

Savant Telephony Solution Deployment Guide

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1. PREPARING FOR DEPLOYMENT

The Savant Telephony Solution Deployment Guide documents the options and processes involved in deploying the Savant PBX system. To ensure a successful deployment Savant Systems has developed a checklist, as well as a section on what is needed before you get started. These are both contained in Appendix 2. As you can see from this appendix the installer needs to have an IP plan which requires knowledge of the following:

- Specific IP addresses assigned to Savant PBX equipment
- MAC addresses of the Savant PBX equipment
- IPEI (IP Electronic Identifier) for wireless phones
- UID (unique identifier) for all the iOS devices

The checklist is a step-by-step instruction (as well as links to documentation describing those steps) on doing a full installation. There are also checklists for just adding a wired phone, wireless phone, iOS device, or adding a new base station to an existing system. Savant Systems encourages you to look at this appendix at this time to get acquainted with the type of information that it contains. This will help you in completing the various procedures in this deployment guide.



Savant PBX and Supported Components

IP Address Assignment

Savant Systems recommends you reserve the following IP addresses before installing any hardware. You must reserve IP addresses on your DHCP server for the following:

- 1. One for the Savant PBX (SPX-1000)
- 2. One for the Savant Gateway (TEL-GW04)
- 3. One per each access point used (SIP DECT base stations)

After the IP addresses are assigned you are ready to start installing and configuring the system.

Note that the network configuration can be changed. See Changing the PBX Network Configuration.

Savant PBX Hardware and Installation

To add the SPX-1000 to the PBX solution simply plug in one end of an Ethernet cable to the unit's single 10/100 Base-T Ethernet port, plug in the other end of the Ethernet cable to a managed Ethernet switch, and then plug in the unit's AC power cord.



Savant Phones

The phones supported by the Savant PBX Telephony solution are Savant products: TEL-HST01, TEL-HST02, and TEL-HSTW01. The usage of these phones is described in more detail in the Savant Telephony Solution: Call Features Usage and Telephony-Enabled iOS Devices Deployment Guide.



To install the TEL-HSTW01 battery, push the battery cover downwards until it disengages from the locking mechanism and lift off. Insert the battery with contacts downwards. Replace the battery cover and push upwards until it snaps into place.

To change the power adapter, push the OPEN button on the unit to pop off the existing plug. Insert the desired plug and press downwards until it snaps in place.

Plug in the power supply cord to the charger cradle and plug the other end into the wall. For more details on installing this phone, see <u>Installing the Savant Wireless Phone: TEL-HSTW01</u>.

Front View of TEL-HSTW01



To setup your TEL-HST02 phone turn the phone over and locate the handset port, and then plug in the handset cord until it clicks in place. Attach the handset to the other end of the handset cord. Next, on the phone locate the port marked **LAN** (not **PC**) and plug in an Ethernet cable. Plug in the other end of the Ethernet cable to the managed ethernet switch. For more details on installing this phone, see Installing the Savant Phone: TEL-HST02.

Top View of TEL-HST02 (above)



To setup your TEL-HST01 phone turn the phone over and locate the handset jack, and then plug in the handset cord until it clicks in place. Attach the handset to the other end of the handset cord. Next, on the phone locate the port marked **LAN** and plug in an Ethernet cable. Plug in the other end of the Ethernet cable to the managed ethernet switch. Insert the key card and label it to correspond to the keys function. For more details, see Installing the Savant Phone: TEL-HST01.

Top View of TEL-HST01 (above)

TEL-HST01 Key Card

To insert the key card that provides the labels for the eight keys shown in the diagram to the right, do the following.

- 1. Remove the logo plate as shown.
- 2. Slide the card into the slot.
- 3. Slide the logo plate back in place.



NOTE: You can make customized key cards using the templates provided in Appendix 1. Alternatively, you can purchase professionally-made key cards from a third-party supplier.

Savant PBX Software

The Savant PBX Server (SPX-1000) is developed on top of Asterisk®, a leading open source Internet Protocol (IP) telephony engine, which in tandem with Savant's IP solutions offers a completely integrated voice communications package. The SPX-1000 is communicating with the Savant Control System to allow for a truly integrated home, where the phone system and the control system are unified. The SPX-1000 also comes with an intuitive user interface to simplify the installation and reduce the overall setup time.

Refer to the PBX 5.2.1 ER2- Release ReadMe notes to verify the correct software version.

One-Click Software Update in Savant Configurator

For post-Release 5.0 releases, users must update the Savant PBX system software using an option available in Savant Configurator. This option is located in the **System** sidebar on the **Overview** page—**Software Update**.

Passwords

The next table specifies the default user names and passwords for logging in to the various applications/devices used to configure the Savant PBX solution. The entries are case-sensitive.

User Interface	User Name	Password
Savant Gateway*	Admin	Admin
Savant Configurator	admin	savant
Savant phones	admin	22222
Savant PAS-1000	admin	0000 (zeros)
Savant PBX (SPX-1000)	RPM	RPM
OpenMobility Manager (for base stations)	omm (must be changed after initial login)	omm (must be changed after initial login)

*To access the settings of the Savant Gateway you must use a web browser other than Safari.

Supported Hardware List

The Savant PBX solution supports the hardware described in the next table.

Model Number	Telephony Hardware
SPX-1000	Savant PBX (includes 1 RCK-3000—1U Rack Shelf)
TEL-GW04	4-port VoIP Gateway
TEL-IAD2	Integrated Access Device (IAD)
TEL-HST01	Entry Level IP Handset
TEL-HST02	High-End IP Handset
TEL-HSTW01	Wireless DECT Handset
TEL-HSTPWR	Universal Power Supply for Desktop Handsets
TEL-BST11	Indoor DECT Base Station
TEL-BST01I	Indoor International DECT Base Station
TEL-BST12	Outdoor DECT Base Station
TEL-BST02I	Outdoor International DECT Base Station
TEL-BSTMMT	Mast Mount for Outdoor Base Station
TEL-BSTWMT	Wall Mount for Outdoor Base Station
TEL-BSTPWR	Universal Power Supply for Indoor Base Station
PAS-1000	Public Announcement System
TEL-PASPWR	Universal Power Supply for PAS-1000

Note the following:

- Savant Wired Handset with Color Touch Screen LCD, Model TEL-HST02, AC Wall Adapter not included number of handsets dependent on specific configuration; check packing list.
- Savant Wired IP Handset with LCD Display, Model TEL-HST01 AC, Wall Adapter included—number of handsets dependent on specific configuration; check packing list.
- Savant Wireless DECT Handsets, Model TEL-HSTW01 includes charging cradle—number of handsets dependent on specific configuration; check packing list.
- Savant DECT over IP Base Station, Model TEL-BST11 (indoor access point)—number of base stations dependent on specific configuration; check packing list.
- Savant DECT over IP Base Station, Model TEL-BST12 (outdoor access point)—number of base stations dependent on specific configuration; check packing list.
- Public Announcement System, Model PAS-1000—number of Public Announcement Systems dependent on specific configuration; check packing list.

PBX Support of Call Features

Important! You should avoid using iOS devices and full duplex (two-way) PBX functions with in-wall docks. Otherwise, the iOS devices will experience acoustic issues. Instead, half duplex (one-way) **Push-To-Talk** intercom functions must be used with in-wall docks.

Feature	TEL-HST01	TEL-HST02	TEL-HSTW01	iOS Devices	Notes
Conference	Yes	Yes	No	No	
Transfer	Yes	Yes	Yes	No	
SLA	Yes	Yes	Yes	Yes	DECT handsets cannot display the status of the SLA lines they belong to.
SLA Status	Yes	Yes	No	Yes	DECT handsets cannot display the status of the SLA lines they belong to.
SLA Join	Yes	Yes	Yes	Yes	
Hold	Yes	Yes	Yes	Yes	
Resume	Yes	Yes	Yes	Yes	
Call Forward	Yes	Yes	Yes	No	
Paging	Yes	Yes	Yes	Yes	
Receiving Paging	Yes	Yes	No	Yes	DECT handsets will always ring
Distinctive Ringing	Yes ¹	Yes ¹	Yes ²	Yes	 ¹ Only rings supported by the phone. No custom mp3 support. ² Only rings supported by the phone. No custom mp3 support. slightly different to the ones for wired phones.
MWI	Yes	Yes	Yes	Yes	
Caller ID	Yes	Yes	Yes	Yes	Provided the phone line does support Caller ID.
Mute	Yes	Yes	Yes	Yes	
Call Waiting (Network Side)	Yes	Yes	Yes	Yes	Only iOS devices will present the Caller ID of the new call.
Call Waiting (Multi Call)	Yes	Yes	Yes	Yes	
SpeakerPhone	Yes	Yes	Yes	Yes	
Redial	Yes	Yes	No	Yes	
Global Contacts/ Directory	No	No	No	No	Contacts are local to the endpoints.
Global Missed calls Indication	No	No	No	No	The indication is kept independent in each device.
Speed Dial					
DND	Yes	Yes	Yes	Yes	No global—is individual to the device.

