fa55114dc0192db1503
```

## Step 2: Load Certificates

Once a certificates are available, load them to secure the connection between a Web browser and the SmartTAP server and for securing digital files.

### Loading Web Browser Certificate


This section describes how to load the certificate to secure the connection between your Web browser and the SmartTAP server.

#### ➤ To load the Web browser certificate:

1. Open the HTTPS page (**System** tab > **Web** folder > **HTTPS**).

**Figure 6-21: HTTPS Certificate**


The 'HTTPS Certificate' dialog box features a 'Certificate' label and a drop-down menu currently set to 'None'. At the bottom right, there are two buttons: 'SUBMIT' (green) and 'CANCEL' (red).

2. From the Certificate drop-down list, select the certificate that you wish to load and click .
3. Restart the SmartTAP server.









## Loading Digital Files Certificate

This section describes how to load to certificate that you wish to secure digital recording files.

➤ **To load the digital files certificate:**

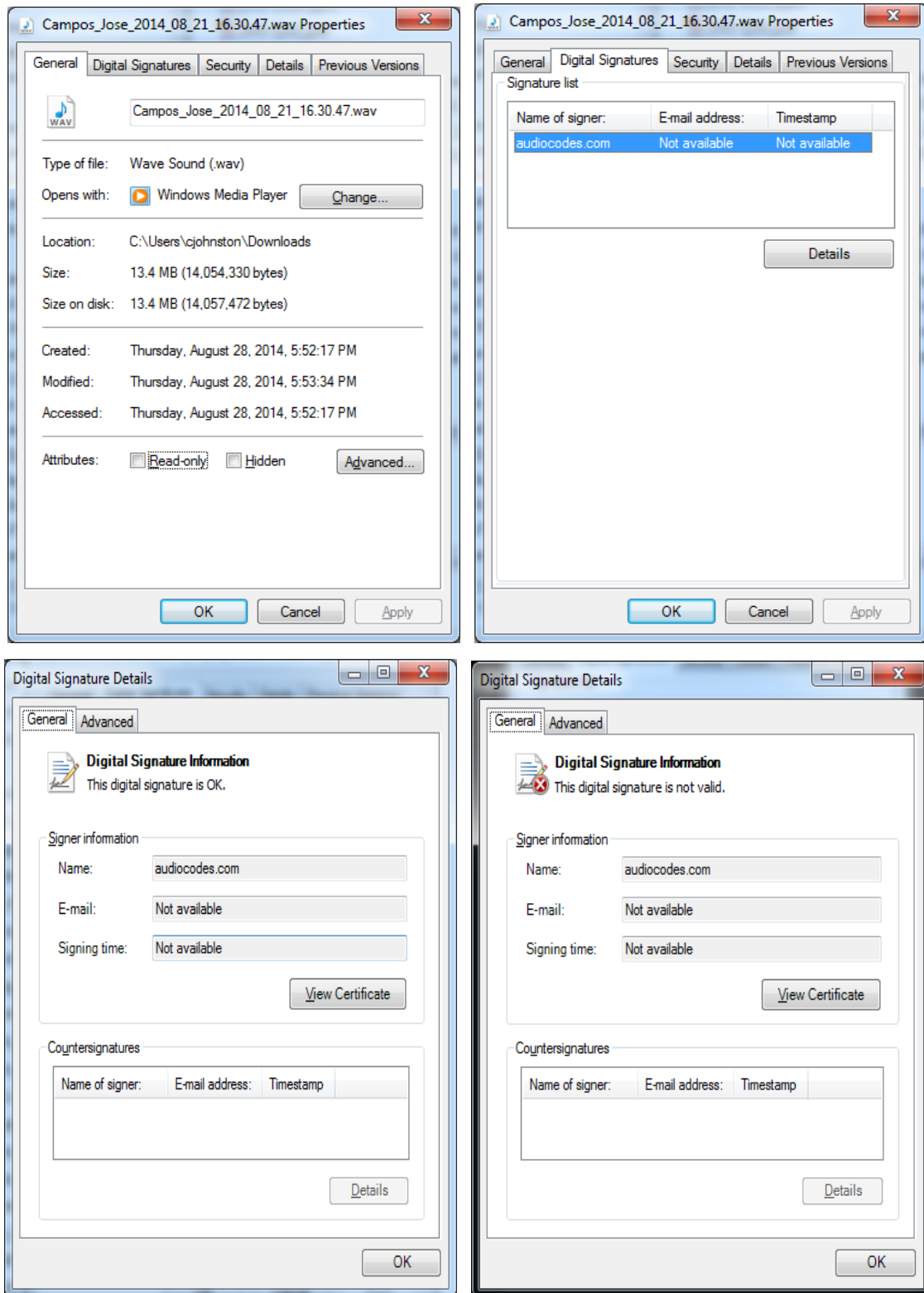
1. Open the Digital Signature page (**System** tab > **Media** folder > **Digital Signature**).
2. Select the appropriate certificate from the Certificate list box.
3. Click .

**Figure 6-22: Digital Signature**

View/Modify Retention Policies				
Name	Description	Evaluation Retention Rule	Days	Modify
Default	Default Retention Group	DELETE_CALLS_KEEP_EVALS	365	
British Columbia	90 Days	DELETE_CALLS_AND_EVALS	90	
Energy calls	365	KEEP_CALLS_AND_EVALS	365	
One Year	Hold Call for One Year	DELETE_CALLS_AND_EVALS	365	
Engineering Calls	365	DELETE_CALLS_AND_EVALS	365	
NCR 30 Days	NCR Support	DELETE_CALLS_AND_EVALS	30	
New Employee	test	DELETE_CALLS_AND_EVALS	7	
Keep Recordings	Don't delete recordings	KEEP_CALLS_AND_EVALS	0	
<div> 20 ▾ &lt; &lt;&lt; 1 &gt;&gt; &gt;&gt; (1 of 1) </div>				

If a user 'optionally' chooses to add a Digital Signature during the download process, the configured certificate is used to digitally sign the audio file. The SmartTAP Digital Signature file properties add-on must be installed on the local user PC to properly view the digital signature in the downloaded audio file.

Once installed, the Digital Signatures tab appears in the file properties of the downloaded audio recording. Click it to view the certificate and make sure it's from a trusted source. The certificate must be installed on the local PC in the Trusted Root authority.

**Figure 6-23: Digital Signature Details**

Refer to the *SmartTAP Installation Guide* for instructions on how to install the add-on.

## Configuring Call Retention

Call retention is the number of days to keep recordings in storage. Default: 0 indicates that recordings are never deleted. Use the default with caution since eventually the storage location will be completely consumed. To meet business requirements, it's highly recommended to set the retention value to a positive number.

SmartTAP deletes calls that exceed the retention period once a day. A network administrator with appropriate security profile credentials has the option to add / modify retention policies.

**Figure 6-24: Call Retention Screen – Add Retention Policy**

**Table 6-11: Call Retention Screen**


Field	Description
Call Retention Period (in days)	The number of days before automatically deleting recordings. A value of zero (0) indicates that recordings are never deleted.
Evaluation Retention Rules	Deletion rules for recordings with associated evaluations that exceed the Call Retention Period.
<b>SUBMIT</b>	Applies the changes.

The Evaluation Retention Rules determine whether recordings older than the retention period are deleted, based on whether there are evaluations associated with the recordings to delete.



**Table 6-12: Evaluation Retention Rules**

Rule	Description
Call Retention Evaluation Rules	The Retention Evaluation options set the rules for keeping and/or deleting calls used in evaluations, as well as evaluations themselves.
Delete Calls and Evaluations	Evaluations based on calls subject to retention will be deleted along with the calls.
Delete Calls, Keep Evaluations	Evaluations will be kept but calls will be deleted. Evaluation-call relationship will no longer exist.
Keep Calls and Evaluations	If an evaluation is associated with a call, both the call and the evaluation will be permanently kept.









➤ **To add a new retention policy:**

1. Open the Call Retention screen (**System** tab > **Retention** folder > **Add Policy**).
2. Enter the policy name (i.e., Agent, Sales, etc.).
3. Enter a description to describe who / what the policy applies to.
4. Enter the value for the Call Retention Period.
5. Select the appropriate 'Evaluation Retention Rule' assuming Evaluation is enabled.
6. Click  to submit changes.

➤ **To view / modify a retention policy:**

1. Open the Call Retention screen (**System** tab > **Retention** > **View / Modify Policies**).
2. Click Modify  for a specific policy and modify the necessary fields.
3. Click  to apply changes.

**Figure 6-25: View / Modify Retention Screen**

View/Modify Retention Policies				
Name	Description	Evaluation Retention Rule	Days	Modify
Default	Default Retention Group	DELETE_CALLS_KEEP_EVALS	365	
British Columbia	90 Days	DELETE_CALLS_AND_EVALS	90	
Energy calls	365	KEEP_CALLS_AND_EVALS	365	
One Year	Hold Call for One Year	DELETE_CALLS_AND_EVALS	365	
Engineering Calls	365	DELETE_CALLS_AND_EVALS	365	
NCR 30 Days	NCR Support	DELETE_CALLS_AND_EVALS	30	
New Employee	test	DELETE_CALLS_AND_EVALS	7	
Keep Recordings	Don't delete recordings	KEEP_CALLS_AND_EVALS	0	
<div> <div>20 ▾</div> <div> <div>1</div> <div>&lt;&lt;</div> <div>&gt;&gt;</div> <div>&gt;</div> </div> <div>(1 of 1)</div> </div>				

## Save on Demand Call Retention

This feature enables the recording of a Save on Demand call after the call is no longer active. Such a call can be recorded after an elapsed time period of up to 10 minutes. By default, this parameter is set to 0 (a Save on Demand call cannot be recorded after it is no longer active). This feature is designed to prevent hoax callers from compromising the security and integrity of the Enterprise or Call Center.

➤ **To configure a time elapse for the recording of Save on Demand calls:**

1. Open the SOD Configuration screen (**System** tab > **Retention** folder > **Save on Demand**).
2. Configure the SOD Threshold value in seconds (up to 10 minutes-600 seconds)

Figure 6-26: SOD Configuration

The SOD Configuration screen features a blue header bar with the text "SOD Configuration". Below the header, the label "SOD Wait Time" is positioned to the left of a text input field containing the number "0". To the right of the input field is a green rectangular button with the word "SUBMIT" in white capital letters.

## Configuring System Settings

Under 'System Settings', the administrator can configure interfaces pertaining to services or devices that are external to the system. From this folder, the administrator can configure the following:

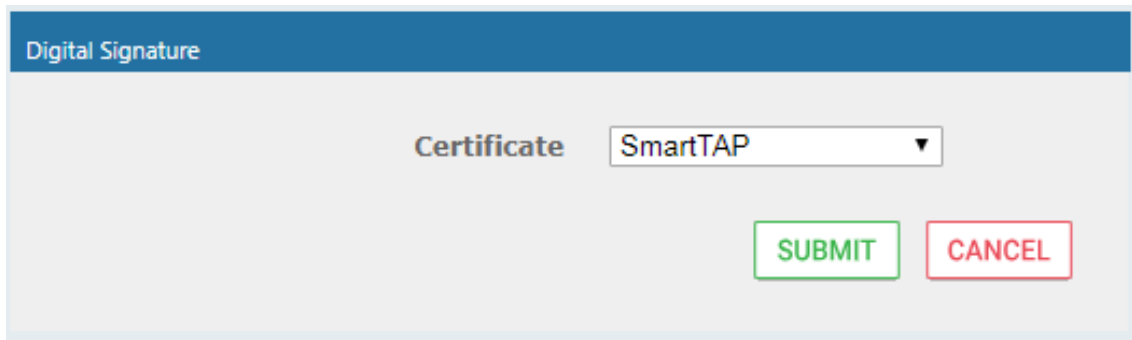
- Digital Signature to ensure that an electronic document (e-mail, spreadsheet, audio file, etc.) is authentic.
- SMTP interface to allow the SmartTAP server to send outbound emails
- LDAP interface to allow SmartTAP to use Active Directory users, groups, and security profiles
- Media storage location which may be stored on a network device
- End-user Web timeout

## Configuring a Digital Signature

A digital signature is a way to make sure that an electronic document (e-mail, spreadsheet, audio file, etc.) is authentic. Authentic means that you know who created the document and that it was not altered in any way since that person or system downloaded it.

Select the appropriate certificate to use from the dropdown list. To generate a valid certificate, see [Generating and Loading HTTPS Certificates](#) on page 40.

Figure 6-27: Digital Signature

The Digital Signature screen has a blue header bar with the text "Digital Signature". Below the header, the label "Certificate" is to the left of a dropdown menu that currently displays "SmartTAP" with a downward-pointing arrow. At the bottom right of the screen are two buttons: a green "SUBMIT" button and a red "CANCEL" button.

## Configuring Email Server Settings

SmartTAP sends automated email notifications and allows users to send emails directly from the user interface. The Email Configuration screen configures the SMTP mail server settings.

### ➤ To configure email:

1. Open the Email screen (**System** tab > **Email** folder > **SMTP**).

**Figure 6-28: Email**

The figure shows a web-based 'Email Configuration' form. It has a blue header bar with the title 'Email Configuration'. Below the header, there are several input fields and checkboxes. On the left side, there are five rows of labels and input boxes: 'SMTP Server' with an empty box, 'SMTP Port' with an empty box, 'SMTP User' with a box containing 'admin', 'SMTP Password' with a box containing five dots, and 'SMTP From' with an empty box. On the right side, there are two checkboxes: 'Use Authentication' and 'Enable STARTTLS', both of which are currently unchecked. In the bottom right corner, there is a green circular button with a checkmark icon and the word 'Submit' below it.

2. Enter the SMTP server information (provided by the SMTP administrator).
3. Use the table below as reference.

**Table 6-13: Email Screen**

Field	Description
SMTP Server	Hostname or IP address of the email server.
SMTP Port	TCP port of the email server.
SMTP User	Email user for authentication. By default, SmartTAP will send emails from <a href="#">CallRecording@&lt;SNMPServerDomain&gt;.com</a> . To make sure an email is sent from your domain, set the SMTP User to <a href="#">username@YourDomain.com</a> . In addition, you can instead customize an email address from which to send emails in the SMTP From field (see below).
SMTP Password	Email user password.
SMTP From	Custom User-defined source email address (must be a valid email address defined on the SMTP server above). When this field is defined, all emails are sent from this email address instead of the default address described above in 'SMTP User'.
Use Authentication	Select the option if the SMTP server requires authentication.
Enable STARTTLS	Select the option when the SMTP server requires TLS.
<b>SUBMIT</b>	Applies the changes.

4. Apply changes (SmartTAP tests the Email interface when the user clicks the **SUBMIT** button to apply the changes).

**SUBMIT**

- A successful configuration results in a message in green font in the command execution Results area.
- A failed configuration results in a failure message and code in red font in the command execution Results area.



Email must be set up for SmartTAP to send email notifications, new user passwords, reset passwords, email recordings, email messages, etc.

## Configuring Media

This section shows how to configure the items under the 'Media' folder shown in the figure below. Use the table below as a reference when accessing the items in the Media folder.

**Table 6-14: Media Folder**

Item	Description
Add Recording Location	Defines and adds a new media storage location. See <a href="#">Configure the Locations on the Call Delivery Server</a> below
View/Modify Rec. Locations	Allows viewing and modifying an existing media location. SmartTAP is shipped with a default local media storage location. A new location must be defined when media is not stored on the local drive. See <a href="#">Configuring Media Storage on a Network Drive</a>
Credentials	Sets the credentials to access the media recording locations. The credentials should be valid for all defined locations. See <a href="#">Configuring User Credentials</a> on page 53
Recording Format	Defines a recording format, e.g., encryption and compression. See <a href="#">Defining a Recording Format</a> on page 53
Live Monitoring Location	The Live monitoring feature allows users to listen to calls in real time. See <a href="#">Configure Live Monitoring Location</a> on page 54

## Configure the Locations on the Call Delivery Server

Media configuration identifies the type and location of the storage for the recordings. The recordings may be stored on a local disk on the SmartTAP server, or on an SMB network accessible drive, i.e., Windows shared drive.

## Modifying a Recording Location

This section shows how to modify a recording location.

### ➤ To modify a recording location:

1. Open the View/Modify Rec. Locations screen (**System** tab > **Media** folder > **View/Modify Rec. Locations**).



The default location cannot be modified.

**Figure 6-29: View/Modify Recording Locations - with Default Location Only**

View/Modify Recording Locations				
Location Name	Path	Description	Modify	Remove
Default	'/C:/media_nj/yyyy/'MM'/'dd'/'HHmmss	Default Recording Location		

**Figure 6-30: View/Modify Recording Locations - with Additional Recording Locations**

View/Modify Recording Locations				
Location Name	Path	Description	Modify	Remove
Default	'/C:/media_nj/yyyy/'MM'/'dd'/'HHmmss	Default Recording Location		
Backup Media Storage	'/Shared/media_nj/yyyy/'MM'/'dd'/'HHmmss	Storage location for media recordings backups		

2. Click to open the Modify Recording Location screen.

Modify Recording Location	
Location Name	<input type="text" value="SMD-E-drive"/>
Description	<input type="text" value="SMD-E-drive"/>
Scheme	<input type="text" value="smb"/>
Host	<input type="text" value="172.17.127.130"/>
Path	<input type="text" value="/media/yyyy/'MM'/'dd'/'HHmmss"/>
<input type="button" value="SUBMIT"/> <input type="button" value="CANCEL"/>	

Use the table below as a reference when viewing/modifying recording location.

**Table 6-15: Modify Recording Location**

Parameter	Description
Location Name	Defines a name for the media location. The Location Name of Default cannot be modified.
Description	Description of the location name.
Scheme	Defines the type of database scheme (smb or file).
Host	The IP address or FQDN of the SMB Scheme host machine.
Path	Defines the media path pattern.



- It's recommended to define the SMB Scheme host machine with an FQDN instead of an IP address. This prevents situations where the System administrator changes the IP address of the SmartTAP application server and as a consequence, the media files can no longer be accessed.
- If you define the media location in a different domain to the SmartTAP AS, ensure that write permissions are set for the directory to which you wish to save the media files.

## Configuring User Credentials

This section shows how to define credentials for accessing shared resources. Whenever you add or modify the location for saving recording or live monitoring files, SmartTAP verifies whether this location is accessible to the user defined in this procedure.



You must define credentials before adding an SMB recording location (as described in [Configure the Locations on the Call Delivery Server](#) on page 51) else the attempt to add the location will fail and you'll need to exit the screen, set the credentials, and then try to add the recording location again.

### ➤ To define credentials:

1. Open the credentials page (**System** tab > **Media** folder > **Credentials**).

**Figure 6-31: Credentials**

2. Use the table below as a reference when defining credentials.

**Table 6-16: Credentials**

Parameter	Description
Username	Specify a Username to use for accessing shared resources.
Password	Specify a Password to use for accessing shared resources.
Domain	Specify the authentication domain used to authenticate the username and password for accessing shared resources.

## Defining a Recording Format

This section shows how to define a recording format.

➤ **To define a recording format:**

1. Open the Media Storage Location screen (**System** tab > **Media** folder > **Recording Format**).

**Figure 6-32: Recording Format**

2. Use the table below as a reference when defining a recording format.

**Table 6-17: Recording Format**

Parameter	Description
Audio Encoding	<p>From the dropdown choose either:</p> <ul style="list-style-type: none"> <li>■ g711Ulaw (uncompressed storage)</li> <li>■ g711Alaw (uncompressed storage)</li> <li>■ g729 (compressed storage)</li> </ul> <p>Encryption Select this option to encrypt media files as they are recorded.</p>
Video Encoding	Video recordings are by default saved in MP4/H.264 format (not configurable).

3. Click  to submit changes.

## Configure Live Monitoring Location

The Live monitoring feature allows users to listen to calls in real time. When this feature is enabled for a site, Live monitoring media files are buffered to a playlist. The playlist and files are stored in the “Live Monitoring Location” which can be configured using this procedure. The live monitoring content is constantly refreshed by the SmartTAP client and can be played back by the user by clicking the Live Monitor microphone button (see [Determining User/Device Status](#) on page 14).

➤ **To configure Live Monitoring file location:**

- Open the Live Monitoring page (**System** tab > **Media** folder> **Live Monitoring**).

**Figure 6-33: Modify Live Monitoring Location**

In this page, the following can be configured:

- **Scheme:** A protocol for storing and retrieving live monitoring files. Two options for scheme are available:
  - **File:** Used when recordings are stored on the same server as the Application Server.
  - **Smb:** Server Message Block (SMB) also known as CIFS, is used to remotely access shared files and directories on SMB file servers (i.e. a Microsoft Windows "share").
- **Host:** Media files are stored on the host.
- **Path:** Sets the media path for recorded files. The path input is a plain path e.g., C:\Media (no string pattern is available).



When the changes are submitted, the target folder path is verified for read/write access according to the credentials defined in the Credentials page (see [Configuring User Credentials](#) on page 53). [Configuring User Credentials](#) on page 53).

When the Live Monitoring Location has been successfully updated, a confirmation message is displayed at the top of the dialog:

**Figure 6-34: Modify Live Monitoring Location-Successfully Update**

In the case of failure, an error message describing the problem is displayed at the top of the dialog:

**Figure 6-35: Modify Live Monitoring Location-Update Error**

• *Unable to modify live monitoring location, validation failed. Could not create directories.*

Modify Live Monitoring Location

Scheme

Host

Path

## Configuring Single Sign-On

Single Sign-on (SSO) simplifies the login process for domain administrators. The administrator logs into their machine using domain credentials. The user then attempts to access the Application Server's Web service via a Web browser such as IE, Chrome or Firefox. Without SSO, the administrator is directed to a login form where Username and Password are entered and sent to SmartTAP to authenticate. With SSO enabled, the administrator is authenticated in the background through Active Directory using the same domain credentials that were used to log into the machine. This bypasses the login page and immediately opens the Welcome page.

Important: The SmartTAP server must be added to the Domain.

### ➤ To configure Single Sign-On:

1. Open the Single Sign-On page (**System** tab > **Web** folder > **Single Sign-On**).  
Initially, SSO is disabled, therefore the login form must be used. Log in under any account, with permissions to make SmartTAP system changes such as the default administrative user, 'admin'.
2. Configure the following parameters:
  - Enable SSO – select this option to enable Single Sign-On.
  - KDC – The Key Distribution Center, likely located on the Active Directory Server. Enter the hostname for your KDC (ad.myDomain.local).
  - Principal – Enter {principal} here. Note that the principal name must include the security realm (HTTP/smarttap.myDomain.local@MYDOMAIN.LOCAL).
  - Password – Enter the password for the defined Service Principal name.
3. Submit the changes when you have completed the configuration; a status notification indicates that the entries were validated and applied; a popup warns that the Application Server must be restarted for the changes to take effect. Restart the Application Server's Web service for the changes to take effect.

**Figure 6-36: Single Sign-On**

The screenshot shows the 'SSO Configuration' page with a sub-section titled 'Single Sign-On (Kerberos)'. It contains the following fields:

- Enable SSO**: A checkbox that is checked.
- KDC**: A text input field containing 'aiads01.corp.audiocodes.com'.
- Principal**: A text input field containing 'HTTP/smarttap.corp.audiocodes.com@CORP.AUD'.
- Password**: An empty text input field.

A green 'SUBMIT' button is located at the bottom right of the configuration area.

## Validating SSO

The validation page validates some of the parameters entered and validates that SSO is functioning correctly.

- The KDC hostname is resolved to an IP address. If the name cannot be resolved, an error is given indicating that the KDC is invalid.
- The Principal name is parsed to ensure it contains the service, hostname and realm, i.e., there is some text for the service (HTTP), followed by a '/' followed by more text for the principal name and a '@' followed by the text for the realm. Each individual piece of this name is not checked and will be used as given.
- The password is not validated in anyway and is taken as entered.



Refer to Appendix (Single Sign-on appendix) [Searching for Messages](#) on page 149 for other necessary steps to configure SSO.

## Configuring Web Session Timeout


You can configure the Web Session Timeout (in minutes) using the Web Configuration screen. The Web configuration screen shows the current Web Session Timeout in minutes. Changes to this value will only affect logins after the change takes place. Valid range is 1 to 60 minutes. The time a user session may be left idle before the system automatically logs the user off is configurable. The default is 20 minutes and may be changed by someone with the appropriate security profile credentials.

### ➤ To configure Web Session Timeout:

1. Open the Session Timeout page (**System** tab > **System Settings** folder > **Session Timeout**).

**Figure 6-37: Session Timeout**

The screenshot shows the 'Web Configuration' page with a field for 'Session Timeout (in min.)' set to '20'. There are two buttons at the bottom right: a green 'SUBMIT' button and a red 'CANCEL' button.

2. Specify the appropriate Session Timeout.
3. Click  to accept changes.

## Configuring an LDAP Connection

The LDAP Configuration page shown below allows configuration of an LDAP Provider. The information required to connect to the LDAP server, along with the user, group, and security group attribute mappings, are all configured from this page. Once the connection information is correctly entered and submitted, the list of object classes and attributes for mapping the various user, group, and security group properties will be obtained from the LDAP server.



SmartTAP existing local users that match LDAP-obtained users are treated as the same unique user.

### ➤ To add an LDAP connection:

1. Open the Add LDAP Connection screen (**System > LDAP > Add LDAP Connection**).

**Figure 6-38: LDAP Connection Configuration**

Add LDAP Configuration

Host
Use SSL
☐

Port

Principal

Password

SUBMIT

User Mappings

Base Context
Browse

Mapping Filter
Create Filter

First Name

Last Name

Login

Email

Alias

SIP\_URI

Tel URI

☒ One Level
☐ Subtree

+

	Base DN	Filter	Search Scope	Modify	Delete
No records found.					

Group Mappings

Security Group Mappings

- Use the table as reference to the screen parameters.

**Table 6-18: LDAP Connection Configuration Screen**


Field	Description
Host	Hostname of LDAP provider. Sorted ascending/descending by clicking header up/down arrows. Dropdown displays only matching entries.

Field	Description
Port	The Port on which the LDAP server is listening on. This is typically 389 for plain connections and 636 when using SSL. Sorted ascending/descending by clicking header up/down arrows. Dropdown displays only matching entries.
Principal	The Principal user's distinguished name, to use when connecting to the LDAP Server. This user must at least have search privileges.
Password	The password of the principal user to use for connecting to the LDAP server.
Use SSL	Select this option to secure an SSL connection with the LDAP host. If you select this option, see <a href="#">Configuring SSL</a> below.

➤ **To configure an LDAP connection from the Domain Controller:**

1. Run Active Directory Explorer on the domain controller
2. Find the distinguishedName of the Administrator account (or whatever account has full read access to the entire LDAP database). (i.e. CN=A-Administrator,CN=Users,DC=qalabEE,DC=local)

➤ **To configure an LDAP connection from SmartTAP:**

1. Enter the IP or Name of the domain controller in the 'Host' field.
2. Enter distinguishedName in the 'Principal' field.
3. Enter the Port number in the 'Port' field.
4. Provide the password for the distinguishedName account used.
5. Check 'Use SSL' if required (see [Configuring SSL](#) below).
6. Click  to apply changes; 'LDAP Provider Configuration successfully saved.' is displayed above the LDAP Configuration screen title bar.

## Configuring SSL

This section shows how to enable SSL encryption between SmartTAP and AD for all LDAP transactions.

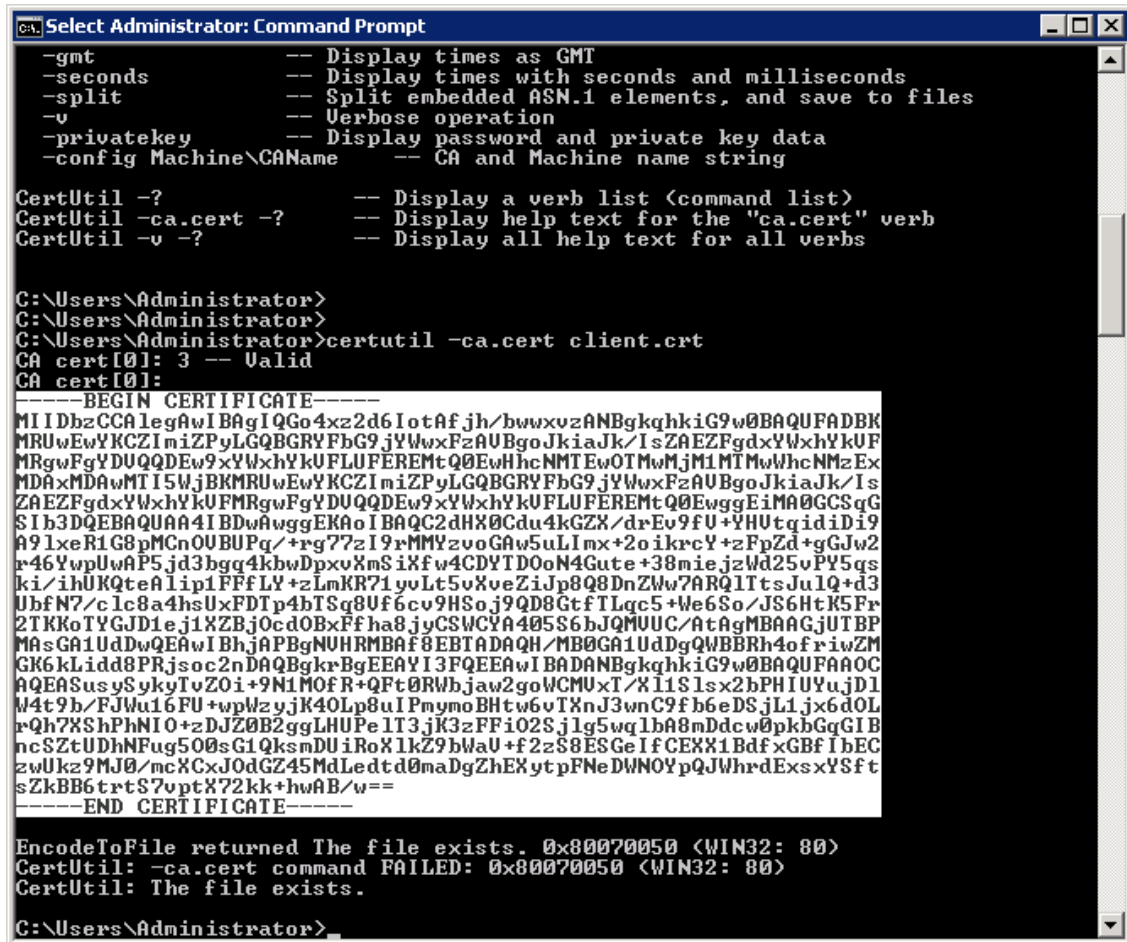
➤ **To enable encryption between SmartTAP and AD for all LDAP transactions:**

1. On the server that stores the certificate authority (typically, the domain's active directory server), run from a command prompt:

```
certutil -ca.cert client.crt
```

2. Copy client.crt from the Active Directory server to the SmartTAP server, copy from `-----BEGIN CERTIFICATE-----` to `-----END CERTIFICATE-----`.

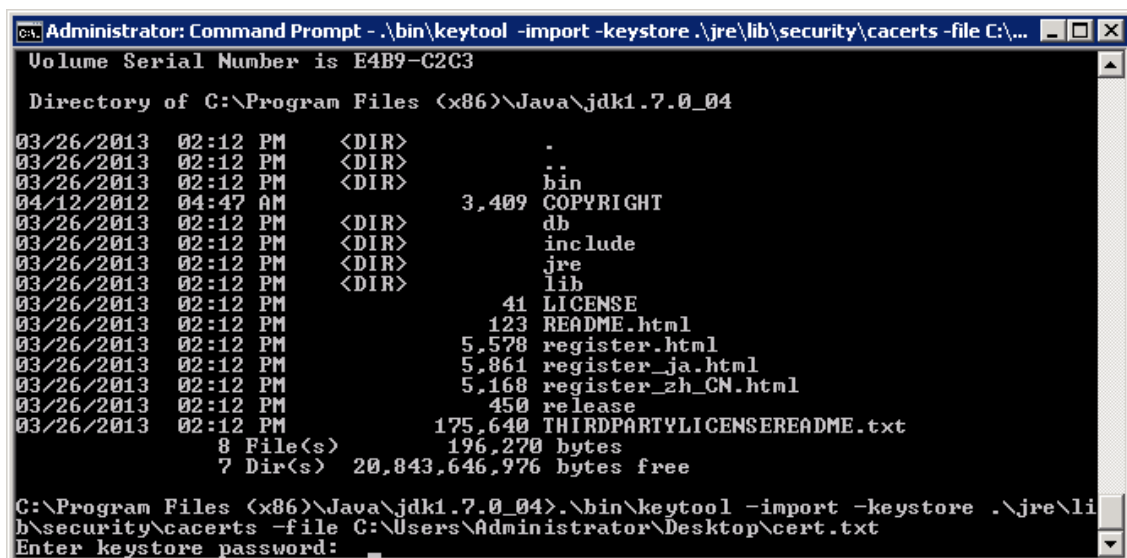
### Figure 6-39: Copy Client Certificate From Active Directory



3. Copy client.crt to the SmartTAP machine. From the Java directory (C:\Program Files\Java\<jre\_version>\ on SmartTAP) run the following:

```
\bin\keytool -import -keystore .\jre\lib\security\cacerts -file  
c:\YOURPATHHERE\client.crt
```

### Figure 6-40: Copy Client Certificate to SmartTAP Machine





- The keytool will prompt you for a password. The default keystore password is changeit.
- Make sure you replace YOURPATHHERE with the actual path to where the client.crt file is.
- When prompted Trust this certificate? [no]: enter yes to confirm the key import.

- Restart the SmartTAP Application server for the new certificate to be loaded.
- The default port for LDAPS (LDAP with SSL support) is 636 (see the figure below).
- Check the 'Use SSL' checkbox (see the figure below).
- Click **SUBMIT** to continue (see the figure below).

**Figure 6-41: LDAP SSL Configuration**

## Configuring an LDAP User

This section shows how to configure an LDAP user. The following entities need to be configured:

- User Mappings
- Group Mappings
- Security Group Mappings.

## Configuring User Mappings

The procedure below describes how to configure User Mappings.



### ➤ To configure User Mappings:

- Open the User Mappings screen shown below.

**Figure 6-42: User Mappings**

- Use the table below as reference.

**Table 6-19: User Mappings – Field Descriptions**

Field	Description
User Mappings	<ul style="list-style-type: none"> <li>■ User Base Context (LDAP path for users).</li> <li>■ User Filter (Create / Manage User filter).</li> <li>■ First Name (LDAP Attribute that maps to the user first name).</li> <li>■ Last Name (LDAP Attribute that maps to the user last name).</li> <li>■ Login (LDAP Attribute that maps to the user login. The login should map to an attribute that contains a unique value across all LDAP providers, else users with the same login value will be considered the same user).</li> <li>■ Alias (LDAP Attribute that maps to the user alias, nickname, or employee ID).</li> <li>■ One Level – Retrieves LDAP attributes for the selected node.</li> <li>■ Subtree – Retrieves LDAP attributes for the selected node and all its child nodes in the LDAP directory tree.</li> <li>■  = expand screen</li> <li>■  = shrink screen</li> </ul>


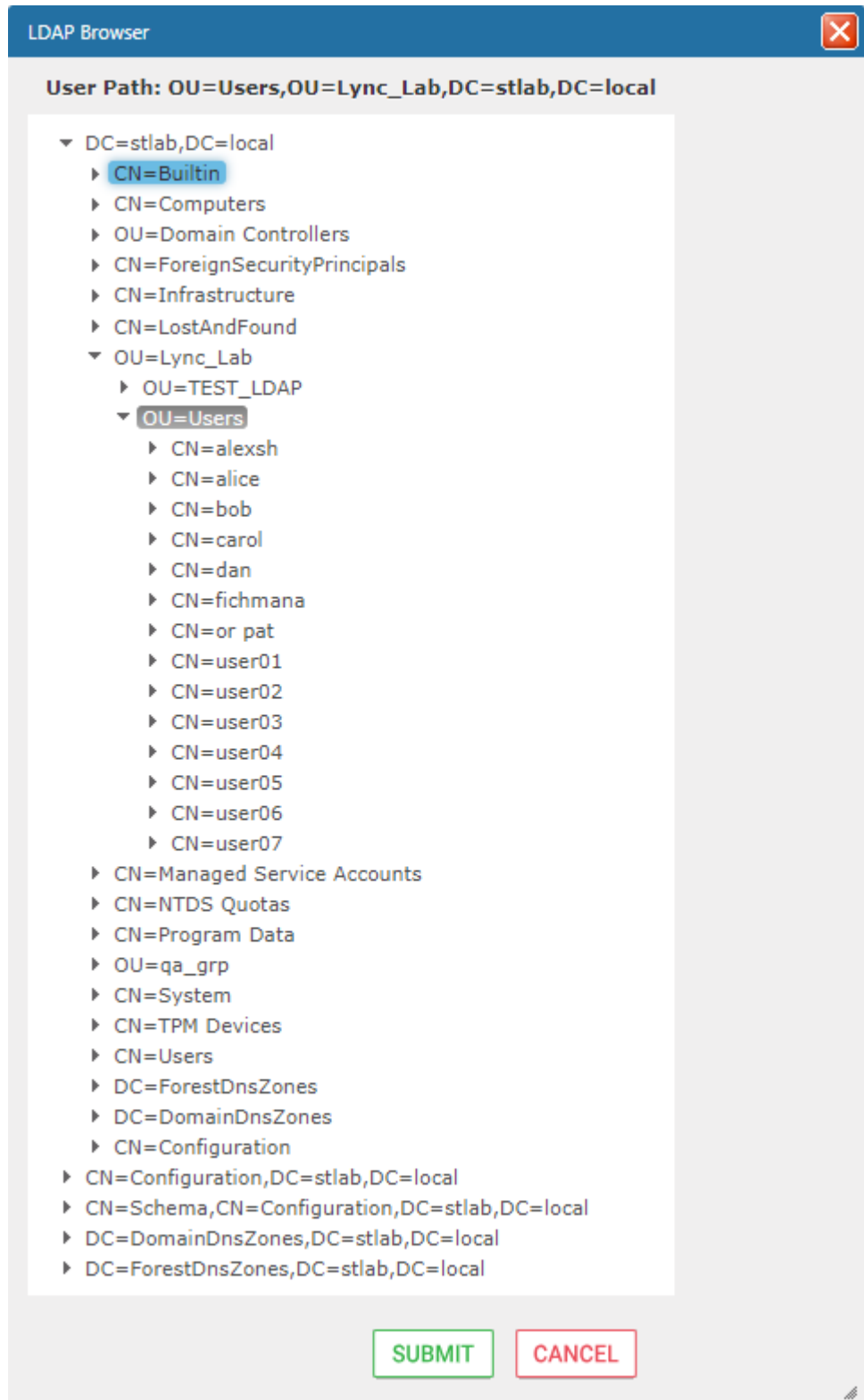

3. Enter the User Mappings Information in the 'User Mappings' screen (click  if necessary to expand the screen).
4. The default user location in Windows is displayed as follows:  
OU=Ai-Logix,OU=USA,OU=AudioCodes,DC=corp,DC=audiocodes,DC=com
5. Click **Browse** and navigate to the appropriate OU.




Figure 6-43: LDAP Browser

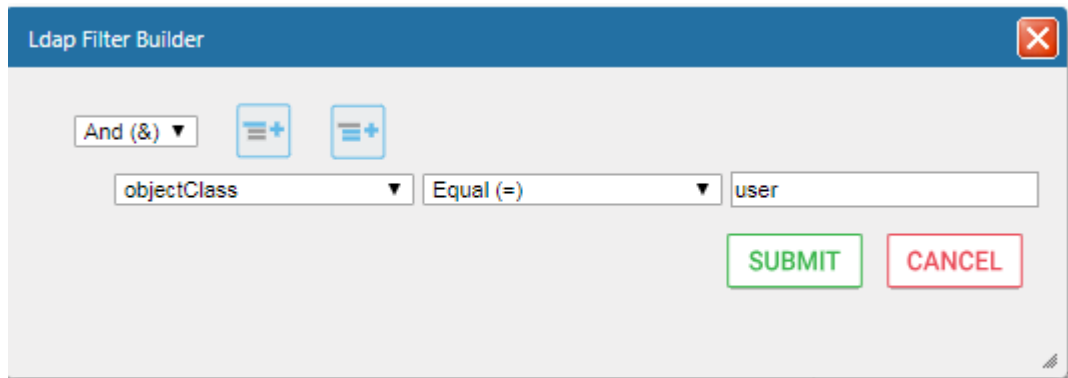


6. Navigate to the appropriate 'User Path' and then click .
7. Use filtering if you prefer not to add all users.

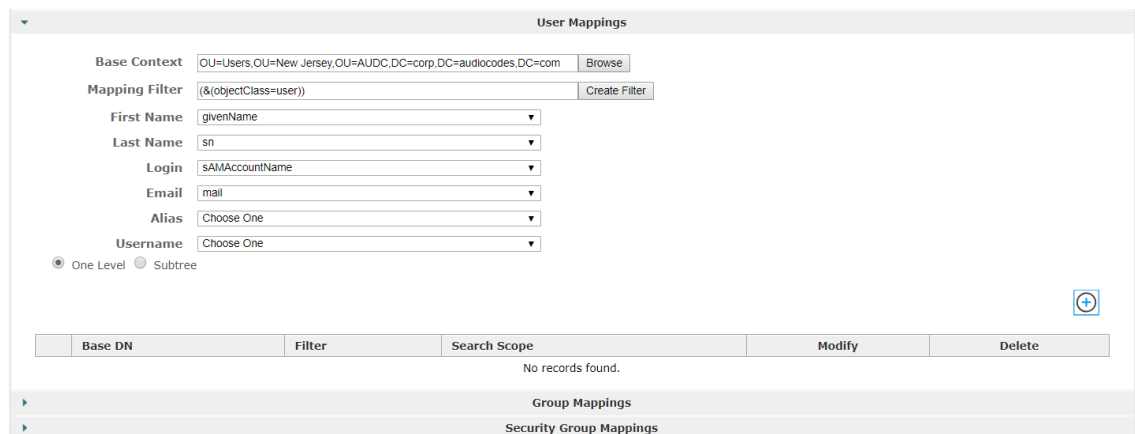
➤ **To add a filter:**

1. Select the **Create Filter** button.
2. Select the appropriate Conditional Operator (And, Or, Not)

3. Select the appropriate Attribute
4. Select the appropriate Equality Operator (>=, =, ~=, <=)
5. Specify value = (objectClass = user) recommended
6. Click  to apply changes.
7. Click the  icon to add an additional filter condition and repeat above filter steps.
8. Click the  icon to add a new Sub filter and repeat above filter steps.

**Figure 6-44: LDAP Filter Builder Example**


9. Scroll through the list and select the First Name, Last Name, Login, Email and Alias user attributes:
  - If you created any SmartTAP Attributes, they will appear in the list of user attributes as well.