The next table shows call features supported or not, by the Savant PBX components and iOS devices.

Headphone					
BLF	No	Yes	No	Yes	
Auto Answer	No ¹	No ¹	Yes	Yes	¹ Does not support auto-answer for non-intercom calls.

2. <u>SAVANT GATEWAY</u>

The Savant Gateway manages the interworking between the traditional Plain Old Telephone Service (POTS) lines or Central Office lines—and the Savant Systems network.

Savant Systems supports a maximum of four wired lines coming into the gateway.

This section describes the Savant Gateway—TEL-GW04 (AudioCodes™ MP-114) which supports the Savant PBX system.

Gateway Hardware

The front and rear views of the Savant Gateway are shown in the next images.



Front View of Savant Gateway (TEL-GWO4)



Rear View of TEL-GWO4

Disabling Local Ringback on PBX Endpoints

Local ringback from the endpoints can be disabled using the Savant Gateway web user interface. The Savant PBX will relay 183 from the gateway to endpoints so that no local ringback is played from endpoints. To disable local ringback on PBX endpoints, do the following.

- 4. Open your web browser and enter the IP address of the gateway—for example, <u>http://10.5.200.45</u>—to open the gateway's web interface. Note that it may be necessary to use a web browser other than Safari.
- 5. Click Full instead of Basic.
- 6. Go to Configuration (tab) > VoIP > SIP Definitions > General Parameters > Enable Early Media to Enable.
- 7. Click Submit.
- 8. Go to Configuration (tab) > VoIP > SIP Definitions > Advanced Parameters >Progress Indicator to IP. Select the value: PI=1.

9. Click Submit.

10. Click **Burn** to store the new configuration, in case of a gateway reset.

Application Diagram



Mounting the Savant Gateway



The Savant Gateway (shown above on right) is mounted in the 1U Shelf (RCK-3000), beside the Savant PBX Server (SPX-1000).

Hardware Installation

To add the TEL-GW04 to the PBX solution simply plug in one end of an Ethernet cable to the unit's single 10/100 Base-T ethernet port, plug in the other end of the ethernet cable to a managed Ethernet switch, and then plug in the unit's AC power cord.

In addition, plug in a phone cable with an RJ-11 connector to at least one of the four FXO analog ports, and then plug in the other end of the phone cable to the telephone service provider's equipment.

You are now ready to configure your Savant PBX system using RacePoint Blueprint[™]. Please refer to the section, RacePoint Blueprint[™]Procedures.

3. <u>SAVANT RACEPOINT BLUEPRINT™</u>

Use the next section to setup your Savant PBX using the Savant RacePoint Blueprint™ tool.

RacePoint Blueprint™ Procedures

To access the link to the topics in this document, click the topic or topic page number in the following table of contents.

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Configuring a Savant PBX in RacePoint Blueprint™

To configure your Savant telephony solution, you must first add the Savant Private Branch Exchange (PBX) component and supporting devices to an existing configuration in RacePoint Blueprint[™] configuration window which includes these components: Savant PBX, Savant Gateway, and door entry system (optional). When the RacePoint Blueprint[™] configuration is complete, you must do the following:

- Load the gateway configuration generated by RacePoint Blueprint[™] to the gateway.
- Using the Savant Configurator load the telephony endpoints.plist generated by RacePoint BlueprintTM.
- Configure phones, Savant Public Announcement (PA) system, using configuration files generated by Savant Configurator.

Before You Begin

If the current RacePoint Blueprint[™] configuration contains a Call Server and Intercom Service, do the following:

1. In RacePoint Blueprint[™]select the Call Server component and delete it.

Important! A plist will not be generated unless the call server has been deleted.

2. Click Generate Services, and then synchronize the services.

NOTE: Ensure the Intercom Service has been removed from the realized services.

To ensure that the IP addresses of the Savant PBX and Savant Gateway are reserved permanently in the DHCP server, you must configure a DHCP reservation in your DHCP server. The Savant PBX is shipped with DHCP enabled.

The following procedures must be performed in the sequence shown below:

- 1. Adding a Savant PBX Component
- 2. Adding a Savant Gateway Component
- 3. Exporting Savant Gateway *.ini File
- 4. Exporting Telephony plist File
- 5. Adding a Savant Public Announcement (PA)

Adding a PBX Component

Before adding a Savant PBX component to your RacePoint Blueprint™ configuration, read this first: <u>Configuring a</u> <u>Savant PBX in RacePoint Blueprint™</u>.

To add a Private Branch Exchange (PBX) component to your RacePoint Blueprint™ configuration, do the following.

- 1. In RacePoint Blueprint[™] click **Show Library**.
- 2. From the **Components** window, select the **PBX (Savant SPX-1000)** component and drag it to the configuration window.

$\Theta \odot \Theta$	Components – Pro
All Components	: 0
All Manufacturers	🗘 🛇 🚺 Control Types 💌 🛇
Q- pbx	0 1
Components	TL
Savant PBX (Savant SPX-1000)	۲

- 3. Click Show Inspector.
- 4. From the Inspecting <name> window, enter the PBX Savant ID.

NOTE: The PBX Savant ID will not display in Apple Remote Desktop but will appear in System Monitor.

$\Theta \odot \Theta$	Inspecting "T	elephony Pbx"	
🗹 Edit 📃 Device	Screens Hide Details		Þ
D 1.5	4		?
Class:	Telephony_server		
Manufacturer:	Savant		
Model:	РВХ		
Device Name:	Telephony Pbx		
Savant ID.	CA84930039230000		
	Always On		
Notes: Show: Telephony	•		
General			
		*	
Properties for	: General		
IP Addr	ess 10.5.200.123		
+ — Show user d	lefined properties	Show Data Table	

- 5. Select telephony properties and enter the PBX IP address.
- **NOTE**: Savant recommends that this IP address be reserved in the DHCP server so that the PBX will always get the same DHCP address when a power cycle is performed. The Savant PBX is shipped with DHCP enabled.

00	Inspecting '	'Telephony Pbx"
Edit Device	Screens Hide Details	•
D 1.5	ć	(?)
Class:	Telephony_server	
Manufacturer:	Savant	
Model:	PBX	
Device Name:	Telephony Pbx	
Savant ID:		
	🗌 Always On	
Notes:		
Show: Telephony	\$	
General		
		^
Properties for	: General	
IF Addit	10.3.200.123	
+ - Show user d	efined properties	Show Data Table

Adding a Gateway Component

To add a gateway component to your RacePoint Blueprint[™] configuration, do the following.

1. From the **Library** window, using the search text "GW" find the **Savant** gateway component (TEL-GW04), select it, and drag it into the configuration window.

$\Theta \cap O$	Components – Pro	
All Components	; ⊗ (?
Savant	🗘 🛇 🚺 Control Types 💌	0
Q- CW	0	1
Components		ΤL
Savant TEL-GW04 (Sava	nt TEL-GW04, IP Gateway, 4 FX0 port) [RS232]	0

- 2. Drag the gateway component to the configuration window.
- 3. Enter a unique name for the component and click **Create**.

NOTE: The name of the gateway must not exceed 20 characters—a minus sign or dash is not a valid character.

- 4. Click Show Inspector.
- 5. From the Inspecting window enter the gateway IP address.

Inspecting "Telephony Gateway"
Edit Device Screens Hide Details
D1.1 (?)
Class: Telephony Gateway
Manufacturer: Savant
Model: TEL-GW04
Device Name: Telephony Gateway
P Address. 10.5.202.130
Notes:
Show: Telephony + ?
General
e
Properties for: General
Gateway Index 1
+ Show user defined properties Show Data Table

- 6. From the Show drop-down list, select Telephony.
- 7. Select General option.