  - Those attributes that were created with 'Network Mapping' defined will be used to trigger recording.
  - 'Ext' and 'SIP URI' in the image above are examples of SmartTAP User attributes added for recording purposes.
10. Map SmartTAP attributes to appropriate AD user attributes.

**Figure 6-45: User Filtering Screen**


11. Click  to apply changes.

**Figure 6-46: User Mapping Configured**

**User Mappings**

Base Context

Mapping Filter

First Name

Last Name

Login

Email

Alias

Username

☒ One Level ☐ Subtree

Base DN	Filter	Search Scope	Modify	Delete
OU=Users,OU=New Jersey,OU=AUDC,DC=corp,DC=audiocodes,DC=com	(&(objectClass=user))	ONE_LEVEL	<input type="button" value="Modify"/>	<input type="button" value="Delete"/>


12. Click  to apply changes; the added User Mapping should be listed in the table as shown in the figure below.
13. Add additional User Mappings as needed.
14. Go to the User tab (**Users > User Management > View/Modify Users**) to see the list of users added from the Active Directory.

Figure 6-47: View/Modify Users

View/Modify Users						
First Name	Last Name	Email	Login Id	Id / Alias	Modify	Delete
UK Meeting Room		UKMeetingRoom@audiocodes.com	UKMeetingRoom			
NJ-Somerset-Conf-RM			NJ-Somerset-Conf-RM	NJ-Somerset-Conf-RM		
agenttest1			agenttest1			
conf-aitest			conf-aitest	conf-aitest		
Tania	Adar	Tania.Adar@audiocodes.com	Taniaa			
Fnu	Alyil veedu dhruva	Dhruva.AlyilVeedu@audiocodes.com	dhruvaa			
Analytics User	Analytics User		auser			
Eric	Bauer	Eric.Bauer@audiocodes.com	ericb			
Analytics	Broker	tanial.adar@audiocodes.com	abroker			
Aemon	Burke	Aemon.Burke@audiocodes.com	aemonb			
Jose	Campos	Jose.Campos@audiocodes.com	josec			
Gino	Carosella	Gino.Carosella@audiocodes.com	ginoc			
Tom	Conlon	Tom.Conlon@audiocodes.com	tconlon			
Sandy	Da Silva	Sandy.DaSilva@audiocodes.com	SandyD			
Debajyoti	Dutta	Debajyoti.Dutta@audiocodes.com	debajyotid			
Oncall-1	EMEA	shlomi.pesach@audiocodes.com	shlomip			
Oncall-2	EMEA	Shlomi.pesach@audiocodes.com	shlomip2			
Mike	Erps	Mike.Erps@audiocodes.com	mikee			
Amrita	Garg	Amrita.Garg@audiocodes.com	amritag			
Gerald	Groh	Gerald.Groh@audiocodes.com	geraldg			
<div> 20   1 2 3 4   (1 of 4) </div>						

## Configuring Group Mappings

The procedure below describes how to configure Group Mappings.


### ➤ To configure Group Mappings:


1. Open LDAP Providers screen (**System** tab > **LDAP** folder > **Add LDAP Config**).
2. Open the Group Mappings screen (click if necessary to expand screen).

**Figure 6-48: Group Mappings**

3. Use the table below as reference.

**Table 6-20: Group Mappings - Field Descriptions**

Field	Description
Group Mappings	<ul style="list-style-type: none"> <li>■ Group Base Context (LDAP path for groups)</li> <li>■ Group Filter (Create / Manage Group filter)</li> <li>■ Name (LDAP Attribute that maps to the group name)</li> <li>■ Description (LDAP Attribute that maps to the group description)</li> <li>■ Members (LDAP Attribute that maps to the group members. The members attribute should contain a collection of distinguished names of users that belong to the group).</li> <li>■ One Level – Retrieves LDAP attributes for the selected node.</li> <li>■ Subtree – Retrieves LDAP attributes for the selected node and all its child nodes in the LDAP directory tree.</li> </ul> <p>▶ = expand screen   = shrink screen</p>

4. Enter the Group Mappings Information in the 'Group Mappings' screen (i.e. (Groups,DC=qalabEE,DC=local))
5. Navigate to appropriate 'Group Path' and then click .
6. Use filtering if you prefer not to add all groups.

➤ **To add a Group Filter:**


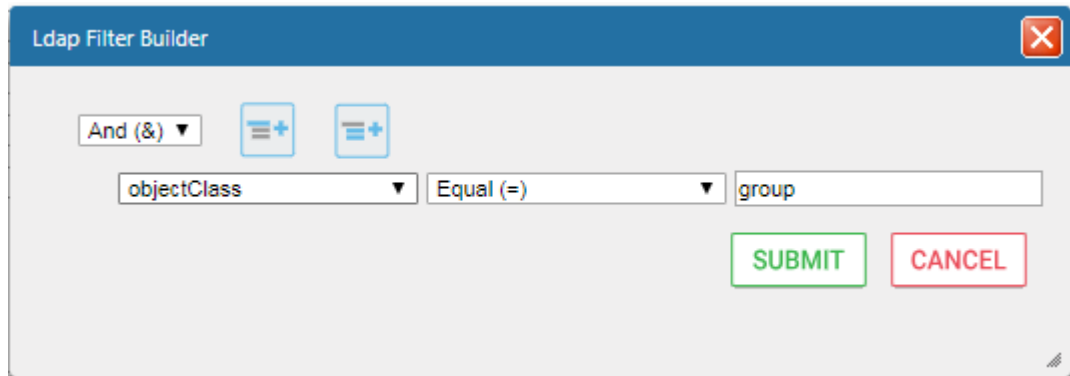
1. Select the appropriate Conditional Operator (And, Or, Not).
2. Select the appropriate Attribute.
3. Select the appropriate Equality Operator (>=, =, ~=, <=).
4. Specify a value.
5. Click  to apply changes.

Figure 6-49: Group Filter



The Ldap Filter Builder dialog box has a title bar with a close button. Inside, there is a dropdown menu set to 'And (&)', followed by two plus icons in boxes. Below these is a text input field containing 'objectClass', a dropdown menu set to 'Equal (=)', and another text input field containing 'group'. At the bottom right are 'SUBMIT' and 'CANCEL' buttons.




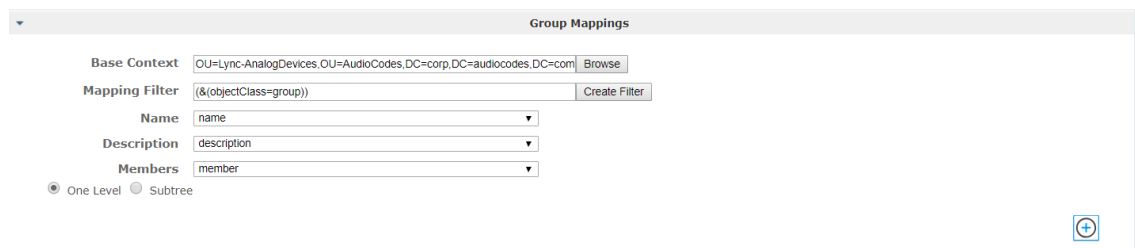
6. Click the  icon to add an additional filter condition and repeat above filter steps.
7. Click the  icon to add a new Sub filter and repeat above filter steps.
8. Click  to apply changes.
9. Scroll through the list and select the Name, Description and Members attributes.

Figure 6-50: Group Filtering Screen



The Group Mappings screen shows configuration fields: Base Context (OU=Lync-AnalogDevices, OU=AudioCodes, DC=corp, DC=audiocodes, DC=com), Mapping Filter (&(objectClass=group)), Name (name), Description (description), and Members (member). There are radio buttons for 'One Level' (selected) and 'Subtree'. A plus icon in a box is at the bottom right.


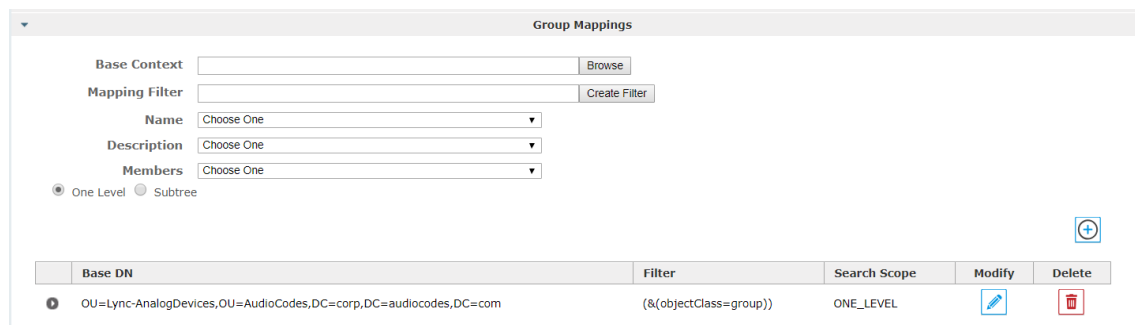


10. Click  to apply changes; view the listed group in the table .

Figure 6-51: Group Mapping Configured







The Group Mappings screen is shown with the configuration fields as in Figure 6-50. Below the fields is a table with the following data:

Base DN	Filter	Search Scope	Modify	Delete
OU=Lync-AnalogDevices, OU=AudioCodes, DC=corp, DC=audiocodes, DC=com	(&(objectClass=group))	ONE_LEVEL		

11. Select the **Group Mapping** tab page to see the list of groups added from the Active Directory. If you only see the 'Default' group listed in the table, the group mapping is incorrect.

Figure 6-52: View/Modify Groups

LDAP Providers			
Host	Port	Modify	Delete
<input type="text"/>	<input type="text"/>		
aiads01	389		
172.17.127.70	389		


## Configuring Security Group Mappings

This section shows how to configure Security Group Mappings. All mapped Active Directory security groups automatically become SmartTAP Security Profiles.



By default, new security profiles are granted no SmartTAP permissions.

### ➤ To configure Security Group Mappings:

1. Open the Add LDAP Config screen (**System** tab > **LDAP** folder > **Add LDAP Config**).
2. Open the Security Group Mappings screen (click  if necessary to expand the screen).

**Figure 6-53: Security Group Mappings**


3. Enter the Security Group Mappings Information in the Security Group Mappings screen. Use the table below as reference.

**Table 6-21: Security Group Mapping – Field Descriptions**




Field	Description
Security Group Mappings	■ Security Groups Base Context (LDAP path for security groups)
	■ Group Filter (Create / Manage Security Group filter)
	■ Name (LDAP Attribute that maps to the security group name)
	■ Description (LDAP Attribute that maps to the security group description)
	■ Members (LDAP Attribute that maps to the security group members. The members attribute should contain a collection of distinguished names of users that belong to the group.)
	■ One Level -Retrieves LDAP attributes for the selected node.
	■ Subtree – Retrieves LDAP attributes for the selected node and all its child nodes in the LDAP directory tree.
	■ Expand or Shrink screen

4. Use filtering if you prefer not to add all security groups.

### ➤ To add a Security Group Filter:

1. Select the appropriate Conditional Operator (And, Or, Not).
2. Select the appropriate Attribute.
3. Select the appropriate Equality Operator (>=, =, ~=, <=).
4. Specify a value.
5. Click  to apply changes.

**Figure 6-54: Security Group Filter**

6. Click the  icon to add an additional filter condition and repeat above filter steps
7. Click the  icon to add a new Sub filter and repeat above filter steps
8. Click  to apply changes.

**Figure 6-55: Security Group Filtering Screen**

9. Click  to apply changes.

**Figure 6-56: Security Group Configured**

10. Click  to easily add additional Security Group Mappings.

## Configuring OVOC Connection

This section describes how to setup the connection to the OVOC server. SmartTAP is managed under AudioCodes One Voice Operations Center in a similar way to other entities that are managed by OVOC (e.g. devices, endpoints and links). This includes the aggregation of alarms and statuses that are raised by the SmartTAP components and forwarded to OVOC from the SmartTAP Application server. OVOC Agents are installed on the SmartTAP Application server for this purpose (refer to the *SmartTAP Installation Guide* for details).

➤ **To configure the connection with the OVOC server:**

1. Open the OVOC Settings screen (**System** tab > **Monitoring** > **OVOC**)

**Figure 6-57: OVOC Settings**

**View/Modify OVOC settings**

**OVOC Connection**

IP Address : 172.17.140.67

Trap Port : 162

Keep Alive Port : 1161

**SNMP**

☒ SNMP v2 ☐ SNMP v3

Community Read : public

Community Write : private

**System Info**

Name : smarttap

Location : Lod

**Access Settings**

Login URL : 172.17.127.134

**SUBMIT** **CANCEL**

2. Configure the following settings:
  - OVOC IP Address
  - Trap Port
  - Keep-alive Port
3. Configure the SNMPv2 community strings:
  - SNMPv2 Community Read string
  - SNMPv2 Community Write string
4. Configure SNMPv3 settings:
  - Security Name-Security Name of the SNMPv3 operator
  - Authentication Protocol-the SNMPv3 authentication protocol (SHA or MD5)
  - Authentication Key- the authentication password.
  - Private Protocol-the SNMPv3 privacy protocol (AES 128 or DES)
  - Private Key-the private key



The SNMPv2 and SNMPv3 settings should be identically configured on both SmartTAP and the OVOC server.

**Figure 6-58: SNMPv3 Settings**

View/Modify OVOC settings

OVOC Connection

IP Address : 10.3.180.8

Trap Port : 1161

Keep Alive Port : 162

SNMP

☐ SNMP v2 ☒ SNMP v3

Security Name :

Authentication Protocol : MD5 ▼

Authentication Key :

Private Protocol : DES ▼

Private Key :

System Info

Name : SmartTAP

Location : BS

Access Settings

Login URL : 172.17.127.164

SUBMIT

CANCEL

5. Configure System Information:

- Name
- Location
- Login URL- this login is used for logging into the SmartTAP Web interface from OVOC (Device Information Page)

## Managing Users

This section shows how to perform user management. This section describes the following:

- Adding a user (see below)
- [View and Modify Users](#) on page 98

- [Update an Admin User](#) on page 100
- [Reset User Password](#) on page 100
- [Modify a User Password](#) on page 101
- [Uploading an Image](#) on page 102


➤ **To add a user:**

1. Open the Add User screen (**Users** tab > **User Management** folder > **Add User**).





**Figure 6-59: Adding a User**

2. Enter the user's First Name.
3. Enter the user's Last Name.
4. Optionally enter the user's email (SmartTAP sends initial password to this email address).
5. Optionally enter ID / Alias (this is free-form text that can be used to enter the employee ID or any other data).
6. Select an appropriate retention policy for the user (Default: 'default').
7. Select an appropriate recording profile for the user (Default: 'None').
8. Select the security profile or profiles by highlighting them (see the notes on the Add User screen field descriptions, above, for how to select more than one profile).
9. Select the group or groups to which the new user is to be added.
10. Add the appropriate value to any attribute fields that are designated for recording.

If SmartTAP is configured for LDAP, any SmartTAP attributes mapped to AD attributes will be auto populated.

11. Click  to apply changes; a successful configuration results in a message in green font in the command execution Results area; a failed configuration results in a failure message encoded in red font in the command execution Results area. SmartTAP sends an email to the user with their login and initial password, assuming that an email was provided.
12. Use the table below as reference.

**Table 6-22: Adding a User**

Field	Description
First Name	First name of the user.
Last Name	Last name of the user.
Email	Email of the user (must be valid as a new password is sent to this email).
Login Id	User login name.
Id / Alias	Free text (can be anything).
Retention Policy	Select an appropriate retention policy for the user.
Recording Profile	Select an appropriate recording profile for the user.
Security Profiles	Lists the Security Profiles that can be assigned to the user. Highlighted items indicate the Security Profiles that have been assigned to the user. To assign/or remove Security Profiles from the user, hold down the <ctrl> key and click the Security Profiles name(s) to be added/or removed. To select a range of Security Profiles, hold down the <shift> key and click the Security Profile at the top of the range and then the Security profile at the bottom of the range.
Groups	Lists the groups that the user can be a member of. Highlighted items indicate the groups that the user is a member of. To assign/or remove a user from a group, hold down the <ctrl> key and click the Group name(s) to add/or remove the user from. To select a range of Groups, hold down the <shift> key and click the Security Profile at the top of the range and then the Security profile at the bottom of the range.
	Reset Password – displayed only when modifying a user.
	Legal Hold – the retention process will not delete a user's calls or messages when the user is placed on legal hold. This feature is only available when modifying a user.
	Apply the changes.
	Cancel the changes.

## Sending Email

The Email screen allows the network administrator to send emails directly from the SmartTAP Web interface.

➤ **To send an Email:**

1. Open the Email screen.

**Figure 6-60: Email**

2. Configure the fields using the table below as reference.

**Table 6-23: Email Field Descriptions**

Field	Description
To > Cc > Bcc >	Clicking the To>, Cc>, Bcc> buttons will expand and collapse the list of users within the current user's group(s). Selecting/deselecting users from this list will add/remove them from the recipient list is a comma separated list of email addresses of the format 'jsmith@example.com'. The recipient list may also include the display name of the recipient. To add a display name for a recipient, the recipient's email address should be surrounded by angle brackets; for example: 'John Smith <jsmith@example.com>'
Subject	Subject of the email.
Attachments	List of attachments to be included with the email. Clicking X adjacent to the attachment removes the attachment from the email.
Body	Body of the email.

Field	Description
<b>SUBMIT</b>	Sends the email.
<b>CANCEL</b>	Cancels the email.

## Managing Groups

This section describes how to create, modify and delete groups and sub groups.

➤ **To add a Group and associated sub groups:**




1. Open the Add Group screen (**Users** tab > **Group Management** folder > **Add Group**).


**Figure 6-61: Add Group**

Use the table below as reference.

**Table 6-24: Group Screen Settings**

Field	Description
Group Name	Name of group to add.
Group Description	Description of the group to add.





















Field	Description
NonMembers	Users that are not group members. Select users by clicking the user name; multiple users while holding <ctrl>; or all within a range by clicking top user and bottom user while holding <shift>
>>	Add all NonMembers to the Members group.
>	Add selected NonMembers to the Members group.
<	Remove selected Members from the Members group.
<<	Remove all Members from the Members group.
Available Groups	List of existing groups. Select groups by clicking the group name; multiple groups while holding <ctrl>; or all within a range by clicking top group and bottom group while holding <shift>
Sub Groups	List of Sub Groups of the group to add.
Members	Users that are members of the group. Select users by clicking the user name; multiple users while holding <ctrl>; or all within a range by clicking top user and bottom user while holding <shift>
	Apply the changes.
	Cancel changes
	Delete Group – displayed only when you modify an existing group.

2. Enter the Group Name.
3. Enter the Group Description.
4. From the list of NonMembers select the users and move them to the Members side by clicking the buttons in between the NonMembers and Members windows.
5. (Optionally, Sub Groups for the Group just being added can be entered from the Add Group screen).
6. Click .

➤ **To view/modify a Group:**



1. Open the screen View/Modify Group screen as shown in the figure below.

**Figure 6-62: View/Modify Group**



View/Modify Groups			
Name	Description	Modify	Delete
Agents-Test	Agents-Test		
Analytics	Group of the users wh		
► Company XYZ			
COO	COO		
Default	Default group		
Demo	Demo Group		
Engineering			
MOA Cust Service	Line 2		
NCR	NCR		
Supervisor-Test	Supervisor-Test		

In this screen you can change or delete existing groups. Use the table below as reference.

**Figure 6-63: View/Modify Groups – Field Descriptions**

Field	Description
Name	Group name displayed. Clicking ► to the left of the Name expands the group to show the sub groups.
Description	Description of the group displayed
	Click to modify the group.
	Click to delete the group.

➤ **To modify/delete a group:**

1. In the Modify Group screen, change the Membership by moving users to/from the Members window.
2. Change the Sub Groups by moving Groups to/from the Sub Groups window.
3. Click  to apply changes, or click the  button to delete the group.

## Managing Security Profiles

This section describes how to create, view, modify and delete security profiles and to delete calls and messages. The screen allows the administrator to control system access and permissions. The security profiles assigned to users provides a flexible way to access SmartTAP resources.

### ➤ To add a Security Profile:

1. Open the Add Security Profile screen (**Users > Security Profile > .Add Security Profile**).




**Figure 6-64: Add Security Profile**


2. Use the table below as reference.

**Table 6-25: Security Profile Settings**

Field	Description
Security Profile Name	The name of the new security profile.
Security Profile Description	Description of the new security profile.
Call and Instant Message Permissions	
No Call or Instant Message Access	Select this option to prevent users with this security profile from accessing call and instant message data. These users cannot delete calls and instant messages.

Field	Description
Access all calls	Select this option to allow users with this security profile to access calls for all users and devices. These users can delete any calls and instant messages.
Access calls within user's groups	Select this option to allow users with this security profile to access calls for all users within all the groups and sub groups of the group hierarchy to which they are a member. These users can delete calls and instant messages that belong to the user's groups.
Access user's own calls	Select this option to allow users with this security profile to access their calls. These users can only delete their own calls and instant messages.
Play Media Related to a call	Select this option to allow users with this security profile to play calls to which they have access.
Download Media Related to a call	Select this option to allow users with this security profile to download media for calls to which they have access.
Email Media Related to a call	Select this option to allow users with this security profile to email media for calls to which they have access.
Tag Calls	Select this option to allow users with this security profile to add Call Tags to calls to which they have access.
Live Monitor	Select this option to allow users with this security profile to live monitor calls to which they have access.
Evaluate Calls	Select this option to allow users with this security profile to evaluate calls to which they have access. Perform evaluation of another user or their own call
Delete Calls and IMs	Select this option to delete calls and instant message conversations according to the different user privileges described above. For more information, see <a href="#">Deleting Calls and Instant Messages</a> on page 112.
View Evaluations / Reports	Select this option to allow users with this security profile view completed evaluations or run reports for evaluations to which they have access.
ROD/SOD other users	Select this option to allow a user to Record or Save on Demand another user's calls. The user to be recorded must be in the same group as the initiator
Configure System	Select this option to allow users with this security profile to view and modify system configuration settings.
Create and modify users and groups	Select this option to allow users with this security profile to create and modify users, groups, and security profiles.







Field	Description
Create Evaluation Forms	Select this option to allow users with this security profile access to the SmartTAP Web interface.
	Apply changes.
	Cancel changes.
	Delete Security Profile – displayed only when you modify an existing profile.

3. Enter the Security Profile Name.
4. Enter the Security Profile Description.
5. Select the Call Permissions option.
6. Selecting 'No Call Access' disables the permissions on the right side of the Call Permissions.
7. Select the configuration permissions at the bottom of the form.
8. Click .

➤ **To view/modify Security Profiles:**



1. Open the View/Modify Security Profiles screen.

**Figure 6-65: View/Modify Security Profiles**

View/Modify Security Profiles				
Name	Description	Permissions	Modify	Delete
agent	Agent	Play Media Related to a call Email Media Related to a call Tag calls Download Media Related to a call Access user's own calls		
administrator	Administrator	Create and modify users and groups Play Media Related to a call Access all calls Email Media Related to a call Tag calls Configure system Download Media Related to a call		
supervisor	Supervisor	Play Media Related to a call Email Media Related to a call Tag calls Download Media Related to a call Live Monitor Access calls within user's groups		

2. Use the table below as reference.

**Table 6-26: View/Modify Security Profiles Main Screen**

Field	Description
Name	Security Profile name sorted ascending/descending by clicking header up/down arrows. If defined, the field entry displays only matching entries.
Description	Security Profile description sorted ascending/descending by clicking header up/down arrows. If defined, the field entry displays only matching entries.
Permissions	List of permissions enabled for the Security Profile.
	Click to modify the Security Profile.
	Click to delete the Security Profile.

## Managing Recording Profiles

Recording profiles determine the method by which a user or device is recorded. A profile may be assigned to one or more users or devices. The Recording profile includes the following settings:

- **Call:**
  - Recording Type: Full Time, Record on Demand, Save on Demand or none.
  - Video – enable if video call recording is desired
  - Desktop sharing – enable if desktop sharing recording is desired
  - Pause or Resume – enable if the assign with profile user should be able to pause and resume call recordings
- **Call Type:** All, Internal (incoming, outgoing); PSTN (inbound, outbound); Federated (inbound, outbound); Calls with Internal Conference; Referred by Response Group
- **Announcements:** Enable announcements for one or more of the above call types.
- **Recording Beep tone:** Play a beep tone in the background during the recording.
- **Instant Messages:** Enable if Instant Messaging recording is desired

### ➤ To add a Recording Profile:

1. Open the Add Recording Profile screen (**Users** tab > **Recording Profiles** folder > **Add Recording Profile**).

**Figure 6-66: Add Recording Profile**

2. In the Call pane, from the Drop-down list, select a Recording Type and select the appropriate check box. For more information, use table below as a reference.
3. In the Call type pane, select a Call type. Note that the corresponding announcement profile is activated in the Announcements pane. For more information, use table below as a reference.
4. In the Announcements pane, assign audio files to play to the Calling party, the Answering party or both according to your selection in the Call type pane. For example, if you selected "Federated Inbound" calls in the Call type pane, then you can assign audio files to play to the calling party and to the answering party. For more information, see example figures and table below as references.
5. Assign Announcement WMA media files or IVR JSON script files to play to the Calling party, to the Answering party or to both for incoming and outgoing calls for Internal, PSTN and Federated Call Types. You can assign a different media file to play to the Calling party and to the Answering party.





Ensure that you have setup the Announcement server to support this functionality [Announcement Server \(Skype for Business\)](#) on page 187

- See example configurations in Section [Example Announcement Server Scenarios](#) on page 192
- See

6. Fill in the required fields using the tables below as a reference.

7. Click .

**Table 6-27: Recording Profile**

Field	Description
Profile Name	Enter a name for the new recording profile.
Profile Description	Enter a description of the new recording profile.
Recording Type	<p>Select one of the following:</p> <ul style="list-style-type: none"> <li>■ <b>None</b> (default) – User is not recorded. Do not assign a recording profile to a user or device if you do not want to record them.</li> <li>■ <b>Full Time</b> (supported for audio, video, instant messages and desktop sharing) automatic recording of complete call will begin from start of call with no user action required.</li> <li>■ <b>Record on Demand</b> (supported for audio) recording will commence from a specific point in the call that the user decided to record. Audio recording can be triggered from the GUI Status page or from the Skype for Business CWE toolbar.</li> <li>■ <b>Save on Demand</b> (supported for audio, video, and desktop sharing) recording will contain audio and/or video from beginning of call, if the user decides to record the call. Audio and/or Video recording can be triggered from the GUI Status page or from the Skype for Business CWE toolbar.</li> <li>■ For more information, see Appendix SmartTAP Skype for Business toolbar</li> </ul>
Video	Record a video call (Full Time or Save on Demand.)
Pause / Resume	Select Pause / Resume audio recording during sensitive areas of the conversation with a customer, for example, when Credit Card details are given. The process is manual and executed from the Status page. Pause/Resume of a recording can be triggered from the SmartTAP Web interface status page or from the Skype for Business CWE toolbar.
Instant Message	Automatic Instant Message recording.
Desktop Sharing Recording–	Recording of Desktop Sharing sessions is currently supported with Full time or Save on Demand recording type .
	Apply the changes.
	Cancel the changes.

■ **Call Type**

The Recording profile contains call types that can be selected and recorded. The call types described in the following table are supported. The options below relate to SmartTAP users and devices regardless of the users or devices location (intranet, internet, mobile device).



These call types are relevant for Skype For Business; Audio; Video and Desktop Sharing recording.

**Table 6-28: Call Type**

Field	Description
All	Record all calls that the recording profile user participates in as calling party. This option is enabled by default or when a new recording profile is created.
Internal (incoming, outgoing)	Internal calls are calls made between the recording profile user or device and other users belonging to the same domain as the recording profile user. To record Internal calls that the user receives, select the “Incoming” option. To record Internal calls that the user makes, select the “Outgoing” option. *Select the “Calls with Internal Conference” to record Internal calls that are elevated to a conference.
PSTN (inbound, outbound)	PSTN calls are those calls made between the recording profile user and PSTN parties. To record PSTN calls that the user receives, select the “Inbound” option. To record internal calls that the user makes, select the “Outbound” option. *Select the “Calls with Internal Conference” to record PSTN calls that are elevated to a conference.
Federated (inbound, outbound)	Federated calls are those calls made between the recording profile user and federated domain users. To record Federated calls that the user receives, select the “Inbound” option. To record Federated calls that the user makes, select the “Outbound” option. This option covers calls between the user and the federated conference bridges according to the selected directions.
Calls with Internal Conference	Record user calls with an Internal conference bridge in the company domain.
Referred by Response Group	Record user calls that are referred by a response group. To record calls referred by a response group to any user, select this option and create a user or device with the network mapping attributes that are associated with the response group (the Response Group URI). To record all calls that a response group is involved, select this option and the “All” option and create a user or device with the network mapping attributes that are associated with the response group (the Response Group URI).
Filter Calls User Receives Filter Calls User Makes	To filter calls that the user receives or makes, choose the type of the filter. To record the user calls with specific numbers, choose “White” in the List Type. To record calls of the user except with specific numbers, choose “Black” in the List Type. The Filter is applied on the calls with the comma-separated phone numbers defined in the Numbers field. For example: “17326524689, 17326524690”, a regular expression can be entered when the phone number ranges need to be filtered. For example, to filter calls with phone numbers that starts with area code 732 or 609, enter the following in the regular expression field: <code>^(1{1})\+1{1})?(732 609)d*\$</code> . When both the numbers and regular expressions are provided, the system first checks against the regular expression and if a match is not found, continues with the numbers. The maximum length of the numbers and the regular expression field is 2048 characters.

■ **Announcements**

Recording profile contains announcements configuration that can be selected and applied on the recorded user calls according to the options in the following table.




- The configuration options below are supported for Skype For Business calls.
- The Announcement server must be installed.
- The configuration options below relate to SmartTAP users and devices, regardless of the user or device location (intranet/internet, mobile device).

**Table 6-29: Announcements**

Field	Description
Internal (incoming, outgoing)	Play announcement on the Internal calls of the recorded user. To play announcement on the calls the user receives, select the “Incoming” option. To play announcement on the calls the user makes, select the “Outgoing” option. *Playing the announcement on the calls with conference server is currently not supported
PSTN (inbound, outbound)	Play announcement on the PSTN calls of the recorded user. To play announcement on the PSTN calls that the user receives, select the “Inbound” option. To play announcement on the PSTN calls that the user makes, select “Outbound” option.
Federated (inbound, outbound)	Play announcement on the Federated calls of the recorded user. To play announcement on the Federated calls that the user receives, select the “Inbound” option. To play announcement on the Federated calls that the user makes, select the “Outbound” option.
Record Announcement	To record played announcement, select this option. When the option is enabled and the announcement is played to both the incoming and outgoing legs of the call, both call legs are recorded and two recording licenses are consumed for the announcement part of the call recording. .
Don't Play Announcement Destination Number	Don't play announcements on the calls to the numbers defined in this field. The numbers should be comma separated. Enter the numbers when playing announcement on calls to a specific destination is not desired. For example, calls to 911, enter 911
Block Calls on Announcement Unavailability	The calls with the recorded user will be blocked when the calls can't be routed to the announcement server(s).
Configure Media Files to Play on Announcements	<ul style="list-style-type: none"> <li>• ANN files must be of file type WMA</li> <li>• IVR files must be of file type JSON</li> <li>• You must specify the file extension type in the file name. For example, PSTN_Inbound.wma</li> <li>• ANN and IVR files must be pre-saved to the StateMachineConfig folder on the ANN server (see Section Step 3-Configuring Announcement Server (Skype for Business) in the <i>SmartTAP Installation Guide</i>).</li> </ul>

- **Beep Tone:** Beep tones can be played on the calls which media traverses the Media Proxy Server only. . See additional tone configuration parameters in the SmartTAP Installation Guide.

Field	Description
Play Beep Tone	<p>The beep tone is played in the background during the call recording (disabled by default). Beep tone can be played on the calls which media traverses the Media Proxy Server.</p> <div>  <ul style="list-style-type: none"> <li>• The Announcement Server does not require to be installed to play beep tones.</li> <li>• Beep tone can be played on calls which media traverse the Media Proxy Server only</li> <li>• The playing of beep tones on the calls between targeted users and Skype For Business Conference Server is not supported.</li> <li>• Contact AudioCodes sales or support for information on the supported scenarios.</li> <li>• Refer to the <i>SmartTAP Installation Guide</i> for configuration of Beep tone parameters.</li> </ul> </div>

#### ■ Instant Messages

Enables Automatic Instant Message recording.












### Viewing or Modifying Recording Profiles

This section describes how to view or modify recording profiles.

#### ➤ To view/modify Recording Profiles:

1. Open the View/Modify Recording Profiles screen (**Users** tab > **Recording Profiles** folder > **View/Modify Recording Profiles**).


**Figure 6-67: View/Modify Recording Profiles**

View/Modify Recording Profiles						
Name	Description	Call Recording Type	Video Recording	IM Recording Type	Desktop Sharing Recording	Modify
Full Time	Full Time recording profile	FULL_TIME	Enabled	FULL_TIME	Disabled	
IM and FT Audio	IM and full time audio recording	FULL_TIME	Disabled	FULL_TIME	Disabled	
R.O.D	Record On Demand	RECORD_ON_DEMAND	Disabled	NONE	Disabled	
Video SOD	Save on demand video and voice call recording	SAVE_ON_DEMAND	Enabled	NONE	Disabled	
S.O.D	Save on Demand	SAVE_ON_DEMAND	Disabled	NONE	Disabled	
FULL_TIME_PR	Full time with Pause and Resume	FULL_TIME	Disabled	NONE	Disabled	
Sales Department	Sales Department	FULL_TIME	Enabled	NONE	Enabled	
ROD_with_IM		RECORD_ON_DEMAND	Disabled	FULL_TIME	Disabled	
Video FT	Full time video and voice call recording	FULL_TIME	Enabled	FULL_TIME	Enabled	
Test		NONE	Disabled	NONE	Disabled	
IM only	IM only recordings	RECORD_ON_DEMAND	Disabled	FULL_TIME	Disabled	
FT_AUDIO_DS	FT- Audio Desktop Sharing	FULL_TIME	Disabled	NONE	Enabled	
FULL_TIME_A_V_DS	Full time voice, video, desktop sharing	SAVE_ON_DEMAND	Enabled	NONE	Enabled	
<div> 20 ▼ &lt; &lt; &gt; &gt; 1 (1 of 1) </div>						

2. Use the table below as reference.

**Table 6-30: View/Modify Recording Profiles – Field Descriptions**



Field	Description
Name	Recording Profile name, sorted ascending/descending by clicking header up/down arrows. If defined, the field entry displays only matching entries.
Description	Recording Profile description sorted ascending/descending by clicking header up/down arrows. If defined, the field entry displays only matching entries.
Audio Recording Type	Full Time, Record on Demand or Save on Demand.
Video Recording Type	Full Time or Save on Demand.
IM Recording Type	Full Time or None

Field	Description
Desktop Sharing Recording	Full Time or Save on Demand
	Click to modify the Recording Profile.

## Assigning Recording Profile to User or Device

This section describes how to assign a recording profile to a user or device.

### ➤ To assign a recording profile to a User / Device account:

- **Option method #1:** Add the recording profile to the account manually when the user account is created in SmartTAP. To create a new user account and assign a Recording Profile:
  - a. Under the User tab, select **View/Modify Users**.
  - b. Click .
  - c. From the 'Recording Profile' dropdown, select the required profile (i.e., R.O.D).
  - d. Click  to apply the changes.
- **Optional method #2:** Under the User tab, select Recording Profiles | Users / Devices to assign a single or bulk list of users / devices their recording profile. To manage a single or bulk assignment of recording profiles for existing user / device accounts:
  - a. Under the User tab, select Recording Profile | User / Devices.
  - b. Using the arrows, move single or bulk list of user / devices from the left screen to one of the recording profiles available.
  - c. Click Submit to apply changes.



- By default, SmartTAP includes the 'Full Time' recording profile.
- All users imported from Active Directory will not have a recording profile assigned. Use optional method # 2 above to quickly assign multiple users the appropriate recording profile.

### ➤ To assign a single/multiple user(s)/device(s) to the appropriate recording profile:

1. Open the Add Users to Recording Profiles screen shown below.

**Figure 6-68: Add Users to Recording Profiles**

**Add Users to Recording Profiles**

**No Recording Profile**

- Adar, Tania
- agenttest1
- aitest, aitest
- Alyil veedu dhruva, Fnu
- Analytics User, Analytics User
- AutoAttendant
- Bauer, Eric
- Broker, Analytics
- Burke, Aemon
- Campos, Jose
- Carosella, Gino
- conf-aitest(conf-aitest)
- Conlon, Tom
- Da Silva, Sandy**
- DCI
- Dutta, Debajyoti
- EMEA, Oncall-1
- EMEA, Oncall-2
- Erps, Mike
- Garg, Amrita
- Groh, Gerald
- Herberger, Steven
- Honig, Menachem
- Hopkins, Steve
- Howell, Donald
- Hunter, Daryl
- Ilyayev, Ina(Inai)
- Johnson, Johnson
- Jones, Bob
- Jones, Jones
- Joseph, Liziya(Manually Added )
- Kitlaru, Yaniv
- Kling, Brian
- Lobby Phone
- Makowski, Jerry
- Marrocchi, Ulises (ulisesm)
- Mast, Danielle
- Menachem Honig-USA
- Munoz, Fernando
- NCR
- NJ-Somerset-Conf-RM(NJ-Somerset-Conf-RM)
- Orta, Alejandro
- Osterberg, Mattias
- Perpinyal, Avi
- Phutane, Rutuja(Manually Added)

**Recording Profiles**

**Test**

**Video FT**

**Video SOD**

Navigation buttons: >>, >, <, <<

SUBMIT CANCEL

2. Use the table below as reference.

**Table 6-31: Add Users to Recording Profiles Screen**

Field	Description
No Recording Profile	List of available Users / Devices in SmartTAP unassigned to a specific recording profile.
Recording Profiles	Choose from one of the available recording profiles that were defined above to assign a User / Device (Full Time is the default profile)
>>	Add all available users / devices to a specific recording profile.
>	Add a user / device to a specific recording profile.
<	Remove a selected user / device from a specific recording profile.
<<	Remove a selected user / device from a specific recording profile.
<b>SUBMIT</b>	Apply changes.

Field	Description
<b>CANCEL</b>	Cancel changes.



- In addition to assigning a user / device with a recording profile, you must add a recording attribute and a targeting value.
- SmartTAP will use the added targeting value to trigger recording once detected in the call signaling.

## Managing Recordable Devices

This section shows how to manage recordable devices.

### ➤ To add a Recordable Device:




1. Open the Add Recordable Device screen (**Users** tab > **Recording Profile** > **Add Recordable Device**).

**Figure 6-69: Add Recordable Device**

2. [Use the table below as reference] Enter a Name for the device.
3. Enter a Description for the device.
4. Select the Type from the dropdown menu.
5. From the list of Available Groups, select the groups and move them to the Assigned Groups by clicking the > / >> buttons.
6. Click Submit to apply changes.

**Table 6-32: Recordable Device – Settings Descriptions**

Field	Description
Name	Name of the new recordable device.


Field	Description
Description	Description of the new recordable device.
Type	Type of recordable device. Dropdown menu shows valid entries.
Retention Policy	Select an appropriate retention policy for the device.
Recording Profile	Select an appropriate recording profile for the device.
Available Groups	User groups available to assign to this device. Select groups by clicking the group name; multiple groups while holding <ctrl>; or all within a range by clicking top group and bottom group while holding <shift>.
Assigned Groups	User groups assigned to this device. Select group by clicking the group name; multiple groups while holding <ctrl>; or all within a range by clicking top group and bottom group while holding <shift>.
>>	Add all Available Groups to the Assigned groups.
>	Add selected Available Groups to the Assigned groups.
<	Remove selected Groups from the Assigned group.
<<	Remove all Groups from the Assigned group.
	Apply the changes.
	Cancel the changes.
	Delete Device – displayed only when you modify an existing profile.











➤ **To view/modify a Recordable Device:**

1. Open the View/Modify Recordable Device screen as shown in the figure below.

**Figure 6-70: View/Modify Recordable Devices**

View/Modify Recordable Devices





Name	Description	Type	Modify	Delete
<input type="text"/>	<input type="text"/>	Select ▼		
Lobby Phone	Ext 5001	PHONE		
NCR	NCR Support	OTHER		
DCI	DCI Support	PHONE		
AutoAttendant	Corp AutoAttendant	ACD		
Menachem Honig-USA		PHONE		

20 ▼    <=<    <<    1    >>    >=    (1 of 1)

2. Use the table below as reference.

**Figure 6-71: View/Modify Recordable Devices – Field Descriptions**

Field	Description
Name	Recordable device name sorted ascending/descending by clicking header up/down arrows. If defined, the field entry displays only matching entries.