- 8. Enter the Savant PBX IP Address.
- 9. For Release 5.1 and later, you must set the Gateway Index to 1.
- 10. Click Show Library and highlight the Generic SignalSource component.

00	Compo	nents – Pro
All C	omponents	: 0
All Ma	anufacturers	🗧 🕄 🛛 All Control Types 🔽 🛇
Q- Sig	nal	8 3
Compone	ents	TL
**	Generic Large SignalSource	
	Generic ModulatedSignalMux	
-		

- 11. Drag Generic SignalSource to the configuration window and enter a unique name for the component.
- 12. In the TelephonyGateway configuration window, select the gateway component.
- 13. Under the TelephonyGateway right click Line 1 and select the corresponding Signal Source Line 1.



14. Repeat the previous step for each external phone line (POTS) required. A maximum of four lines is supported in the current release.



- 15. Next, click **Generate Services** and then **Save** the configuration. Saving the configuration also generates two important files that are needed to configure the Savant Gateway and the Savant PBX.
- 16. Synch with services, if required.
- 17. Upload the configuration to your Savant system.
- NOTE: Ensure the telephony service is enabled in all the zones of interest.

If more gateways must be added, see Configuring Multiple Gateways.

Exporting Savant Gateway *.ini File

To load the Savant Gateway configuration generated by RacePoint Blueprint[™] to the gateway, you must export the gateway initialization (*.ini) file. To export the *.ini file, do the following.

1. From the Tools menu go to Telephony and select Export Gateway ini File.

/iew	Tools Window Help Debug		
	Generate Services	℃ ℃೫ ℃	
	Update All UI Screens	•	
	Edit UI Screens		
	Edit Popovers		
	Organize Zones Screens		
	Channel Listings Editor		
	Customer and Provider Info		
	Themes	•	
	Review	•	
	Settings	•	
	Log	•	
	Reports	•	
	Advanced	▶.	
	Telephony		Export Gateway ini File
			Export Telephony plist

2. The Export Gateway ini File window opens. See the next screenshot.

000	Export gateway ini file
Save As: ga	eway
	🔄 Desktop 🗘 🔍
 ▼ SHARED ■ spacely ■ 0016cb940e370000 ■ 0016cba99a4b0000 ■ 0016cbb01faa0000 ■ 0017f2dfe8670000 ■ 001AAE0010AA0000 (2 ■ 001AAE00118A0000 @ All ▼ PLACES ■ Desktop 	02655.plist 19347 19347.zip amiEvents.txt Apple UpN Master Apple Upaster.zip AppleBRTestMatix.xls Asterisk.framework asteriskdiution.tar audicodes.log audiocodes.ini BOARD(7).ini Casa-DA.rpmConfig
New Folder	Cancel Save

3. Select the destination folder and the name of file and click Save.

Uploading the *.ini file to the Savant Gateway

This procedure assumes you are using the gateway interface version: 6.20A.037.001 (factory default.)

To upload the *.ini file to the Savant Gateway, do the following.

- 1. Open your web browser and enter the IP address of the gateway—for example, <u>http://10.5.200.45</u>—to open the gateway's web interface. Note that it may be necessary to use a web browser other than Safari.
- **NOTE**: This step assumes the gateway already has been set up to use DHCP and its IP address has been properly reserved on the DHCP server.

AudioCodes MP-11	FXO 🖌 Submit 🧕 Burn	Device Actions	Home (🗿 Help 🛛 🐑 Log off
Configuration Maintenance Status & Diagnostics Scenarios Search	MP-114 FXO Home Page			
• Basic O Full				
te@System te@VoIP	Sutter (1 2 3 4		O Uplink Fail	Ready Power
	General Information	40.5.000.400		Color-Code Key
	IP Address	10.5.200.108		Fail
	Subnet Mask	255.255.255.0		Inactive
	Eirmware Vereion	6 204 037 001		Handset Offhook
	Protocol Type	6.20A.037.001		RTP Active
	Gateway Operational State			
	Analog Ports Number	4		

2. Select Maintenance button and then expand Software Update.

configuration Maintenance Status & Diagnostics	MP-114 FXO Home Page			
Basic Full C C C C C C C C C C C C	Hatting 1 2 3 4		Uplink Fail	Ready Power
Software Upgrade Wizard Configuration File	General Information			Color-Code Key
	IP Address	10.5.200.108		G Fail
				- 1 Gail
	Subnet Mask	255.255.255.0		
	Subnet Mask Default Gateway Address	255.255.255.0 10.5.200.1		Inactive
	Subnet Mask Default Gateway Address Firmware Version	255.255.255.0 10.5.200.1 6.20A.037.001		Inactive Handset Offhook
	Subnet Mask Default Gateway Address Firmware Version Protocol Type	255.255.255.0 10.5.200.1 6.20A.037.001 SIP		Inactive Handset Offhook RTP Active
	Subnet Mask Default Gateway Address Firmware Version Protocol Type Gateway Operational State	255.255.255.0 10.5.200.1 6.20A.037.001 SIP UNLOCKED		Inactive Handset Offhook RTP Active

3. Select Configuration File.

MP-114 F	xo 🖌 Submit 🙆 Burn Device Actions 🔻 💼 Home 🔞 Help 🐑 Log off
Configuration Maintenance Status Scenarios Search Basic Full Maintenance Software Update Load Auxiliary Files Software Upgrade Key Software Upgrade Wizard Configuration File	Configuration File Save the INI file to the PC. Save INI File Send the INI file to the device. Browse Send INI File The device will perform a reset after sending the INI file.

4. Browse and select the *.ini file



5. Click Send INI File.

000	AudioCodes	
	The page at http://10.5.200.108 says:	Google
Most Visited - Getting Started Latest Headli AudioCodes	The device resets after file download. Click OK to continue or Cancel to discontinue the process.	nage
MP-1	Cancel OK 🛛 👔 Help	Log c
Configuration Maintenance Status & Diagnostics	Configuration File	
Scenarios Search Basic Full Maintenance Software Update Load Auxiliary Files Software Upgrade Key Software Upgrade Wizard Configuration File	Save the INI file to the PC. Save INI File Send the INI file to the device. /Users/Alejandro.Orellana/Desktop/audioc Browse Send INI File The device will perform a reset after sending the INI file.	

6. Click **OK**. Wait until the device restarts. This could take as long as 60 seconds.

	MP-114 FXO	Submit	O Burn	Device Actions	 Home 	() Help	Elog off
Configuration Maintenance	MP-114 FXO	Submit Submit	Burn Th and will The site	Device Actions ne device is now re not be available fe will be refreshed	• Mome estarting or 60 seconds. automatically.	Help	Log off

7. Click Burn.

	AudioCodes	
VoIP P Log On Miscellaneous Aastra 6739i Aas mit OBurn Device me Page	The page at http://10.0.1.17 says: Saving configuration to flash memory may cause some temporary degradation in voice quality,therefore, it is recommended to perform it during low-traffic periods.Are you sure you want to Burn configuration ? Cancel OK	CyberDa

8. Click OK. Then, you should see a message saying the new configuration was saved.



9. Click OK.

Exporting Telephony plist File

If you do not have a gateway as part of your Savant PBX system, exporting of the telephony plist is not required—please skip this procedure.

To load the telephony property list files (Endpoints.plist) generated by RacePoint Blueprint™ to the Savant Configurator, do the following.

1. From the Tools menu select Telephony and then select Export Telephony plist.

View	Tools Window Help Debug		
	Generate Services	℃ ℃೫ ℃	
	Update All UI Screens		
	Edit UI Screens		
	Edit Popovers		
	Organize Zones Screens		
	Channel Listings Editor		
	Customer and Provider Info		
	Themes	►	
	Review	•	
	Settings	•	
	Log	►	
	Reports	•	
	Advanced		
	Telephony	•	Export Gateway ini File
			Export Telephony plist

The Export telephony plist file window opens.