Description	Recordable device description sorted ascending/descending by clicking header up/down arrows. If defined, the field entry displays only matching entries.
Type	Type of recordable device sorted ascending/descending by clicking header up/down arrows. If defined, the field entry displays only matching entries.
	Click to modify the Security Profile.
	Click to delete the Security Profile.

## Recording Profile-Call Type Configuration Examples

This section describes configuration examples for different call type settings.

- Record inbound PSTN calls:

**Call type**  
Applicable for Skype For Business and Lync A/V Recording

☐ All

Internal ☐ Incoming ☐ Outgoing  
 PSTN ☒ Inbound ☐ Outbound  
 Federated ☐ Inbound ☐ Outbound

☐ Calls with Internal Conferences

☐ Referred by Response Group

Filter Calls User Receives : List Type: **Black** ▼ Numbers: Regular Expression:

Filter Calls User Makes : List Type: **Black** ▼ Numbers: Regular Expression:

■ **Record all PSTN Calls:**

**Call type**  
Applicable for Skype For Business and Lync A/V Recording

☐ All

Internal ☐ Incoming ☐ Outgoing  
 PSTN ☒ Inbound ☒ Outbound  
 Federated ☐ Inbound ☐ Outbound

☐ Calls with Internal Conferences

☐ Referred by Response Group

Filter Calls User Receives : List Type: **Black** ▼ Numbers: Regular Expression:

Filter Calls User Makes : List Type: **Black** ▼ Numbers: Regular Expression:

■ **Record External calls (PSTN and Federation):**

**Call type**  
Applicable for Skype For Business and Lync A/V Recording

☐ All

Internal ☐ Incoming ☐ Outgoing  
 PSTN ☒ Inbound ☒ Outbound  
 Federated ☒ Inbound ☒ Outbound

☐ Calls with Internal Conferences

☐ Referred by Response Group

Filter Calls User Receives : List Type: **Black** ▼ Numbers: Regular Expression:

Filter Calls User Makes : List Type: **Black** ▼ Numbers: Regular Expression:

■ **Record PSTN inbound calls and calls from Response Group**

Call type

Applicable for Skype For Business and Lync A/V Recording

☐ All

Internal

☐ Incoming
 ☐ Outgoing

PSTN

☒ Inbound
 ☐ Outbound

Federated

☐ Inbound
 ☐ Outbound

☐ Calls with Internal Conferences

☒ Referred by Response Group

Filter Calls User Receives :

List Type:

Black ▾

Numbers:

Regular Expression:

Filter Calls User Makes :

List Type:

Black ▾

Numbers:

Regular Expression:

## Adding a Device Attribute

This section shows how to add a SmartTAP device attribute. A device attribute has two purposes:

**Table 6-33: SmartTAP Device Attribute's Two Purposes**

Attribute Purpose	Priority	Description
Trigger Recording	Critical	To designate to SmartTAP what to use to trigger recording. (i.e., Add SIP_URI attribute and provide a value to be assigned to the device. If the device makes a SIP call, SmartTAP will trigger a recording based on the SIP_URI). See also below.
Provide Additional device Info	Optional	Add additional information to the device account within SmartTAP. (i.e. Ext, Tel URI, Mobile, etc.) for information purposes only. See also 'To add a general device attribute' below.

Enhance the integration by mapping SmartTAP attributes to Active Directory attributes to auto populate device information within SmartTAP. To map a device attribute to an Active Directory device attribute, see [Configuring an LDAP Connection](#) on page 58

**Table 6-34: User Attributes**

User Attribute	Description
Name	Assign a unique easily identifiable name to the attribute.
Description	Include a brief description to explain the meaning of the attribute.
Network Mapping	Select the option in order to instruct SmartTAP to use the attribute for the purpose of recording any device.
Network Mapping Type	Instructs SmartTAP what type of attribute has been defined.

### ➤ To add a general device attribute:

1. Open the Add Device Attribute screen (**Users > User Management > Add Device Attribute**).



A general device attribute will not be used for recording purposes.

**Figure 6-72: Add Device Attribute**

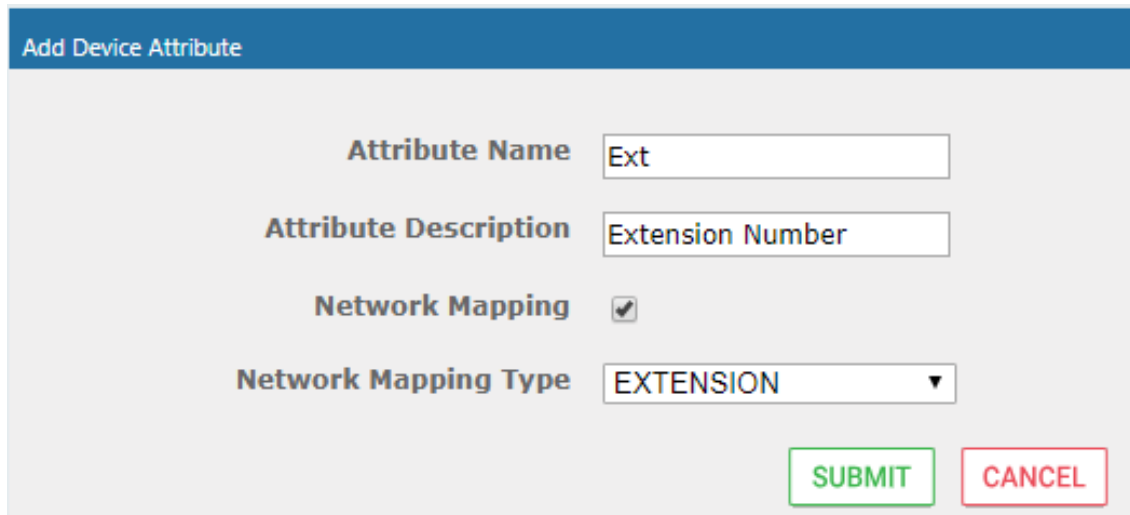
2. Enter the Attribute Name.
3. Enter the Attribute Description.
4. Leave the Network Mapping option cleared.
5. Click Submit to apply new device attribute or Cancel to exit.

➤ **To add a device attribute for recording purposes:**

1. Under Device Management under the User tab, select Add Device Attribute.
2. Enter the Attribute Name.
3. Enter the Attribute Description.
4. Check the Network Mapping option.
5. Select the appropriate Network Mapping type.
6. Click Submit to apply new device attribute or Cancel to exit.

Following are examples of device attributes created for recording purposes:

**Figure 6-73: Add Device Attribute - Example 1**

**Figure 6-74: Add Device Attribute - Example 2**

**Add Device Attribute**

**Attribute Name**

**Attribute Description**

**Network Mapping** ☒

**Network Mapping Type**

**SUBMIT** **CANCEL**

## View and Modify Users

This section describes how to view and modify users.



➤ **To view/modify users:**

1. Open the View/Modify Users screen (**Users** tab > **User Management** folder > **View/Modify User**).
2. Use the table below as reference to search for a specific user to modify.



**Figure 6-75: View/Modify Users**

The screenshot shows the 'Modify User' interface. At the top, there's a blue header bar with the text 'Modify User'. Below this, on the left, is a placeholder for a user profile picture. To the right of the picture are several input fields: 'First Name' (Tania), 'Last Name' (Adar), 'Email' (tania.adar@audiocodes.com), 'Login Id' (tadar), 'Id / Alias' (empty), 'SIP URI' (sip:Tania.Adar@audiocodes.com), 'TEL URI' (tel:+17326524689;ext=4689), 'Retention Policy' (Default), 'Recording Profile' (Audio&Video&DS), and 'Legal Hold' (OFF). Below these fields are two lists: 'Security Profiles' (administrator, agent, supervisor) and 'Groups' (APAC Sales, APAC Support, Default, EMEA Sales, EMEA Support, NA Sales, NA Support, Sales, Support). At the bottom right, there are four buttons: 'SUBMIT' (green), 'CANCEL' (red), a trash icon, and a pencil icon.

**Table 6-35: View/Modify Users**

Field	Description
First Name	User first name sorted ascending/descending by clicking header up/down arrows. If defined, the field entry displays only matching entries.
Last Name	User last name sorted ascending/descending by clicking header up/down arrows. If defined, the field entry displays only matching entries.
Email	User email address sorted ascending/descending by clicking header up/down arrows. If defined, the field entry displays only matching entries.
Login Id	User login ID sorted ascending/descending by clicking header up/down arrows. If defined, the field entry displays only matching entries.
Id / Alias	User ID / Alias sorted ascending/descending by clicking header up/down arrows. If defined, the field entry displays only matching entries.
	Click to modify the user.
	Click to delete the user.

Field	Description
Page Navigation buttons	Buttons are shortcuts to the beginning/end, previous/next page of displayed entries. The dropdown allows changing the number of entries per page.

- Click  adjacent to the user that you wish to change.
- Modify the fields to change.
- Click  to apply changes.

## Update an Admin User

This section describes how to update an Admin user.

### ➤ To update an Admin User (optional):

- After logging in, the 'admin' user can create a new administrator account or just edit the information and modify the password for this account.






















Ensure that you configure SMTP settings (see [Configuring Email Server Settings](#) on page 49).

### ➤ To modify / update an Admin User:

- Log in as user 'admin'.
- Open the View/Modify User screen (**Users** tab > **User Management** folder > **View/Modify User**).

**Figure 6-76: Modify User**

View/Modify Users							
							
First Name	Last Name	Email	Login Id	SIP URI	TEL URI	Modify	Delete
Tania	Adar (admin)		admin				
Tania	Adar (x3051)		tadar	sip:user3051@lcent4.local	tel:+17005553051;ext=3051		
Eric	Banks (x3056)		ebanks	sip:user3056@lcent4.local	tel:+17005553056;ext=3056		
Lorenzo	Barrett		lbarrett	sip:user3057@lcent4.local	tel:+17005553057;ext=3057		
Rosie	Huff		rhuff	sip:user3055@lcent4.local	tel:+17005553055;ext=3055		
Edgar	Jenkins		ejenkins				
Barbara	Warner		bwarner				
<div> 20   1   (1 of 1) </div>							

- Update the user information (First name, Last name, Email, Login Id).
- Make sure the email is a valid email.
- Id/Alias is an optional text field that can be used to enter any data. For example, employee ID or nickname to help identify the user if there are multiple users with the same first & last name.



## Reset User Password

This section describes how to reset user passwords.

➤ **To reset a user password:**



Only users who belong to profiles with 'Create and modify users and groups' privileges are allowed to reset other users' passwords. All users can reset their own passwords.

1. Open the View/Modify Users screen (**Users** tab > **Users** folder > **User Management** > **View/Modify Users**).
2. Open the Modify User screen by clicking  in the View/Modify User main screen display for the user to reset password.
3. Click the **Reset Password**  button.


## Modify a User Password

This section describes how to modify a user password.

➤ **To modify a user password:**

1. Open the Change Password screen (**Users** tab > **Users** folder > **User Management** > **Modify Password**).

**Figure 6-77: Change Password**

2. [Use the table below as reference]. Enter the current password.
3. Enter the new password.
4. Confirm the new password.
5. Click  to change the password; the system automatically logs off and the user is required to log in with the new password.

**Figure 6-78: Change Password**

Field	Description
Current Password	Current password.

Field	Description
New Password	The password that will replace the current password.
Confirm	Reenter the new password.
<input type="button" value="SUBMIT"/>	Apply the changes.



The only means to regain access to the SmartTAP system after a lost password, is by having a user with user Add/Modify privileges reset this user password.

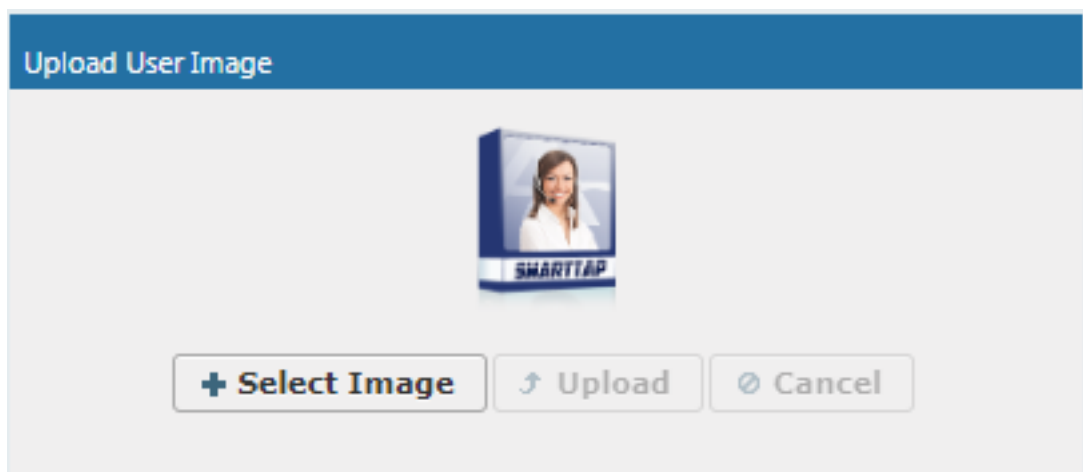
## Uploading an Image

This section describe how to upload an image.

### ➤ To upload an image:

Select this option to upload your own image.

**Figure 6-79: Upload User Image**



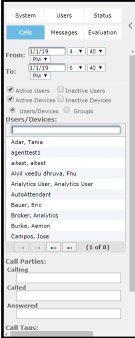
### ➤ To upload an image

1. Click the Browse button and navigate to the appropriate folder to select the image.
2. Click **Upload** to load the image or click Clear to select a different image.

## Managing Calls

This section shows how to manage calls. They're managed under the Calls tab in the Search Calls Navigation screen, shown and described below.

**Figure 6-80: Search Calls Navigation Screen - Calls Tab**

Search Calls Navigation	Field	Description
	From:	Earliest date and time to search from. Click the date field for a calendar to pop up showing one month at a time. From the dropdown, change the time of day. Note: When searching for calls within a time range, only calls that start within the range are returned in the search results.
	To:	Latest date and time upon which to search. Click the date field for a calendar to pop up showing one month at a time. From the dropdown, change the time of day.
	Active Users	Users whose accounts are enabled in the SmartTAP system.
	Inactive Users	Users whose accounts have been deleted from the SmartTAP system.
	Active Devices	Devices that are not associated with users enabled in the SmartTAP system and can be targeted for recording.
	Inactive Devices	Devices that have been deleted from the SmartTAP system.
	Users/Devices	Only Users and Devices will be listed in the search list. Either the Users/Devices or the Groups option must be selected.
	Groups	Only Groups will be listed in the search list. Either the Users/Devices or the Groups option must be selected.
	User/Devices: (list)	To select multiple Users/Devices, highlight the name; multiple Users/Devices while holding <ctrl>; or all within a range by clicking top User/Device and bottom User/Device while holding <shift>.
	Call Parties: Calling Called Answered	Enhance the search by specifying the Calling (Caller ID), Called and/or Answering party. Use a wild card to broaden the search Example *732* will return all calls with 732 anywhere in the number 732* will return all calls that start with 732 *Bill will return all calls with a user participant with a name that contains the word 'Bill'.
	Call Tags	Select one or more Tags and provide a value to enhance search.
	Search	Click to search and display results.

## Searching for Calls

This section shows how to search for calls.



The search fields' logical operations are:

Selected Users/Devices or Users/Devices within selected Groups

AND

Call Parties

AND

Call Tags

where Call Parties Calling, Called, Answered are logically ORed and Call Tags (Call Tag1 ... Call TagN) are logically ORed.

➤ **To search for calls:**

1. Open the Search Calls screen by clicking the **Calls** tab.
2. In the Search Criteria pane, from the Drop-down list, select one of the following search criteria:
  - Last Hours
  - Last Days
  - Last Weeks
  - Custom Dates (enables you to customize the day and time range using the calendar)

**Figure 6-81: Search Criteria-Last Two Days**

The screenshot shows the 'Search Criteria' pane with the following details:

- Search Criteria:** A dropdown menu set to 'Last Days' and a numeric input field set to '2'.
- From:** Date '11/24/19', hour '7', and period 'PM'.
- To:** Date '11/26/19', hour '7', and period 'PM'.
- Active Users:** Checked checkbox.
- Inactive Users:** Unchecked checkbox.
- Active Devices:** Checked checkbox.
- Inactive Devices:** Unchecked checkbox.
- Users/Devices:** Selected radio button.
- Groups:** Unselected radio button.
- Users/Devices:** A section with a 'Select All' checkbox and a list of users.
- User List:** A scrollable list containing 'John Smith' (highlighted in blue) and 'shirel M'.
- Navigation:** Arrow buttons for navigating the list and a page indicator '(1 of 1)'.

3. If you selected Last Hours, Last Days or Last Weeks, use the arrow keys adjacent to the selected option to toggle to the desired value. If you selected Custom Dates, set the desired time and date range using the calendar. The figure below shows a calendar search from November 24 2019 at 06:00 am to November 26 at 12:00 am.

**Figure 6-82: Calendar Search**

**Search Criteria**

Custom Dates 2

From: 11/24/19 6:00 PM

To: 11/26/19 12:00 PM

☒ Active Users ☐ Inactive Users

☒ Active Devices ☐ Inactive Devices

☒ Users/Devices ☐ Groups

**Users/Devices:**

☐ Select All

John Smith

shirel M

(1 of 1)

4. Select the type of Users and Devices.
5. Select either the Users/Devices or Groups Radio button.
6. Selecting the User/Devices option changes the display below to show a list of Users/Devices.
7. Selecting the Groups option changes the display below to show a list of Groups and Sub Groups (if the Search Sub Groups option is selected).
8. Select one of more User/Devices or Groups by highlighting them in the list (see notes on Search Calls Navigation screen field descriptions above on how to select more than one User/Device or Group).
9. Optionally, specify a Calling, Called and/or Answered party.
10. Click **Search** to start the search for calls matching the search criteria; the Results are displayed in the Search Calls Results screen to the right. The figure below shows a search for the last two days for user "John Smith"..

**Figure 6-83: Retrieved Calls List for Specific User**

Name	Start Time	Answered	Released	Duration	Direction	Calling Party	Called Party	Answering Party	Recording Type	Tags	Media Type	Media Status	Media Status Reason
John Smith	Nov 25, 2019 12:00:00 PM	Nov 26, 2019 12:00:00 PM	Nov 26, 2019 12:00:00 PM	00:00:28	OUTGOING	pooluser010	shireltest3	shireltest3	FULL_TIME				No Media
John Smith	Nov 26, 2019 11:06:08 AM	Nov 26, 2019 11:06:12 AM	Nov 26, 2019 11:06:21 AM	00:00:13	OUTGOING	pooluser010	7001	7001	FULL_TIME				None
John Smith	Nov 26, 2019 11:37:01 AM	Nov 26, 2019 11:37:02 AM	Nov 26, 2019 11:37:38 AM	00:00:37	OUTGOING	pooluser010	shireltest3	shireltest3	FULL_TIME				None
John Smith	Nov 26, 2019 11:36:52 AM	Nov 26, 2019 11:36:55 AM	Nov 26, 2019 11:37:02 AM	00:00:10	OUTGOING	pooluser010	shireltest3	shireltest3	FULL_TIME				None
John Smith	Nov 26, 2019 11:36:51 AM	Nov 26, 2019 11:36:55 AM	Nov 26, 2019 11:37:02 AM	00:00:11	OUTGOING	pooluser010	shireltest3	shireltest3	FULL_TIME				None
John Smith	Nov 26, 2019 11:36:11 AM	Nov 26, 2019 11:36:11 AM	Nov 26, 2019 11:36:29 AM	00:00:18	OUTGOING	pooluser010	7001	7001	FULL_TIME				None
John Smith	Nov 26, 2019 11:33:47 AM	Nov 26, 2019 11:33:47 AM	Nov 26, 2019 11:34:56 AM	00:01:09	OUTGOING	pooluser010	7001	7001	FULL_TIME				None
John Smith	Nov 26, 2019 11:22:45 AM	Nov 26, 2019 11:22:45 AM	Nov 26, 2019 11:22:45 AM	00:00:25	OUTGOING	pooluser010	shireltest3	shireltest3	FULL_TIME				None
John Smith	Nov 26, 2019 11:22:33 AM	Nov 26, 2019 11:22:33 AM	Nov 26, 2019 11:22:45 AM	00:00:12	OUTGOING	pooluser010	shireltest3	AnnouncementsApp-646-2019-site1	FULL_TIME				None

Total calls: 26 (1 of 3)

John Smith 11/26/19 12:38:39 PM

00:00:00 | 00:00:27

11. Optionally, specify a Call Tag & Value.

**Figure 6-84: Call Tags**

**Call Tags:**

☒ Active Tags ☐ Inactive Tags

Tag Name: ActionItem ▼ Tag Value: Schedule Meeting

Search

12. Right click the initial tag row to 'Insert' or 'Delete' an existing tag from the search. Add additional search tags as needed to fine tune the search.

**Figure 6-85: Call Tags**

**Call Tags:**

☒ Active Tags ☐ Inactive Tags

Tag Name: ActionItem ▼ Tag Value: Schedule Meeting

Search

**Call Tags:**

☒ Active Tags ☐ Inactive Tags

Tag Name: ActionItem ▼ Tag Value: Schedule Meeting

Tag Name: Company ▼ Tag Value: AudioCodes

Search

13. Ensure that the Active Tags check box is selected and then click Search to start the search for calls matching the search criteria; the Results are displayed in the Search Calls Results screen. The figure below shows an example of a retrieved call with an assigned Call Tag Action Item with value 'Personal Call' \*. Calls with Call Tag Action Item with note value 'Personal Call' value are retrieved for the specified user and specified time frame. Note that this tag is of type "boolean" and therefore the "Tag Value" check box must be selected in order to retrieve results.

Figure 6-86: Search Calls Results

The screenshot displays the SmartTAP 360 interface. On the left, the 'Search Criteria' sidebar includes filters for 'Last Days' (set to 2), 'From' (11/24/19), 'To' (11/26/19), 'Call Tags' (Active Users, Inactive Users, Active Devices, Inactive Devices), and 'Call Parties' (Calling, Called, Answered). The main area shows a table of search results for calls between 11/24/19 06:31 PM and 11/26/19 06:51 PM. The table columns include Name, Start Time, Answered, Released, Duration, Direction, Calling Party, Called Party, Answering Party, Recording Type, Tags, Media Type, Media Status, and Media Status Reason. A single call by John Smith is listed. A 'Call Tags' dialog box is open, showing a table with columns: Tag, Date Added, Added By, Value, Private. It lists 'Personal Cell' with a date of 11/26/2019 and a value of 'true'.



Notice the difference in the search results displayed in the above figure and how wild cards can affect the results.













14. To delete calls, select the  button adjacent to each call that you wish to delete. The button becomes red . For more information, see [Deleting Calls and Instant Messages](#) on page 112.

Table 6-36: Search Calls Results

Field	Description
	Launches the Add and Remove Columns dialog.
User/Device	User/Device name. Clicking this header sorts the search results in Ascending/Descending order alternating with each click.
Started	Date and time the call recording started. Clicking this header sorts the search results in Ascending/Descending order alternating with each click.
Duration	Call Duration. Clicking this header sorts the search results in Ascending/Descending order alternating with each click.
Direction	The column represents Call Direction (Incoming, Outgoing). Clicking this header sorts the search results in Ascending/Descending order alternating with each click. Dropdown entry shows only the matching results.
Release Cause	Release cause for the call. Clicking this header sorts the search results in Ascending/Descending order alternating with each click. Dropdown entry shows only the matching results.
Release Calls Details	Release Cause of the Original Call. Applicable to Skype For Business. Example: "Call failed to establish due to a media connectivity...;22 "Action initiated by user";51004;.
Media Type	Indicates the media type. One of the following values: <ul style="list-style-type: none"> <li><b>Audio:</b> the Speaker icon is displayed in this column for a recorded audio call. No icon is displayed for a non-answered call.</li> </ul>

Field	Description
	<ul style="list-style-type: none"> <li>■ <b>Video:</b> the Video icon is displayed in this column for a recorded video call. No icon is displayed for a non-answered call.</li> <li>■ <b>Skype for Business Desktop Application (Desktop SharingS):</b> the Desktop Sharing call icon is displayed. No icon is displayed for a non-answered call.</li> <li>■ <b>None</b></li> </ul>
	Indicates that the call audio has been successfully recorded.
	Indicates that the call video has been successfully recorded.
	Indicates that the Desktop Sharing has been successfully recorded.
Expires	<p>Call recording expiration date. The date after which the call recording is purged. The date is calculated based on the retention profile assigned to the call. If the call was put on legal hold or evaluated, the expiration date is presented along with a lock icon.</p> <p>The Expires field has a value only when during the call the associated user had retention policy assigned to it and the period of the policy was set to a larger than 0 value (0 is default implying that calls should never expire).</p>
Notes	<p>There are no notes associated with this call. There are notes associated with this call.</p> <p>Notes are displayed adjacent to the Player screen as highlighted in the figure above with the note example “Executive Call”.</p>
Display Video	Displays the video screen. When you select the  button, the recorded video is replayed.
System Call ID	Indicates the Original Call ID. Applicable to Skype For Business and other SIP-related integrations. This ID can be used to correlate call records to the original calls.
Conversation ID	Indicates the Skype For Business Conversation ID. This ID can be used to correlate between audio/video and content sharing calls made by a user from SFB client as part of one conversation.
Conference ID	Indicates the Skype For Business Conference ID. This ID identifies the conference to which the call was connected. It can be used to correlate between audio/video and content sharing calls made by a user from a SFB client.
Tags	Identifies whether tag have been defined for the call as follows
	Indicates that no tags are associated with a recording

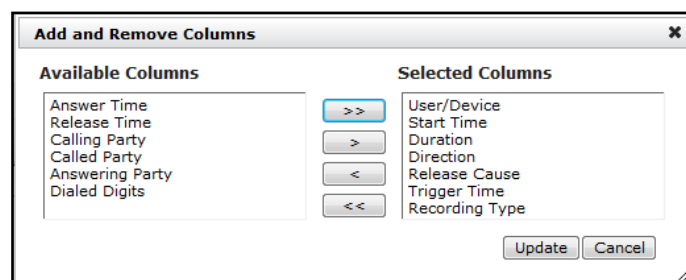
Field	Description
	Indicates that a tag has been associated with a recording.
<b>Media Status Reason</b>	Corresponding Media Reason
None	None - Indicated when there are no media files and the call was not answered i.e. Abandoned or Missed.
	None – There are no reasons.
	Silent Media – Indicates when media files associated with the call are silent; the packets were received however didn't carry audio.
	<ul style="list-style-type: none"> <li>■ <b>No Media</b> – Indicates that there are no media files associated with the call; however, the call was answered.</li> <li>■ <b>No License</b> - Indicates that the media cannot record as a result of no licenses being available.</li> <li>■ <b>No Packets</b> - Indicates that no packets are received for media recording on one or both sides of the call.</li> </ul>

➤ **To filter search results:**

- Click a column heading to sort A-Z or Z-A.
- To apply additional filters, type into the text box below the column heading where applicable.
- Use a \* wild card to enhance the filter.
- Filter 'abc' will search the field for any string that starts with 'abc'.
- Filter '\*abc' will search the field for any position within the string to match 'abc'.

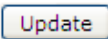
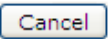
➤ **To add/remove columns from the Search Call Results:**

**Figure 6-87: Add/Remove Columns from the Search Call Results Screen**




**Table 6-37: Add and Remove Columns – Field Descriptions**

Field	Description
Available Columns	List of columns that can be added to the search results table.
Selected Columns	List of columns that will be displayed in the search results table.

Field	Description
>>	Moves all items from the Available Columns list to the Selected Columns list.
>	Moves the selected item(s) from the Available Columns list to the Selected Columns list, effectively adding the column to the search results table.
<	Moves the selected item(s) from the Selected Columns list to the Available Columns list, effectively removing the column from the search results table.
<<	Moves all items from the Selected Columns list to the Available Columns list, effectively removing all columns from the search results table.
	Applies changes and closes the screen.
	Cancels changes and closes the screen.

➤ **To add/remove columns from the Search Call Results:**

1. Click the  button in the 'Search Calls' results screen to open the 'Add and Remove Columns' dialog.
2. Move the Columns to display to the 'Select Columns' side of the screen. Use the table below as reference.
3. Click Update to apply the changes and close the screen.

**Table 6-38: Add and Remove Columns**


Field	Description
User / Device	Targeted User or Device.
Start Time	Initial off-hook or offering of the call.
Answer Time	The time at which the call was answered.
Release Time	The time at which the call was disconnected.
Trigger Time	The time at which the user manually initiated Record or Save on Demand.
Duration	Total duration of the call, from the Start Time to the Release Time.
Calling Party	The call initiator.
Called Party	The intended recipient of the call.
Answering Party	The party who ultimately answered the call.
Dialed Digits	Any dialed digits to set up the call (only required for PSTN gateway calls).
Direction	Inbound or Outbound.

Field	Description	
Release Cause	Normal	Answered call.
	Missed	Incoming call to targeted user that wasn't answered.
	Abandoned	Outgoing call from targeted user that wasn't completed.
	Conferenced *	Indicates the call leg was released as a result of the call being elevated to a conference call.
	Transferred *	Indicates the call leg was released as a result of being transferred.
Recording Type	<ul style="list-style-type: none"> <li>■ Full Time</li> <li>■ Record on Demand</li> <li>■ Save on Demand</li> </ul>	
Expires	Call recording expiration date. The date after which the call recording is purged. The date is calculated based on the retention profile assigned to the call. If the call was put on legal hold or evaluated, the expiration date is presented along with a lock icon.	
System Call ID	Indicates the Original Call ID. Applicable to Skype For Business and other SIP-related integrations. This ID can be used to correlate call records to the original calls.	
Conversation ID	Indicates the Skype For Business Conversation ID. This ID can be used to correlate between audio/video and content sharing calls made by a user from SFB client as part of one conversation.	
Conference ID	Indicates the Skype For Business Conference ID. This ID identifies the conference to which the call was connected. It can be used to correlate between audio/video and content sharing calls made by a user from a Skype for Business client.	
Media Status Reason	Corresponding Media Reason	
Tags	Identifies whether a tag has been assigned to the call record.	
Release Calls Details	Release Cause of the Original Call. Applicable to Skype For Business. Example: '51004; reason=""Action initiated by user";51004.	

## Saving Search Queries

You can save search criteria as a query and then later retrieve it. Save the search criteria by



selecting the  in the bottom right-hand corner of the screen. The saved query is added to the Saved Searches pane in the bottom left-hand corner of the screen. In the figure below "Last Two Days" is added as the saved query.

**Figure 6-88: Save Search Query**

The figure shows two screenshots from the SmartTAP interface. The top screenshot is a 'Save Search Query' dialog box with a blue header bar containing the title and a close button. Below the header, there is a 'Name' label followed by a text input field containing 'Last Two Days'. To the right of the input field are 'Submit' and 'Cancel' buttons. The bottom screenshot shows a 'Saved Searches' panel with a dropdown menu at the top. Below the dropdown is a list of saved searches, each with a delete icon (an 'X' in a square) to its right. The searches listed are: 'calling 1 10', 'calling 1 26', 'calling 2 26', 'LAST day calling 1 26 9 columns', 'LAST hour calling 1 10 2 columns', '1 10 a week ago 14 calls', '1 26 a week ago 7 calls', 'all users a week ago 21 calls', and 'Last Two Days'. The 'Last Two Days' search is highlighted with a yellow background. At the bottom of the list are navigation buttons (first, previous, next, last) and a page indicator '(1 of 1)'.

## Deleting Calls and Instant Messages


SmartTAP is deployed in several recording scenarios such as compliance, quality monitoring and for malicious call recordings. While regulatory compliance requires that recordings are deleted automatically after a regulated time frame, quality monitoring scenarios requires the ability to manually delete recordings. Consequently, calls and instant messages conversations can be deleted on demand by users with the appropriate permissions in security profiles (see [Managing Security Profiles](#) on page 80).



- This feature is enabled through the SmartTAP Call Deletion license (SW/SMTP/CALLDEL)
- If a user is on Legal Hold, their Calls and Instant Messaging cannot be deleted (see [Managing Users](#) on page 73)
- When calls or messages are deleted, any associated evaluations are also deleted.

### ➤ To delete calls:

1. Search for calls according to desired search criteria (see [Searching for Calls](#) on page 103).

2. Select the  button adjacent to each call that you wish to delete. The button becomes red





Only the filtered and selected recordings are deleted.


**Figure 6-89: Delete Calls**

Calls between 9/1/19 11:28 AM and 12/31/19 12:28 PM

▼ Calls

	Name	Start Time	Duration	Direction	Release Cause	Media Type
	Smith, John	Dec 31, 2019 9:38:41 AM	00:00:17	OUTGOING	NORMAL	
	Smith, John	Dec 31, 2019 10:54:19 AM	00:00:15	INCOMING	NORMAL	
	Smith, John	Dec 31, 2019 11:20:50 AM	00:00:00	INCOMING	MISSED	
	Smith, John	Dec 31, 2019 11:28:00 AM	00:00:07	OUTGOING	NORMAL	
	Smith, John	Dec 31, 2019 12:26:36 PM	00:00:11	OUTGOING	NORMAL	
	Smith, John	Dec 31, 2019 9:38:42 AM	00:00:15	OUTGOING	NORMAL	
	Smith, John	Dec 31, 2019 10:54:20 AM	00:00:14	INCOMING	NORMAL	
	Smith, John	Dec 31, 2019 11:21:00 AM	00:00:16	INCOMING	NORMAL	
	Smith, John	Dec 31, 2019 12:09:04 PM	00:00:12	INCOMING	NORMAL	
	Smith, John	Dec 31, 2019 9:38:57 AM	00:00:15	OUTGOING	NORMAL	

10 1 2 3 4 5 (1 of 5)  
Total calls: 43

3. Click , a confirmation dialog is displayed:

**Figure 6-90: Delete Calls Confirmation**

Delete Calls

Total 11 calls records are selected for deletion. These calls will be processed in the next retention cycle.

Call deletion rule ☒ Delete call's metadata and media ☐ Delete call's media

Add note  

John Smith's calls December 31, 2019

Authorized By  

Bob Brown

Submit Cancel

You can add a note and also indicate who authorized the deletion.

4. Click **Submit**. You are prompted to confirm the deletion.




You can monitor the deletion process in the Audit Trails page:

**Figure 6-91: Audit Trail Page**

User (PLEASE DELETE), Initial	DELETE_PENDING	12/30/2019 12:56:52 PM	Call deletion request is pending. Record count: 1, Deletion Rule: DELETE_CALL_MEDIA, Deletion Reason: Delete call's media , Authorized By: admin
User (PLEASE DELETE), Initial	DELETE_EXECUTION	12/31/2019 02:00:00 AM	Call deletion request executed. Record count: 1, Deletion Rule: DELETE_CALL, Deletion Reason: Delete call's metadata and media, Authorized By: admin
User (PLEASE DELETE), Initial	DELETE_EXECUTION	12/31/2019 02:00:00 AM	Call deletion request executed. Record count: 1, Deletion Rule: DELETE_CALL_MEDIA, Deletion Reason: Delete call's media , Authorized By: admin

Instant Messages can be deleted in a similar manner.

**Figure 6-92: Deleting Instant Messages**

Instant Messages between 9/1/19 12:23 AM and 1/1/20 02:23 AM					
					
User		First Message Time	Last Message Time	Messaging Parties	Chat Type
Smith, John		Dec 31, 2019 12:11:39 PM	Dec 31, 2019 12:13:57 PM	Taylor, Bob; Smith, John	CHAT
Taylor, Bob		Dec 31, 2019 12:11:39 PM	Dec 31, 2019 12:13:57 PM	Taylor, Bob; Smith, John	CHAT
<div>100</div> <div>&lt;&lt; &lt; &gt; &gt;&gt;</div> <div>1</div> <div>&gt;&gt; &gt;</div> <div>(1 of 1)</div>					

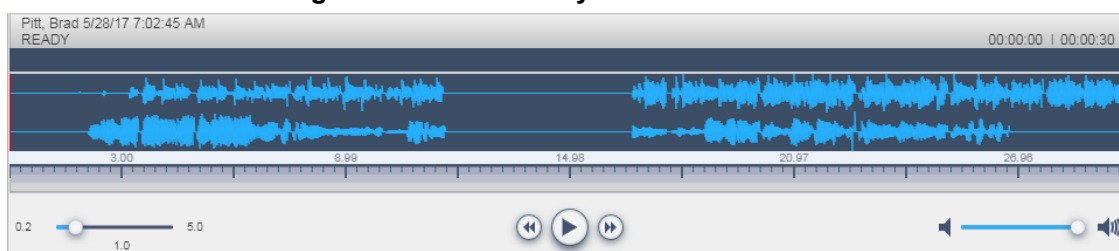
## Playing Back Recorded Media


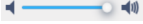
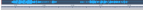
This section describes how to listen to call audio, view a call video and view a desktop application recording. Use the Player interface, available when a call is selected and shown below, to listen to, email, or download a call recording.









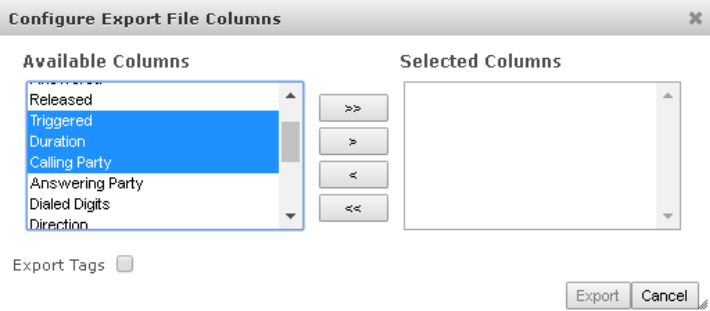





The Web browser support for the SmartTAP HTML5 player is listed below:

- Audio:
  - ✓ Audio Playback: Google Chrome Ver. 58 and later, Mozilla Firefox Ver. 53 and later, Microsoft Internet Explorer 11
  - ✓ Wave form rendering: Google Chrome Ver. 58 and later, Mozilla Firefox Ver. 53 and later
  - ✓ Stereo wave form rendering: Google Chrome Ver. 58 and later
  - ✓ Playing while loading: Google Chrome Ver. 58 and later, Microsoft Internet Explorer 11
- Video:
  - ✓ Video: Google Chrome Ver. 58 and later, Mozilla Firefox Ver. 53 and later
  - ✓ Playback with 'Display Video' selected is limited to five concurrent sessions.
- Skype for Business Desktop Application Recording (Desktop Sharing): Skype for Business desktop sharing over VBSS (Video Based Screen Sharing) recording is supported. Refer to the link below for more information on Skype for Business VBSS client and server support:
  - ✓ <https://docs.microsoft.com/en-us/skypeforbusiness/manage/video-based-screen-sharing#clients-and-servers-support>

**Figure 6-93: Audio Player Screen****Table 6-39: Player Screen Overview**

Field	Description
	Call details for the selected call
	Volume control
	Status and other information (see more information below).

Field	Description
	Playback the entire recording or a selected segment.
	Pause the playback of the recording.
	Rewind to immediately replay the selected segment of the recording from the start point of the segment.
 	Return to the start point of the selected segment of the recording, then click  to replay the segment.
	Playback speed in milliseconds.
	<p>Send call information to an excel worksheet. When this option is selected, you can use the arrow keys to select those columns to include in your report.</p> 
	Email audio call information. When this option is selected, the Email Audio dialog opens. See <a href="#">Sending Email</a> on page 76
	Save search call query. You can save the search query results and then easily retrieve these call details at a later time. See <a href="#">Searching for Calls</a> on page 103
	Download call information to your PC. When this option is selected, the Download Media dialog opens. See <a href="#">Downloading Call Recordings</a> on page 125.

## Listening to Call and Viewing Call Video

This section describes how to listen to a call and view a video.

### ➤ To listen to a call and view call video:

1. Follow the instructions described in [Searching for Calls](#) on page 103 [Searching for Calls](#) on page 103 to search for calls.
2. If you wish to view call video, ensure that you have selected the “Display Video” check box.
3. In the retrieved calls list, select the desired call entry that you wish to listen.

The call recorder is displayed with the frequency spectrum of the call.



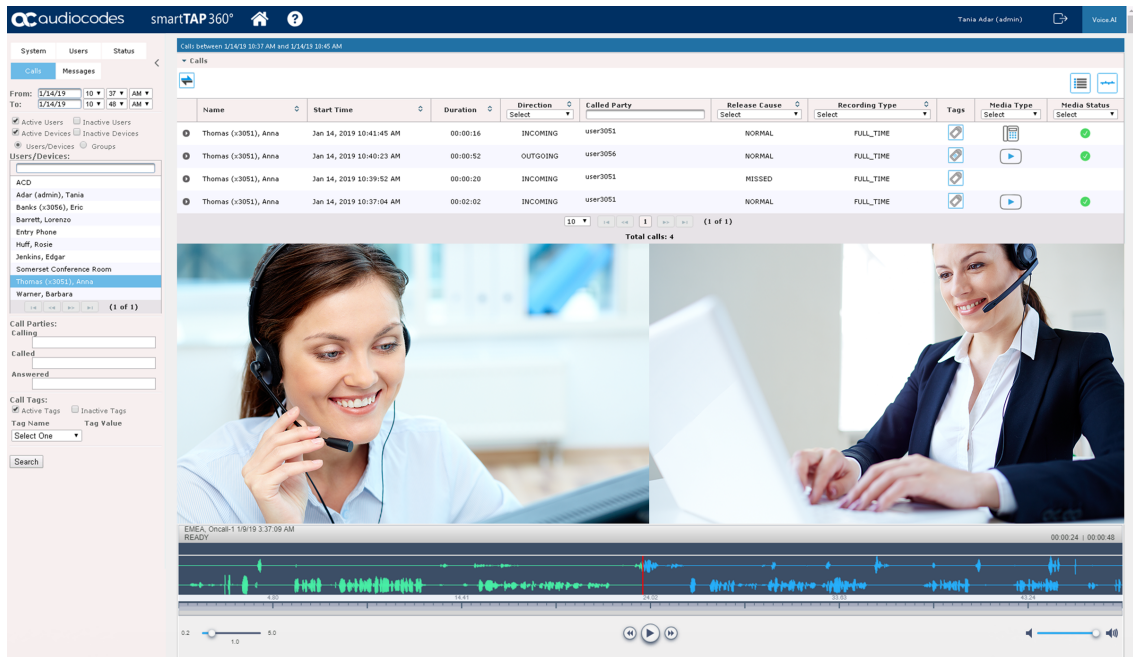
4. Click the  button to start listening to the call and/or view the video (if you selected “Display Video” check box); the button changes to  while the call is playing, to allow the administrator to pause the player while playing the audio or video.

Figure 6-94: Viewing Video



When the call is played back, the played back segments are colored green and the audio signaling playback data is displayed at the top of the dialog (shown by the yellow lines at the top of the dialog below).

You can also view multiple participants in a conference as shown in the figure below:

Figure 6-95: Multiple Conference Participants

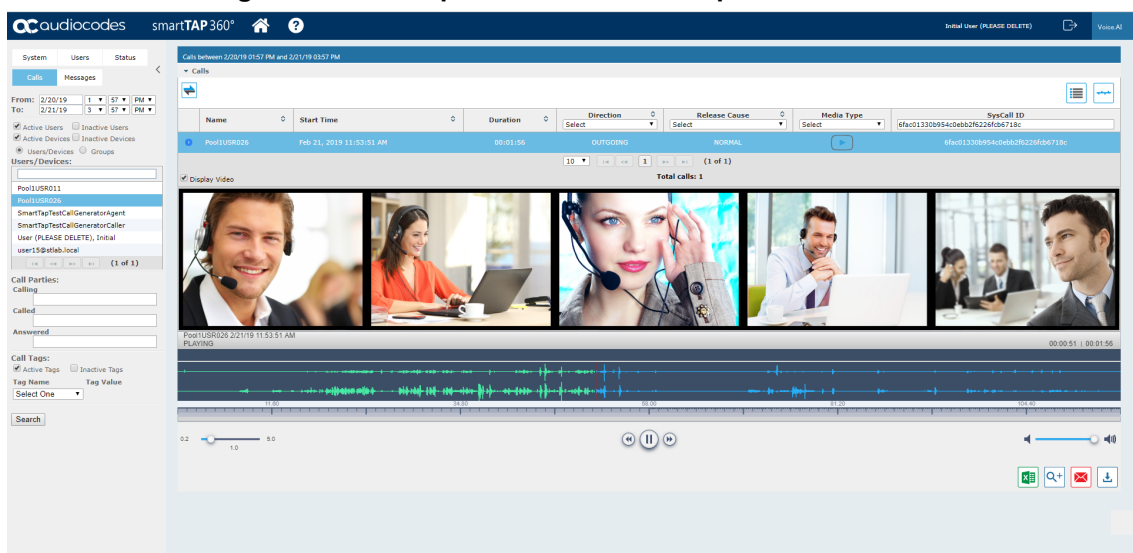
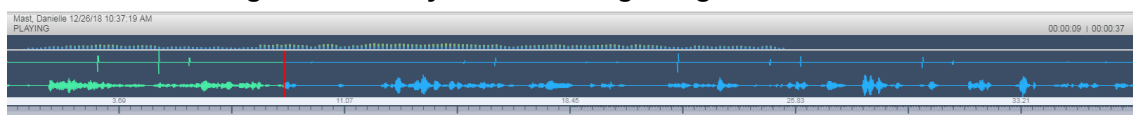


Figure 6-96: Playback Audio Signaling Data




Information at the top-left hand side of the screen includes the user name, date and time and status e.g. "PLAYING". On the top-right hand side of the screen includes the elapsed playback time and the total playing time.

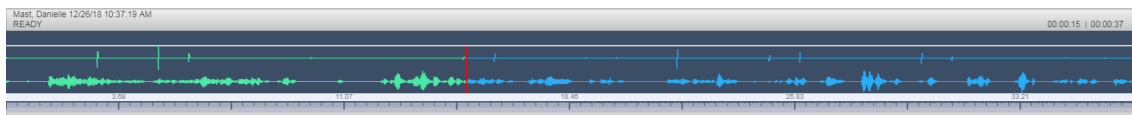
The timeline of the recording segments (in minutes and seconds) is displayed below the recording signal data.

5. Manipulate the call recording in the following ways:


- Move the cursor to any random point in the recording and left-click and release;

- The selected segment is colored green. Click the  button; the call recording is played from the left-click selection point forward (shown by the red line in the figure below).

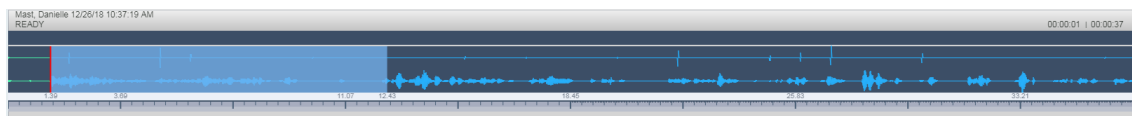
**Figure 6-97: Random Selection Point in Call Recording**






- Left-click and drag the mouse over the desired segment in the call recording and release;

the selected segment is shaded blue. Click the  button; the shaded segment of the call recording is played back.

**Figure 6-98: Highlighted Segment in Call Recording**



- Select the  button to return to the start point of the selection; the selected segment is immediately played back.
- Select the  button to return to the start point of the selection. You must then click the  button to playback the selected segment.

## Skype for Business Desktop Sharing

This section describes how to playback a desktop sharing recording.

➤ **To playback desktop sharing recording :**

1. Follow the instructions described in [Searching for Calls](#) on page 103 to search for calls.
2. From the Media Type drop-down list, select Sharing to filter the search results for the desktop sharing recordings.

**Figure 6-99: Media Type-Desktop Sharing**

Calls between 7/2/18 03:02 PM and 1/22/19 05:02 PM

▼ Calls

Name	Start Time	Duration	Direction	Release Cause	Tags	Media Type
Mast, Danielle	Dec 26, 2018 11:25:47 AM	00:00:13	INCOMING	NORMAL		
Kling, Brian	Nov 21, 2018 4:13:29 PM	00:07:24	INCOMING	NORMAL		
Kling, Brian	Nov 21, 2018 4:11:55 PM	00:01:25	OUTGOING	NORMAL		
Kling, Brian	Nov 13, 2018 5:01:44 PM	00:14:08	OUTGOING	NORMAL		
Kling, Brian	Nov 13, 2018 4:57:32 PM	00:03:48	INCOMING	NORMAL		
Adar, Tania	Sep 26, 2018 3:31:53 PM	00:01:50	INCOMING	NORMAL		
Dutta, Debajyoti	Sep 25, 2018 6:23:26 PM	00:06:31	INCOMING	NORMAL		
Adar, Tania	Sep 24, 2018 9:52:35 PM	00:03:52	OUTGOING	NORMAL		
Adar, Tania	Sep 24, 2018 9:37:51 PM	00:03:24	OUTGOING	NORMAL		
Adar, Tania	Sep 24, 2018 9:32:46 PM	00:04:06	OUTGOING	NORMAL		

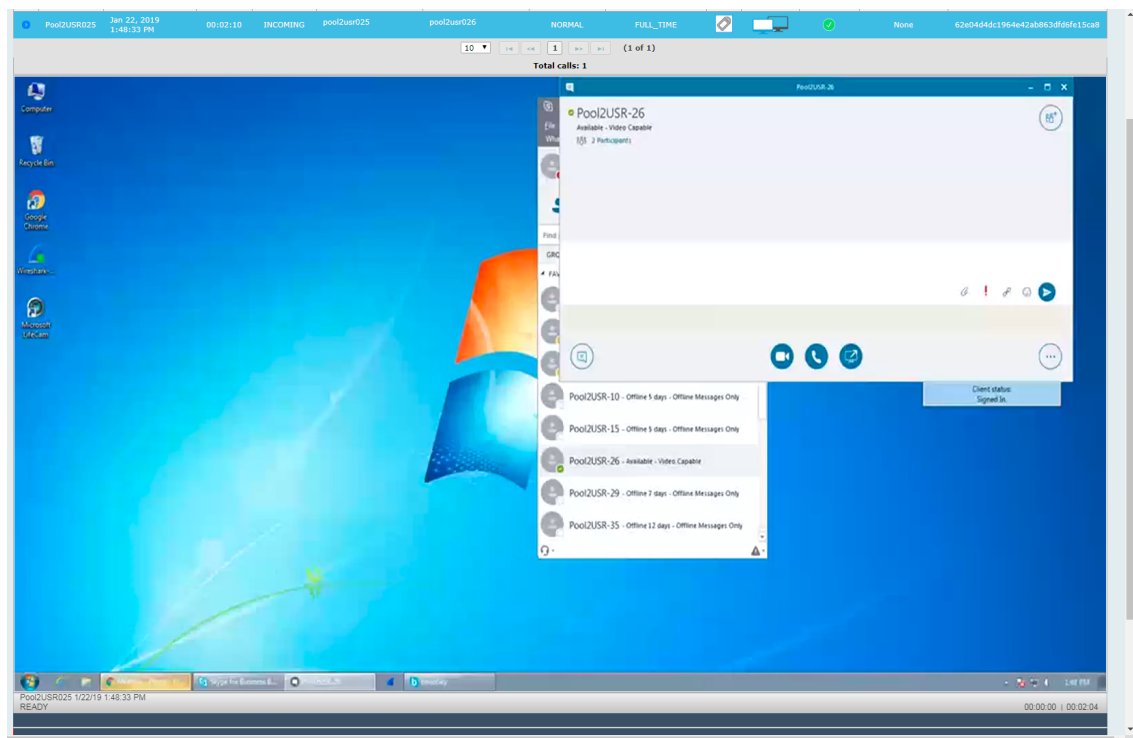
10 1 2 (1 of 2)


Select a call

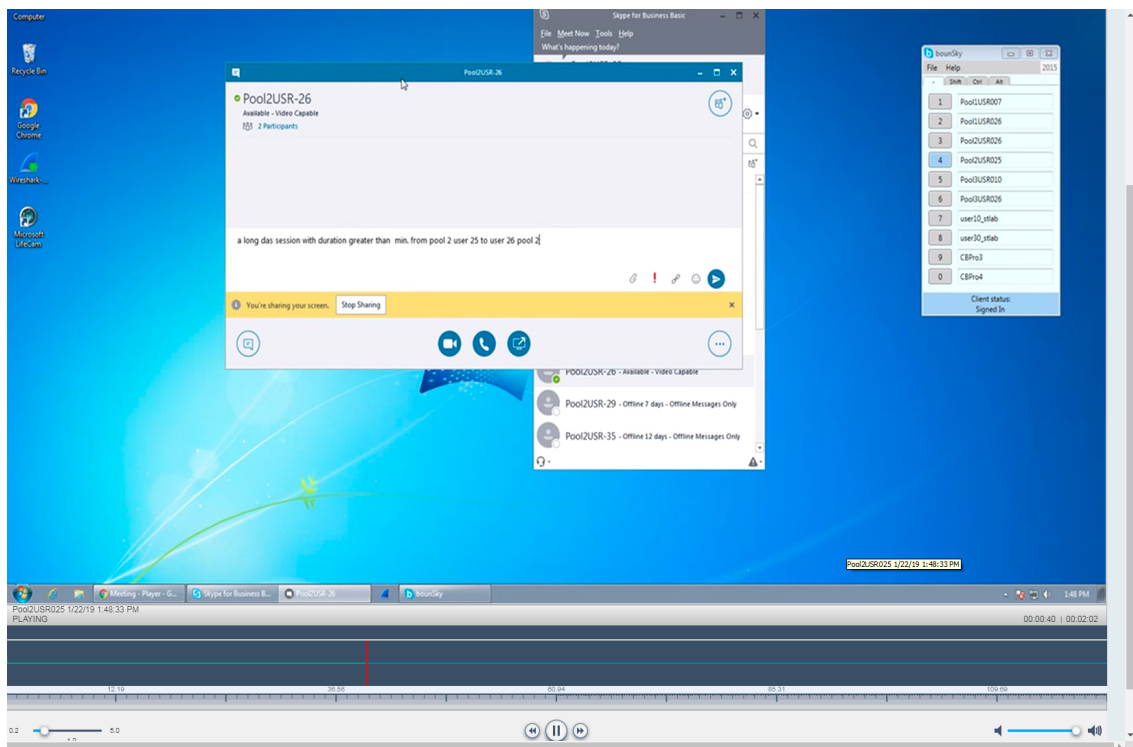
Total calls: 11




00:00:00 | 00:00:00

- Double-click a row to display the desktop sharing recording.

**Figure 6-100: Desktop Sharing Recording**

- Click the  button to playback the selected segment; view the keyboard and mouse actions of the user for the recorded application segment.



5. Click the  button to return to the start point of the selection; the selected segment is immediately played back.
6. Click the  button to return to the start point of the selection. You must then click the  button to playback the selected segment.

## Time Line View

You can view call data for a specific user/device over a time line. Zooming in using the mouse roller or navigation buttons enables you to view the details of call.

### ➤ To manage calls using the timeline feature:

1. Follow the instructions described in [Searching for Calls](#) on page 103 to search for calls.

**Figure 6-101: Calls List**

Calls between 11/25/19 04:49 PM and 12/2/19 04:49 PM

▼ Calls

Name	Start Time	Duration	Direction	Release Cause	Media Type
John Smith	Dec 2, 2019 2:19:50 PM	00:00:10	OUTGOING	NORMAL	
John Smith	Dec 2, 2019 2:19:38 PM	00:00:11	OUTGOING	NORMAL	
John Smith	Dec 2, 2019 2:19:27 PM	00:00:10	OUTGOING	NORMAL	
John Smith	Dec 2, 2019 2:19:15 PM	00:00:10	OUTGOING	NORMAL	
John Smith	Dec 2, 2019 2:19:03 PM	00:00:10	OUTGOING	NORMAL	
John Smith	Dec 2, 2019 2:18:51 PM	00:00:11	OUTGOING	NORMAL	
John Smith	Dec 2, 2019 2:18:40 PM	00:00:10	OUTGOING	NORMAL	
John Smith	Dec 2, 2019 2:18:28 PM	00:00:10	OUTGOING	NORMAL	
John Smith	Dec 2, 2019 2:18:16 PM	00:00:10	OUTGOING	NORMAL	
John Smith	Dec 2, 2019 2:18:04 PM	00:00:11	OUTGOING	NORMAL	

10 1 2 3 4 5 (1 of 19)

Select a call Total calls: 182


00:00:00 | 00:00:00

0.00 0.50 1.00 1.50 2.00 2.50 3.00 3.50 4.00 4.50 5.00

0.2 1.0 5.0

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2. Select the Timeline view icon . A screen similar to the following is displayed:

**Figure 6-102: Select User in Timeline View**

Calls between 11/25/19 05:33 PM and 12/2/19 05:33 PM

▼ Calls

User/Device

John Smith

5 1 (1 of 1)

Total users: 1

▼ Selected Calls

User/Device	Start Time	Duration	Direction	Release Cause	Media Type	Remove
Please choose calls from timeline						

Select a call Load

00:00:00 | 00:00:10

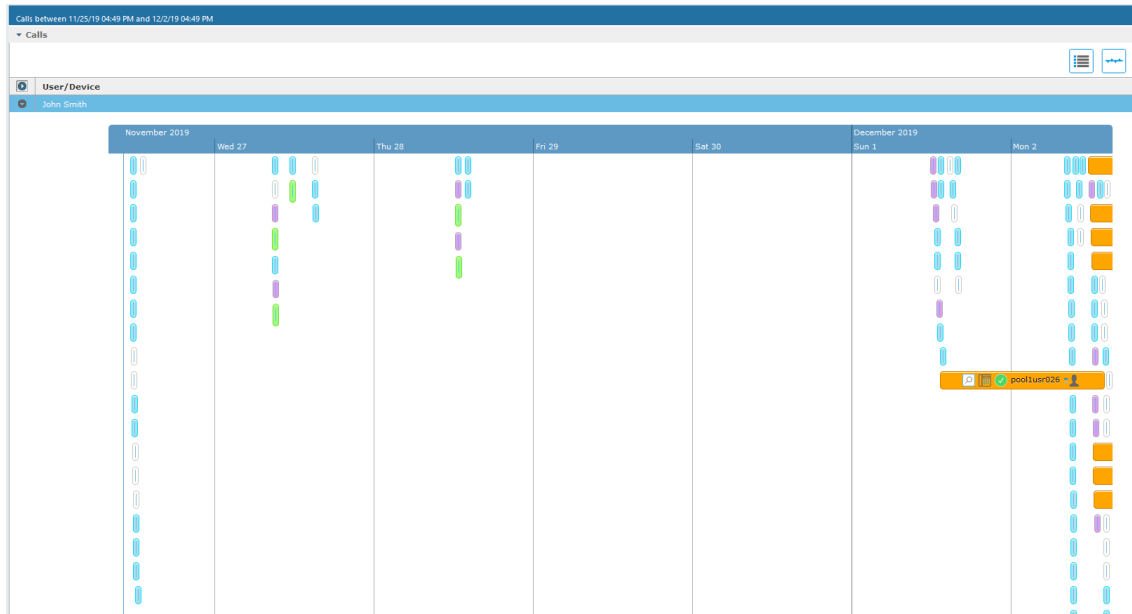
1.00 3.00 5.00 7.00 9.00

0.2 1.0 5.0

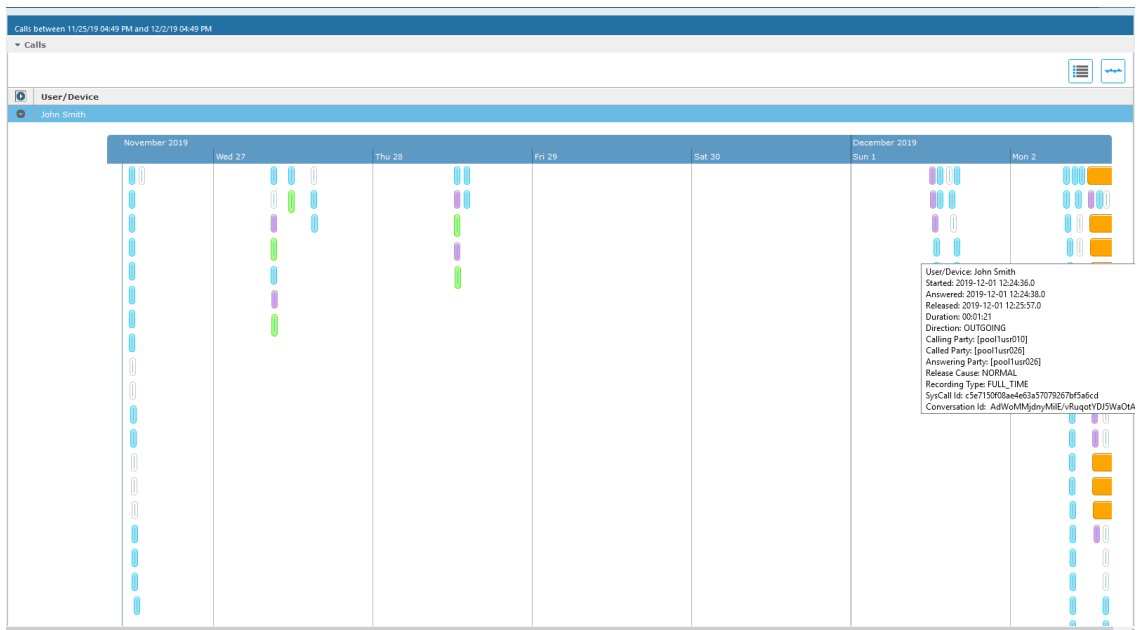
⏮ ⏪ ⏩ ⏭

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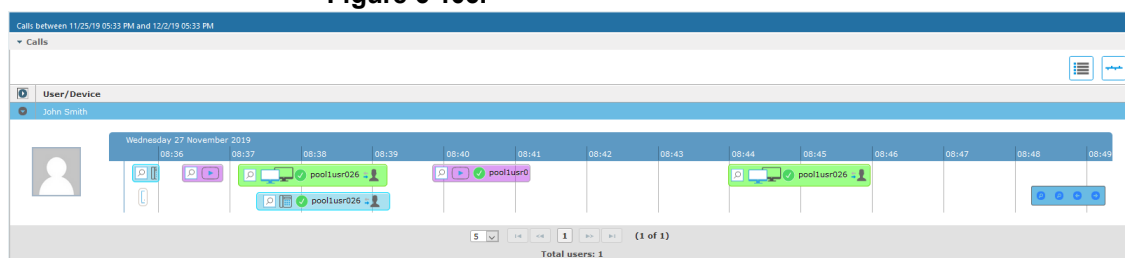
3. Select the arrow adjacent to the User/Device whose timeline you wish to view. The Calls List is displayed:

**Figure 6-103: User Timeline**

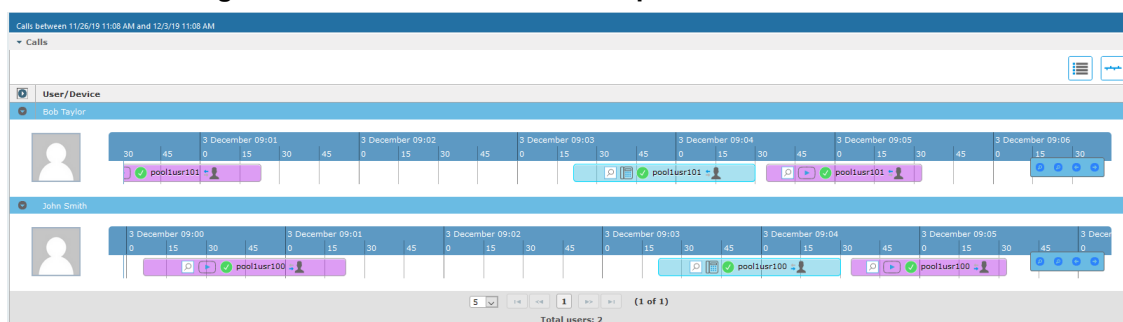
4. Hover over a call event to view details of the call.

**Figure 6-104: Call Event Details**

5. Zoom in on a specific day to view the details using either the mouse roller or the navigation buttons that are highlighted below.

**Figure 6-105: Zoom In****Figure 6-106:**

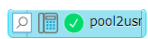

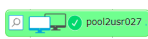
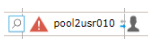
- In timeline view, the calls are grouped according to their target type. Each target type is represented by a different color (see table below). Calls for the same target type are displayed as events in a continuous timeline.
- Call events from one or more timelines can be selected to a playable table. Calls from the playable list can be loaded to the player by clicking an icon in the timeline and then clicking the Load button.

**Figure 6-107: Call Events from Multiple Timelines**

The following rules are applied when more than one call is selected to play from the playable list:










- Only calls for the same user can be selected to be played together.
- If multiple selected segments include video or Desktop Sharing, the total playback time should not exceed six hours, otherwise the total playback time can be up to 24 hours.
- Only calls of different types can overlap:
  - An Audio call segment can overlap with a Desktop Sharing call segment
  - An Audio Video call segment can overlap with a Desktop Sharing call segment
  - An Audio call segment can't overlap with another Audio or Audio Video call segment
  - A Desktop Sharing call segment can't overlap with another Desktop Sharing call segment

**Table 6-40: Call Events Description**

Media Type	Description
 pool2usr	Represents an Audio call.
 pool2L	Represents a Video call
 pool2usr027	Represents a Desktop Sharing call
 pool2usr010	Represents a call that has no media. When a call is abandoned or missed, this target is displayed without the red warning.

Each event includes different call information statuses as shown in the table below:

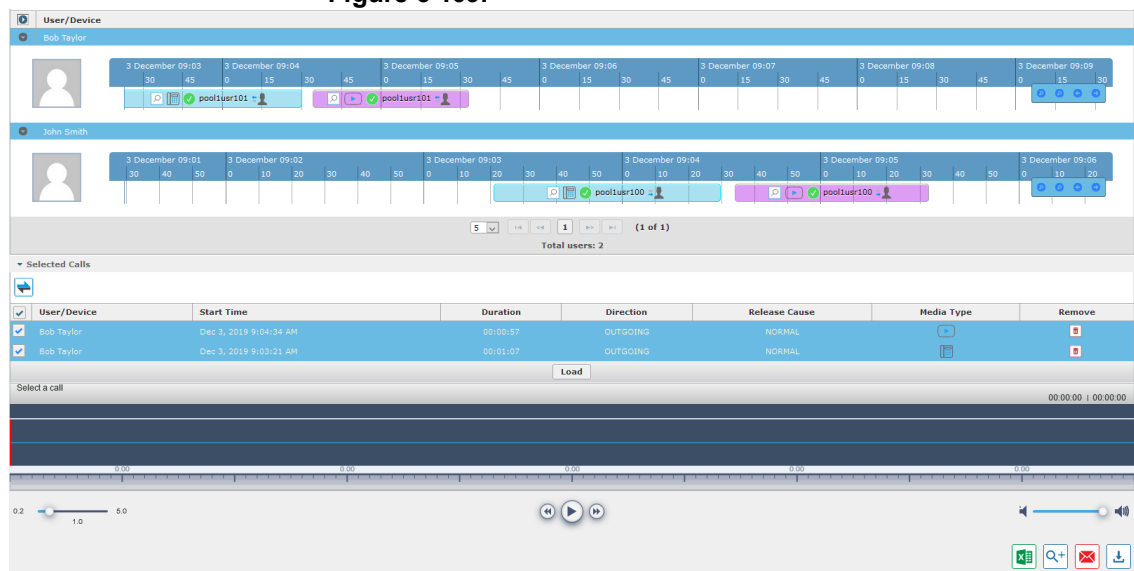
Table 6-41: Call Icons

Item	Icon	Description
Call Details		Right-click the magnifying glass icon to view the call details.
Media Type		Indicates an audio call.
		Indicates a video call
		Indicates a desktop application call
Media Status		Indicates a successful call
		Indicates a call with silent media
		Indicates an unsuccessful call.
Called Party and Call Direction		Indicates an incoming call.
		Indicates an outgoing call.

1. Select the check box adjacent to each call that you wish to playback and click **Load**. The Media Player is loaded.

Figure 6-108: Load Media Player

Figure 6-109:



The selected files are loaded to the Media Player.

Figure 6-110: Loading Files to Media Player

**User/Device**

Bob Taylor

John Smith

Display Video

**Selected Calls**

User/Device	Start Time	Duration	Direction	Release Cause	Media Type	Remove
Bob Taylor	Dec 3, 2019 9:04:34 AM	00:00:57	OUTGOING	NORMAL	[Icon]	[Remove]
Bob Taylor	Dec 3, 2019 9:03:21 AM	00:01:07	OUTGOING	NORMAL	[Icon]	[Remove]

Bob Taylor 12/3/19 9:03:21 AM  
LOADING

00:00:00 | 00:01:01

0.2 1.0 5.0

1 (of 1)

Total users: 2

Figure 6-111: Files Ready to Play

**User/Device**

Bob Taylor

John Smith

Display Video

**Selected Calls**

User/Device	Start Time	Duration	Direction	Release Cause	Media Type	Remove
Bob Taylor	Dec 3, 2019 9:04:34 AM	00:00:57	OUTGOING	NORMAL	[Icon]	[Remove]
Bob Taylor	Dec 3, 2019 9:03:21 AM	00:01:07	OUTGOING	NORMAL	[Icon]	[Remove]

Bob Taylor 12/3/19 9:03:21 AM  
READY

00:00:00 | 00:02:04

0.2 1.0 5.0

1 (of 1)

Total users: 2


2. Click  to play the selected call.

Figure 6-112: Play Call

The screenshot shows the SmartTAP interface for playing a call. At the top, there are two user timelines for Bob Taylor and John Smith, showing call events with timestamps. Below the timelines, there is a table of selected calls.

User/Device	Start Time	Duration	Direction	Release Cause	Media Type	Remove
Bob Taylor	Dec 3, 2019 9:04:34 AM	00:00:57	OUTGOING	NORMAL	Audio	Remove
Bob Taylor	Dec 3, 2019 9:03:21 AM	00:01:07	OUTGOING	NORMAL	Audio	Remove

Below the table, the selected call is displayed: Bob Taylor 12/3/19 9:03:21 AM. The call player interface shows a waveform and playback controls, including a play button, a progress bar, and a volume control.

## Downloading Call Recordings

You can download both audio and video call recordings components to your PC.



Download with 'Display Video' selected is limited to five concurrent sessions.

## Downloading an Audio Call

This section describes how to download an audio call.

### ➤ To download an audio call:


1. Follow the instructions in [Searching for Calls](#) on page 103 to search for the call to download.
2. From the Media Type drop-down list, select **Audio**.
3. Select the call that you wish to download.
4. The Player screen opens; click  to open the download menu.
5. Select 'Basic' or 'Advanced' format depending on file formats, encoding, and mixing for the download files.

Figure 6-113: Basic Audio Download

Calls between 6/1/18 05:24 PM and 1/10/19 07:24 PM

### Download Media ✕

Agent	Started	Duration
Johnson, Bob	Dec 31, 2018 1:56:38 PM	00:00:29

**Duration** 00:00:29  
**Calls** 1  
**Audio Segments** 2  
**Video Segments** 2

☐ Video ☐ Sharing  
☒ Basic ☐ Advanced

**File Format**  
☒ WAVE  
☐ MP3  
☐ WEBM

SUBMIT
CANCEL

Figure 6-114: Advanced Audio Download

Calls between 12/1/18 09:38 AM and 1/2/19 11:38 AM

### Download Media ✕

Agent	Started	Duration
Johnson, Bob	Dec 31, 2018 1:55:48 PM	00:00:28

**Duration** 00:00:28  
**Calls** 1  
**Audio Segments** 2

☐ Basic ☒ Advanced

**File Format**  
☒ WAVE  
☐ MP3  
☐ WEBM

☐ Digitally Sign

**Audio Encoding**

☐ ALAW  
☐ MPEG1L3  
☐ OPUS  
☒ PCM\_SIGNED  
☐ ULAW

**Audio Mixing**

☒ Mono  
☐ Multi-Track  
☐ Stereo

SUBMIT
CANCEL

## Downloading a Video Call

This section describes how to download a video call.

➤ **To download a video call:**

1. Follow the instructions in [Searching for Calls](#) on page 103 to search for the call to download.
2. From the Media Type drop-down list, select **Video**.
3. Select the video you wish to download.
4. Select the Video check box.
5. Select 'Basic' or 'Advanced' format depending on file formats, encoding, and mixing for the download files.

**Figure 6-115: Basic Video Download**

The screenshot shows a 'Download Media' dialog box with a blue header bar. The header bar contains the text 'Calls between 12/1/18 09:38 AM and 1/2/19 11:38 AM' and a close button (X). Below the header bar, there is a table with three columns: 'Agent', 'Started', and 'Duration'. The first row of the table shows 'Johnson, Bob', 'Dec 31, 2018 1:56:38 PM', and '00:00:29'. Below the table, there are several sections: 'Duration' with a value of '00:00:29', 'Calls' with a value of '1', 'Audio Segments' with a value of '2', and 'Video Segments' with a value of '2'. There are two checkboxes: 'Video' (checked) and 'Sharing' (unchecked). Below these are two radio buttons: 'Basic' (selected) and 'Advanced' (unselected). There is a section titled 'File Format' with three radio buttons: 'WAVE' (selected), 'MP3' (unselected), and 'WEBM' (unselected). At the bottom right, there are two buttons: 'SUBMIT' (green border) and 'CANCEL' (red border).

Agent	Started	Duration
Johnson, Bob	Dec 31, 2018 1:56:38 PM	00:00:29

**Duration** 00:00:29  
**Calls** 1  
**Audio Segments** 2  
**Video Segments** 2

☒ Video ☐ Sharing  
☒ Basic ☐ Advanced

**File Format**  
☒ WAVE  
☐ MP3  
☐ WEBM

**SUBMIT** **CANCEL**

**Figure 6-116: Advanced Video Download**

Calls between 12/1/18 09:38 AM and 1/2/19 11:38 AM

### Download Media ✕

Agent	Started	Duration
Johnson, Bob	Dec 31, 2018 1:56:38 PM	00:00:29

**Duration** 00:00:29  
**Calls** 1  
**Audio Segments** 2  
**Video Segments** 2

☐ Video ☐ Sharing  
☐ Basic ☒ Advanced

**File Format**

☒ WAVE  
☐ MP3  
☐ WEBM

☐ Digitally Sign

**Audio Encoding**

☐ ALAW  
☐ MPEG1L3  
☐ OPUS  
☒ PCM\_SIGNED  
☐ ULAW

**Audio Mixing**

☒ Mono  
☐ Multi-Track  
☐ Stereo

SUBMIT
CANCEL

## Downloading a Desktop Sharing Call

This section describes how to download a Desktop Sharing call.

➤ **To download a desktop sharing call:**

1. Follow the instructions in [Searching for Calls](#) on page 103 to search for the call to download.
2. From the Media Type drop-down list, select Sharing.
3. Select the desktop sharing session you wish to download.
4. Select the Sharing check box.

**Figure 6-117: Downloading a Desktop Sharing Call**

Calls between 7/1/18 03:32 PM and 1/22/19 05:32 PM

### Download Media ✕

Agent	Started	Duration
Kling, Brian	Nov 13, 2018 5:01:44 PM	00:14:08

**Duration** 00:14:08  
**Calls** 1  
**Sharing Segments** 1

☐ Video ☒ Sharing  
☒ Basic ☐ Advanced

**File Format**  
☐ WAVE  
☐ MP3  
☒ WEBM

SUBMIT CANCEL

5. Use the table below as a reference.

**Table 6-42: Download Media Screen**

Field	Description	Basic / Advanced
Agent	The name of the targeted user associated with this call.	Basic
Started	The call's start time.	Basic
Duration	The call's duration.	Basic
Remove	Click to remove the call from download.	Basic
Duration	Duration for all selected calls.	Basic
Calls	Number of calls selected.	Basic
Video	Select this option to download recorded video. When this option, the video file format WEBM is automatically selected.	Basic
Basic	Basic format for the 'Download Media' screen.	Basic
Advanced	Advanced format for the 'Download Media' screen.	Basic
File Format	Option to select the format of the downloaded file. One of the following: <ul style="list-style-type: none"> <li>Audio:               <ul style="list-style-type: none"> <li>✓ Wave</li> <li>✓ MP3</li> </ul> </li> <li>Video:               <ul style="list-style-type: none"> <li>✓ WEBM</li> </ul> </li> <li>Desktop Sharing:</li> </ul>	Basic

Field	Description		Basic / Advanced
	✓ WEBM		
Digitally Sign	Add a Digital Signature to download call. See <a href="#">Configuring a Digital Signature</a> on page 49 for more details. This feature is only supported for Audio downloads.		Advanced
Audio Encoding	Option to select the encoding of the downloaded file. One of the following: <ul style="list-style-type: none"> <li>Audio: <ul style="list-style-type: none"> <li>✓ ALAW</li> <li>✓ MPEG1L3</li> <li>✓ Opus</li> <li>✓ PCM_Signed</li> <li>✓ ULAW</li> </ul> </li> </ul>		Advanced
Video Encoding	VP8		
Mixing	Option to select the mixing of the downloaded file.		Advanced
	Mono	All audio tracks from the selected call will be mixed into a single mono track in the downloaded file.	Advanced
	Multi-Track	All tracks from the selected call will be placed on a separate track within the downloaded media file.	Advanced
	Stereo	Audio of each side of a call will be placed on a separate track within the downloaded media file.	Advanced
<b>SUBMIT</b>	Apply the changes.		
<b>CANCEL</b>	Cancel the changes.		

6. Click **SUBMIT** to download and save the file on the local computer.

## Emailing Call Recordings


You can send call recordings to an email address. Note that when this option is selected, only the audio components of the call are sent to an email address.



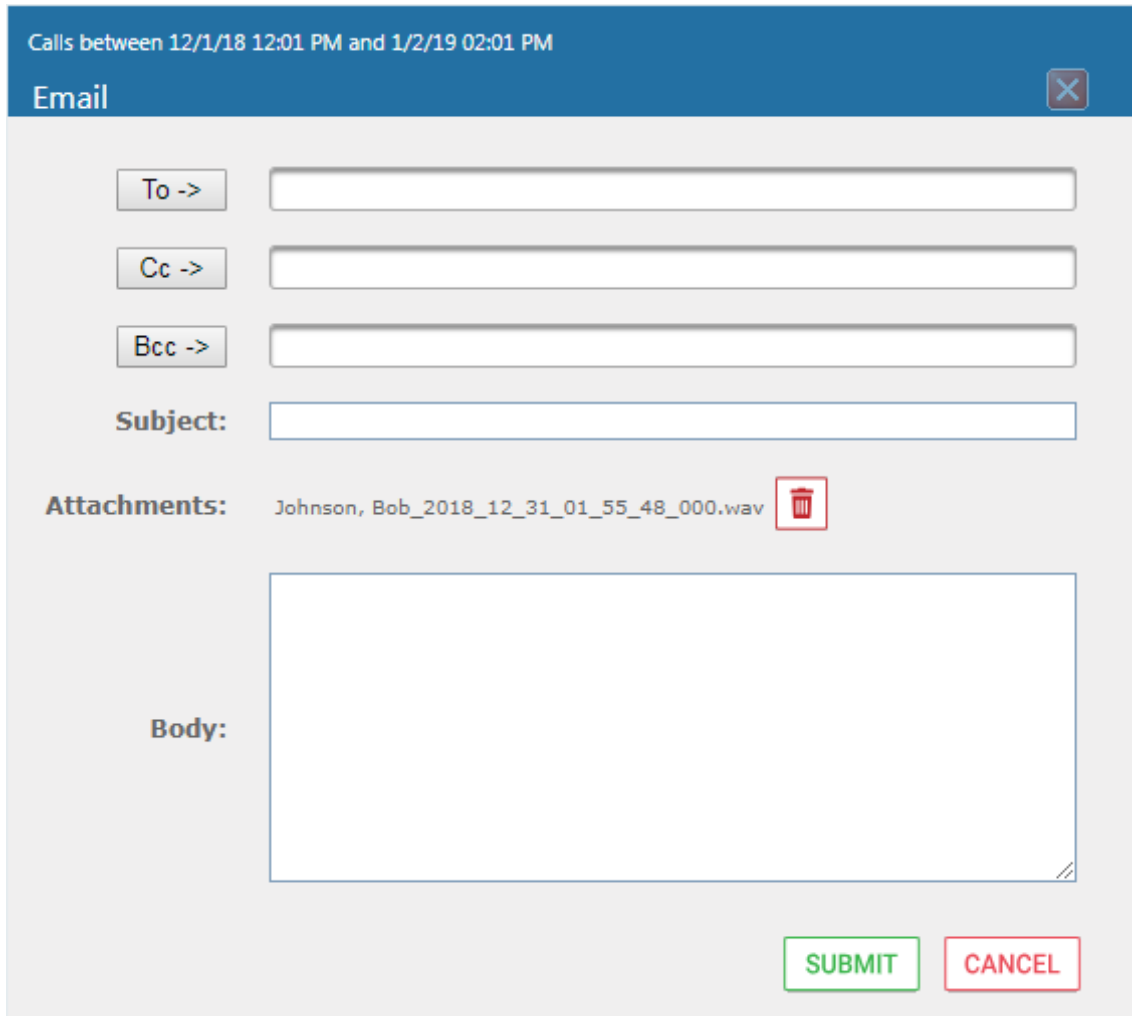
Video components cannot be sent by email.

### ➤ To email a call:

- Follow the instructions in 'Searching for Calls' (see [Searching for Calls](#) on page 103 to find the call to email.

2. Select the call entry to email and then click the email button ; the Email screen opens.



**Figure 6-118: Email Screen**



3. Use the table below as reference. Enter the recipients email addresses, or select from the dropdown.
4. Enter Cc and Bcc recipients if appropriate.
5. Enter Subject and Body.

**Table 6-43: Email – Field Descriptions**

Field	Description
To > Cc > Bcc >	Clicking the To>, Cc>, Bcc> buttons expands and collapses the list of users within the current user's group(s). Selecting/deselecting users from this list adds / removes them. The recipient list is a comma separated list of email addresses in the format 'jsmith@example.com'. The recipient list may also include the display name of the recipient. To add a display name for a recipient, the recipient's email address should be in angled brackets, for example: John Smith <jsmith@example.com>
Subject	Subject of the email.
Attachments	List of attachments included with this email message. Clicking the X next to the attachment removes the attachment from the email.