000	Export telephony plist il	e			
Save As: telep	Save As: telephonyPbx				
	Desktop	• ۵			
😑 0016cba99a4b0000	02655.plist				
😑 0016cbb01faa0000	19347	▶			
0017f2dfe8670000	🖹 19347.zip				
	amiEvents.txt				
= 001AAE00118A0000	🚞 Apple UpN Master	P			
@ All	Apple Upaster.zip				
	AppleBRTestMatix.xls				
▼ PLACES	Asterisk.framework	4			
Lesktop	asteriskdiution.tar				
👚 Alejandro.Orellana	audicodes.log				
A Applications	audiocodes.ini	A			
Documents	BOARD(7).ini	*			
· · · · · · · · · · · · · · · · ·	🗌 🛸 Casa–DA.romConfig	1			
New Folder		Cancel Save			

2. Select the destination folder and the name of file, and then click **Save**. This file will later be used in the Savant Configurator.

Adding Endpoints to the PBX System

iOS Devices

iOS devices can be added to the Savant PBX system with or without a shareable UID. Savant Systems recommends the use of shareable UID. For more details see the Technical Application Note, How To Guide: Setting Up Guest Access. To view this document, go to http://www.savantsystems.com and navigate as follows: > Dealer Login > Knowledge Base > Products

- 1. From the Library window select the iOS device.
- 2. Click Show Inspector.
- 3. In the Inspector window, enter the Device Name.
- 4. If required, insert a check mark for the field Sharable UID (in the Inspector window).
- 5. Add a user.

IP Phones

IP phones are configured for a Savant PBX system using the Savant Configurator. See the section, <u>Savant</u> <u>Configurator</u>.

Adding the Savant PA System

The Savant Public Announcement (PAS-1000) system—also used as a paging system—can activate an Audio Interrupt Service, similar to the door bell service, providing two workflows: PageCallStart and PageCallStop. These workflows allow all zones to pause the current audio source, send the output of the PA system, and then resume the audio source.

To add the Savant PAS-1000 component to the RacePoint Blueprint configuration, do the following.

- 1. Open your RacePoint Blueprint[™] configuration.
- 2. Click Show Library.
- 3. From the Components library window, type Savant PA in the search field to display Savant PA (PAS-1000).

\varTheta 🔿 🔿 Components – Pro	
All Components	:
All Manufacturers	📫 🕄 🛛 All Control Types 🔽 🛇
Q- PAS	8 1
Components	TL
Savant PAS-1000 (Savant PAS-1000,Public Announceme	nt System)
Savant PAS-1000 (Savant PAS-1000,Public Announceme	nt System)

- 4. Select and drag the **PAS-1000** component to the configuration window.
- 5. Select the zone and the name, then assign the component to a global zone.

Savant PA System	0
▼Outputs	
Audio Out (Stereo RCA)	00
🐨 Data	
Ethernet (Ethernet)	

- **NOTE**: To configure the Savant Public Announcement (PA) system, a Savant audio/video matrix switcher is required.
- 6. Connect the RCA audio output to the Savant Audio-Video Switch Processor stereo input. Ensure that an audio connection is assigned to an input on the matrix switcher.



- 7. Click Show Inspector and inspect the Savant PA System component.
- 8. View the telephony properties and select **Registration Enabled** by inserting a check mark. See the next screenshot.

⊜ ○ ⊙	Inspecting "Savant PA System"
Edit Device Screens Hide Details	
S 1.1	
Class: IP_PA_System	
Manufacturer: Savant	
Model: PAS-1000	
Device Name: Savant PA System	
Notes:	
Show: Telephony	
Registration	
	^
Properties for: Registration	
Registration Enabled 🗹	
Registrar Ip Address	
Username	
Password	

- 9. Double-click **Registrar Ip Address** on the **Properties for: Registration** pane and enter the correct IP address for the Savant PBX (SPX-1000)—for example, 10.5.200.71.
- 10. Double-click **Username** and enter a user name—for example: 2020. Write down this user name for use in the Savant Configurator. This value matches the one used to add the Savant Public Announcement System (PAS-1000) while configuring the Savant PBX in Savant Configurator.

Properties for:	Registration
Registration Enabled	
Registrar Ip Address	10.5.200.71
Username	2020
Password	

- 11. Leave the **Password** blank.
- 12. Click Generate Services.
- 13. Confirm that an Audio Interrupt Service is configured for all zones. See the next screenshot.

0	9		Services for ML_Ne	vPBX	\Box
	P (* *)	*	Q.		A.6
Show Ur	ealized Highlight Path Update All UI Screens Edit	UI Screens Show Data Table	Searc	n	Customize
Servio	es for: Room 2		\$	Service Resources Service Requests	?
Use S	ow Keypad Realized Services	Alias	Index Icon	Resource	
	energyTable	energyTable	<u></u>	▼Audio	
	Favorites (Pad1 Theme)	Favorites		V OO IP PA System	
	Categories	Favorites Settings		Audio Interrupt Source	
	Help Icon	Help Icon	0	▼ 💁 Savant Audio_Video Switch_Processor	
	HVAC Service	HVAC Controller		Audio Switch Function	
	HVAC Schedule	HVAC Scheduler	U	Passive Output	
	Web Info	Information		🔻 💷 High Definition Display	
☑	Audio Interrupt Service	IP PA System		Volume Control Function	
	lightBudget	Lighting Budget		Amplifier Function	
	Manage Media	Manage Media		Stereo Speakers Sink	
	Multi Zone Control	Multi Zone Control			
	Multi Zone Control (Indicators)	Multi Zone Contr	Ţ		
4	1 00 00 00	A			
A servi	e to act as a whole house A/V-based doorbell, alert, o	r audio interrupt service.			
				Source Zone: Room 2	
				Media Type: Stereo RCA	
				Name: Audio Out	
				nunc. nuno out	

Configuring Triggers for Savant PA System

The triggers, PageCallStart and PageCallStop, must be configured for the Savant PA (paging) system (PAS-1000).

When global.PageCall is TRUE, this triggers the PageCallStart workflow. When global.PageCall is FALSE, this triggers the PageCallStop workflow.

To configure the triggers so the paging system workflows can be executed, do the following.

- 1. In RacePoint Blueprint[™] navigate to **Tools-> Review-> State Triggers**.
- 2. Create a new trigger, PageCallStart by clicking the + button in the Trigger group.
- 3. Create the Transition Conditions by clicking the + button.
- 4. In the Triggers for... window, select Other (tab).
- 5. Under Type select global.
- 6. Under State Name select PageCall.
- 7. Assign the state: Boolean Equal True. See the circled area of the next screenshot.
- 8. Click Add.

	Customize
e lantSystem ay dd 7D_002.ControllsConnected e.ControllsConnected coom Capable Security Camera.C controllsConnected Value Value	
	Cancel Add ? Cancel

- 9. In the **Request to run** group (bottom) click the + button.
- 10. Select the **Service**—a doorbell audio interrupt service, and then select the **Request**—PageCallStart.
- 11. Click Choose.

00		Triggers for ML_NewPBX			
					Customize
Trigger Trigger KitchenPhoneIncomin PageCall + - Transition Conditions Trigger will be evaluated State Name PageCall + - OR	Service Noom 1-Primary Host1-General Room 2-DVD Player-DVD_player- Room 2-DVD Player-DVD_player- Room 2-DVD Player-DVD_player- Room 2-Cable TV Receiver2-Cable Room 2-Cable TV Receiver2-Cable Room 2-Telephony Server PBX-Ra Room 2-Telephony Server PBX-Ra Room 2-IP PA System-Doorbell-1- Room 2-Primary Host-RacePointM Room 2-Energy and Resource Mon Repeat Time (sec) 0	Currty Camera-Security_Camera-1-3 Programmable Service Requests 1-CD Service edia_controller-1-General Audio Se _box-1-Cable TV Service cePointMedia_sipserver-1-Telephor -Audio Interrupt Service edia_controller-1-Audio Interrupt S itor-Monitor-1-Energy monitor dat Zone Request	Request AutoPlayAIS AutoStartAIS AutoStopAIS MuteOff MuteOn PageCallStop PowerOff PowerOff PowerOff Cancel	le TV Receiv ¥	ata Type oolean
Pre-Conditions	ted if values change				4
State Name	State Scope Test Condition	Data Type	Value	Offset	
+ - OR					
Request to run Service		Request	Repeat		
Choose				?	Cancel Save

12. To create the second trigger, PageCallStop, under State Name select PageCall.

000		Triggers for ML_I	NewPBX	
				Customize
Trigger Trigger KitchenP PageCall	noneIncomingCall	Description		
Transitio Trigger wi	n Conditions I be evaluated if values change s State Scope		Test Condit	ion Data Type
PageCall	global OR		Equal	Boolean
Pre-Con Trigger w	ditions II NOT be evaluated if values change			
State Nam	e State Scope Test	Condition Data Type	Value	Offset
+ -	OR			
Request Service Room 2-	o run IP PA System-Doorbell-1-Audio Interrup	Reques	it Repeat allStart O	
Choose				? Cancel Save

- 13. Assign the state: **Boolean Equal False**.
- 14. Click Add.

00	· · · ·	Triggers for ML_NewPBX			
_			_	_	Customize
Trigger Trigger PageCallStart PageCallStop	igcan	Description			
Transition Conditions Trigger will be evaluated	i if values change				
State Name	State Scope	Test Condition	Data Type	Value	C
PageCall	global	Equal	Boolean	0	
+ - OR					
Pre-Conditions Trigger will NOT be evalu	uated if values change				
State Name	State Scope Test Condition	Data Type	Value	Offset	
+ - OR					
Request to run					
Service		Request	Repeat		
Room 2–IP PA System	-Doorbell-1-Audio Interrupt Service	PageCallStop	0		
Choose				? Canc	cel Save

15. Click Save.

16. Upload the configuration.

Configuring the Whole-House Paging Feature

The Whole House Page Feature uses the Savant PA system in a Calling Group set as a Paging Group. Ensure that you have a Calling Group set as Paging Group with extension 8000. The Paging Group must be configured using the Savant Configurator.

If you dial a Paging Group extension, all the devices in that group will auto-answer and be placed in a conference bridge. The audio will then flow in one direction only from the caller device to the devices in the group, see the figure below:


By default, the iPad® Page button uses extension 8000 for paging. See the next screenshot.

From a phone, simply dial the extension 8000 or use the Page button configured for this purpose.



Triggering Distributed Audio Zones

The system by default creates an empty calling group called *PageAll* for the purpose of paging.

For the PageAll calling group to be able to trigger the distributed audio zones, do the following in Savant Configurator.

1. Click the **Call Groups** tab.

Call Groups View Groups Add Group Find Me/Follow Me	Savan	CAN							
	Overview Users Devices Phones Extensio	ns Call Groups	SLA Voice	mall CDRs	IVRs	Sounds	Logs	Backups	Ring Profiles
Session Logout System	Call Groups Below is a list of all call groups on the system.								
October 22, 2013	Add Group Edit Group Edit Members	Delete Group							
About	Show 10 ÷ entries	Search:							
	Group Name 🔺 Failover Number	≎ Type ≎	Members \$						
	O PageAll	Paging	2						
	O RingAll	Ring All	0						
	Showing 1 to 2 of 2 entries	First Previous	1 Next Last						

- 2. Select the **PageAll** group.
- 3. Click the Edit Group button to open the Edit Call Group page.

Edit Call Group

Here you modify the basic settings for this call group.

Name	PageAll
Full Duplex	
Distributed Audio Zones	
Туре	Paging 🛟
Save Group	Cancel

- 4. Insert a check mark in the Distributed Audio Zones checkbox.
- 5. Click Save Group.

Now you need to add the Savant Public Announcement system corresponding device to this group. For more details, see <u>Adding a Savant PA System</u>.

Using Telephony Advanced Configuration

To provide seamless integration between the Savant PBX system and Savant control systems, actions or workflows based on telephony events can be triggered with the use of the Telephony Advanced Configuration.

This advanced configuration is required because the endpoint information that is entered in Savant Configurator, does not get synchronized with RacePoint Blueprint[™] which does not know in advance the names of these events and thus is not able to use them as triggers. To solve this, Savant provides a component in RacePoint Blueprint[™] called the Telephony Advanced Configuration. The advanced configuration allows telephony related information to be entered in the Blueprint telephony configuration.

The Savant Telephony Advanced Configuration allows you to do the following:

- Enter the names of telephony devices (endpoints) in the system
- Use endpoint telephony events as triggers.
- Associate control commands to extension numbers—that is, telephony endpoints such as wired and wireless phones called by dialing extension
- Execute control commands, providing another level of integration between the telephony system and the control system.

To perform the Telephony Advanced Configuration in Blueprint, do the following.

1. In RacePoint Blueprint click **Generate** services, to see the **Realized Services** window.

0	0		🛸 Services fo	r ML_NewPBX				\bigcirc
	U	P 🔅 🔹 👹		Q.				A.6
Show	Unrealized	Highlight Path Update All UI Screens Edit UI S	creens Show Data Table		Search	1	c	ustomize
Serv	vices for:	Room 1			•	Service Resources	Service Requests	?
Use	Show Ke	/pad Realized Services	Alias	Index Icon		·		
		Backgrounds	Backgrounds		6			
		Help Icon	Help Icon					
		Manage Media	Manage Media					
		Multi Zone Control (Indicators)	Multi Zone Contr					
		Systems	Systems					
		Truelmage	Truelmage					
		Categories	Favorites Settings					
		OSD Control	OSD Control					
		Favorites	TV Favorites Edit					
		Multi Zone Control	Multi Zone Control					
		displays	displays					
		Phone Icon	Phone Icon					
		remoteSettings	remoteSettings					
	\checkmark	Telephony Phone Service	Telephony Server					
		telephony	Telephony					
	\checkmark	Energy monitor data collection service	Energy and Resou		r			
	\checkmark	HVAC Service	HVAC Controller					
	\checkmark	Security Camera	Pan Tilt Zoom Ca					
		Security Cameras	Security Cameras					
		energyMonitor	Energy Monitor					
		HVAC Schedule	HVAC Scheduler					
		lightBudget	Lighting Budget		Ă			
		energyDashboard	energyDashboard		* +			
Non	-service sc	reen to display the contents of Savant's information	web site				-	

2. To open the Telephony Advanced Configuration, from the main menu select **Tools > Settings > Telephony**. See the next screenshot.

RacePoint Blueprint File Edit Arrange Format Vi	ew Tools Window Help 🚯 🖁 🗘 0.1K8/s 🚺 145° 🏠 🚦 🎟 🖁 🛄 💭 🚛	🕴 💻 🤶 🌒 💽 (Charg
0	Generate Services C Sk vm message format - Google Search	
00	Update All UI Screens Boat_684 (Pro)	
Image: Constraint of the service serv	Edit UI Screens Ster View Service Prefs Review Triggers IUIS Edit Popovers aster View Service Prefs Review Triggers	Q 5
Primary Host	Organize Zones Screens	
Room 1	Channel Listings Editor Customer and Provider Info Mobile Control Device	
Web Server Cor	unect Keypads Фжк	
Cable TV Receiver	Themes	
Apple iPad	Settings > Media Server 진압용M	1
Signal Source2	Log Security Camera Reports Database Server Advanced Modes Information	Remote
Room 2 Telephony Server PBX	Telephony	RTB
LG 20L57D_002	HVAC Scheduler SmartView Tiling	Vinputs
Sony DVP_NC650V VInputs	tini	
High Definition D VOutputs	Door Gate	

If you are using a pre-Release PBX 5.1.1 software version, double click **telephony** (as circled in the next screenshot) to open the services window for devices.



From the telephony services window you can set up events for devices (or endpoints) and commands for those endpoints.

- 3. Under Devices click +.
- 4. Enter the name of the device (endpoint). You must ensure that the name entered matches a user **Friendly Name** used when you add the device in Savant Configurator. For every name entered the following (events) states are generated to use as triggers. See the next table.