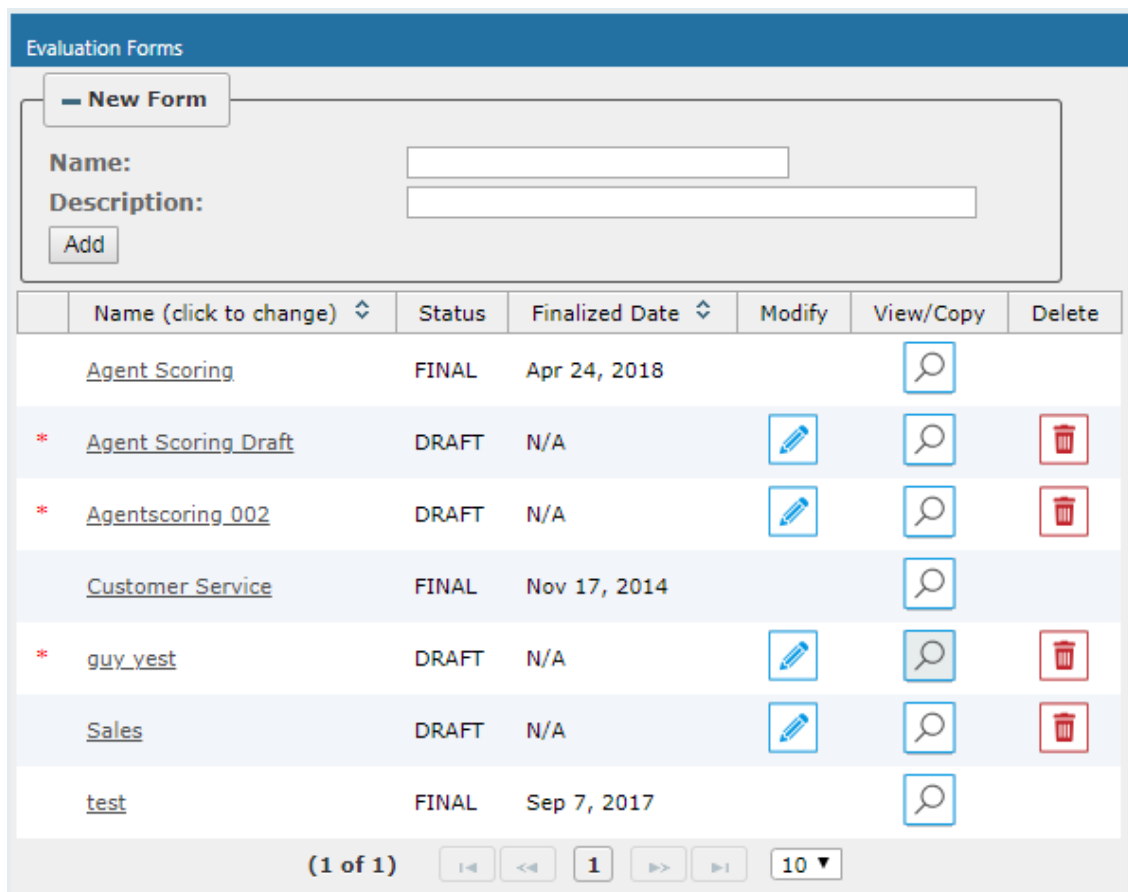
Field	Description
Body	Body of the email.
	Sends the email.
	Cancels the email.
















- Click Submit to send the email.





## Using the Evaluation Feature

The Evaluation tab accesses all functions related to the SmartTAP evaluation feature. From under this tab, evaluation forms to be used for evaluations are created. Later, evaluation reviews and reports can be generated. The Evaluation Forms screens, shown in the figure below, provides access to all evaluation-related features.

**Figure 6-119: Evaluation Forms – New Form Subscreen**



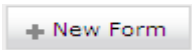

Name (click to change)	Status	Finalized Date	Modify	View/Copy	Delete
<a href="#">Agent Scoring</a>	FINAL	Apr 24, 2018			
* <a href="#">Agent Scoring Draft</a>	DRAFT	N/A			
* <a href="#">Agentscoring_002</a>	DRAFT	N/A			
<a href="#">Customer Service</a>	FINAL	Nov 17, 2014			
* <a href="#">guy_vest</a>	DRAFT	N/A			
<a href="#">Sales</a>	DRAFT	N/A			
<a href="#">test</a>	FINAL	Sep 7, 2017			

(1 of 1)   **1**   10 ▼

Use the table below as reference.

**Table 6-44: Evaluation Forms – New Form Subscreen**

Field	Description
	Click to close the Add Form sub screen.

Field	Description
	Click to open the Add Form sub screen.
Name (in the New Form menu)	The name of the new form.
Description (in the New Form menu)	The description of the new form.
 (in the New Form menu)	Click to create a new form.



This section includes the following procedures:

- [Adding a New Evaluation Form](#) below
- [Viewing and Copying an Evaluation Form](#) on page 135
- [Adding a New Section \[Evaluation Forms\]](#) on page 136
- [Adding Questions and Answers to an Evaluation Form](#) on page 136
- [Finalizing Forms](#) on page 139

## Adding a New Evaluation Form

This section describes how to add a new evaluation form.

### ➤ To add a new evaluation form:

1. Open the Evaluation Forms screen (**Evaluation** tab > **Evaluation** Folder > **Evaluation Forms**).
2. In the New Form subscreen, enter the Name of the new form and a Description.
3. Click  to create the form
4. The new form is added to the display with an (asterisk) \* on the rightmost column.
5. Use the Modify  button to define the form.

### ➤ To rename a form:


1. Open the Evaluation Forms screen (**Evaluation** tab > **Evaluation** folder > **Evaluation Forms**).
2. In the Evaluation Forms screen, click the 'Name' of the form to rename.
3. Change the Name and/or Description of the form in the 'New Form' subscreen.
4. Click  to rename the form.

Figure 6-120: Evaluation Forms

**Evaluation Forms**

Change Name

Name:

Agent Scoring

Description:

Agent Scoring Evaluation form

Change

Cancel

	Name (click to change) ▾	Status	Finalized Date ▾	Modify	View/Copy	Delete
	<u>Agent Scoring</u>	FINAL	Apr 24, 2018			
*	<u>Agent Scoring Draft</u>	DRAFT	N/A			
*	<u>Agentscoring_002</u>	DRAFT	N/A			
	<u>Customer Service</u>	FINAL	Nov 17, 2014			
*	<u>guy_vest</u>	DRAFT	N/A			
	<u>Sales</u>	DRAFT	N/A			
	<u>test</u>	FINAL	Sep 7, 2017			

(1 of 1) 1 10 ▾

Table 6-45: Evaluation Forms – Field Descriptions

Field	Description
New Form	Click to close the Add Form subscreen.
New Form	Click to open the Add Form subscreen.
Name (click to change)	Form Name sorted ascending/descending by clicking header up/down arrows.
Status	<ul style="list-style-type: none"> <li>FINAL (the form is final and available for use for evaluations. FINAL status forms cannot be changed)</li> <li>DRAFT (the form can be edited. DRAFT forms are not available for use for evaluations)</li> </ul>
Finalized Date	<ul style="list-style-type: none"> <li>(date) (Date when the form was finalized)</li> <li>N/A(Not Applicable; the form is not finalized)</li> </ul>
*	The form is not completed and cannot be finalized.
	Click to modify the form.
	Click to view or copy the form.


Field	Description
	Click to delete the form.

Figure 6-121: View/Copy Evaluation

View Evaluation form Agentscoring 002

**Section Greeting**

The agent thanked the customer for calling

Q: a: Yes 1 pt. ☐

a: No 0 pt. ☐

The agent mentioned their company name

Q: a: Yes 1 pt. ☐

a: No 0 pt. ☐

The agent identified themselves to the customer

Q: a: Yes 1 pt. ☐

a: No 0 pt. ☐

The agent stated that the call is being recorded

Q: a: Yes 1 pt. ☐

a: No 0 pt. ☐

**Section Account Verification**

The agent verified account

Q: a: Yes 1 pt. ☐

a: No 0 pt. ☐

**Section djgztd**


No records found.

Back Copy As

## Viewing and Copying an Evaluation Form

This section describes how to view and copy an evaluation form.


### ➤ To view/copy an evaluation form:

1. Open the form to view or copy by clicking the View/Copy button  in the row associated with the form in the Evaluation Forms main screen.
2. Enter the Name for the new form and click **Copy As**.
3. The View closes and the new form is added to the list of forms in the 'Evaluation Forms' screen.
4. Add a New Section

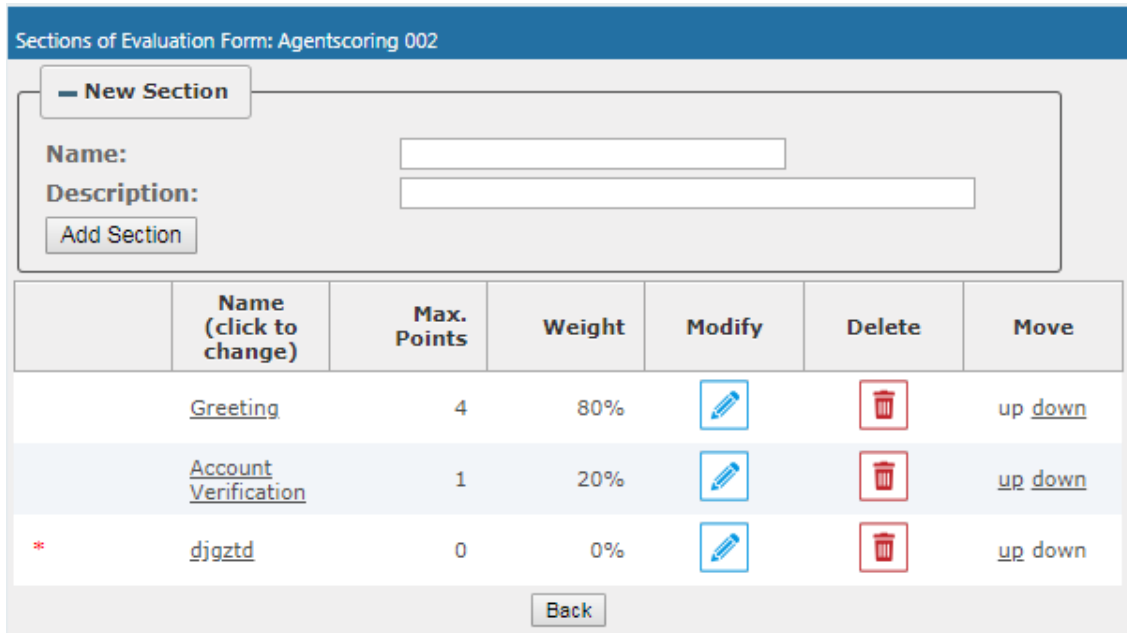
## Adding a New Section [Evaluation Forms]

This section describes how to add a new section to an evaluation form.

➤ **To add a new section to an evaluation form:**

1. Open the form (**Evaluation** tab > **Evaluation** folder > **Evaluation Forms** ).
2. Click  on the row listing the form to change to open it.

**Figure 6-122: Sections of Evaluation Form – New Section Subscreen**









Sections of Evaluation Form: Agentscoring 002

**New Section**

Name:

Description:



Add Section

	Name (click to change)	Max. Points	Weight	Modify	Delete	Move
	<u>Greeting</u>	4	80%			up down
	<u>Account Verification</u>	1	20%			up down
*	<u>djgztd</u>	0	0%			up down

Back

3. [Use the table below as reference] Enter the new section Name and Description in the New Section subscreen.
4. Click **Add Section** to create the new section; the new Section appears in the form with an asterisk \* on the leftmost column indicating that the form is missing fields and cannot be finalized.

**Table 6-46: Sections of Evaluation Form – Field Descriptions**

Field	Description
 New Section	Click to close the New Section subscreen.
 New Section	Click to open the New Section subscreen.
Name (in new section subscreen)	The name of the new Section.
Description	The description of the new Section.
<b>Add Section</b>	Create a new section.

## Adding Questions and Answers to an Evaluation Form

This section describes how to add questions to an evaluation form.

## ➤ To add New Questions [Evaluation Forms]:

**Figure 6-123: Sections of Evaluation Form – New Questions Subscreen**









Questions of Evaluation Form: Agentscoring 002 Section: Greeting

**– New Question**

**Question:**

**Description:**

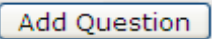
**Add Question**

	Question (click to change)	Add Answer	Delete	Move
Q:	<p><u>The agent thanked the customer for calling</u></p> <p>a: Yes</p> <p>a: No</p>			up down
Q:	<p><u>The agent mentioned their company name</u></p> <p>a: Yes</p> <p>a: No</p>			up down
Q:	<p><u>The agent identified themselves to the customer</u></p> <p>a: Yes</p> <p>a: No</p>			up down
Q:	<p><u>The agent stated that the call is being recorded</u></p> <p>a: Yes</p> <p>a: No</p>			up down



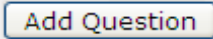
**Back**

**Table 6-47: Sections of Evaluation Form – New Question Subscreen**

Field	Description
<b>– New Question</b>	Click to close the New Question subscreen.
<b>+ New Question</b>	Click to open the New Question subscreen.
Question	The name of the new Question.


Field	Description
Description	The description of the new Question.
	Create a new Question.

➤ **To add a New Question:**




1. Open the form (**Evaluation** tab > **Evaluation** folder > **Evaluation Forms**).
2. Click  on the row listing the Form to change, to open it.
3. Click  on the row listing the Section to change, to open it.
4. Enter the new Question Name and Description in the New Question subscreen.
5. Click  to create the new Question; the new Question appears in the form with an asterisk \* on the leftmost column indicating that the form is missing fields and cannot be finalized.

➤ **To add a New Answer [Evaluation Forms]:**


**Table 6-48: Sections of Evaluation Form – New Answer Subscreen**

Field	Description
Answer	Acceptable answer to the associated question.
Weight	Weight associated with this answer.
Description	Description of the answer.
Instant fail	Check if this answer causes an instant fail during evaluation.
	Add new answer.

➤ **To add a new answer:**

1. Open the form (**Evaluation** tab > **Evaluation** folder > **Evaluation Forms** > **Form**).
2. Click  on the row listing the Form to change, to open it.
3. Click  on the row listing the Section to change, to open it.
4. Click  on the row listing the Question to launch the Answer screen.


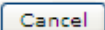
**Figure 6-124: Sections of Evaluation Form - New Answer Subscreen**



**Enter Answer Option for Q: Did agent say company name?**

Answer:  Description:


Weight:  Instant fail: ☐

5. Enter the new Answer information.



You must provide at least two answers for each question.

- Click  to create the new Answer; the new Answer will appear in the form with an asterisk \* on the leftmost column indicating that the form is missing fields and cannot be finalized. There is a minimum of two (2) answers required before a form can be finalized.

## Finalizing Forms

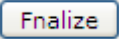
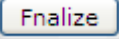

This section describes how to finalize forms.

### ➤ To finalize a Form [Evaluation Forms]:

**Figure 6-125: Form Subscreen**

Name (click to change)	Max. Points	Weight	Modify	Delete	Move
Greeting	4	80%			up down
Account Verification	1	20%			up down

### ➤ To finalize a form:

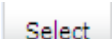
- Open the form (**Evaluation** tab > **Evaluation** folder > **Evaluation Forms** > **Form**).
- Click  to open the Finalize Evaluation form subscreen.
- Click  to change the form status from DRAFT to FINAL; the form Status on the Evaluation Forms screen changes to FINAL, and  is no longer available to change the form.

## Performing an Evaluation

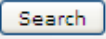

An administrator with privileges to perform an evaluation selects a finalized evaluation form, selects the call to evaluate, and from the Perform Evaluation screen, selects the appropriate answers to the questions in the evaluation form.




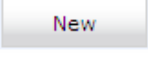
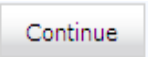
When all answers in the evaluation form are provided, the user may save the evaluation for later review.

**Table 6-49: Select Evaluation Form Screen**

Field	Description
Name	The name of the form.
Description	Description of the form.
Select	 click to select the form.

**Figure 6-126: Call Search/Selection Evaluation Form**
**Table 6-50: Call Search/Evaluation Form – Field Descriptions**

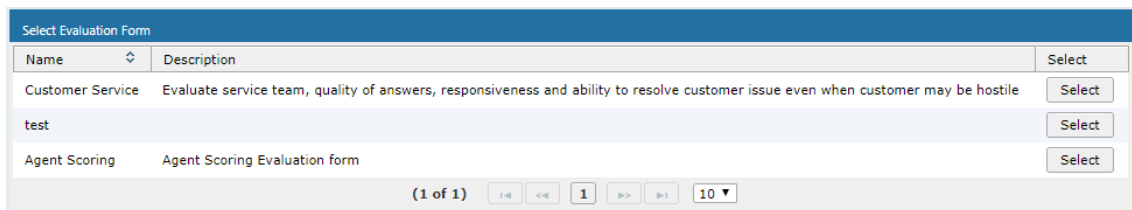
Field	Description
From:	Earliest date and time to search from. Click the date field for a calendar to pop up showing one month at a time. Use the dropdown to change the time of day.
To:	Latest date and time to search to. Click the date field for a calendar to pop up showing one month at a time. Use the dropdown to change the time of day.
Users	Users whose account is enabled in SmartTAP.
	Click to search and display results in the Evaluation screen.
	Launch the Add and Remove Columns dialog.
User/Device	User/Device name. Clicking this header sorts the search results in Ascending/Descending order alternating with each click.
Started	Date and time the call recording started. Clicking this header sorts the search results in Ascending/Descending order alternating with each click.
Duration	Call Duration. Clicking this header sorts the search results in Ascending/Descending order alternating with each click.
Direction	Direction of the call. Clicking this header sorts the search results in Ascending/Descending order alternating with each click. The dropdown entry shows only the matching results.
Release Cause	Release cause for the call. Clicking this header sorts the search results in Ascending/Descending order alternating with each click. The dropdown entry shows only the matching results.
Media Type	The Media Type of the call. One of the following values: <ul style="list-style-type: none"> <li>■ Audio</li> <li>■ Video</li> <li>■ Desktop Sharing</li> <li>■ None</li> </ul>

Field	Description
	Click to expand the view of a call, to show additional details.
	Click to minimize the view of a call, to just one row of information.
	A Finalized Evaluation exists for the selected Evaluation form and call, and will be presented for viewing.
	A new Evaluation will be created for a previously selected Evaluation Form, and the call selected.
	Continue previously started Evaluation.
Page Navigation buttons	Buttons are shortcuts to the beginning/end, previous/next page of the displayed entries. The dropdown allows changing the number of entries per page.

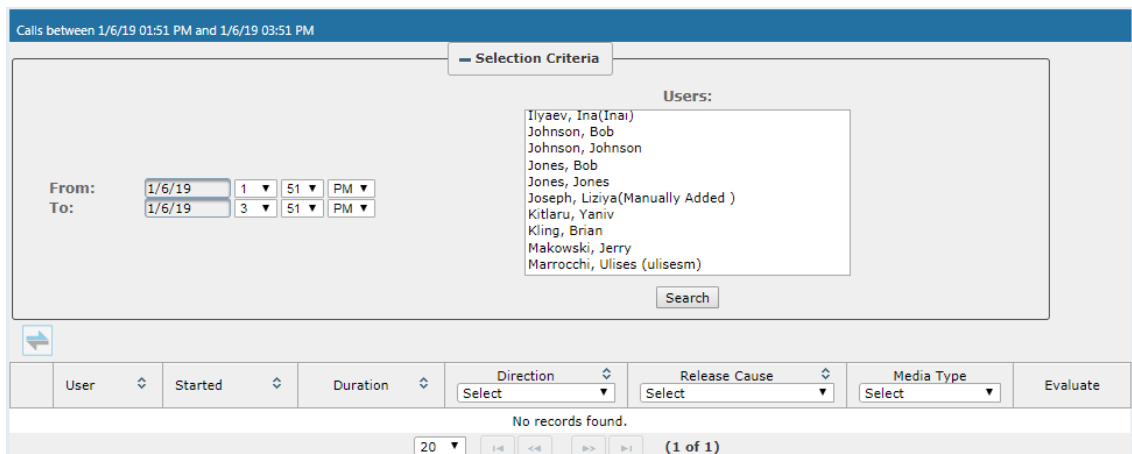
➤ **To start an evaluation:**

1. Open the Select Evaluation Form (Evaluation tab > Evaluation folder > Perform Evaluation).

**Figure 6-127: Select Evaluation Form**



**Figure 6-128: Evaluation Form User Selection**



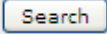
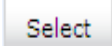
2. Select the user to evaluate, select a search date range and then click . A list of call records for the selected user is displayed.
3. Click  to select the form for this evaluation; the Call Search/Selection screen launches for the user to select the calls to evaluate.

Figure 6-129: Select Call to Evaluate

Calls between 6/1/18 02:37 PM and 1/6/19 04:37 PM

**From:** 6/1/18 2 37 PM  
**To:** 1/6/19 4 37 PM

**Selection Criteria**  
**Users:**  
 EMEA, Oncall-2  
 Erps, Mike  
 Garg, Amrita  
 Groh, Gerald  
 Herberger, Steven  
 Honig, Menachem  
 Hopkins, Steve  
 Howell, Donald  
 Hunter, Daryl  
 Ilyae, Ina(Inai)

	User	Started	Duration	Direction Select	Release Cause Select	Media Type Select	Evaluate
▶	Johnson, Bob	Dec 31, 2018 1:32:49 PM	00:00:31	OUTGOING	NORMAL		<input type="button" value="New"/>
▶	Johnson, Bob	Dec 31, 2018 1:36:04 PM	00:00:17	OUTGOING	NORMAL		<input type="button" value="New"/>
▶	Johnson, Bob	Dec 31, 2018 1:55:48 PM	00:00:28	OUTGOING	NORMAL		<input type="button" value="New"/>
▶	Johnson, Bob	Dec 31, 2018 1:56:38 PM	00:00:29	OUTGOING	NORMAL		<input type="button" value="New"/>
▶	Johnson, Bob	Dec 31, 2018 1:59:54 PM	00:01:17	OUTGOING	NORMAL		<input type="button" value="New"/>

20 1 (1 of 1)

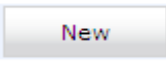
4. Click  on the row of the call to evaluate.

Figure 6-130: Perform Evaluation Screen

Perform Evaluation : Customer Service

Johnson, Bob 2018-12-31 13:36:04.0  
READY 00:00:00 | 00:00:12

0.2 1.0 5.0

00:00:00 | 00:00:12


Evaluate: Johnson, Bob Total Evaluation Score: 0 out of 100 (0%)


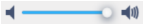






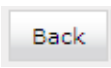
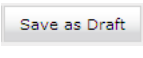
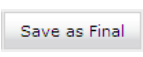
Section: Introduction Score: 0 out of 40 (0%)			
Questions	Answers	Score	Notes
Did the agent use the expected opening greeting?	Choose One	0 out of 10	
Did the agent verify and update customer information?	Choose One	0 out of 10	
How attentive was the agent with listening to the customer?	Choose One	0 out of 20	

Section: Problem Identification Score: 0 out of 30 (0%)			
Questions	Answers	Score	Notes
How well did the agent communicate at an understandable rate and sound positive?	Choose One	0 out of 10	
How well did the agent seem to empathize with the customer?	Choose One	0 out of 10	
How well did the agent use probing questions to identify the problem?	Choose One	0 out of 10	

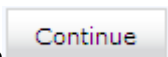
Section: Closing Score: 0 out of 30 (0%)			
Questions	Answers	Score	Notes
Did the agent review the call and get customer's approval of resolution?	Choose One	0 out of 10	
Did the agent ask if there was anything else they could help them with?	Choose One	0 out of 10	
Did agent thank the customer for their business?	Choose One	0 out of 10	

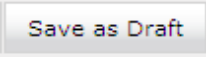
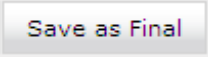
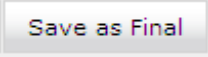
Table 6-51: Perform Evaluation Screen

Field	Description
Display Video	Displays the video screen. When you click the  button the recorded video is replayed.

Field	Description
	Call details for the selected call / Form
	Volume control
	Status and other information
	Playback the entire recording or a selected segment. If the 'Display Video' option is selected, both the video and audio recordings are replayed.
	Pause the playback of the recording.
	Rewind to immediately replay the selected segment of the recording from the start point of the segment.
	Return to the start point of the selected segment of the recording, then click the  button to replay the segment.
Evaluatee:	Targeted user associated with the call being evaluated.
Total Evaluation Score:	Total score for the form, displayed as a percentage.
Section:	Section header
Questions	List of questions for this section
Answers	Dropdown menu with possible answers to this question.
Score	Score associated with the answer provided.
Notes	Field for the evaluator to enter notes.
Score:	Score for this section, displayed as a percentage.
	Abort evaluation.
	Save Evaluation as a draft. Save as Draft to save evaluation before all answers scored.
	Save Evaluation as Final. The Save as Final button will only be available after all answers are scored.

➤ **To perform the evaluation:**

1. Start the evaluation as described previously.
2. If an evaluation was previously started, click the  button to resume it.
3. Start the evaluation by clicking the player buttons (Play/Stop) and moving back/forward by dragging the audio position indicator in the player.
4. For every Question, select the appropriate answers and optionally add notes in the Notes area.

5. To stop the evaluation before completing the form, select  to save the current evaluation and resume later.
6. After all questions are answered, the  button becomes available.
7. Click  to complete the evaluation.

➤ **To review evaluations:**

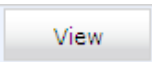
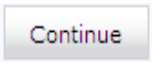
**Figure 6-131: Review Evaluations**

Review Evaluations						
Form Name	Description	Status	Evalued	Evaluator	Date	Evaluate
Customer Service	Evaluate service team, quality of answers, responsiveness and ability to resolve customer issue even when customer may be hostile	FINAL	Friedman, Paul(paulf)	Friedman, Paul(paulf)	2014-12-16 13:21:52.0	<a href="#">View</a>
Customer Service	Evaluate service team, quality of answers, responsiveness and ability to resolve customer issue even when customer may be hostile	FINAL	Conlon, Tom	Friedman, Paul(paulf)	2015-03-03 12:24:49.0	<a href="#">View</a>
Customer Service	Evaluate service team, quality of answers, responsiveness and ability to resolve customer issue even when customer may be hostile	FINAL	Da Silva, Sandy	Mast, Danielle	2016-05-23 12:21:09.0	<a href="#">View</a>
Agent Scoring	Agent Scoring Evaluation form	FINAL	Adar, Tania	Mast, Danielle	2018-04-24 15:20:57.0	<a href="#">View</a>
Agent Scoring	Agent Scoring Evaluation form	FINAL	Adar, Tania	Mast, Danielle	2018-04-24 15:24:44.0	<a href="#">View</a>

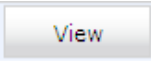
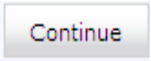
(1 of 1) [1](#) [20](#)

**Table 6-52: Review Evaluations – Field Descriptions**

Field	Description
Form Name	Form Name used in the evaluation. Clicking this header sorts the search results in Ascending / Descending order alternating with each click. The dropdown entry shows only the matching results.
Description	Release cause for the call. Clicking this header sorts the search results in Ascending/Descending order alternating with each click. The dropdown entry shows only the matching results.
Status	Status of the Evaluation. Clicking this header sorts the search results in Ascending/Descending order alternating with each click. The dropdown entry shows only the matching results.
Evalued	User whose recording is evaluated. Clicking this header sorts the search results in Ascending / Descending order alternating with each click. The dropdown entry shows only the matching results.
Evaluator	User performing the evaluation. Clicking this header sorts the search results in Ascending/Descending order alternating with each click. The dropdown entry shows only the matching results.

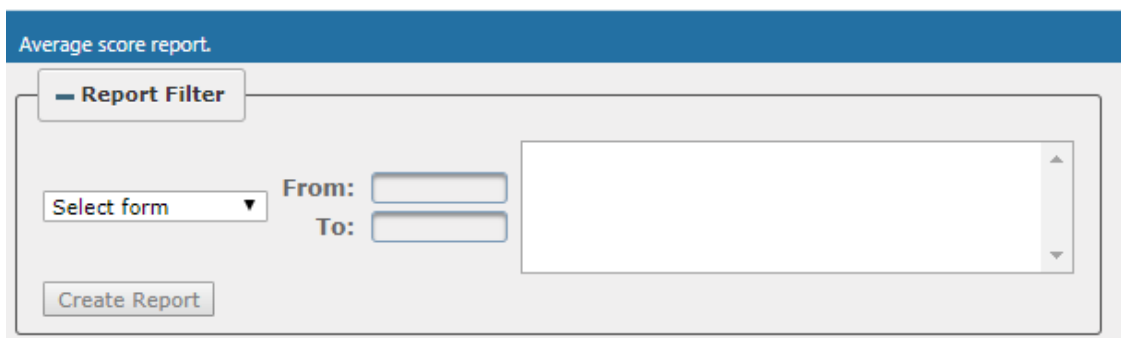
Field	Description
Date	Date of the evaluation. Clicking this header sorts the search results in Ascending/Descending order alternating with each click.
	 Click to view evaluation; the View Evaluation screen opens.
	 Click to continue evaluation; the Perform Evaluation screen opens.
Page Navigation buttons	Buttons are shortcuts to beginning/end, previous/next page of displayed entries. The dropdown allows changing the number of entries per page.

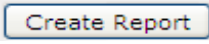
➤ **To review evaluations:**

1. Open the Review Evaluations screen (**Evaluation** tab > **Evaluation** > **Review Evaluations**).
2. Click  to open the View Evaluation screen, or  to open the Perform Evaluation screen to complete the evaluation.

➤ **To create an Average Score Report:**

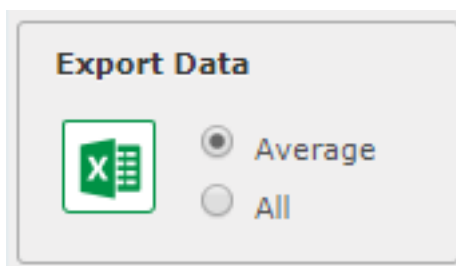
1. Open the Average score report screen (**Evaluation** tab > **Evaluation** folder > **Report**).

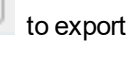


2. Select the evaluation by entering the search data into the report filter area.
3. Click  to create the report; the report is displayed on the screen.

➤ **To export a report (to Excel):**

1. Create the report as described above.



2. Select the Average or All button and click  to export the data; you're prompted to save or open the exported file.

**Figure 6-132: Average Score Report**

Average score report. Form: Customer Service for period between 1/1/2015 and 5/23/2016

Report Filter

Customer Service ▼

From: 1/1/15

To: 5/23/16


Create Report

Conlon, Tom

Da Silva, Sandy





Name	Evaluations	Introduction	Problem Identification	Closing	Total
Da Silva, Sandy	1	35	27	30	92

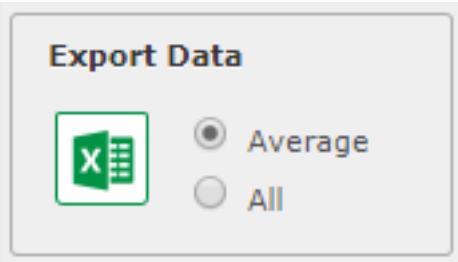

Export Data



☒ Average
 ☐ All

**Table 6-53: Average Score Report – Field Descriptions**

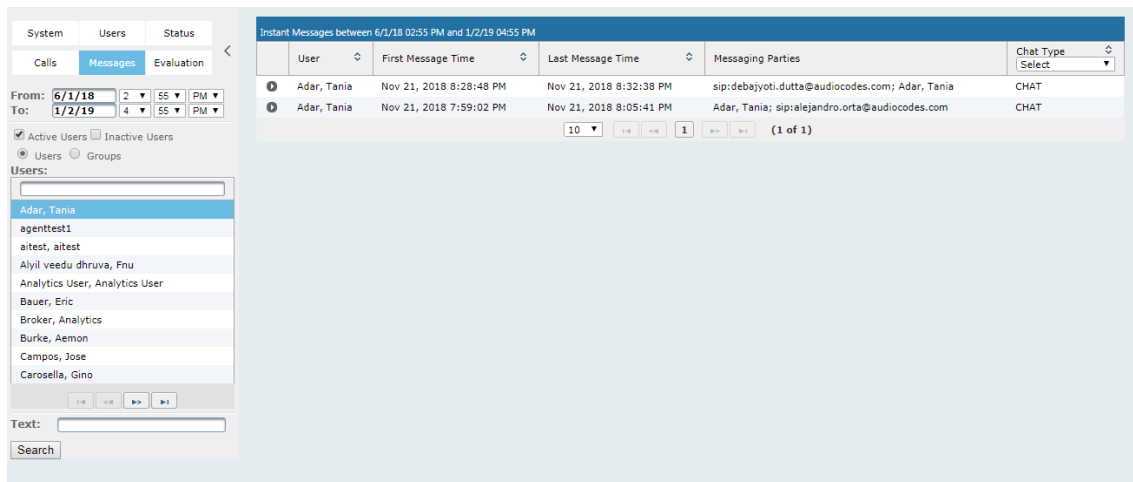
Field	Description
	Click to hide the report filter.
	Click to show the report filter subscreen.
Select form	Dropdown menu with evaluation forms.
From:	Search from this call date(s). Automatically populated by SmartTAP; can be changed by the user.
To:	Search before this call date(s). Automatically populated by SmartTAP; can be changed by the user.
List of users	List of evaluatees. Automatically populated by SmartTAP; select by clicking the required user.
	Only active when an Evaluatee is selected.
Only visible after clicking 	<ul style="list-style-type: none"> <li>Name (Name of Evaluatee)</li> <li>Evaluations (Number of evaluations for this user)</li> <li>Name of section (from form) (Total points in this section. In the figure above, the section name is 'Introduction'. Clicking this header sorts the search results in Ascending/Descending order alternating with each click).</li> <li>Name of section (from form) (Total points in this section. There is a column for each section in the form. Clicking this header sorts the search results in Ascending/Descending order, alternating with each click).</li> <li>Total (Total points in this evaluation)</li> </ul>

Field	Description
<div>  </div>	<div> <p>Click  to export data to Excel.</p> </div>

## Managing Instant Messages

Instant Messages are managed in the Search Messages Navigation screen, under the Messages tab. These messages reflect either person-to-person chat between two users or group chat between two or more users. When you select a conversation record (as shown below), you can view the action conversation made between the parties (as shown below).

**Figure 6-133: Managing Messages**




The screenshot shows the 'Search Messages' interface. On the left, there's a sidebar with tabs for 'System', 'Users', and 'Status'. Under 'Users', there's a list of users: Adar, Tania; agenttest1; aitest, aitest; Alvil veeedu dhruva, Fnu; Analytics User, Analytics User; Bauer, Eric; Broker, Analytics; Burke, Aemon; Campos, Jose; Carosella, Gino. Below this is a 'Text:' input field and a 'Search' button. The main area is titled 'Instant Messages between 6/1/18 02:55 PM and 1/2/19 04:55 PM'. It contains a table with the following columns: User, First Message Time, Last Message Time, Messaging Parties, and Chat Type. The table has two rows of data, both for 'Adar, Tania'. The first row has a first message time of 'Nov 21, 2018 8:28:48 PM' and a last message time of 'Nov 21, 2018 8:32:38 PM'. The second row has a first message time of 'Nov 21, 2018 7:59:02 PM' and a last message time of 'Nov 21, 2018 8:05:41 PM'. The 'Messaging Parties' column for both rows shows 'sip:debajyoti.dutta@audiocodes.com; Adar, Tania' and 'Adar, Tania; sip:alejandro.orta@audiocodes.com' respectively. The 'Chat Type' column for both rows is 'CHAT'. At the bottom of the table, there are pagination controls showing '10' items per page, '1' of 1 page, and '(1 of 1)' total items.


**Figure 6-134: Instant Message Display**

Instant Messages between 12/1/18 09:07 AM and 12/26/18 11:07 AM


User	First Message Time	Last Message Time	Messaging Parties	Chat Type
Mast, Danielle	Dec 26, 2018 11:05:45 AM	Dec 26, 2018 11:06:32 AM	Mast, Danielle; sip:user2@sfb2019.lab	CHAT

Begin Time: 12/1/18 9:07 AM  
 End Time: 12/26/18 11:07 AM  
 Search text:   
 Participants: Mast, Danielle ☒  
 sip:user2@sfb2019.lab ☒  
 Export To: 


Subject: \_\_\_\_\_



Mast, Danielle  
Hi  
Dec 26, 2018 11:05:49 AM




Mast, Danielle  
fine, thank you.  
Dec 26, 2018 11:06:13 AM




Mast, Danielle  
And you?  
Dec 26, 2018 11:06:18 AM

sip:user2@sfb2019.lab  
Hello  
Dec 26, 2018 11:05:45 AM



sip:user2@sfb2019.lab  
How are you?  
Dec 26, 2018 11:05:55 AM



sip:user2@sfb2019.lab  
Great


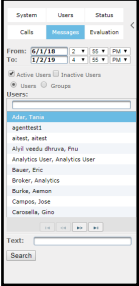


Table 6-54: Search Messages Navigation Screen - Messages Tab

Search Messages Navigation	Field	Description
	From:	Earliest date and time to search from. Click the date field for a calendar to pop up showing one month at a time. Use the dropdown to change the time of day.
	To:	Latest date and time to search to. Click the date field for a calendar to pop up showing one month at a time. Use the dropdown to change the time of day.
	Active Users	Users whose account is enabled in the SmartTAP application.
	Inactive Users	Users whose account has been deleted from the SmartTAP application.
	Users	Only Users will be listed in the Search list. Either the Users or the Groups option must be selected.
	Groups	Only Groups will be listed in the Search list. Either the Users option or the Groups option must be selected.
	Users (list)	Select the User to search for by clicking their name. To select multiple Users, hold down the <Ctrl> key and click each User to search for. To select a range of Users, hold down the <shift> key, click the User at the top of the range and the User at the bottom of the range.
	Groups (list)	Select the Group to search for by clicking its name. To select multiple Groups, hold down the <Ctrl> key and click each Group to search for. To select a range of Groups, hold down the <shift> key, click the Group at the top of the range and the Group at the bottom of the range. Calls for all users in the groups selected will be searched.
	Text	Searches for message conversations that contain the entered text. The search string may contain words to search for, and 'operators' (AND, NOT, words contribution, exact match, and more) to specify search criteria.
	Search	Click to search and display results.

## Searching for Messages

This section shows how to search for messages.

### ➤ To search for messages:

1. Click the **Messages** tab to open the Search Messages screen.

**Figure 6-135: Instant Message Search**

2. In the Search Navigation screen (left side of the screen), enter the time range, and then select the type of Users.



When searching for messages within a time range, only conversations that contain messages within the provided time range will be returned in the search results.

3. Select either the Users or the Groups option.
  - Selecting the User option changes the display below to show a list of Users.
  - Selecting the Groups option changes the display below to show a list of Groups and Sub Groups (if the Search Sub Groups option is selected).
4. Select one or more User or Groups by highlighting them in the list (see the notes above on Search Calls Navigation screen fields and on how to select more than one User or Group).
5. Optionally, enter the text for search output conversations to contain. Instant messages and conversations can be filtered using SmartTAP's Full-Text search feature built on top of 'MySQL Boolean Full-Text Search'. The search field value is logically ANDed and applied to the instant messages search criteria. All instant message conversations that have at least one message with the matching search text as part of the message body will be displayed in the instant message conversations table. MySQL Boolean full-text search supports the operators shown in the table below. More detailed examples can be found inside MySQL online documentation, available at <http://dev.mysql.com/doc/refman/5.6/en/fulltext-boolean.html>
6. If files are sent between two call parties, you can search for the filename in the free 'Text' field (see example "File Transfer Messages" in [Searching for Messages](#) on the previous page).

**Table 6-55: Operators Supported by MySQL Boolean Full-Text Search**

Operator	Description	Example
+	A leading or trailing plus sign indicates that this word must be present in each message that is returned.	'+apple +juice' Find messages that contain both words. '+apple juice' Search messages that contain the word 'apple', but rank rows higher if they also contain 'juice'.
-	A leading or trailing minus sign indicates that this word must not be present in any of the rows that are returned.	'+apple -juice' Find messages that contain the word 'apple' but not 'juice'.

Operator	Description	Example
(no operator)	By default (when neither + nor - is specified), the word is optional, but the conversations or messages that contain it are rated higher.	'apple -juice' Search rows that contain at least one of the two words.
@distance	It tests whether two or more words all start within a specified distance from each other, measured in words.	"word1 word2 word3" @8' Search for matching messages where word1, word2 and word3 are separated by a distance of 8 words from each other.
> <	These two operators are used to change a word's contribution to the relevance value that is assigned to a conversation or message. The > operator increases the contribution and the < operator decreases it.	'+apple +(>turnover <strudel)' Find messages that contain the words 'apple' and 'turnover' or 'apple' and 'strudel' (in any order), but rank 'apple turnover' higher than 'apple strudel'.
()	Parentheses group words into subexpressions. Parenthesized groups can be nested.	
~	A leading tilde acts as a negation operator, causing the word's contribution to the message's relevance to be negative. A message containing such a word is rated lower than others, but is not excluded altogether, as it would be with the - operator.	'+apple ~macintosh' Find messages that contain the word 'apple', but if the message also contains the word 'macintosh', rate it lower than if message does not.
*	The asterisk serves as the truncation (or wildcard) operator. Unlike the other operators, it is appended to the word to be affected. Words match if they begin with the word preceding the * operator.	'apple*' Find messages that contain words such as 'apple', 'apples', 'applesauce' etc.
"	A phrase that is enclosed within double quote (""") characters matches only rows that contain the phrase literally, as it was typed.	"some words" Find messages that contain the exact phrase "some words".



Some words (also known as stopwords) are ignored in full-text searches. In SmartTAP, the minimum length of the word for full-text searches is 2.

- Click to start the search for the Messages matching the search criteria; the results are displayed in the Search Messages Results screen to the right.
- From the Chat Type drop-down list, select either Chat or Group Chat; the results are filtered accordingly.