Telephony Events

Event	Description	Possible Values		
CallState	State the Call	Incoming Call Ringing Connected Call Ended Call In Progress		
CallingIdNumber	Extension or number of the initiator of the call	Only applicable when the device is receiving the a call		
CurrentDialNumber	Dialed number or extension	Only applicable when the device is initiating a call		
ReleaseReason	Protocol level (SIP) reason why the call ended.	For details on possible values see RFC3261.		
CallingIdName	Caller ID Name	For external incoming calls is depending of the line having this service. For internal calls this value is the user Friendly Name entered in Savant Configurator.		
SharedLine1.State	State of the CO Line 1	Could be: Busy or Idle. This only applies to the gateway device		
SharedLine1.Users	Number of endpoints currently in the call	Possible values are 1-72		
SharedLine2.State	State of the CO Line 2	Could be: Busy or Idle. This only applies to the gateway device		
SharedLine2.Users	Number of endpoints currently in the call	Possible values are 1-72		
SharedLine3.State	State of the CO Line 3	Could be: Busy or Idle. This only applies to the gateway device		
SharedLine3.Users	Number of endpoints currently in the call	Possible values are 1-72		
SharedLine3.State	State of the CO Line 3	Could be: Busy or Idle. This only applies to the gateway device		
SharedLine4.Users	Number of endpoints currently in the call	Possible values are 1-72		

5. After you have finished entering the name of the endpoints. Click **Done**.

6. Next, go to Tools->Review->State Triggers.

Arrange Format View	Tools Window Help ∦ 151°	O \$ 0.0KB/s ₩ ■ @ H ■ 8	
? :: ≡	Generate Services て合業C Update All UI Screens ト	Applications	
, 🗐 🔴 🔸 🖨	Edit UI Screens Edit Popovers	ML_NewPBX	۹ م
en Save State Make Report Print	Organize Zones Screens	Di Screens Review Resources : Snow Library Snow	Disited Audia In
	Channel Listings Editor Customer and Provider Info		Video Audio Input 5
▼ Data	Thomas		Inputs
Ethernet (Ethernet)	Paulau P	Sevent IDs	tputs
	Settings	Resources	tput 2 Out 1 (Stered
	Log	Remote Access Settings	tput 3
	Reports 🕨 🕨	OSD Remote Assignments	Out 2 (Stered
	Advanced 🕨	UI User References	tput 4
	Telephony 🕨 🕨	State Triggers	Out 3 (Stered
		User State Variables	Out 4 (Stered
		Service Type Aliases	dio Output 1
Pool Cata		Service Ordering and Aliasing Prefere	Out / Digital
Pool Gate	Remo	Custom Workflow Usage	leo Out / Dig
		State Usage	leo Out / Digi
	I I		Audio Out 7.1 (7.1
			Outputs

7. Select State Triggers to open the triggers window.

0 0 0			Triggers for ML_NewPE	3X		\Box
						Customize
Trigger Trigger			Description			
+ -						
			^			
Transition Conditio Trigger will be evaluate	ed if values change					
State Name	State Sc	ope	Test Condition	Data Type	Value	Offset
+ - OR						
Pre-Conditions Trigger will NOT be ev	valuated if values change		· ·			
State Name	State Scope	Test Condition	Data Type	Value	Offset	
+ - OR						
Request to run						
Service			Request	Repeat	_	
Choose					?	Cancel Save

8. Under the Trigger group add a new trigger by clicking the + button (circled in the previous screenshot).

9. Enter the trigger name.

0 0 😁	Triggers for ML_NewPBX	
		Customize
Trigger		
Trigger Den Phone Trigger	Description	
(* -	,	
Transition Conditions Trigger will be evaluated if values change		

10. Under Transition Conditions click the + button.

$\bigcirc \bigcirc \bigcirc$	Trigger	s for ML_NewPBX			\bigcirc
					Customize
Trigger	Component Service Zone Other		State Name		
DenPhon	alejandro (RaceRointMedia sinendpoint)	-			
+ -	Apple iPad (RacePointMedia_sipendpoint) Apple iPad Static (RacePointMedia_sipendpoint) Apple iPad test (RacePointMedia_sipendpoint)				
Transitio Trigger wil	Energy and Resource Monitor (Monitor) High Definition Display (HD_monitor) HVAC Controller (HVAC_controller)		+ -		
State Nam	LG 20LS7D_002 (HD_monitor) Remote Control (Remote Control) Savant Audio_Video Switch_Processor (Audio Zone 10)		Identifier	Value	
+ -	Savant Audio_Video Switch_Processor (Audio Zone 11) Savant Audio_Video Switch_Processor (Audio Zone 12) Savant Audio Video Switch Processor (Audio Zone 13)				
Pre-Con Trigger wi	Savant Audio_Video Switch_Processor (Audio Zone 14) Savant Audio_Video Switch_Processor (Audio Zone 15)				
state Nam	String				
Request t	Equal				
Service	\bigcirc			Cancel Add	
Choose				(?) Cancel	Save

11. Select the **Other** (tab), and then select telephony. For each telephony device you have entered previously, the available state will display under **State Name** on the right side of the window.

Frigger	Component Service Zone Other	State Name
rigger	Туре	Den Phone.CallingIdName
rigger	global	Den Phone.CallingIdNumber
	hvacSchedule	Den Phone.CallState
	telephony	Den Phone.CurrentDialNumber
	userDefined	Den Phone.ReleaseReason
ransitio		Den Phone.SharedLine1.State
ransitio		Den Phone.SharedLine1.Users
igger wit		Den Phone.SharedLine2.State
tate Nam		Den Phone SharedLine? Lisers
		ldentifier value
H -		
re-Con		
rigger wi		
ate Nam		
tate Nam		
F F	String	

12. Select the state under State Name that you want to use as a trigger.

- 13. Complete the fields related to the state's values (circled in the previous screenshot) Use the values that match the state as described in the previous table, see <u>*Telephony Events*</u>.
- 14. Under **Request** select the request you want to execute.

00		Triggers for ML_NewPBX			
					Customize
Trigger Trigger DenPhoneTrigger + - Transition Conditions Trigger will be evaluated	Service Room 1-Telephony Server PBX-RacePc Room 1-Energy and Resource Monitor Room 1-HVAC Controller-HVAC_contr Room 1-Pan Tilt Zoom Capable Securi Room 1-Primary Host1-General Pro Room 2-DVD Player-DVD_player-1-Cl Room 2-DVD Player-DVD_player-1-D Room 2-DVD Player-DVD_player-1-D Room 2-DVD Player-DVD_player-1-D Room 2-Cable TV Receiver2-Cable bo	pintMedia_sipserver-1-Telephor -Monitor-1-Energy monitor dat roller-1-HVAC Service ty Camera-Security_camera-1-S grammable Service Requests D Service VD Service _controller-1-General Audio Se x-1-Cable TV Service	Request LastChannel Menu MuteOff MuteOn MyDVR NumberEight NumberFive NumberFour NumberFour	0	
State Name Den Phone.CallState		·····································)4 ►	Offset
+ - OR Pre-Conditions	Repeat Time (sec) 0	Zone Request	Cancel	Choose	
Trigger will NOT be evalua	ted if values change				
State Name	State Scope Test Condition	Data Type	Value	Offset	
+ - OR					
Request to run		-			
Service		Request	Repeat		
Choose				? Ca	ncel Save

15. Click **Choose**. See the next screenshot.

	a all til Scraane – Fait til	INFRANC NOW LISTS LODIE	Triggers for ML_NewPB	X		
						Custor
Trigger			Description			
DanBhanaTriggar			Description			
Denrhöherngger						
+ -						
			^			
Transition Conditions						
Trigger will be evaluated if	values change					
State Name	State Sc	ope	Test Condition	Data Type	Value	Offset
Den Phone.CallState	teleph	ony	Equal	String	Incoming Call	
+ - OR						
			·			
Pre-Conditions						
Trigger will NOT be evaluat	ted if values change					
State Name	State Scope	Test Condition	Data Type	Value	Offset	
+ - OR						
D						
Request to run			Request	Peneat		
Poom 2-Cable TV Pere	iver2-Cable box-	1_Cable TV Service	MuteOp	0		
Room 2-Cable 14 Rece	iverz-cable_box-	1-Cable IV Service	Mateon	0		
Choose)						
					() Car	Save

16. Repeat the previous steps for each state trigger you want to add. When done click **Save**.

You are now ready to associate commands with extension numbers.

Commands

Telephony endpoints such as wired and wireless phones called by dialing the extension, can execute control commands, providing another level of integration between the telephony system and the control system exists.

NOTE: The extensions you enter here must be unique and therefore must not conflict with extensions you have already assigned to your telephony system.

It is recommended that you define a high range for example, 9500-9599.

To associate control commands to extension numbers, do the following.