**Figure 6-136: Search Messages Results-Person-to-Person Chat**

Instant Messages between 6/1/18 03:37 PM and 1/6/19 05:37 PM					
	User	First Message Time	Last Message Time	Messaging Parties	Chat Type
	Adar, Tania	Nov 21, 2018 7:59:02 PM	Nov 21, 2018 8:05:41 PM	sip:alejandro.orta@audiocodes.com; Adar, Tania	CHAT
	Adar, Tania	Nov 21, 2018 8:28:48 PM	Nov 21, 2018 8:32:38 PM	sip:debajyoti.dutta@audiocodes.com; Adar, Tania	CHAT
	Mast, Danielle	Dec 26, 2018 11:05:45 AM	Dec 26, 2018 1:34:40 PM	sip:user2@sfb2019.lab; Mast, Danielle	CHAT
	Mast, Danielle	Dec 26, 2018 2:04:48 PM	Dec 26, 2018 2:06:40 PM	sip:user2@sfb2019.lab; Mast, Danielle; sip:user3@sfb2019.lab	GROUPCHAT

**Figure 6-137: Search Messages Results-Group Chat**

Instant Messages between 6/1/18 03:37 PM and 1/6/19 05:37 PM					
	User	First Message Time	Last Message Time	Messaging Parties	Chat Type
	Mast, Danielle	Dec 26, 2018 2:04:48 PM	Dec 26, 2018 2:06:40 PM	sip:user2@sfb2019.lab; Mast, Danielle; sip:user3@sfb2019.lab	GROUPCHAT

The search result fields are described in the table below.

**Table 6-56: Search Messages Results**

Field	Description
User	User name. Clicking this header sorts the search results in Ascending/Descending order, alternating with each click.
First Message Time	Date and time of the first message in the conversation. Clicking this header sorts the search results in Ascending/Descending order alternating with each click.
Last Message Time	Date and time of the last message in the conversation. Clicking this header sorts the search results in Ascending/Descending order alternating with each click.
Messaging Parties	The column represents messaging parties, parties which sent or received the conversation messages.
Chat Type	The following chat types can be chosen: <ul style="list-style-type: none"> <li><b>Chat:</b> person-to-person chat</li> <li><b>Group Chat:</b> chat for two or more persons. For Group Chat, the Conference ID is also displayed.</li> </ul>

- Click the arrow adjacent to the message whose conversation details you wish to view.  
Example conversations are displayed below. Note that when files are sent between two parties, the file information is also displayed in the conversation dialog (see example “File Transfer Messages” in [Searching for Messages](#) on page 149).

**Figure 6-138: Search Messages Results-Person to Person Chat**

Instant Messages between 6/1/18 03:37 PM and 1/6/19 05:37 PM

User	First Message Time	Last Message Time	Messaging Parties	Chat Type
Adar, Tania	Nov 21, 2018 7:59:02 PM	Nov 21, 2018 8:05:41 PM	sip:alejandro.orta@audiocodes.com; Adar, Tania	CHAT

Begin Time:

6/1/18 3:37 PM

End Time:

1/6/19 5:37 PM


Search text:


Participants:

sip:alejandro.orta@audiocodes.com ☒


Adar, Tania ☒

Export To:







Adar, Tania  
Hello Alex  
Nov 21, 2018 7:59:17 PM




Adar, Tania  
Hello Alex  
Nov 21, 2018 7:59:51 PM




Adar, Tania  
Can you please approve the transaction #1234567  
Nov 21, 2018 8:00:55 PM




Adar, Tania  
Great! Thank you



sip:alejandro.orta@audiocodes.com  
Hi Tania  
Nov 21, 2018 8:00:16 PM



sip:alejandro.orta@audiocodes.com  
Let me check  
Nov 21, 2018 8:01:03 PM



sip:alejandro.orta@audiocodes.com  
yes the transaction is approved  
Nov 21, 2018 8:01:45 PM

Adar, Tania	Nov 21, 2018 8:28:48 PM	Nov 21, 2018 8:32:38 PM	sip:debajyoti.dutta@audiocodes.com; Adar, Tania	CHAT
Mast, Danielle	Dec 26, 2018 11:05:45 AM	Dec 26, 2018 1:34:40 PM	sip:user2@sfb2019.lab; Mast, Danielle	CHAT

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**Figure 6-139: Group Chat Recording**

Instant Messages between 6/1/18 03:37 PM and 1/6/19 05:37 PM

User	First Message Time	Last Message Time	Messaging Parties	Chat Type
Mast, Danielle	Dec 26, 2018 2:04:48 PM	Dec 26, 2018 2:06:40 PM	sip:user2@sfb2019.lab; Mast, Danielle; sip:user3@sfb2019.lab	GROUPCHAT

Begin Time: 6/1/18 3:37 PM  
 End Time: 1/6/19 5:37 PM  
 Search text:   
 Conference Ids: [sip:user2@sfb2019.lab;gruu;opaque=app:conf:chat:id:14W62Z79]  
 Participants: sip:user2@sfb2019.lab, Mast, Danielle, sip:user3@sfb2019.lab  
 Export To:

Mast, Danielle  
 Hi  
 Dec 26, 2018 2:04:56 PM

Mast, Danielle  
 Good  
 Dec 26, 2018 2:05:42 PM

sip:user2@sfb2019.lab  
 Hello  
 Dec 26, 2018 2:04:48 PM

sip:user3@sfb2019.lab  
 Hello  
 Dec 26, 2018 2:05:08 PM

sip:user2@sfb2019.lab  
 How are you?  
 Dec 26, 2018 2:05:26 PM

sip:user3@sfb2019.lab  
 Great  
 Dec 26, 2018 2:06:40 PM

50 1 (1 of 1)

**Figure 6-140: File Transfer Messages**

Instant Messages between 6/1/18 04:14 PM and 1/6/19 06:14 PM

User	First Message Time	Last Message Time	Messaging Parties	Chat Type
Adar, Tania	Nov 21, 2018 7:59:02 PM	Nov 21, 2018 8:05:41 PM	sip:alejandro.orta@audiocodes.com; Adar, Tania	CHAT
Adar, Tania	Nov 21, 2018 8:28:48 PM	Nov 21, 2018 8:32:38 PM	sip:debajyoti.dutta@audiocodes.com; Adar, Tania	CHAT
Mast, Danielle	Dec 26, 2018 11:05:45 AM	Dec 26, 2018 1:34:40 PM	sip:user2@sfb2019.lab; Mast, Danielle	CHAT

Begin Time: 6/1/18 4 14 PM  
 End Time: 1/6/19 6 14 PM  
 Search text:   
 Participants: sip:user2@sfb2019.lab, Mast, Danielle  
 Export To:

Mast, Danielle  
 And you?  
 Dec 26, 2018 11:06:18 AM

sip:user2@sfb2019.lab  
 Great  
 Dec 26, 2018 11:06:25 AM

Mast, Danielle  
 Have a nice day  
 Dec 26, 2018 11:06:32 AM

sip:user2@sfb2019.lab  
 File: SMARTTAP\_Administrator\_Guide.pdf  
 Size: 6150 KB  
 Status: sent  
 Dec 26, 2018 12:24:20 PM

Mast, Danielle  
 Thank you  
 Dec 26, 2018 12:28:13 PM

sip:user2@sfb2019.lab  
 You are welcome  
 Dec 26, 2018 12:28:40 PM

Mast, Danielle Dec 26, 2018 2:04:48 PM Dec 26, 2018 2:06:40 PM sip:user2@sfb2019.lab; Mast, Danielle; sip:user3@sfb2019.lab GROUPCHAT

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**Table 6-57: Message Conversation Content – Field Descriptions**

Field	Description
Begin Time	Specifies the time of the first message of the conversation.
End Time	Specifies the time of the last message of the conversation.
Search text	Filters the conversation display to show messages containing the search text. In addition, this field allows the searching for filenames (where Files have been transferred between parties).
Participants	Parties who received or sent messages of the conversation.
	Filter the conversation to display messages of a specific participant.
	Export the conversation messages to a PDF file (including file transfer information from messages).



SmartTAP displays a collection of messages in one conversation based on the time and participants.

## 7 Single Sign-On for SmartTAP

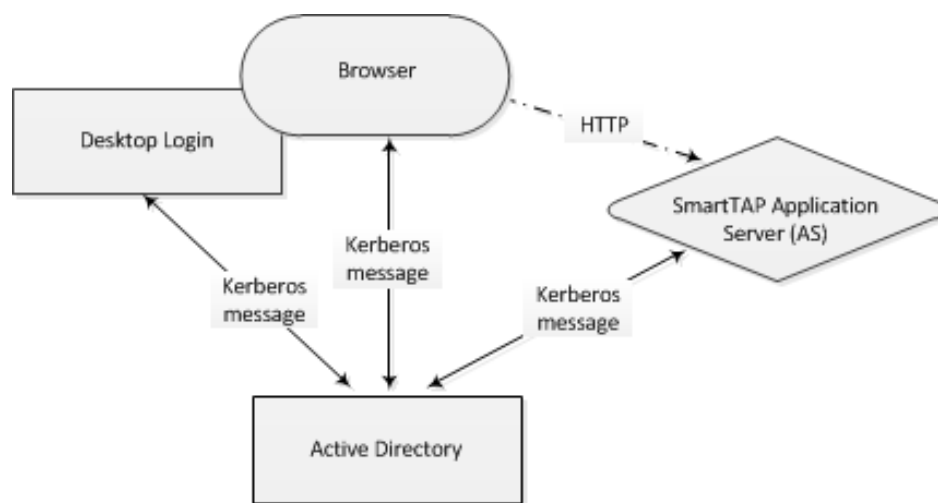
This chapter describes the Single Sign-On functionality for SmartTAP.

Single Sign-On (SSO) simplifies the login process for domain users. The user logs into their machine using domain credentials and then attempts to access the SmartTAP Web server via a Web browser such as IE, Chrome or Firefox.

Without SSO, the user is directed to a simple login form in which a Username and Password are entered and given to SmartTAP to authenticate.

When SSO is enabled, the user is authenticated in the background through Active Directory using the same domain credentials that were used to log into the machine. This bypasses the login page and immediately opens the Welcome page. This allows for a streamlined entry to the SmartTAP Web interface and for quick access to different SmartTAP pages.

**Figure 7-1: Simple and Protected GSS-API Negotiation Mechanism (SPNEGO) Web Authentication Service**



- Before getting started, contact AudioCodes Support to make sure your network is SSO-ready. In some environments, if users from two different domains attempt to perform SSO to the SmartTAP server, it can create an issue.
- SSO was successfully tested with both Client Users and the SmartTAP server on the same domain with a single Active Directory server.
- SSO was successfully tested with Client Users on one domain and with the SmartTAP server on a separate domain, with one-way forest trust between the domains

### ■ Prerequisites

LDAP configuration is optional if all Clients using SSO were manually added to the SmartTAP database. If they were not manually added, then LDAP must be configured so that SmartTAP can validate the user and find the user's Roles/Permissions (see [Configuring SSL](#) on page 60

### ■ Terms

Before configuration, it's best to get acquainted with the terms used (see also the Variables List in Section Variables List below). Use the table below as a reference.

**Table 7-1: Terms**

Term	Meaning
{username}	New domain user required for SmartTAP to authenticate through SSO. Referred to as the 'SSO User'. Use a different user for SSO and LDAP if possible, in order to simplify later steps and facilitate troubleshooting. In this Appendix, testUser is used.
{domain}	The complete name of the domain to be used for SSO, for example, myDomain.local.
{realm}	The security realm to be used for authenticating the SSO User. Can be different to the realm of the SmartTAP server and should be the realm of the SSO User. The realm must be specified in capital letters. In the example of a single domain used in this Appendix, the realm is the same as {domain}: MYDOMAIN.LOCAL.
{kdc}	The fully qualified domain name (FQDN) of the Key Distribution Center (KDC) which must be the Active Directory server to be used to authenticate the SSO User (created in the next step). Example: ad.myDomain.local
{user password}	The password defined for the SSO User when created. In this Appendix: testUserPassword
{short domain}	Shortened version of {domain} used to reference user logins such as myDomain\userName. Using the same example as above, it would be just myDomain.
{hostname}	The fully qualified domain name (FQDN) of the SmartTAP server. Must be in the form {machine name}.{domain}. Example: smarttap.myDomain.local. If a CNAME alias is used to map an unfriendly machine name to a friendlier one such as smarttap, the original machine name must be used.
{principal}	Special string defining a service running on a host within a security realm, in this case, HTTP/{hostname}@{realm} Example: HTTP/smarttap.myDomain.local@MYDOMAIN.LOCAL

## Single Sign-On Variables

### ■ Variable List:

For reference, note your variables here. It may be useful to print out this page and write them all down, or to fill in these details in this or another document.

{username} \_\_\_\_\_  
 {user password} \_\_\_\_\_  
 {domain} \_\_\_\_\_  
 {short domain} \_\_\_\_\_  
 {realm} \_\_\_\_\_  
 {hostname} \_\_\_\_\_  
 {kdc} \_\_\_\_\_  
 {principal} \_\_\_\_\_

### ■ Validate the Hostname to be Used for the Principal Name

A CNAME alias for the SmartTAP server can cause problems when used as part of the Principal Name. A Client machine will request a Kerberos ticket for the FQDN using the actual hostname, not the version using the CNAME. So the Principal to be used must contain the name that the Client will be requesting.

Validate that the hostname is OK to use in the Principal by pinging the name from the command shell:

```
ping {hostname}
```

The command shell then prints out

```
Pinging {ping destination name} [IP Address]
```

If {ping destination name} is the same as {hostname}, then this is the correct hostname to use for the Principal. If different, then the correct hostname must be investigated further. Most likely, {ping destination name} is the correct one to use. However, SSO may have to be configured in SmartTAP and Wireshark run in order to see what hostname the Client machine will use when requesting a ticket from Kerberos.

#### ■ **Windows KTPASS Command and Choice of User**

Active Directory must then be commanded to map the HTTP service on the SmartTAP server to the newly created user. The ktpass command included on Windows servers will be used. It must also be run on the Active Directory server.

ktpass changes the SSO user's attributes. It strips the realm from the data specified in the command when setting the user attribute. The realm must be specified in the command as it will be part of the next attribute that is modified. Using the setspn command does the same thing. The user's userPrincipalName is then changed to be the complete Principal Name. This makes it appear as if the user's login ID is now the Principal Name but sAMAccountName is unchanged.

ktpass most importantly creates the keytab for the Principal. SmartTAP does not need this file to be exported. The Client obtains an encrypted version of the keytab and sends it to SmartTAP as part of the authentication process.



**Choice of User & Security Concerns:** The domain administrator for security reasons may not want to run the ktpass command with the user's password within the command arguments, as others can discover the username and password by watching the process and its input arguments.

Instead of entering the password, the domain administrator can use the -pass \* option. The user is then prompted for the password. Although more secure, in some cases this changes the user's password within Active Directory. If this user is used by SmartTAP for SSO only, this is acceptable. If the user is also used for LDAP, LDAP authentication will fail after the password is changed. Manually resetting the user's password in Active Directory corrects the LDAP authentication error but breaks the mapping performed by ktpass and therefore SSO fails.

The only way to use SSO and LDAP while also using the -pass \* option is to use two separate users for SmartTAP – one for SSO and one for LDAP. For simplicity, try to use two different users for LDAP and SSO to facilitate troubleshooting and configuration.

#### ■ **User Properties – Before and After Running ktpass**

Before and after running the ktpass command, observe the changes to the SSO User to determine what user properties are modified. Use the screenshots below as reference. If the command is successful, the user's properties will not need be validated in Active Directory.

**Figure 7-2: Before Running the ktpass Command**

The figure shows two side-by-side screenshots of the 'testUser testUser Properties' dialog box. The left screenshot shows the 'Account' tab with the following fields: 'User logon name' (testUser), 'User logon name (pre-Windows 2000)' (MYDOMAIN\testUser), 'Logon Hours...', 'Log On To...', 'Unlock account' checkbox, 'Account options' (User must change password at next logon, User cannot change password, Password never expires, Store password using reversible encryption), and 'Account expires' (Never, End of: Wednesday, November 26, 2014). The right screenshot shows the 'Attributes' tab with a list of attributes and their values: objectGUID (d7c5858f-19ba-453c-91ed-66f1ed337be6), objectSid (S-1-5-21-2092303587-4016032574-4140064), primaryGroupID (513 = ( GROUP\_RID\_USERS )), pwdLastSet (10/27/2014 10:17:25 AM Eastern Daylight 1), replPropertyMetaData (AttID Ver Loc.USN Org.DSA), sAMAccountName (testUser), sAMAccountType (805306368 = ( NORMAL\_USER\_ACCOUNT )), sn (testUser), userAccountControl (0x10200 = ( NORMAL\_ACCOUNT | DONT\_)), userPrincipalName (testUser@myDomain.local), uSNChanged (320002), uSNCreated (319996), whenChanged (10/27/2014 10:17:25 AM Eastern Daylight 1), and whenCreated (10/27/2014 10:17:25 AM Eastern Daylight 1).

**Figure 7-3: After Running the ktpass Command**

The figure shows two side-by-side screenshots of the 'testUser testUser Properties' dialog box after running the ktpass command. The left screenshot shows the 'Account' tab with the 'User logon name' field updated to 'HTTP/smattap.myDomain.local'. The right screenshot shows the 'Attributes' tab with the 'servicePrincipalName' attribute updated to 'HTTP/smattap.myDomain.local'. Other attributes remain the same as in Figure 7-2.

## Configuring Active Directory for Single Sign-On

This section describes the steps required for configuring the Active Directory for Single Sign-On.

### ■ Create a New Domain User:

A dedicated user called 'Single Sign On User' or 'SSO User' is required on the domain for the SmartTAP Application Server to use for authenticating clients login attempts. The SSO User is only to be used within SmartTAP and should not be used to log into any machine on the domain, including the SmartTAP server. It is recommended to create this user and to select the options 'Password never expires' and 'The user cannot change password' as shown in the figure below. Assign the username a login ID of {username} and a password of {user password}.

**Figure 7-4: Create a New Domain User**

■ **Active Directory Commands - ktpass:**

Run the ktpass command on the Active Directory server that corresponds to the domain for the SSO User. You must use the exact syntax shown below. This is critical for flawless SSO operation. Mistakes are difficult to troubleshoot. Note that the `-out` option is not used to output the keytab file.

```
ktpass -princ {principal} -mapuser {short domain}\{username} -pass {user password} -ptype KRB5_NT_PRINCIPAL -kvno 0 -crypto AES128-SHA1
```



**The Level of the Encryption Used:** SmartTAP supports encryption types as high as AES-128 though not all Windows Server OS versions support this level of encryption. It only depends on the OS version, not on the domain's Functional Level.

- If the Active Directory server is Windows Server 2008 or higher, the `-crypto` parameter must specify AES128-SHA1.
- If the Active Directory server is Windows Server 2003, the `-crypto` parameter must specify RC4-HMAC-NT.

**Example:**

```
ktpass -princ HTTP/smarttap.myDomain.local@MYDOMAIN.LOCAL -mapuser myDomain/testUser -pass testUserPassword -ptype KRB5_NT_PRINCIPAL -kvno 0 -crypto AES128-SHA1
```

When running flawlessly, the command outputs:

```
Targeting domain controller: <DC hostname>
Successfully mapped {principal} to {username}.
Key created.
```

The command may take a few minutes to propagate through the network. It's recommended to log out and then back in on any client machines that will attempt SSO, in order to speed up the process for laboratory testing. This ensures that the Client machine is not caching any Kerberos tickets that will be out of date after making changes to the User in Active Directory. If the Client machine used for testing has not previously accessed the SmartTAP server, logging out is unnecessary.

The command parser sometimes gets invalid characters when copy/pasting the command. If you see the error `unknown option 'ûprinc'.` try manually typing the command in or try retyping all the '-' characters again. Note the error indicates ûprinc instead of -princ.

#### ■ Verify the User's Credentials

AudioCodes has observed cases in which the ktpass command changed the user's password even when explicitly defined in the ktpass command. To avoid confusion later, make sure the user's credentials are still correct. From the command prompt on either the SmartTAP server or the Active Directory server, run the command:

```
runas /user:{short domain}\{username} cmd
```

A new command window is opened using the SSO user's credentials. You're prompted for the SSO user's password. Enter it.

- If a new command window launches, the password is correct and you can continue to the next step.
- If the password is incorrect, an error will be displayed in the command window. Some errors indicate that the user credentials are incorrect, thus the password is no longer valid. Other errors indicate that the user credentials are OK, but the command failed for other reasons.

Error 1326: Logon failure: unknown user name or bad password indicates that the credentials are incorrect. Make sure the username and password are correct. If this error persists it means the user's password must have been changed. If this fails to run and SmartTAP is configured with the same password, then Single Sign-On will fail. Try resetting the password in Active Directory and re-running the ktpass command to make sure the password is correct. Repeat this test to validate that the user's credentials are still known before continuing.

Error 1385: Logon failure: the user has not been granted the requested logon type at this computer indicates that the password is correct but the SSO user is disallowed from running the command. This is acceptable for testing purposes.

## Single Sign-On Configuration on SmartTAP Server

The SmartTAP server must be added to the domain. The rest of the SmartTAP configuration is performed through the Web portal. You can use any Web browser to access the SmartTAP Web page. Initially, SSO is disabled, so the usual login form must be used. Log in with any account with permissions such as the default administrative user admin to make system changes to SmartTAP.

### ➤ To configure SSO:

1. Open the SSO Web Configuration page (**System** tab > **Web** > **Single Sign On**).

**Figure 7-5: SSO Configuration**
**Table 7-2: SSO Configuration Parameters**

Parameter	Description
Enable SSO	Select this option to enable Single Sign-On.
KDC	Key Distribution Center, which is probably located on the Active Directory server. Enter {kdc}. In the example shown in this Appendix, ad.myDomain.local is used.
Principal	The Service Principal Name mapped in the previous steps. Enter {principal}. Note: The principal name must include the security realm. HTTP/smarttap.myDomain.local@MYDOMAIN.LOCAL is used in the example in this Appendix.
Password	The password set previously in Service Principal Name Mapping. Enter {user password}. testUserPassword is used in the example in this Appendix.

2. Submit the changes when complete; a status message is displayed at the top of the screen indicating that the entries were validated and applied; a popup is displayed warning that the SmartTAP Application Server must be restarted for the changes to take effect.

3. Restart the SmartTAP Application Server.

■ **Validation:**

The page validates some of the parameters entered but cannot fully validate that SSO is functioning flawlessly.

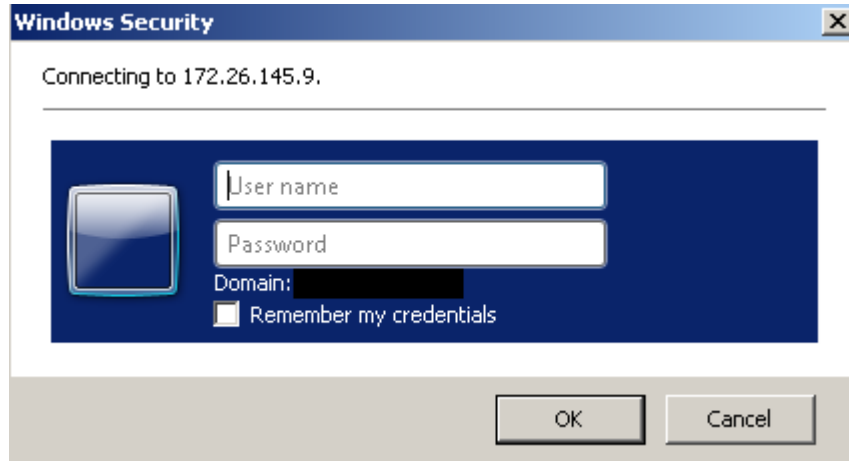
- The KDC hostname is resolved into an IP address. If the name cannot be resolved, an error is issued indicating that the KDC is invalid.
- The Principal name is parsed to ensure it contains the service, hostname and realm. Text for the service (HTTP) is followed by a forward slash / which is followed by more text for the principal name and a @ which is followed by the text for the realm. Each part of the name is not checked and is used as given.
- The password is not validated in any way and is taken as entered.

## Single Sign-On Client Browser Settings

After enabling SSO on SmartTAP, the Web server requests that each client's Web browser negotiate authentication. Most browsers are configured to prompt the authentication negotiation request without making any changes and present this condition to users differently.

### ■ Internet Explorer

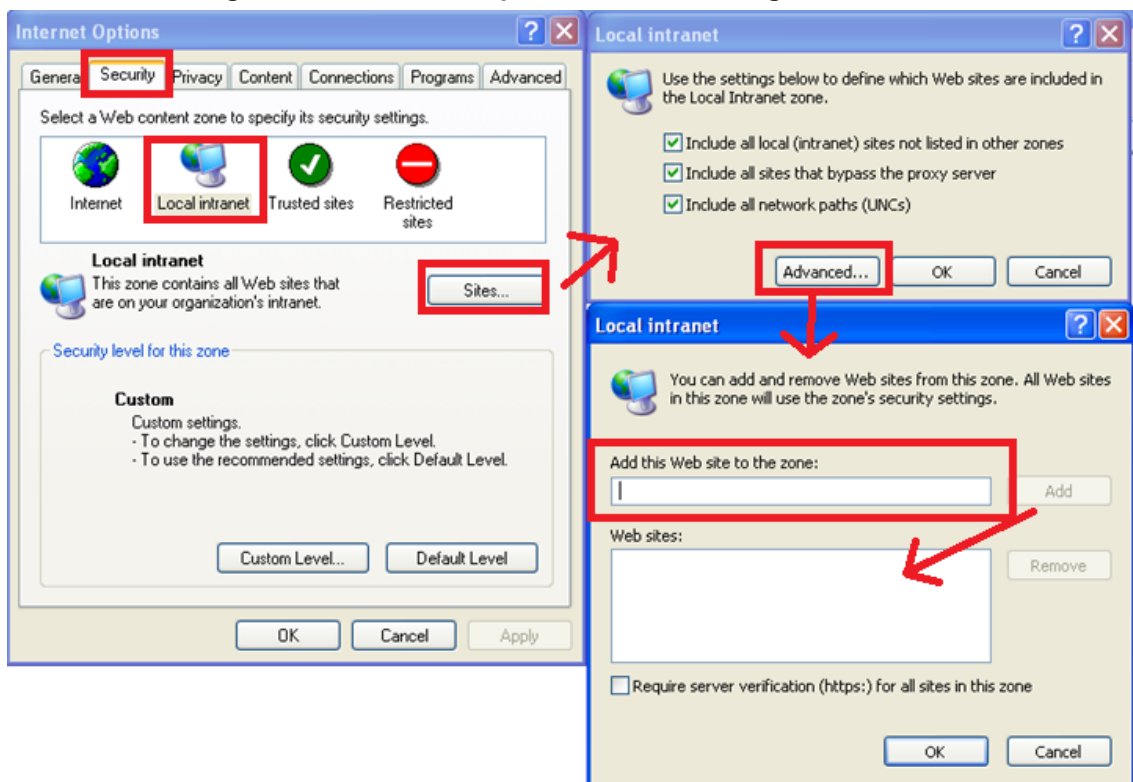
When browsing to the SmartTAP Web server, IE prompts the user for credentials. This is not the SmartTAP login form but rather a prompt from IE. The user could enter the domain credentials to log in but this would not be SSO.



You must allow IE to negotiate with the SmartTAP Web server. Each browser features a different way of enabling this security feature. IE must be configured to 'trust' the SmartTAP server. IE must be instructed that the SmartTAP server is part of the local intranet so that IE can send proper authentication to the SmartTAP Web server.

- a. In IE, open Internet Options > Security tab > Local Intranet zone > Sites... > Advanced... > add the SmartTAP FQDN to the local Intranet zone.
- b. Click **OK** to close all windows. All IE instances must be closed.

**Figure 7-6: Internet Explorer Browser Settings**

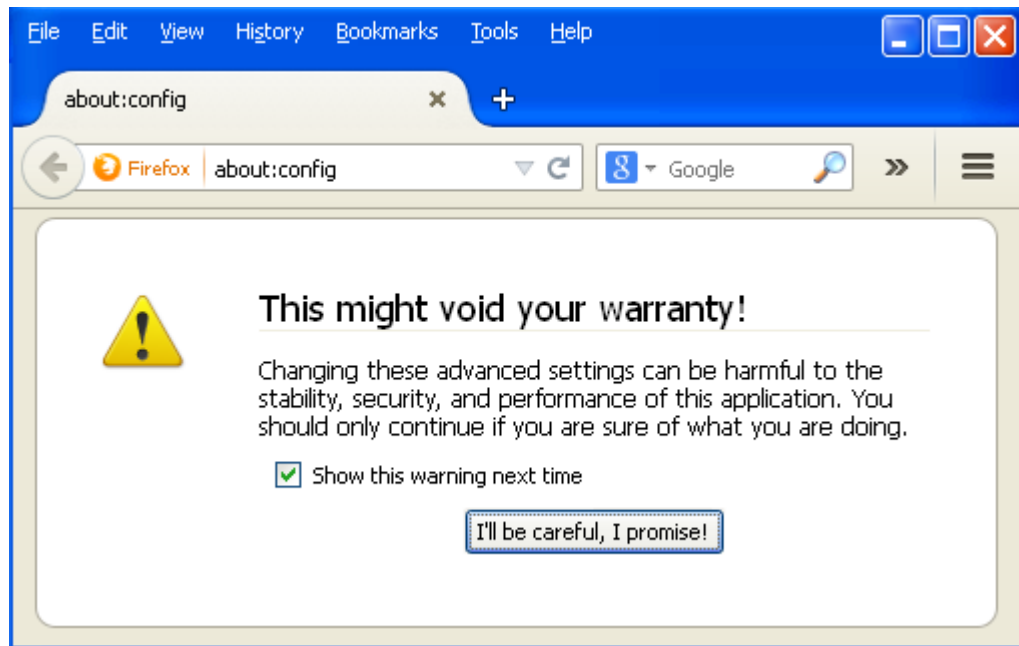


### ■ Firefox Browser Settings

Firefox issues a 401 error code instead of negotiating security.

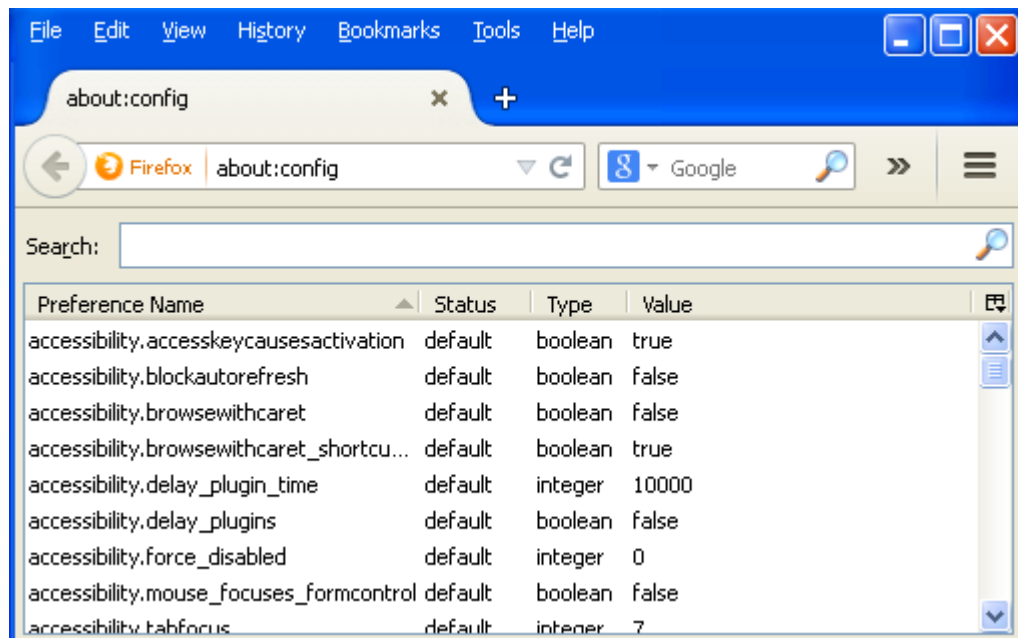
- a. Open Firefox, enter the URL `about:config` and then press Enter; Firefox warns you're updating its internal settings.

**Figure 7-7: Firefox Advanced Settings**

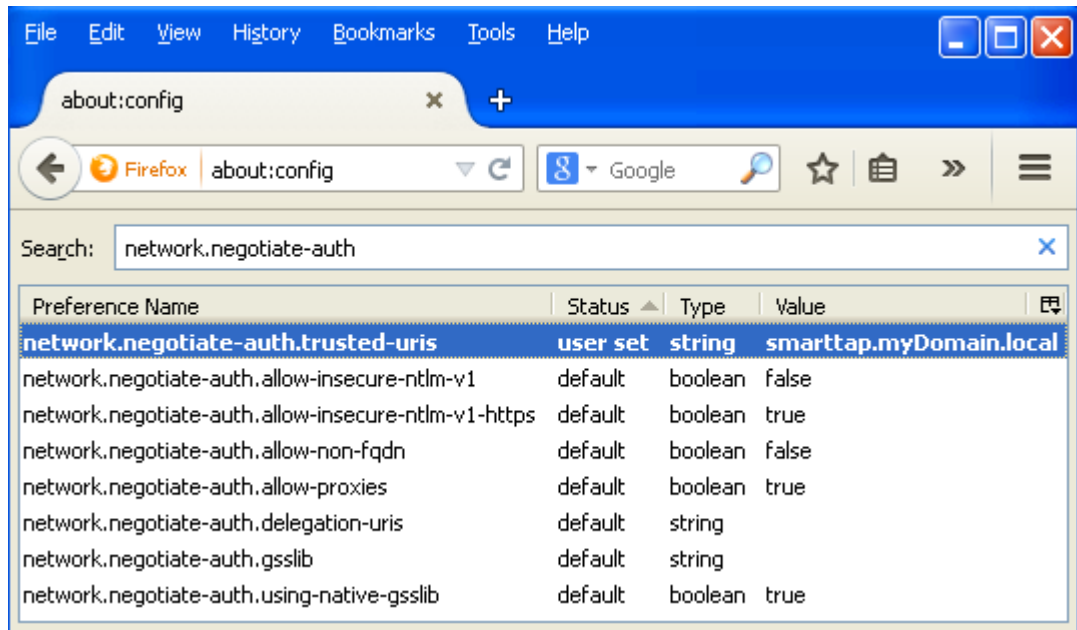


- b. Click the button to continue; Firefox lists all the internal configuration options in the Web page, allowing changes to be made.

**Figure 7-8: Firefox about:config**




- c. In the 'Search' field, enter `network.negotiate-auth` to show all negotiation options. SmartTAP FQDN must be added to the list of trusted URIs by updating the option `network.negotiate-auth.trusted-uris`. Restart Firefox; SSO now functions on Firefox.

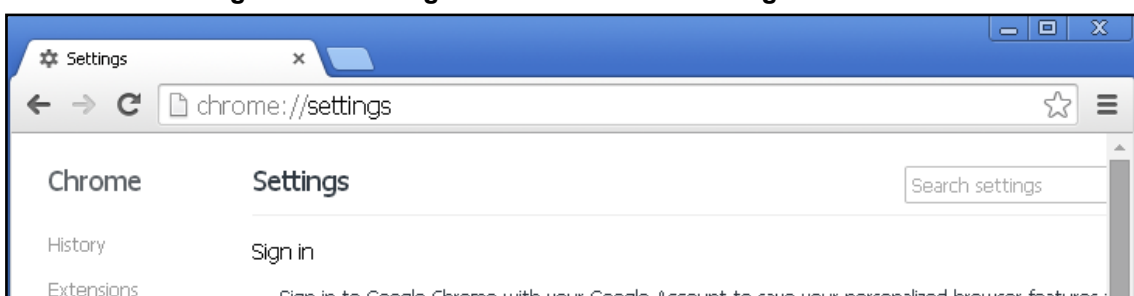
**Figure 7-9: Firefox about:config**

Additional changes may be required for Firefox. If SSO does not function immediately after these changes, see [Single Sign-On Client Browser Settings](#) on page 163 Troubleshooting . [Tested: Firefox 32.0.3 on Windows XP and Windows 7. Also Firefox 35.0.1 on Windows 7].

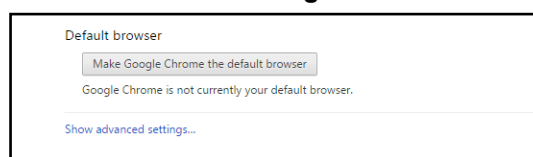
#### ■ Google Chrome

Without changes to the configuration, Google Chrome prompts the user for Domain Credentials, similarly to IE. The Google Chrome browser uses the same underlying network configuration that IE uses. Configure IE and Chrome will accept the same settings.

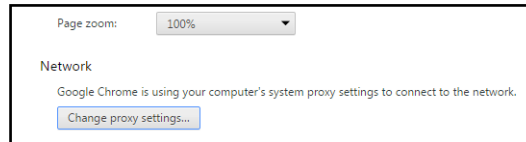
- a. Open the Chrome browser and click the menu icon  located to the right of the address field, and then select Settings. Alternatively, browse to `chrome://settings`.

**Figure 7-10: Google Chrome Browser Settings**

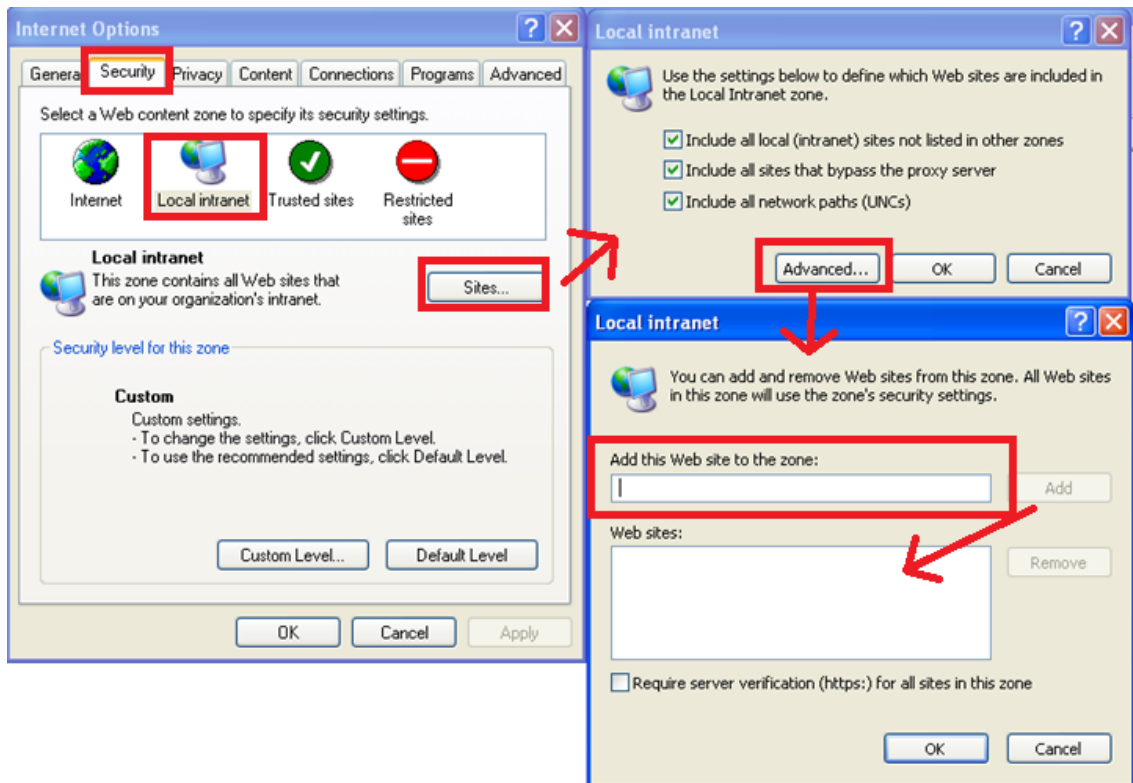
- b. Scroll down to the bottom of the page and click the link Show advanced settings... If the advanced settings are already displayed, you can skip this step.

**Figure 7-11: Google Chrome Browser Settings – Show advanced settings**

- c. Locate the 'Network' setting and click the button Change proxy settings...; the same Internet Options window used for Internet Explorer opens, but it opens in Chrome under the Connections tab instead of the General tab as in IE.

**Figure 7-12: Google Chrome Browser Settings – Change proxy settings**

- d. Follow the same instructions as IE (Security tab > Local Intranet zone > Sites... > Advanced... > add the SmartTAP FQDN to the local Intranet zone).
- e. Close all Google Chrome windows and restart; SSO now functions.

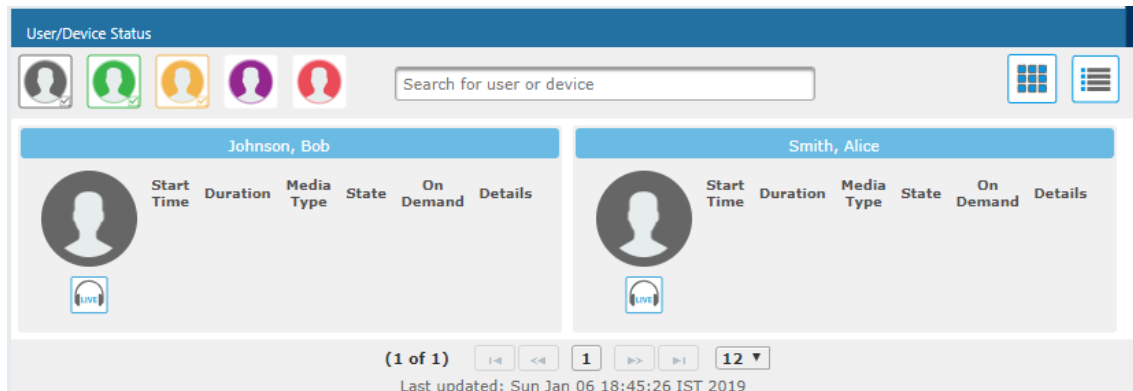
**Figure 7-13: Google Chrome Browser Settings – Adding a Web Site to the Zone**

## Testing Single Sign-On

After logging into the domain computer and configuring the browser to trust the SmartTAP server as described in previous sections, you can browse to the SmartTAP Web server, preferably via the SmartTAP server's FQDN. You may briefly see the Redirecting notification:

### Redirecting

You're then brought directly to the Home page that corresponds to your user. The figure below shows the Home page of an Agent by the name user2011.