1. From the Commands window select the Extension Number.

0) ()					Services for ML_NewPBX	
	U		P 🗱	F 🔻 👹	-	Q	
Show	Unrea	lized High	light Path Update Al	II UI Screens Edit UI Sc	creens Sho	ow Data Table Search	Cı
Serv	vices	fi				Devices Commands	ts
Use	Show	V	Realized Services		Alten	Series commands	
		E	Extension Number	Zones	_	Services	Commands
	☑			Room 2		Room 2-Primary Host-RacePointMedia_controller-1-SVC	AutoPlayAIS
				Room 1		Room 2-Cable TV Receiver2-Cable_box-1-SVC_AV_TV	PageCallStart
						Room 2-Primary Host-RacePointMedia_controller-1-SVC	PowerOn-Room 2-Energy
						Room 2-DVD Player-DVD_player-1-SVC_AV_DVD	PowerOff-Room 2-Cable
						Room 2-Pap Tilt Zoom Capable Security Camera-Security	PowerOff-Room 2-DVD Pl
						Room 2-Savant System? Controller-Video Audio Zone 1-	PowerOn=Room 2=Savant
						Room 2-Savant System2 Controller-Video Audio Zone 1	PowerOff-Room 2-Savant
1						Room 2-HVAC Controller-HVAC controller-1-SVC ENV HVAC	PowerOn-Room 2-Teleph
1							VolumeUp
							VolumeDown
							PowerOff-Room 2-Savant
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v V			Security Comero		Pan Tilt	Zoom Co	
	•		Security Camera		raii iiica	20011 Ca	
telep	phony						

- 2. Add the extension by clicking the plus (+) button.
- 3. Select an option under Zones.
- 4. Select an option under Services.
- 5. Select an option under **Commands**.

۰	0				Services for ML_N	ewPBX		\bigcirc
	U	P	* *) 👘		Q			1940 -
Show I	Jnrealiz	ed Highlight Path Update	All UI Screens Edit UI Sc	reens Show Data Tabl	e	Search		Customize
Serv	ices f				Devices Comm	ands		its ?
Use	Show			Alten	Devices Comma	anus		
V		Extension Number	Zones	Services			Commands	
		9999	Room 2	Room 1-	-Pan Tilt Zoom Capa	ble Security Camera-Security	SetTemperature	
☑			Room 1	Room 1-	-Primary Host1-SV	C_GEN_GENERIC	SetHVACModeHeat	
				Room 1-	HVAC Controller-HV	AC_controller-1-SVC_ENV_HVAC	SetHVACModeAuto	
			1				SetHVACModeCool	
							IncreaseCoolPointTemper	
							UpdateHVACStatus	
							SotHeatPointTemperature	
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							SetHVACModeOff	
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✓	☑	Telephony Phone S	ervice	Telephony Server .				
✓		telephony		Telephony				
		Energy monitor dat	a collection service	Energy and Resou.				
1	1	LIVAC Sandica		UNAC Controllar				

6. Click Apply.

7. Repeat this process for each extension you want to bind to commands.

8. Click Done.

The telephony devices and command will now become part of your system after the configuration is downloaded to the Savant host controller (master).

TEL-HST02 Configuration

A TEL-HST02 phone must be made aware of the extension. For this, softkeys can be programmed to allow the phone to send commands to the system.



The softkeys must not be programmed before the procedure, <u>Uploading the Configuration to the Wired</u> <u>Phone</u>, is performed. The command that is used to program the softkeys is described in step 9 of the next procedure.

1. From the Savant Configurator click the **Phones** tab.

Over	view Users	Devices	Phones Ex	tensions	SLA V	oicemail	Call G
Conf	igured Phones						
	Phone ID	IP Address	Model	Device	Assigned To	TFTP U	RL
•	00085d13e741	10.5.200.8	Savant TEL-HST02	SIP/2050	Not Assigned		

2. Click the IP address of the phone to which you want to add this functionality (which is only valid for TEL-HST02).

0 😑 🖯					http://10	.5.200.8/						
4 1	+ 🕑 ht	tp://10.5.200.8/						×	Q- Google			
;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	Bonjour▼	Savant Systertal - Home	Citrix XenApp - Logon	Bugzilla Main Page	Apple Yah	o! Google Maps	YouTube	Wikipedia	News (428) *	Popular v	Wiki	
				Voc Na Par	view this pag 10.5.200.8:8 astra 6739i r password will me: adm isword: Remember th	e, you must log i o: be sent unencrypted n • • is password in m Cancel	n to this ard i. y keychain	28				

3. Enter the user name and password:

Name: admin Password: 22222

4. Click Log In. The phone web interface (Aastra) opens.

00			Aastra 6739i			
+ http://10.5	.200.8/			¢	Q- Google	
□ ■ Bonjour Savant S	ystertal - Home Citrix XenApp -	- Logon Bugzilla Main Page	Apple Yahoo! Google Maps	YouTube Wikipedia	News (428) ▼ Popular	·▼ Wiki
AZSTRA						
Status System Information Operation	System Information					
User Password	Network Status					
Phone Lock	Attribute	LAN Port	PC Port			
Softkeys and XML	Link State	Up	Down			
Keypad Speed Dial	Negotiation	Auto	Auto			
Directory	Speed	1000Mbps	n/a			
Reset	Duplex	Full	Half			
Basic Settings						
Account Configuration	Hardware Information					
Advanced Settings	Attribute	Value				
Network	MAC Address:	00-08-5D-13-E7-41				
Global SIP	BT MAC Address:	00-00-00-00-00				
Line 1	Platform	6739i Revision 0				
Line 2						
Line 3	Firmware Information					
Line 4	Attribute	Value				
Line 5	Firmware Version	3.2.2.56				
Line 6	Firmware Release Code	SIP				
Line 7	Boot Version	3.0.0.221				
Line 8	Date/Time	Jun 18 2011 03:53:23				
Action LIPI						
Configuration Server	SIP Status					
Firmware Update	Line	SIP Account	Status	Backup Re	gistrar Used?	
TLS Support	1	2050@10.5.200.4:5060	Registered	No		
802.1x Support	2	2050@10.5.200.4:5060	Registered	No		
Troubleshooting	3	2050@10.5.200.4:5060	Registered	No		
-						

5. Under **Operation**, click **Softkeys and XML** to open the **Softkeys Configuration** page.

Aastra 6739i														
+ http://10	.5.200.8	3/softkey.html									Ċ	Q- Google		
Bonjoury Savar	t Syste	rtal - Home Citrix	XenA	pp - Logo	on Bugzilla Main Pa	age Apple	Yahoo!	Googl	e Maps	YouTube	Wikipedia	News (428) T	Populary	Wiki
La III bonjour burun		intal fiolitic citri	(Activ	ipp Loge	on bugena manni	ige rippie	Tuntoo.	coogi	e maps	Tourrabe	mapeara	inclus (inclus)	ropular	
Status	I													
System Information	Sof	tkevs Configu	ratio	n										
Operation														
User Password	Key	Type		Label	Value	Line	Idle Co	nnected	Incomin	g Outgoing	Busy			
Phone Lock	1	BLF	🗧 Li	ne1	2050_Line1	1		2		2				
Softkeys and XML	2	None	•			1 \$	\checkmark	1	\checkmark	\checkmark	\checkmark			
Keypad Speed Dial	3	None					1	1	1	1	1			
Directory		None					2	2	2	2	2			
Reset		None	-				2	2	2	2	2			
Preferences	, s	None	-					7		2	1			
Account Configuration	6	None	-					2		2				
Advanced Settings	7	None	•				V	V	V	×	\checkmark			
Network	8	None	•			1	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark			
Global SIP	9	Do Not Disturb	•			1 ‡								
Line 1	10	Speeddial	🛟 Pa	age All	8000	1			\checkmark					
Line 2	11	Call Forward	•			1 \$			1					
Line 4	12	None	•			1 \$	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark			
Line 5	13	None	•			1 \$	\checkmark	1	\checkmark	\checkmark	\checkmark			
Line 6	14	None	•			1 \$	1	1	\checkmark					
Line 7	15	None	•			1 1	\checkmark	1	\checkmark	\checkmark	\checkmark			
Line 8	16	None					1	1	1	2	1			
Line 9	47	None	-				2	2	2	2	2			
Action URI		None	-											
Firmware Update	18	None	-				2	×						
TLS Support	19	None	•				\checkmark	V	¥					
802.1x Support	20	None	•			1 \$	\checkmark	1	V	\checkmark	\checkmark			
Troubleshooting	21	None	\$			1 \$	\checkmark	1	\checkmark	\checkmark	\checkmark			
	22	None	•			1 \$	\checkmark	\checkmark	\checkmark	1	\checkmark			
	23	None	•			1 🕴	\checkmark	V	\checkmark	\checkmark	\checkmark			
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	26	None	•			1 ‡	\checkmark	\checkmark	\checkmark	\checkmark	V			
	27	None	•			1 1	\checkmark	\checkmark	\checkmark	\checkmark	V			
	28	None					1	1	2	2	7			
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	34	None	•			1 \$	\checkmark	V	\checkmark	\checkmark	V			

- 6. Under **Type**, choose the available **Key** that you want to program. An available type is shown as **None**. The next screen shot shows **2** as the key being programed, for example.
- 7. From the drop-down list under None select XML.