**Figure 7-14: Browsing to the SmartTAP Web Server**

If an error page is displayed, or if the normal login form for SmartTAP is displayed, SSO has malfunctioned – see [Troubleshooting Single Sign-On](#) below.

## Troubleshooting Single Sign-On

### ■ Frequently Asked Questions

When SSO is enabled, how can I log in as the default SmartTAP administrative user?

SSO is enabled, so all login attempts will automatically attempt SSO as the domain user logged into the client machine. The SmartTAP administrative user (default username = admin) will likely not be a user in Active Directory, so it cannot be used to log into the client machine and log in to SmartTAP via SSO. The form login page of SmartTAP must be accessed in order to log in as this user.

It is recommended that a domain user be given valid SmartTAP permissions to make system changes so that the default SmartTAP administrative user can be removed.

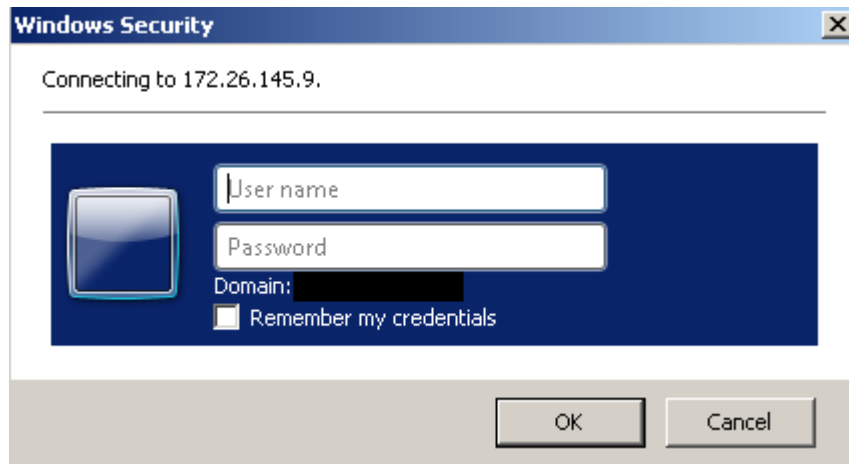
How can the form login page be accessed for non-SSO logins?

There are a few ways to do this:

- Browse to the SmartTAP server using its IP address instead of the FQDN. SSO will not function this way, so the form page will be displayed. The IP address can be obtained by pinging the hostname from a command prompt.
- Access the SmartTAP Web server from a machine that is not on a domain. As a result, no domain credentials will be available, SSO will fail, and the form login page will be displayed.
- For some internet browsers such as IE, if the trust relationship is not present (SmartTAP server hostname is not configured as an Intranet site), you may be able to access the form login page. See the next question.

Why do I see a popup window in my Web browser asking me for credentials?

When a client accesses the SmartTAP Web server, the server requests the client browser to negotiate authentication. If the browser can determine the credentials from the user's login, it will be used. However, if the browser does not trust the Website, or the user is not in the domain, the internet browser will often prompt the user for credentials, displaying a popup window. Example (IE):



This prompt is prompting for the client's domain credentials, not the SmartTAP login credentials.

What can I do with this login prompt?

There are a few directions this prompt can go.

- Enter a valid username and password for a domain user; SSO will be attempted using those credentials. If successful, you will be logged into SmartTAP as that user.
- Clicking the Cancel button aborts the login attempt and presents you with a 401 error page.
- Entering an invalid username and password combination will attempt SSO but it will fail and the form login page will be displayed.

#### ■ Troubleshooting

##### • HTTP Error Codes

HTTP error codes can provide you with more information about why SSO might fail.

**Table 7-3: HTTP Error Codes**

Error Code	Description
400 – Bad Request	Indicates that part of the HTTP Request is malformed. When using SmartTAP for SSO, the likely cause is that the authentication header being sent by the client is too large. This can occur when the client has many authentication details to send. Simpler networks (such as a laboratory test domain) don't require much data for authentication. As of SmartTAP Version 2.6, the default maximum header length is 8 KB, but instances in which 32 KB was required for authentication information have been observed. A system property must be added to the Smarttap.xml file for the SmartTAP Application Server: org.apache.coyote.http11.Http11Protocol.MAX_HEADER_SIZE must be set to an appropriate value. The following tool, available from Microsoft (tokensz), can be used to determine the maximum Kerberos Token size, the main factor in large authentication size: <a href="http://www.microsoft.com/en-us/download/details.aspx?id=1448">http://www.microsoft.com/en-us/download/details.aspx?id=1448</a> .
401 – Unauthorized	Indicates that the HTTP request requires authentication that was not provided by the browser. Occurs when the user cancels out of the browser prompt for domain credentials, or, if the browser does not have a trust relationship with the SmartTAP server. Can also indicate that the browser is blocking access to the page because it requires some authentication and the security settings are preventing the page from loading. When using Firefox, see Appendix <a href="#">Troubleshooting Single Sign-On</a> on the previous pageFirefox Browser Settings .

Error Code	Description
403 Forbidden	– The user is forbidden from viewing this page. The user was authenticated correctly (SSO is functioning) but is trying to view a restricted page. Can occur if the user manually browses to a page they're not allowed to access. Another cause is if SmartTAP cannot determine the User Roles/Permissions for this user. Make sure the user performing SSO is part of the domain and that SmartTAP can find this loginId through LDAP or in its own database. Make sure LDAP is configured correctly and can communicate with Active Directory.

#### ■ SmartTAP Application Server Errors

If SSO authentication fails, the Application Server redirects the user to the form page. To determine the reason why SSO fails, you need to review the Application Server logs. This section shows common error messages from the Application Server logs. These are logged at ERROR level so no changes will be necessary in order to view them.

##### ● No Errors – Using Firefox browser

- ◆ The Firefox browser will by default just display the 401 Unauthorized error page until the configuration is changed to trust the SmartTAP server (see Appendix [Troubleshooting Single Sign-On](#) on page 167 Firefox Browser Settings ) though instances occur in which the Firefox browser does not attempt to authenticate even when the SmartTAP server is trusted. In these instances, the user is immediately presented the form login page. When this occurs, no errors are shown in the Application Server since the browser is not attempting authentication.
- ◆ One instance involved using an older version of Firefox and then upgrading to the latest version (35.0.1). After upgrading, SSO didn't function. However, this same version was tested to function on a fresh install and other browsers were found to function with SSO without errors. The error was likely that some previous configuration from the older version of Firefox conflicted with the configuration of the newer version of Firefox. It has not been determined exactly what configuration was causing this error. See Appendix Resetting the Configuration to Firefox Browser for instructions on resetting the configuration of the Firefox browser.
- org.ietf.jgss.GSSEException is thrown when authenticating with Kerberos server. The failure is unspecified at the GSS-API level (Mechanism level: Encryption type AES256 CTS mode with HMAC SHA1-96 is not supported/enabled)
  - ◆ The Application Server is trying to decrypt a Kerberos ticket/token that is encrypted using encryption type aes256-cts-hmac-sha1-96 to be referred to in this Appendix as AES256. The 256-bit encryption is not supported on the Application Server so it must not be used.
  - ◆ The error was observed when the SSO user was configured in Active Directory with the option This account supports Kerberos AES 256 bit encryption. The highest encryption that can be supported on the SSO user is AES 128.
  - ◆ The error was also observed when the Principal Name contained a CNAME instead of the correct hostname. This caused the Principal Name to query encryption types for the host machine (Server 2008), giving its maximum supported encryption level of AES256. This can be confirmed using WireShark to view the Kerberos request from the client PC when attempting to log in; it will be a different Principal Name to that configured for SmartTAP.
- javax.security.auth.login.LoginException: Pre-authentication information was invalid (24)
  - ◆ The likely cause of this error is that the SSO user's password does not match that configured in the SmartTAP GUI.
  - ◆ Validate whether the user's password was changed or not - see Verify the User Credentials.

- ◆ To resolve the error, reset the SSO user's password, re-enter this same password into the SmartTAP GUI for the SSO credentials. You may also need to re-generate the keytab using the ktpass command.
- Javax.security.auth.login.LoginException: Checksum failed
  - ◆ Occurs when the Kerberos ticket obtained by the client is out of date. Most frequently, during SSO testing, when a client cached a Kerberos ticket for the first SSO login attempt and an attribute for the SSO user was then changed.
  - ◆ To resolve this, log out on the client PC and then log back in; this immediately flushes the cache of Kerberos tickets and requires the cache to obtain a new ticket when trying to access the SmartTAP server.
- Org.ietf.jgss.GSSEException is thrown when authenticating with Kerberos server. Defective token detected (Mechanism level: GSSHeader did not find the right tag)
  - ◆ Indicates that the client machine did not send the correct authentication token to SmartTAP. The most likely cause is that the client machine did not send any token at all.
  - ◆ Observed with a non-domain client machine accessing SmartTAP from a Firefox browser, with trusted site configured.

#### ■ Troubleshooting with More Detailed SmartTAP Application Server Logging

If more detailed logging is required to troubleshoot these issues within the Application Server, configure the following loggers. Consult with AudioCodes technical support before making any changes to the SmartTAP logging.

The loggers can be configured through the SmartTAP Application Server Web interface - browse to <http://localhost:9990>. Note that this requires running the add\_user.bat script to configure a user for accessing the Admin Console, or it can be configured in the smarttap.xml configuration file - which requires a restart of the Application Server service.

```
com.audiocodes.auth--> TRACE
com.audiocodes.ngp.web.security--> TRACE
com.audiocodes.ngp.web.system--> DEBUG
org.apache.catalina.authenticator--> TRACE
```

#### ■ Resetting the Configuration for Firefox Browser

In certain situations, it may be necessary to reset the configuration for the Firefox browser in order to use SSO with SmartTAP. To do this, see the Mozilla guide at <https://support.mozilla.org/en-US/kb/reset-preferences-fix-problems>.





This wipes out all saved settings for the browser such as bookmarks, history, tabs, passwords, cookies, etc. <https://support.mozilla.org/en-US/kb/reset-preferences-fix-problems>

The following sections summarize the guide.

#### ■ Refresh Firefox

This section instructs you how to refresh Firefox.





- a. Click the menu button , click help  and select Troubleshooting Information; the Troubleshooting Information tab opens.
- b. Click the Refresh Firefox button in the uppermost right corner of the Troubleshooting Information tab.
- c. When prompted to confirm, click the Refresh Firefox button again; Firefox closes to refresh itself. When finished, a window is displayed listing your imported information. Click Finish; Firefox reopens.

- d. If previously set, the 'Trusted URIs' configuration will be lost. Follow the steps in the Firefox Browser configuration to assign the SmartTAP server as a trusted server.
- e. Attempt SSO again; if SSO still doesn't work, delete Firefox preference files as shown in the next section.

#### ■ Delete Firefox Preference Files

This section instructs you how to delete Firefox preference files.

#### ➤ To delete Firefox preference files:

- a. Click the menu button , click help  and select Troubleshooting Information; the Troubleshooting Information tab opens.
- b. Under the Application Basics section, click Show Folder; a window opens displaying your profile files.
- c. Click the menu button  and then click Exit .
- d. Locate and delete the file prefs.js (or rename it, for example, to prefs.jsOLD, to keep the old file as a backup. If you find more than one, a prefs.js.moztmp file or a user.js file, delete (or rename) these as well.
- e. Close the profile folder and open Firefox.
- f. If previously set, the 'Trusted URIs' configuration will be lost. Follow the steps in the Firefox Browser configuration to assign the SmartTAP server as a trusted server.
- g. Attempt SSO again; if SSO still does not work, uninstall and reinstall Firefox as shown in the next section.

#### ■ Uninstall & Reinstall Firefox

- a. Uninstall Firefox through the Windows Control Panel.
- b. Make sure all Firefox data stored in the following locations is removed:  
C:\Users\<user>\AppData\Local\Mozilla\  
C:\Users\<user>\AppData\Roaming\Mozilla\  
[Optional] Reboot the machine.
- c. Reinstall the latest version of Firefox. It may be a good idea to download the latest version from Mozilla again, to be safe.
- d. After the installation, follow the steps in the Firefox Browser configuration to assign the SmartTAP server as a trusted server.
- e. Attempt SSO again.

## 8 SmartTAP Skype for Business Toolbar

The SmartTAP Skype for Business Toolbar functions in conjunction with the Skype for Business Conversation Window Extension (CWE) which allows the user to have access to in-call features like 'Save on Demand', 'Call Tagging', etc., without needing to open a browser window to access the SmartTAP GUI separately. The toolbar is by default not enabled and must be installed / configured by AudioCodes, a certified AudioCodes Partner or by your local IT expert.

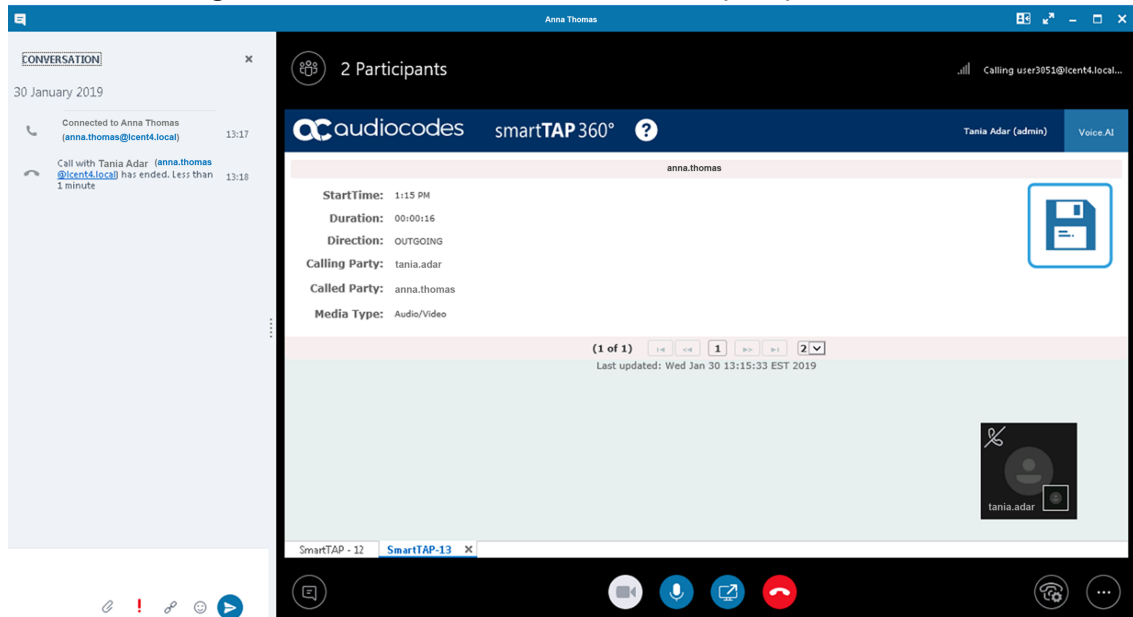
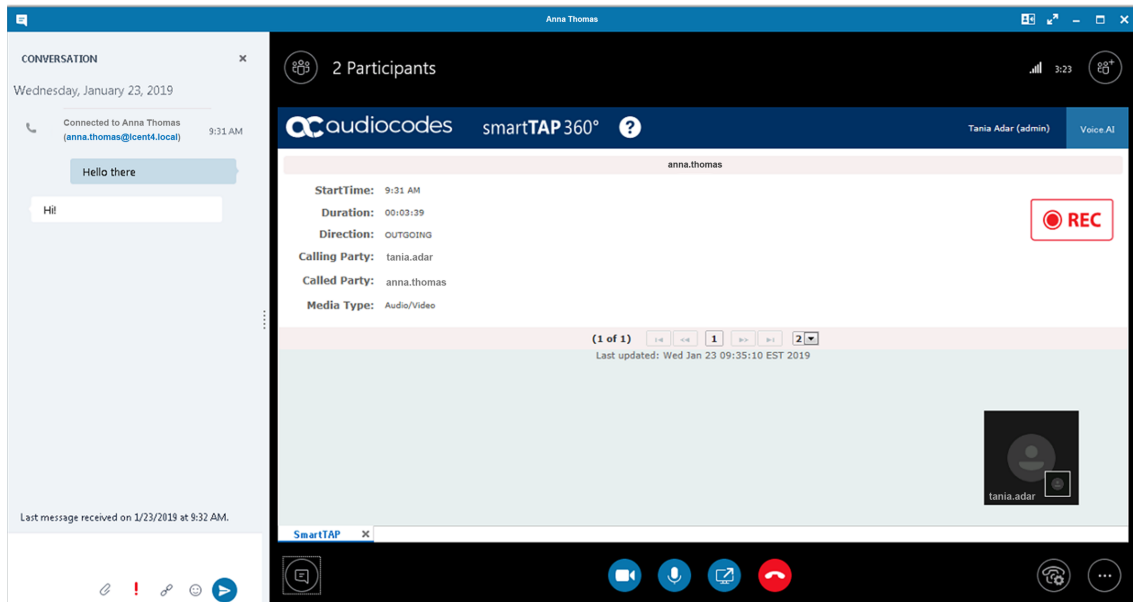
To learn more about Microsoft Skype for Business CWE, refer to:

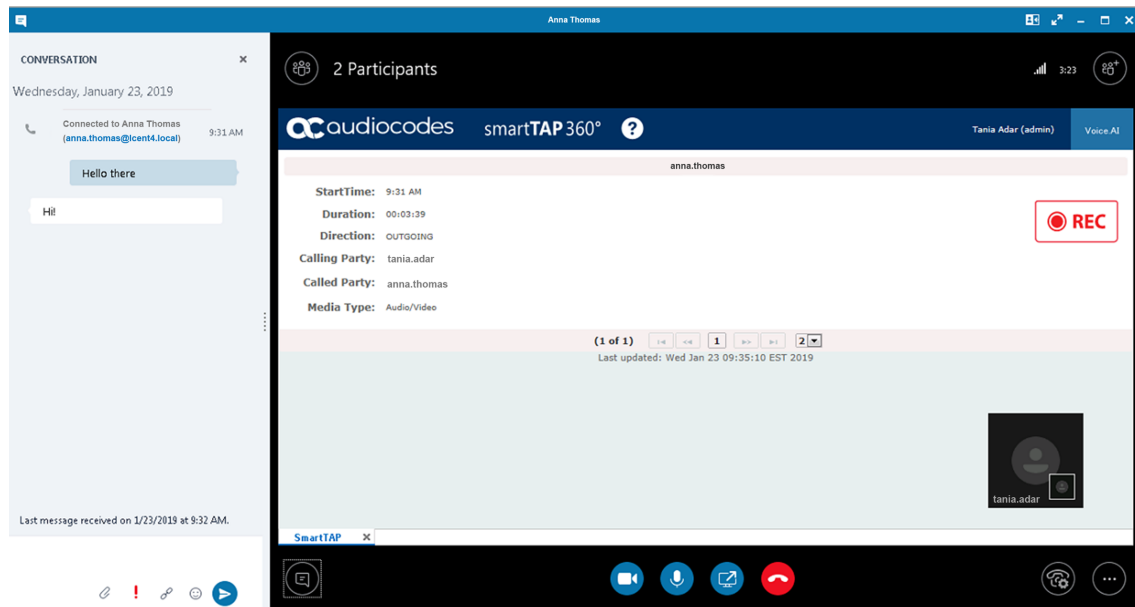
[http://msdn.microsoft.com/en-us/library/office/jj933101\(v=office.15\).aspx](http://msdn.microsoft.com/en-us/library/office/jj933101(v=office.15).aspx)

### Toolbar Features

- Single Sign-On
- Save on Demand, Record on Demand or Full Time Recording
- Pause / Resume Recording
- Call Tagging

See more information in this document to understand how to use the features above with the CWE window.

**Figure 8-1: SmartTAP: Save On Demand (SOD)****Figure 8-2: Record on Demand (ROD)**

**Figure 8-3: SmartTAP Skype for Business CWE Toolbar (Pause / Resume)**

## 9 Media Exporter

Media Exporter is a separate desktop application useful for compliance officers or for those who need to download bulk calls from SmartTAP for a specific user or for all users within a date/time range.



The number of exported recordings is limited to 1500. The download time depends on the system specifications and load. It takes approximately 10-15 minutes to download 100 call recordings with an average duration of 5 minutes on an idle system with 4 cores. It is not recommended to export a higher number of records during system working hours.

The search parameters are similar to the SmartTAP UI. Administrators must enter their credentials to access the application. Security credentials assigned by SmartTAP determine which users will be visible and whose associated calls will be available for downloading.



Currently both audio and video call types can be exported together. The video component of video calls is not exported in the current version. Alternatively, only the audio of video calls is exported in this version.

1. Run the MediaExporter.exe tool from your Windows PC.
2. Enter the access details and credentials:
  - SmartTAP URL to be used to access the SmartTAP UI
  - Enter the username (same as that used to access the SmartTAP UI)
  - Enter the password

**Figure 9-1: Credentials**

Media Exporter

AudioCodes

SmartTap Server URL:

User:

Password:

3. Enter the Search Criteria.

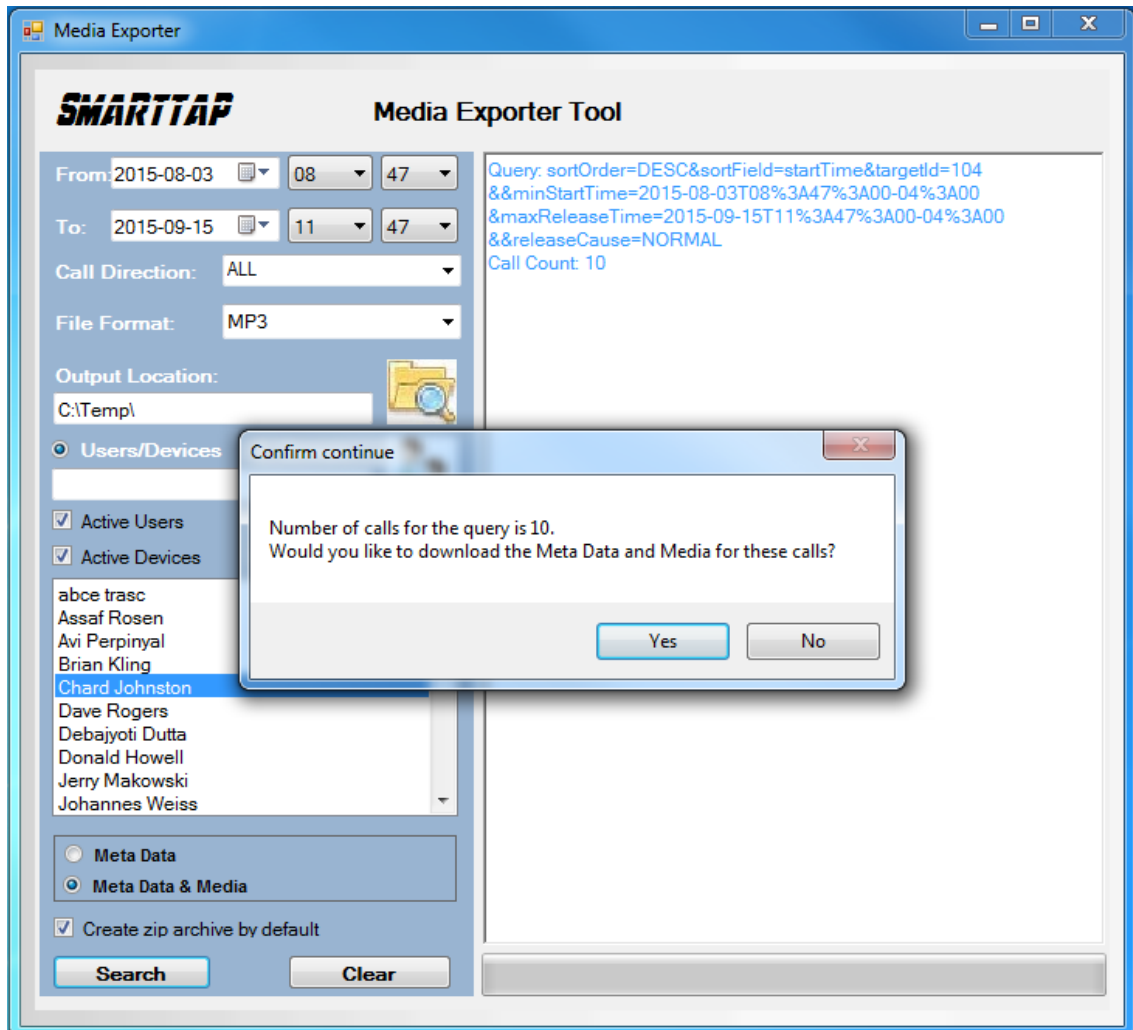
Figure 9-2: Enter the Search Criteria

The screenshot shows the 'Media Exporter Tool' window. The interface includes the following fields and options:

- From:** 2015-09-15, 08:47
- To:** 2015-09-15, 11:47
- Call Direction:** ALL
- File Format:** MP3
- Output Location:** C:\Temp\
- Search Scope:**
  - ☒ Users/Devices
  - ☐ Groups
- Filters:**
  - ☒ Active Users, ☐ Inactive Users
  - ☒ Active Devices, ☐ Inactive Devices
- User List:**
  - abce trasc
  - Assaf Rosen
  - Avi Perpinyal
  - Brian Kling
  - Chard Johnston** (highlighted)
  - Dave Rogers
  - Debajyoti Dutta
  - Donald Howell
  - Jerry Makowski
  - Johannes Weiss
- Export Options:**
  - ☐ Meta Data
  - ☒ Meta Data & Media
  - ☒ Create zip archive by default
- Buttons:** Search, Clear

- The following search criteria definitions are identical to those of the SmartTAP Web interface:
  - ◆ File Format (MP3, WAV) Either format can be played using standard Media Player
  - ◆ Output location: Where do you want the zip file and contents to be saved?
  - ◆ Meta Data or Meta Data & Media: Download only the Call Records or the Call Records and the Audio Files
  - ◆ Create zip archive by default: The Meta Data and audio files will be zipped for convenient storage and distribution.

Figure 9-3: Search Results



4. Select Yes to start downloading the calls.

Figure 9-4: Downloading

**Media Exporter Tool**

From: 2015-08-03 08 47  
 To: 2015-09-15 11 47  
 Call Direction: ALL  
 File Format: MP3  
 Output Location: C:\Temp\

☒ Users/Devices ☐ Groups

☒ Active Users ☐ Inactive Users  
☒ Active Devices ☐ Inactive Devices

abce trasc  
 Assaf Rosen  
 Avi Perpinyal  
 Brian Kling  
**Chard Johnston**  
 Dave Rogers  
 Debajyoti Dutta  
 Donald Howell  
 Jerry Makowski  
 Johannes Weiss

☐ Meta Data  
☒ Meta Data & Media

☒ Create zip archive by default

**Search** **Clear**

Query: sortOrder=DESC&sortField=startTime&targetId=104  
 &&minStartTime=2015-08-03T08:3A47%3A00-04%3A00  
 &&maxReleaseTime=2015-09-15T11%3A47%3A00-04%3A00  
 &&releaseCause=NORMAL  
 Call Count: 10  
 Please wait, downloading 1/10:  
<http://smarttap/rs/audiocodes/recorder/calls/info/13441>  
 Please wait, downloading 2/10:  
<http://smarttap/rs/audiocodes/recorder/calls/info/13376>  
 Please wait, downloading 3/10:  
<http://smarttap/rs/audiocodes/recorder/calls/info/13226>  
 Please wait, downloading 4/10:  
<http://smarttap/rs/audiocodes/recorder/calls/info/13062>  
 Please wait, downloading 5/10:  
<http://smarttap/rs/audiocodes/recorder/calls/info/12762>  
 Please wait, downloading 6/10:  
<http://smarttap/rs/audiocodes/recorder/calls/info/12752>  
 Please wait, downloading 7/10:  
<http://smarttap/rs/audiocodes/recorder/calls/info/12635>  
 Please wait, downloading 8/10:  
<http://smarttap/rs/audiocodes/recorder/calls/info/12323>  
 Please wait, downloading 9/10:  
<http://smarttap/rs/audiocodes/recorder/calls/info/11009>  
 Please wait, downloading 10/10:  
<http://smarttap/rs/audiocodes/recorder/calls/info/10984>  
 Download finished.  
 Compress start..  
 Compress finished.

After the download completes, the default browser automatically opens presenting the Call Manifest for the calls from the search results.

Figure 9-5: Call Manifest

Originated By: smarttap  
 User: admin  
 Date: 2015-09-15T12:09:52-04:00

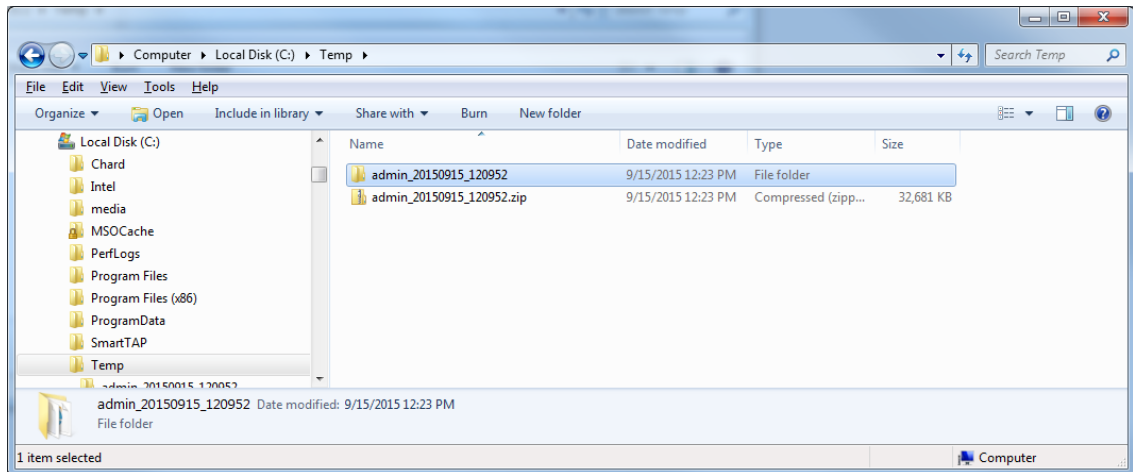
Query Parameters  
 Users: Chard Johnston (104)  
 From: 2015-08-03T08:47:00-04:00  
 To: 2015-09-15T11:47:00-04:00  
 Release Cause: NORMAL

Result Summary  
 Call Count: 10

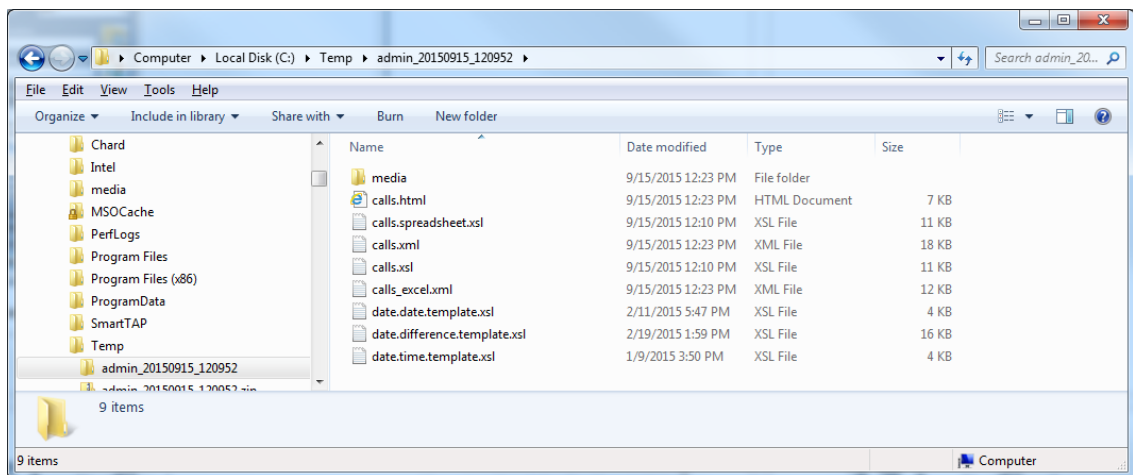
User/Device	Started Date	Started Time	Answered Date	Answered Time	Released Date	Released Time	Duration	Direction	Calling Party	Called Party	Answering Party	Dialed Digits	Release Cause	Play
Johnston, Chard	2015-09-15	08:58:13	2015-09-15	08:58:14	2015-09-15	10:06:36	1:8:23	OUTGOING	chard.johnston	conf-Pascal Plessis	conf-Pascal Plessis		NORMAL	media/Johnston_Chard_2015_09_15_08_58_13.mp3
Johnston, Chard	2015-09-14	13:02:48	2015-09-14	13:02:49	2015-09-14	13:58:34	0:55:46	OUTGOING	chard.johnston	conf-miriam.murad	conf-miriam.murad		NORMAL	media/Johnston_Chard_2015_09_14_13_02_48.mp3
Johnston, Chard	2015-09-11	09:03:34	2015-09-11	09:03:34	2015-09-11	10:52:03	1:48:29	OUTGOING	chard.johnston	conf-Carl Piazza	conf-Carl Piazza		NORMAL	media/Johnston_Chard_2015_09_11_09_03_34.mp3
Johnston, Chard	2015-09-09	14:10:56	2015-09-09	14:10:59	2015-09-09	14:17:17	0:6:21	OUTGOING	chard.johnston	victor.ovchinnikov	victor.ovchinnikov		NORMAL	media/Johnston_Chard_2015_09_09_14_10_56.mp3
Johnston, Chard	2015-09-03	12:00:45	2015-09-03	12:00:45	2015-09-03	12:31:14	0:30:29	OUTGOING	chard.johnston	conf-Ronald Romanchik	conf-Ronald Romanchik		NORMAL	media/Johnston_Chard_2015_09_03_12_00_45.mp3
Johnston, Chard	2015-09-03	11:04:36	2015-09-03	11:04:36	2015-09-03	11:38:46	0:34:10	OUTGOING	chard.johnston	conf-Philippe Blanquart	conf-Philippe Blanquart		NORMAL	media/Johnston_Chard_2015_09_03_11_04_36.mp3
Johnston, Chard	2015-09-02	09:02:38	2015-09-02	09:02:43	2015-09-02	09:41:23	0:38:45	OUTGOING	chard.johnston	+01133390677043	+01133390677043		NORMAL	media/Johnston_Chard_2015_09_02_09_02_38.mp3
Johnston, Chard	2015-08-27	13:00:58	2015-08-27	13:01:01	2015-08-27	13:32:46	0:31:48	OUTGOING	chard.johnston	+18775664408	+18775664408		NORMAL	media/Johnston_Chard_2015_08_27_13_00_58.mp3
Johnston, Chard	2015-08-06	11:00:57	2015-08-06	11:00:57	2015-08-06	12:18:46	1:17:49	OUTGOING	chard.johnston	conf-Jerry Makowski	conf-Jerry Makowski		NORMAL	media/Johnston_Chard_2015_08_06_11_00_57.mp3
Johnston, Chard	2015-08-06	08:40:01	2015-08-06	08:40:01	2015-08-06	10:02:47	1:22:46	OUTGOING	chard.johnston	conf-Chard Johnston	conf-Chard Johnston		NORMAL	media/Johnston_Chard_2015_08_06_08_40_01.mp3

### Output Location:

In the output location, you'll find the unzipped data and a zip file which contains the Call Manifest and all the associated audio files.

**Figure 9-6: Output Location**

Folder Name: User Name of User that downloaded calls + Date + Time.

**Figure 9-7: Contents of Folder**

Calls.html: Call Manifest

Calls.xml: Call Meta Data exported from SmartTAP loaded with Calls.html

Calls\_excel.xml: Open file in Excel. Once in, Excel can be used to generate statistics and reports.

## 10 API Integration

The SmartTAP API is a RESTful Web Services API that provides complete access to and control over the SmartTAP platform. The API provides:

- All administrative functions, including adding users and creating profiles
- Advanced call recording and search capabilities
- Retrieval of recordings & associated Meta Data
- Real-time call monitoring
- Others

Try the following example from your browser. Enter in the address bar:  
<http://url/rs/audiocodes/recorder/calls/info>



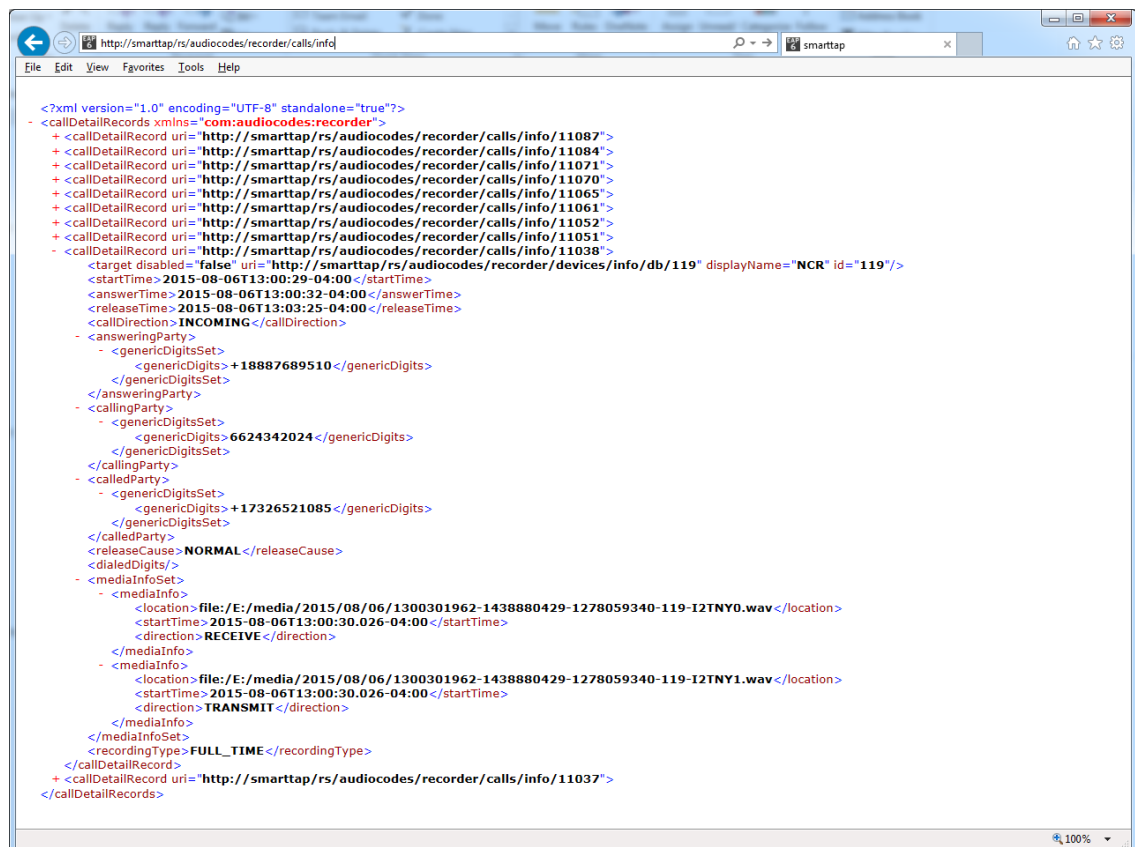
Change 'URL' to the IP address or the name of your SmartTAP product.

<http://smarttap/rs/audiocodes/recorder> - path to SmartTAP

/calls - SmartTAP Rest API resource

/info – Returns a collection of call detail records based on search criteria parameters

**Figure 10-1: API Integration**



To learn more about the SmartTAP REST API see the HTML documentation included with the SmartTAP software distribution.

# 11 Recording Health Monitor

The Recording Health Monitor (HM) service is used to monitor the health of the system by automatically monitoring users records and their associated media. It identifies and reports the following behavior:

- Number of recorded calls per enabled for recording user
- Silent or no media in answered call recordings
- Accessibility to associated media files in answered call recordings

The service utilizes the REST API to retrieve the data from an Application Service and to generate daily reports. The following daily report of calls for targeted, recording enabled, users are generated:

- recording\_report\_YEAR-Month-Day.txt – general report of all targeted users and calls in text format.
- recording\_summary\_report\_YEAR-Month-Day.csv - general report of all targeted users and calls in CSV format (Excel).
- recording\_err\_warn\_report\_YEAR-Month-Day.csv – warnings report in CSV format (Excel) that includes a list of possible recording issues such as no recordings for a targeted user, silent or zero media in answered call recordings, in CSV format (Excel).

[See example reports](#) below.

The reports generation schedule (default 11:00 pm) can be configured using HP configuration file, located in AudioCodes tools folder in Program Files under Config (ex. C:\Program Files\AUDIOCODES\Tools\HealthMonitor\Config). Email notification with generated reports can be sent via email (requires HealthMonitor SMTP configuration).

The Health Monitor is installed automatically on SmartTAP server as a part of the SmartTAP installation, under the AudioCodes tools folder in Program Files (ex. C:\Program Files\AUDIOCODES\Tools\HealthMonitor). The Health Monitor is installed as a Windows Service under the name “AudioCodes HM”.

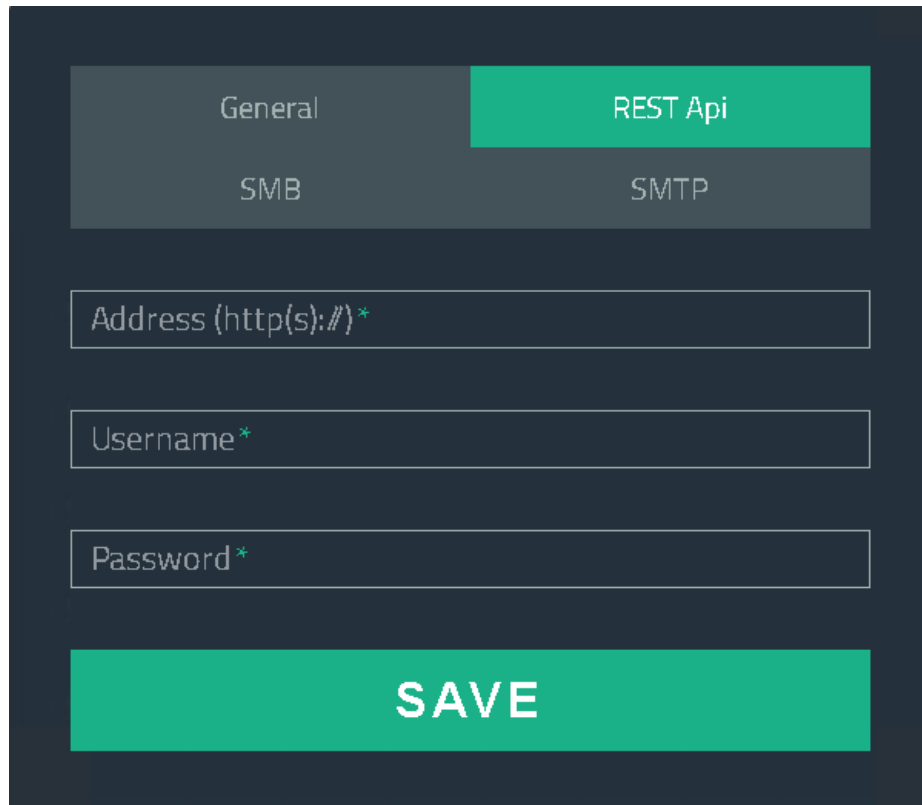
- General configuration:

Figure 11-1: General Configuration

- Scheduled report monitoring days: HM monitors call activity for the selected days. If no days are selected, HM monitors all days. Default: All days.
- Report Time – Health Monitor start time. Monitoring will start on scheduled time. Default: 11:00 pm.
- Report Retention Days – Sets the number of days to store reports. Old reports are purged from the database accordingly. By default, this parameter is configured to 0. This default can be changed in the configuration file as follows:

```
AudioCodes\Tools\HealthMonitor\Config
<ReportRetentionDays>10</ReportRetentionDays>
```

- WebServiceUrl – Health Monitor Web Service configuration page. Default: <http://localhost:10101>.
1. Email notification – enables email notification option. HM sends an email with attached daily reports on a scheduled time. SMTP configuration is required if this option is enabled. For more details see [Configuring Email Server Settings](#) on page 49 Default: Disabled.
- REST API configuration:

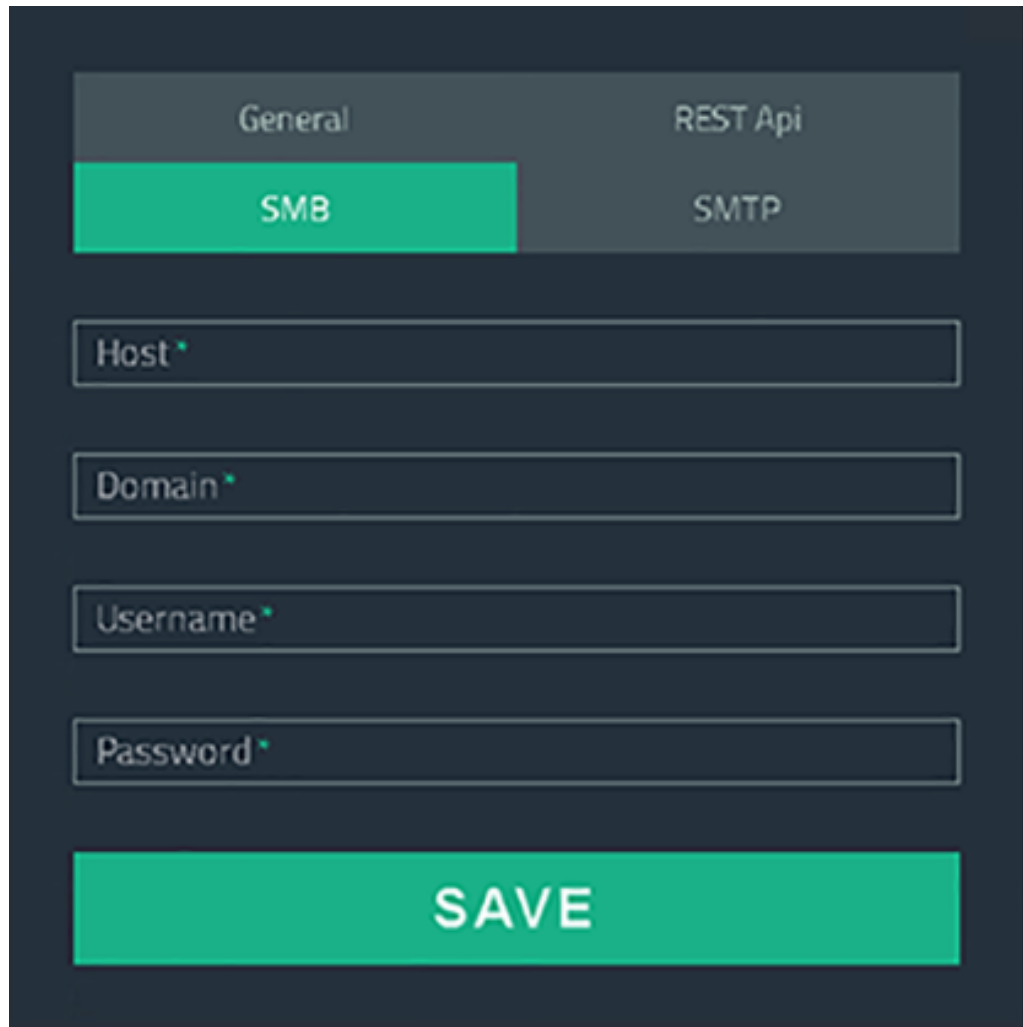
**Figure 11-2: REST API Configuration**

The Health Monitor uses a dedicated user for REST communication with Application Server. It is not necessary to modify this configuration (with the exception of the note below).



In case the Application server is configured for HTTPS only, the Address field should be changed to `https://FQDN` of Application Server, where FQDN should be the same as in the certificate that was issued for the Application Server. This is necessary for authentication purposes.

- SMB – network media files location:

**Figure 11-3: SMB Configuration**The image shows a configuration interface for SMB. At the top, there are two tabs: 'General' and 'REST Api'. Below these, there are two sub-tabs: 'SMB' (which is highlighted in green) and 'SMTP'. Under the 'SMB' tab, there are four input fields: 'Host \*', 'Domain \*', 'Username \*', and 'Password \*'. At the bottom of the form is a large green button labeled 'SAVE'.

In case SmartTAP uses a network location for media storage, this configuration must be updated with the following parameters:

- Host – hostname of network media server
  - Domain – domain name of the remote network storage
  - Username/password – remote network media storage credentials
- SMTP – mail notification:

**Figure 11-4: SMTP Configuration**

The screenshot shows the SMTP Configuration interface. It features a top navigation bar with tabs for 'General', 'REST Api', 'SMB', and 'SMTP'. The 'SMTP' tab is currently selected and highlighted in green. Below the tabs, there are several text input fields for configuration: 'Recipients (comma seperated)\*', 'Sender\*', 'SMTP Server\*', 'SMTP Port\*', 'SMTP User', and 'SMTP Password'. At the bottom of the form, there are two checkboxes labeled 'STARTTLS' and 'Use Authentication'. A prominent green 'SAVE' button is located at the bottom center of the screen.

The following parameters can be configured in this screen:

- Recipients – mail notification recipient list. Comma separated format for multiple recipients.
- Sender – mail notification initiator address. All reports will be sent from this mail address.
- SMTP Server – mail server address (IP, FQDN).
- SMTP Port – mail server port.
- SMTP User – mail server user.
- SMTP Password – mail server password.
- STARTTLS - secure connection using SSL/TLS.
- Use Authentication – use authentication to connect to mail server.

## Report Formats

The Health Monitoring utility generates a report including the following fields:

- Display name – display name of targeted user
- Recording profile – assigned call recording type
- Number of answered calls – total number of answered calls
- Warnings – number of warnings
- Errors – number of errors

**Figure 11-5: Example 1: recording\_report\_YEAR-Month-Day.txt**

```

*****
Display Name=qaTuser12; Recording profile=FULL_TIME; Number of answered calls=2; Warnings=0; Errors=2
|
|_Call details 1:
    Called party - qatuser11
    Calling party - qatuser12
    Answering party - 7010
    Call answer time - 11/6/2017 2:17:44 PM
    Integration call-id - 7e026b38ae624edd8e1f952075eda17a
    SmartTAP call-id - 81
    Message - ERROR [NO_MEDIA]
               file:/E:/media/2017/11/06/1417445-1509970655-1275549367-103-ICyc11.wav missing or not accessible
               file:/E:/media/2017/11/06/1417445-1509970655-1275549367-103-ICyc10.wav missing or not accessible
|
|_Call details 2:
    Called party - qatuser11
    Calling party - qatuser12
    Answering party - 7010
    Call answer time - 11/6/2017 3:57:32 PM
    Integration call-id - 20b38ef59d314e13b377f1e09c2afa7c
    SmartTAP call-id - 90
    Message - ERROR [NO_MEDIA]
               file:/E:/media/2017/11/06/15573214-1509976648-1275549367-103-W9Wjp0.wav missing or not accessible
               file:/E:/media/2017/11/06/15573214-1509976648-1275549367-103-W9Wjp1.wav missing or not accessible
|
*****
Display Name=qaTuser15; Recording profile=FULL_TIME; Number of answered calls=0; Warnings=0; Errors=0

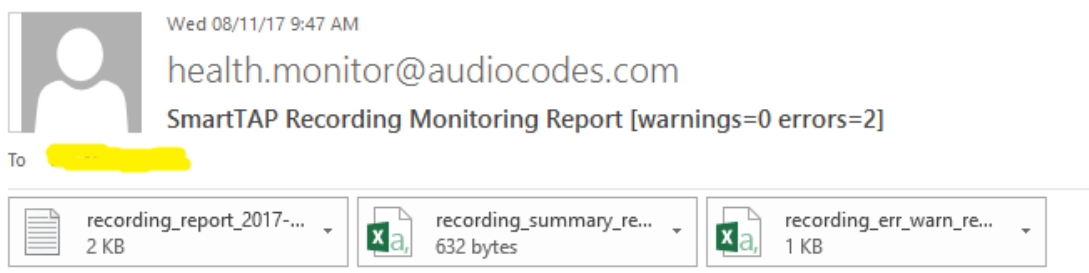
```

**Figure 11-6: Example 2: recording\_summary\_report\_YEAR-Month-Day.csv:**

Display name	Recording profile	Number of answered calls	Warnings	Errors
qaTuser12	FULL_TIME	2	0	2
qaTuser15	FULL_TIME	0	0	0
qaTuser14	FULL_TIME	0	0	0
qaTuser11	FULL_TIME	0	0	0
qaTuser10	FULL_TIME	0	0	0

**Figure 11-7: recording\_err\_warn\_report\_YEAR-Month-Day.csv**

Display name	Called party	Calling party	Answering party	Call answer time	Integration call-id	SmartTAP call-id	Status	Status reason	Details
qaTuser12	qatuser11	qatuser12	7010	11/06/17 14:17	7e026b38ae624edd8e1f952075eda17a	81	ERROR	NO_MEDIA	file:/E:/
qaTuser12	qatuser11	qatuser12	7010	11/06/17 15:57	20b38ef59d314e13b377f1e09c2afa7c	90	ERROR	NO_MEDIA	file:/E:/

**Figure 11-8: Email Format:**

November 08, 2017 09:47:21 AM (GMT+2)

Received from: <http://172.17.127.133>

## 12 Announcement Server (Skype for Business)

SmartTAP offers Announcement Server (AN) in the Microsoft Skype for Business environment to inform the call parties that their call will be recorded. When the Announcement Server (AN) is deployed, SmartTAP redirects inbound, outbound, and internal calls with enabled for recording users (targeted users) to the Announcement Server. The Announcement Server plays the announcement according to the configuration in the Recording Profile (see [Managing Recording Profiles](#) on page 83 and [Announcement Server - Example Configurations](#)). For installing and setting up the Announcement Server, refer to the *SmartTAP Installation Guide*.



SmartTAP requires two concurrent audio recording licenses to record both legs of the announcement part of the call. Make sure that the number of the system's concurrent recording licenses is equal to or higher than the number of concurrent announcements multiplied by 2.

This section includes the following:

- [Simple Announcement](#) below
- [IVR](#) on the next page
- [Example Announcement Server Scenarios](#) on page 192
- [Announcement Server Configuration Parameters](#) on page 194
- [Announcement Server - Example Configurations](#)

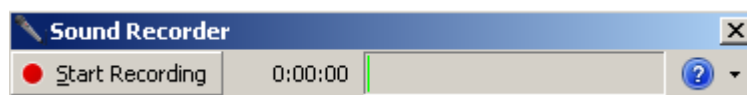
### Simple Announcement

SmartTAP can be configured to play announcements to the calling party and if required called parties on a call with a targeted user. The configuration enables setting of announcements to the calling party and if required called parties on a call with a targeted user.

#### ➤ To configure a simple announcement:

1. Create a WMA audio file. You can use the Windows Sound Recorder.

**Figure 12-1: Sound Recorder**

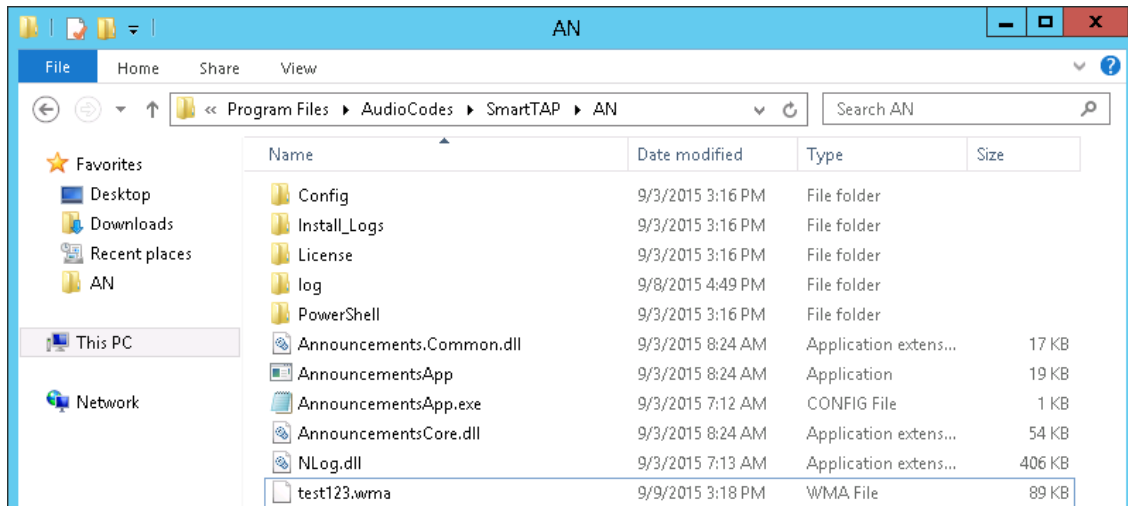


Example: "Thank you for calling Company A, your call may be recorded for quality assurance".

2. When done, click Stop Recording and it will prompt for the new file destination.
3. Save the file to the following location:  
Program Files\AudioCodes\SmartTAP\AN\Config\StateMachineConfig



Ensure that you save the file in WMA format.

**Figure 12-2: Announcement Server**

## IVR

SmartTAP supports interactive voice response (IVR) announcements. The IVR menus are configured by default to request recording consent from a call party(s). These menus can be customized:

- Text-to-speech support is available in 26 languages (see [Enabling Text-to-Speech Platform](#) on the next page)
- Enable Consent to record calls (see [Consent to Record Calls](#) on page 190)

For details on configuring IVR files, see Section [Configuring IVR Script Files](#) below. Once configured, the IVR files can be loaded to the user's Recording Profile (see [Managing Recording Profiles](#) on page 83).

## Configuring IVR Script Files

The IVR files are located as follows:

- The prompt media files are located under ... \Program Files\AudioCodes\SmartTAP\AN\Languages. USA English media files are under en-us folder.
- The IVR state machines are located under Program Files\AudioCodes\SmartTAP\AN\Config\StateMachineConfig



IVR scripts files must be saved in JSON format to the StateMachineConfig file in order to be configured in the Recording Profile (see [Managing Recording Profiles](#) on page 83).

- The IVR sample state machines are located under Program Files\AudioCodes\SmartTAP\AN\Config\Repo

Name	Date modified	Type	Size
Config	9/7/2016 3:04 PM	File folder	
Languages	9/7/2016 3:04 PM	File folder	
MusicOnHold	9/7/2016 3:04 PM	File folder	
PowerShell	9/7/2016 3:04 PM	File folder	
Repo	9/7/2016 3:04 PM	File folder	
StateMachineConfig	9/7/2016 3:04 PM	File folder	

The AN state machine can be fine-tuned according to requirements in the state machine file. The following shows example IVR file :

**Figure 12-3: Example IVR Script File**

```
{
  "Type": "AnnouncementsCore.AnnTree.AnnStateMachine, AnnouncementsCore",
  "DefaultLanguage": "en-us",
  "AnnNodes": [
    {
      "Type": "AnnouncementsCore.AnnTree.AnnLanguageNode, AnnouncementsCore",
      "PromptName": "chooseLanguage.wma",
      "Languages": [
        {
          "Type": "AnnouncementsCore.AnnTreeModel.LanguageDtmf, AnnouncementsCore",
          "Dtmf": "1",
          "Language": "en-us",
          "NextId": "2"
        },
        {
          "Type": "AnnouncementsCore.AnnTreeModel.LanguageDtmf, AnnouncementsCore",
          "Dtmf": "2",
          "Language": "ru-ru",
          "NextId": "2"
        }
      ],
      "ToneHandlerConfig": {
        "Type": "AnnouncementsCore.AnnTreeModel.ToneHandlerConfig, AnnouncementsCore",
        "MaxAttempts": 5,
        "WaitTimeDtmfSec": 5,
        "StartRecognizeAfterPromptDtmf": false
      },
      "Id": "1",
      "NextId": "2",
      "ErrorNextId": "5",
      "IsFirst": true
    },
    {
      "Type": "AnnouncementsCore.AnnTree.AnnMenuNode, AnnouncementsCore",
      "PromptName": "ivr.wma",
      "AcceptDtmf": {
        "Type": "AnnouncementsCore.AnnTreeModel.DtmfAndOutput, AnnouncementsCore",
        "Dtmf": "1",
        "NextId": "3"
      },
      "DeclineDtmf": {
        "Type": "AnnouncementsCore.AnnTreeModel.DtmfAndOutput, AnnouncementsCore",
        "Dtmf": "0",
        "NextId": "4"
      },
      "ToneHandlerConfig": {
        "Type": "AnnouncementsCore.AnnTreeModel.ToneHandlerConfig, AnnouncementsCore",
        "MaxAttempts": 3,
        "WaitTimeDtmfSec": 5,
        "StartRecognizeAfterPromptDtmf": false
      },
      "Id": "2",
      "NextId": "3",
      "ErrorNextId": "5",
      "IsFirst": false
    },
    {
      "Type": "AnnouncementsCore.AnnTree.AnnPlayPromptNode, AnnouncementsCore",
      "PromptName": "AcceptResultPrompt.wma",
      "Id": "3",
      "NextId": null,
      "ErrorNextId": null,
      "IsFirst": false
    },
    {
      "Type": "AnnouncementsCore.AnnTree.AnnPlayPromptNode, AnnouncementsCore",
      "PromptName": "DeclineResultPrompt.wma",
      "Id": "4",
      "NextId": null,
      "ErrorNextId": null,
      "IsFirst": false
    },
    {
      "Type": "AnnouncementsCore.AnnTree.AnnPlayPromptNode, AnnouncementsCore",
      "PromptName": "errorPrompt.wma",
      "Id": "5",
      "NextId": null,
      "ErrorNextId": null,
      "IsFirst": false
    }
  ]
}
```

## Enabling Text-to-Speech Platform

The actual consent to record announcements can be played from a text-to-speech (TTS) file or from a recorded audio file. This section describes how to setup to use the TTS method.

### ➤ To enable text-to-speech platform:

1. Download and install Microsoft Speech Platform - Runtime (Version 11) from here:  
<https://www.microsoft.com/en-us/download/details.aspx?id=27225>
2. After you have the platform installed, now you need to download and install TTS languages which you want to support in yours AN application. Microsoft Speech Platform - Runtime Languages (Version 11)

<https://www.microsoft.com/en-us/download/details.aspx?id=27224>

The link above is for download the whole TTS (text to speech) and SR (speech recognition) files.

3. After you download it, you need to install each relevant file you want according to language. For example, if you want to support text to speech for Russian then install the file MSSpeech\_TTS\_ru-RU\_Elena.msi.

For English, install MSSpeech\_TTS\_en-US\_Helen.msi or MSSpeech\_TTS\_en-US\_ZiraPro.msi.



- It is not recommended to install Speech Recognition (SR) files because currently AN doesn't support speech recognition. This feature may be supported in the future. If you install SR files, this files will not be used and AN behavior is not affected.
- Install platform and language from the same Version 11. A combination of Versions 10 and 11 is invalid.

4. To enable TTS copy over and if required modify state machine(s) from the folder ending with tts in ...\\Program Files\\AudioCodes\\SmartTAP\\AN\\Repo to the Program Files\\AudioCodes\\SmartTAP\\AN\\StateMachineConfig folder.

## Consent to Record Calls

SmartTAP supports interactive voice response (IVR) announcements requesting consent from the call party to record the conversation of the call. If the call party does not consent, the conversation is not recorded. Below is an example of a call consent prompt:

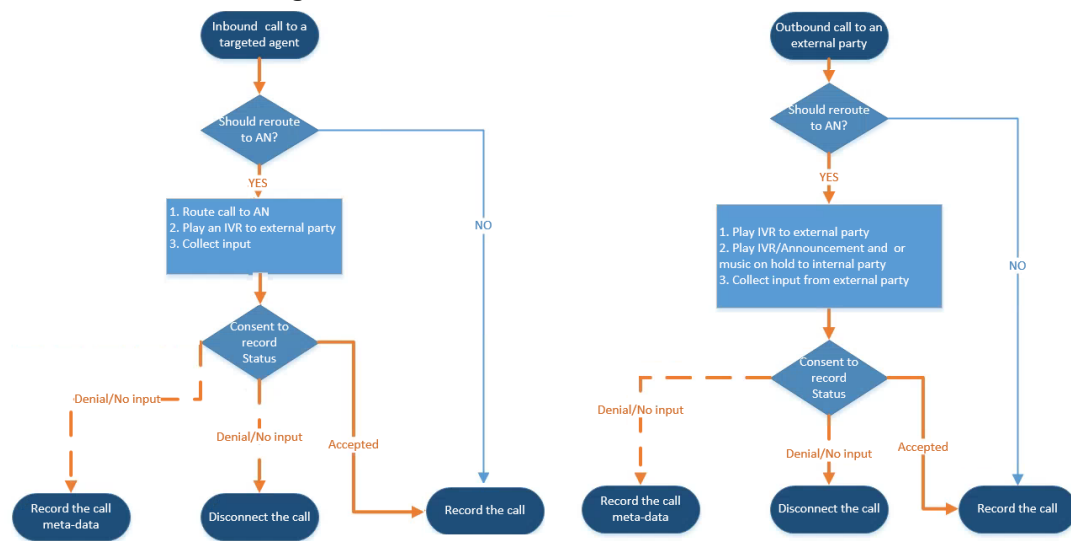
“This call may be recorded for quality assurance purposes. Press one to accept or press zero to continue without recording.”



The Demo IVR files provided by SmartTAP, by default, disable call consent.

The following figure illustrates the Call Consent process for Inbound and Outbound calls:

**Figure 12-4: IVR Announcements**



Consent result and action are displayed as part of call record meta-data as shown below:

**Figure 12-5: Consent Accepted**

User/Device	Started	Duration	Direction	Release Cause
adar, tania(tania adar)	Jun 2, 2016 2:38:14 PM	00:00:07	INCOMING	NORMAL
Answer Time: Jun 2, 2016 2:38:17 PM Release Time: Jun 2, 2016 2:38:21 PM Calling Party Digits: 7326522182 Consent Accepted - Recording Permitted Called Party Digits: 3041 Answering Party Digits: user3041 Recording Type: FULL_TIME Trigger Time: Expires: Jun 2, 2017				
adar, tania(tania adar)	Jun 2, 2016 2:38:03 PM	00:00:14	INCOMING	NORMAL
Answer Time: Jun 2, 2016 2:38:03 PM Release Time: Jun 2, 2016 2:38:17 PM Calling Party Digits: 7326522182 Consent Accepted Called Party Digits: 3041 Answering Party Digits: announcementsapp-lync-2013-site1 Recording Type: FULL_TIME Trigger Time: Expires: Jun 2, 2017				

**Figure 12-6: Consent Declined**

User/Device	Started	Duration	Direction	Release Cause
adar, tania(tania adar)	Jun 2, 2016 2:41:57 PM	00:00:08	INCOMING	NORMAL
Answer Time: Jun 2, 2016 2:42:00 PM Release Time: Jun 2, 2016 2:42:05 PM Calling Party Digits: 7326522182 Consent Declined - Recording Disabled Called Party Digits: 3041 Answering Party Digits: user3041 Recording Type: FULL_TIME Trigger Time: Expires: Jun 2, 2017				
adar, tania(tania adar)	Jun 2, 2016 2:41:46 PM	00:00:15	INCOMING	NORMAL
Answer Time: Jun 2, 2016 2:41:46 PM Release Time: Jun 2, 2016 2:42:01 PM Calling Party Digits: 7326522182 Consent Declined Called Party Digits: 3041 Answering Party Digits: announcementsapp-lync-2013-site1 Recording Type: FULL_TIME Trigger Time: Expires: Jun 2, 2017				

Search calls based on the consent as shown below:

**Figure 12-7: Call Parties**

System Users Status

Calls Evaluation

From: 05/20/2016 8 05 AM  
To: 05/20/2016 10 05 AM

☒ Active Users ☐ Inactive Users  
☒ Active Devices ☐ Inactive Devices  
☒ Users/Devices ☐ Groups

Users/Devices:

- Adar, Tania
- Admin, Local
- Campos, Jose
- Carosella, Gino
- Conlon, Tom
- Da Silva, Sandy
- DCI
- Dougher, Michael
- Dutta, Debajyoti
- Herberger, Steven

Call Parties:

Calling: Consent Declined\*

Called:

Answered:

Call Tags:

☒ Active Tags ☐ Inactive Tags

Tag Name: Select One Tag Value:

Search

## Example Announcement Server Scenarios

This section describes the following example scenarios for assigning Media files and IVR script files for the Announcement server using the Recording Profile (:

- [PSTN and Federated Calls](#) below
- [All Inbound Calls](#) on the next page

### PSTN and Federated Calls

The figure below shows the attaching of announcement audio files for Federated and PSTN calls. An IVR file is configured to play to the Calling party for Inbound PSTN and Federated calls. Likewise, an ANN file is configured to play to the Answering party for Outbound PSTN and Federated calls.

**Figure 12-8: PSTN and Federated Calls**

**Call**

Recording Type: **Full Time**

☒ Video  
☒ Desktop Sharing  
☐ Pause or Resume

---

**Call type**  
 Applicable for Skype for Business and Lync A/V Recording"

☐ All

Internal ☐ Incoming ☐ Outgoing  
 PSTN ☒ Inbound ☒ Outbound  
 Federated ☒ Inbound ☒ Outbound

☒ Calls with Internal Conferences  
☒ Referred by Response Group

Filter Calls User Receives : List Type : **Black** Numbers: Regular Expression:  
 Filter Calls User Makes : List Type : **Black** Numbers: Regular Expression:

---

**Announcements**  
 Applicable for Skype for Business and Lync A/V Recording. Announcement Server is required to be installed

**Call type**

Internal	<input type="checkbox"/> Incoming	<b>ANN</b>	<input type="checkbox"/> Play to calling party	File name	<input type="checkbox"/> Play to answering party	File name
	<input type="checkbox"/> Outgoing	<b>ANN</b>	<input type="checkbox"/> Play to calling party	File name	<input type="checkbox"/> Play to answering party	File name
PSTN	<input checked="" type="checkbox"/> Inbound	<b>IVR</b>	<input checked="" type="checkbox"/> Play to calling party	<b>PSTN_Inbound_IVR;</b>	<input type="checkbox"/> Play to answering party	File name
	<input checked="" type="checkbox"/> Outbound	<b>ANN</b>	<input type="checkbox"/> Play to calling party	File name	<input checked="" type="checkbox"/> Play to answering party	<b>PSTN_Outbound.wm</b>
Federated	<input checked="" type="checkbox"/> Inbound	<b>IVR</b>	<input checked="" type="checkbox"/> Play to calling party	<b>Fed_Inbound_IVR.js</b>	<input type="checkbox"/> Play to answering party	File name
	<input checked="" type="checkbox"/> Outbound	<b>ANN</b>	<input type="checkbox"/> Play to calling party	File name	<input checked="" type="checkbox"/> Play to answering party	<b>Federated_Outbound</b>

☐ Record Announcement  
 Don't Play Announcement Destination Numbers : **911**  
☐ Block Calls on Announcements Unavailability

## All Inbound Calls

The figure below shows the configuration of announcement audio files for Incoming Internal calls and Inbound PSTN and Federated calls. An ANN file is configured to play to the Calling party for Incoming Internal calls and for Inbound Federated calls. Likewise, an IVR file is configured to play to the Answering party for Inbound PSTN calls.

**Figure 12-9: Incoming Calls**

**Call**

Recording Type: **Full Time**

☐ Video

☐ Desktop Sharing

☐ Pause or Resume

---

**Call type**

Applicable for Skype for Business and Lync A/V Recording\*

☐ All

Internal ☒ Incoming ☐ Outgoing

PSTN ☒ Inbound ☐ Outbound

Federated ☒ Inbound ☐ Outbound

☐ Calls with Internal Conferences

☐ Referred by Response Group

Filter Calls User Receives : List Type: **Black** Numbers:  Regular Expression:

Filter Calls User Makes : List Type: **Black** Numbers:  Regular Expression:

---

**Announcements**

Applicable for Skype for Business and Lync A/V Recording. Announcement Server is required to be installed

**Call type**

Internal	<input checked="" type="checkbox"/> Incoming	<b>ANN</b>	<input checked="" type="checkbox"/> Play to calling party	<b>ANN_Incoming.wma</b>	<input type="checkbox"/> Play to answering party	File name
	<input type="checkbox"/> Outgoing	<b>ANN</b>	<input type="checkbox"/> Play to calling party	File name	<input type="checkbox"/> Play to answering party	File name
PSTN	<input checked="" type="checkbox"/> Inbound	<b>IVR</b>	<input type="checkbox"/> Play to calling party	File name	<input checked="" type="checkbox"/> Play to answering party	<b>PSTNivrOutbound.json</b>
	<input type="checkbox"/> Outbound	<b>ANN</b>	<input type="checkbox"/> Play to calling party	File name	<input type="checkbox"/> Play to answering party	File name
Federated	<input checked="" type="checkbox"/> Inbound	<b>ANN</b>	<input checked="" type="checkbox"/> Play to calling party	<b>ANN_Federated.wma</b>	<input checked="" type="checkbox"/> Play to answering party	File name
	<input type="checkbox"/> Outbound	<b>ANN</b>	<input type="checkbox"/> Play to calling party	File name	<input type="checkbox"/> Play to answering party	File name

☒ Record Announcement

Don't Play Announcement Destination Numbers : **911**

☐ Block Calls on Announcements Unavailability

---

**Recording Beep Tone**

☐ Play Beep Tone \*

\* Beep can be played on the calls which media traverses Media Proxy Server

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**IM**

☐ Instant Message

## Announcement Server Configuration Parameters

The table below describes the configuration parameters that can be configured in the System.config file.

**Table 12-1: System.config File**

Parameter	Description
appEndpointDiscoveryName	Defines the value of Skype for Business trusted application endpoint that will be used by this application. The default value is "AnnouncementsApp".
userAgent	Defines the Application User agent. The default value is " AnnouncementsApp".
inviteDest	If the value is not empty, the application will call to this destination and ignore the To header of incoming INVITE. The default value is "".

Parameter	Description
bufferSize	Defines buffer size of transferring data between calls. The default value is "60".
supervisedTransferHeaderName	Defines the header name of supervised transfer INVITE that should be returned by the FE to the application. The default value is "X-Announcements-Supervised-Transfer".
supervisedTransferHeaderValue	Defines the header value of supervised transfer invite that should be returned by FE to the application. The default value is "\$1MsplApp".
outCallPassThroughHeaderNames	Defines the headers to pass from in call to out call. The default value is "Ms-Exchange-Command;HISTORY-INFO" e.g., "headerNameA;headerNameB;headerNameC".
diagnosticsHeaderName	Defines the diagnostics header name. The default value is X-Announcements-DIAGNOSTICS.
maxEndpointDiscoveryMiliSeconds	Defines the maximum time in milliseconds to wait for first application endpoint discovery. The application exits if no endpoints are discovered within this time. The default value is 30000.
maxPlayPromptsMiliSeconds	Defines the maximum time in milliseconds to play prompts. The default value is 1800000.
nlogNetworkLayout	Defines the NLog network layout. The default value is: <ul style="list-style-type: none"> <li>■ \${longdate} \${level} \${message}</li> <li>■ \${exception:format=Message}\${newline}</li> </ul>
referredByAddedParamName	This parameter name is added to the SIP 'Referred-By' header. The default value is " X-Announcements".
referredByAddedParamValue	This parameter value is added to the SIP 'Referred-By' header. The default value is " AnnouncementsApp".
transferType	Defines the Transfer Type. Valid Values: <ul style="list-style-type: none"> <li>■ Attended - Perform attended transfers.</li> <li>■ Unattended - Performs unattended transfers.</li> </ul>
webServiceBaseUrl	Describes the listening URL of the Announcement server's Web service Rest API.
enableMoh	Sets true to enable Music on Hold. Possible values: <ul style="list-style-type: none"> <li>■ True (default)</li> <li>■ False</li> </ul>

Parameter	Description
mohFileName	Defines the Music on Hold file name. The file must be located in the project directory tree inside the MusicOnHold directory. The default value is "music-default.wma".
ivrResultParamName	Defines the parameter name that will be added in the referred-By header. The default value is "X-AnnIvrResult".
ivrCleanerSec	Clean stale calls IVR container every period of time in seconds. The default value is 1800.
impersonateInCall	If true, in call will be impersonated, i.e. for the P-Asserted header of 200 OK, the value in the header will not be Announcement user/ID?? and instead the original destination user. Possible values: <ul style="list-style-type: none"> <li>■ True</li> <li>■ False (default)</li> </ul>
uaReceiveReferRegex	if UserAgent matches the regular expression then the REFER will be sent to this device. Solves a problem with the Polycom 500VVX phone where AN should send the SIP Refer to the phone when rerouting the call to the original destination. Default value: "PolycomVVX-VVX_500"
asList	Application server comma-separated list. AN sends alarms to the AS in the list. For example <a href="http://10.21.8.120:80,https://10.21.80.170:443">http://10.21.8.120:80,https://10.21.80.170:443</a>
restClientTimeoutMilliseconds	Alarms timeout in milliseconds. Default Value: 5000
normalizeNumbers	The parameter should be set to true when normalization of called numbers in the Announcement server is required. AN will normalize the called number before rerouting the call to the original destination. Possible values: <ul style="list-style-type: none"> <li>■ True</li> <li>■ False (default)</li> </ul>
managedDeviceHeartbeatIntervalMs	Interval in milliseconds between each heartbeat request to AS. valid range [1000 - max int] Default Value: 30000
disableAlarms	Set true to disable the alarms mechanism. Possible values: <ul style="list-style-type: none"> <li>■ True</li> </ul>

Parameter	Description
	<ul style="list-style-type: none"> <li>False (default)</li> </ul>
uaDontReceiveReferRegex	<p>A regular expression (case insensitive). If the value of the UserAgent header matches the expression then the SIP refer will not be sent to that device when rerouting the call to the original destination. This solves the problem of S4B clients answering 488 not acceptable on reception of SIP INVITE with replaces from the mobile clients.</p> <p>Default Value: "ucwa"</p>
noAttendedTransferSupportRegex	<p>A regular expression (case insensitive). When one of the devices in the call to AN doesn't support the Attended transfer, AN will execute the UnAttended transfer. Mobile clients (S4B) and voicemail don't support Attended transfers.</p> <p>Default Value: "ucwa"</p>
redirectIfReferNotSupported	<p>When the caller doesn't support refer, AN may redirect the caller without playing AN (true) or disconnect the call (false).</p> <p>In BothParties mode redirect the caller if both sides don't support refer (true), or disconnect the calls (false)</p> <p>Possible values:</p> <p>True (default) – AN redirects the caller</p> <p>False – AN disconnects the call</p>
voicemailRegex	<p>A regular expression (case insensitive). The parameters is used to identify voicemail as a participant of the call routed through the AN according to 'user-agent' and 'server' headers.</p> <p>Default Value: "Exchange"</p>
dontPlayAnnRegex	<p>A regular expression (case insensitive). The parameters are used to identify conference as a participant of the call routed through the AN according to 'user-agent' and 'server' headers.</p> <p>Default Value: "AV-MCU"</p>
isPlayAnnIfAnsweredByVoicemail	<p>The announcement is not played to the caller when the call routed through AN is answered by the voicemail.</p> <p>Possible values:</p> <p>True</p> <p>False (default)</p>

For AN Server installation instructions, refer to the *SmartTAP Installation Guide*.

## Announcement Server Advanced Call Scenarios

- **Advanced Call Scenarios:** Targeted for recording users may participate in advanced call scenarios such as call transfer, call forwarding and conferencing. This section describes whether the configured announcement function is triggered in these advanced call scenarios. The triggering of the announcement in the advanced scenarios doesn't depend on the ANN configuration except for the parameters that are mentioned in this section and therefore the configuration is not defined below.
- **Call Transfers:** The following table defines call transfer scenarios and the announcements generation. For all of the scenarios, A calls B, B answers the call, B puts A on hold, B calls to C (this doesn't take place in blind transfer scenario) and B transfers A to C.

**Table 12-2: Call Transfer Scenarios**

Call Scenario	Targeted Users	Flow and expected results from AN (the second line is not applicable in case of blind transfer)
Supervised/blind transfer	A	<ol style="list-style-type: none"> <li>1. A calls B, B answers: announcement is played.</li> <li>2. B places A on hold and calls C, C answers: no announcement is played.</li> <li>3. A connected to C: no announcement (set AllowMultipleAnnSameUser to true to play).</li> </ol>
Supervised/blind transfer	B	<ol style="list-style-type: none"> <li>1. A calls B, B answers: announcement is played</li> <li>2. B places A on hold and calls C, C answers: announcement is played</li> <li>3. A connected to C: no announcement (set AllowMultipleAnnSameUser to true to play)</li> </ol>
Supervised/blind transfer	C	<ol style="list-style-type: none"> <li>1. A calls B, B answers: no announcement is played.</li> <li>2. B places A on hold and calls C, C answers: announcement is played.</li> <li>3. A is connected to C: announcement is played.</li> </ol>
Supervised/blind transfer	A + B	<ol style="list-style-type: none"> <li>1. A calls B, B answers: announcement played</li> <li>2. B places A on hold and calls C, C answers: announcement played</li> <li>3. A is connected to C: no announcement is played(set AllowMultipleAnnSameUser to true to play)</li> </ol>
Supervised/blind transfer	A + C	<ol style="list-style-type: none"> <li>1. A calls B, B answers: announcement is played</li> <li>2. B places A on hold and calls C, C answers: announcement is played</li> <li>3. A connected to C: no announcement (set AllowMultipleAnnSameUser to true to play)</li> </ol>
Supervised/blind transfer	B + C	<ol style="list-style-type: none"> <li>1. A calls B, B answers: announcement is played</li> <li>2. B places A on hold and calls C, C answers: announcement is played</li> <li>3. A connected to C: no announcement is played (set AllowMultipleAnnSameUser to true to play)</li> </ol>
supervised transfer	A + B + C	<ol style="list-style-type: none"> <li>1. A calls B, B answers: announcement is played</li> </ol>

Call Scenario	Targeted Users	Flow and expected results from AN (the second line is not applicable in case of blind transfer)
		<ol style="list-style-type: none"> <li>2. B places A on hold and calls C, C answers: announcement is played</li> <li>3. A and C are in a conversation: no announcement (set AllowMultipleAnnSameUser to true to play)</li> </ol>

#### ■ Call Forward and Simultaneously Ring

The following table defines playing announcements when a call to an internal user is answered by another user/number/group on behalf of the originally called user.

**Table 12-3: Call Forwarding and Simultaneous Ringing**

Call Scenario	Targeted Users	Flow and expected results from ANN
forward/team call	A	A calls B, C answers: announcement is played
forward/team call	B	A calls B, C answers: announcement is played
forward/team call	C	A calls B, C answers: announcement is played
forward/team call	A + B	A calls B, C answers: announcement is played
forward/team call	A + C	A calls B, C answers: announcement is played
forward/team call	B + C	A calls B, C answers: announcement is played
forward/team call	A + B + C	A calls B, C answers: announcement is played

- Conferences: Playing announcements on the calls of targeted users with a conference bridge are not currently supported. with SmartTAP team the feature status if you need it.
- Video calls: Video calls routed to the ANN are handled as audio-only calls, the video part of the call is stripped. Once the call is transferred to the original destination the video of the call can be re-initiated.
- Mobile Clients and Voice Mail: Announcements are played for calls with mobile clients as defined in previous sections with an exception to the following scenarios:
- The AN is configured to play an announcement to the calling party only mode (AnnouncementRecipients=CallingParty). The mobile client calls to another party where the mobile client, another party or both are targeted users. In this scenario, the announcement is not played.
- The AN is configured to play an announcement to both parties mode (AnnouncementRecipients=BothParty). The mobile client calls to another party where the mobile client, another party or both are targeted users. The call is answered by voice mail. In this scenario, the announcement is not played.
- The AN is configured to play an announcement to both parties mode (AnnouncementRecipients=BothParty). The mobile client calls to another Skype For Business party (not including voice mail), the announcement is played and when completed, the call is disconnected. A new call is automatically created by the other party to the mobile client that needs to answer to connect the call.

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