- 8. For **Label**, type in something meaningful to indicate what the command does. The next screenshot shows HVAC Off, for example.
- 9. For **Value** you need to paste the command described in this step. Savant Systems recommends the command be copied and pasted to a text file first, and then edited to reflect the customer <u>master_ip</u> and <u>extension</u>. Note that the command must not include any spaces or line breaks—that is, the command must be one continuous line before being pasted. It could also be helpful to increase the font size for editing. The command is as follows:

http://master_ip:8080/assets/state/disReq.pl?command={%22disApp%22:%22Telephony%22,%22command%22,%22extension%22:%22XXX%22}

Where:

master ip is the IP of your Savant master

XXXX is the extension for which the associated command is to be executed, for example, 9999.

I	00					/	Aastra 6	739i					
	🛱 🎆 Bonjour v Savant	Syster	tal - Home Citrix X	enApp - Logor	n Bugzilla Main Pa	ge Apple	Yahoo!	Google	Maps	YouTube	Wikipedia	News (428) •	Popular
	AZSTRA												
I	Status	_											
	System Information	Soft	keys Configura	tion									
	User Password	Kov	Тура	Label	Value	Line	Idle Cr	nnected	ncomir	a Outgoing	Buev		
1	Phone Lock	tey	iype		Value 2050 Line1			al al	nconn ब		al al		
	Softkeys and XML		BLF Y		2000_0100								
ł	Keypad Speed Dial	2	XML	HVAC Off	pttp://10.5.200.120:80								
	Directory	3	None 🛟			1 ‡	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		
	Reset	4	None 🛟			1 🗘	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		
	Basic Settings	5	None 🛟			1 *	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		
	Preferences	6	None			1 1	\checkmark	1	\checkmark	\checkmark	\checkmark		
	Account Configuration	7	Neer				2	_	2	2	2		
	Advanced Settings	<u> </u>				· · ·							
1	Network	8	None 🛟			1	\checkmark	V	\checkmark	\checkmark	\checkmark		
	Global SIP	Q	Do Not Disturb			1		1	1				

- 10. Repeat the above step for each softkey you want to program on this phone.
- 11. Scroll down and click Save Settings.

		-	-	۲.	<u> </u>				
38	None		1	*)	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
39	None		1	*)	\checkmark	1	\checkmark	\checkmark	\checkmark
40	None		1	A Y	\checkmark	1	1	\checkmark	\checkmark
41	None		1	*)	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
42	None		1	*)	\checkmark	1	1	\checkmark	\checkmark
43	None		1	*)	\checkmark	1	2	1	\checkmark
44	None		1	A	\checkmark	\checkmark	2	\checkmark	\checkmark
45	None		1	*)	\checkmark	1	1	\checkmark	\checkmark
46	None		1	*)	\checkmark	1	2	1	1
47	None		1	A)	\checkmark	\checkmark	2	\checkmark	\checkmark
48	None		1	*)	\checkmark	1	1	\checkmark	\checkmark
49	None		1	* *	\checkmark	1	1	\checkmark	\checkmark
50	None		1	*)	\checkmark	1	\checkmark	\checkmark	V
51	None		1		\checkmark	1	\checkmark	\checkmark	\checkmark
52	None		1	A V	\checkmark	1	V	V	V
53	None		1	A Y	\checkmark	1	\checkmark	\checkmark	V
54	None		1	Å v	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
55	None		1	A Y	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Serv	lices								
XML	Application URI:								
XML	Application Title:								
BLF	LIST URI:								
Sav	e Settings								

Your phone should now have a new button and when pressed will execute the command associated with the extension (for example, **HVAC Off**). See the next screenshot.



Configuring Multiple Gateways

The Savant PBX supports up to six gateways, totaling port capacity of 24. The next procedure assumes one gateway has already been added. See <u>Adding a Gateway Component</u>.

To add more gateways to the PBX system using RacePoint Blueprint™, do the following.

- 1. From the Library window drag a Savant Gateway (TEL-GW04) to the layout view.
- 2. Highlight the gateway component and click Show Inspector.

⊖ ○ O Inspecting "Tele
Edit Device Screens Hide Details
D 1.4
Class: Telephony Gateway
Manufacturer: Savant
Model: TEL-GW04
Device Name: Telephony Gateway2
IP Address: 10.5.214.20
Notes:
Show: Telephony + ?
General
Properties for: General
PBX Ip Address 10.5.214.3
Gateway Index 2

- 2.1. Enter the IP Address of the gateway.
- 2.2. From Show select the Telephony properties.
- 2.3. Enter the PBX IP Address.
- 2.4. Select the **Gateway Index**. This value is important and allows the system to identify the gateway from which a call is coming. Savant recommends selecting the next available index.
- 3. Repeat steps 1 and 2 for all the gateways.
- 4. After all the gateways have been added, Generate Services.
- 5. Sync with services.

- 6. Save the configuration.
- 7. Next, export the gateways configuration file to a folder.
- 8. From Tools >Telephony, select Export Gateway ini file.
- 9. Enter the name of the file. When multiple gateways are configured the name entered will be used as a prefix for the gateway file names. For convenience the files names will be generated with the following format:

prefix-GatewayIndex-GatewayIPAddress.ini

where: prefix is the name entered by the user GatewayIndex is the index associated to this gateway (entered in RacePoint Blueprint) GatewayIPAddress is the IP address of the gateway

- 10. Upload the configuration files to the corresponding gateway, repeat the procedure described in this *Savant Telephony Solution Deployment Guide* (009-0406-XX) for each gateway.
- 11. Next configure the gateways using Savant Configurator. See Configuring Additional Gateways.

What to Do Next

To continue the configuration of your Savant PBX, you must next use the Savant Configurator. See the next section: <u>Savant Configurator Procedures.</u>

4. SAVANT CONFIGURATOR

Use the next section to setup your Savant PBX system using the Savant Configurator tool.

Savant Configurator Procedures

The procedures included in this document should be performed using Savant Configurator in the order in which they are presented, unless the configuration object is not required. You may skip a procedure that is not applicable to your configuration.

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Savant Configurator Overview

The Savant Configurator is a web-based graphical user interface for setting up and maintaining Savant Systems' telephony solution—an integrated IP-based Private Branch Exchange (PBX). Savant Configurator simplifies administration of objects such as users, extensions, and devices, which would include the following:

- Savant PBX server
- gateways
- telephone handsets
- telephony-enabled iOS devices such as the iPhone[®], iPod touch[®] and iPad[®].

The objects described in the next table can be configured using the Savant Configurator:

Objects	Description
Users	Individuals identified to the PBX for assignment of permissions and access to various functions
Devices	Configures iOS devices, IP phones, gateway, Integrated Access Device (also referred to as an ATA device), and door entry (paging) system
Phones	Supports Savant wired IP handsets: TEL-HST01 and TEL-HST02 Supports Savant wireless SIP-DECT handset: TEL-HSTW01
Extensions	Creates and edits time-based routing rules for Direct Inward Dials— (DID)s
Call Groups	Configures call group to be hunt, ring all, or paging
SLA	Shared Line Appearance (SLA) allows a station to be mapped to a SIP telephony gateway (device). The SLA feature allows extensions to share an external Central Office (CO) line—or sometimes referred to as POTS (plain old telephone service). Calls coming from the CO line will ring all member extensions assigned to the line. Answering from one member extension will stop ringing on all other extensions. The call can be easily transferred from one member extension to another by putting it on hold and picked up from the other. It also allows one to join the active call from a member extension, so that a two party conversation becomes a multi-party conference.
Voicemail	Modify voice mail settings
CDRs	Call Detail Records and Logs
IVRs	Interactive voice response (IVR) files
Sounds	Not applicable in the current release
Logs	View PBX log files live using the Log Viewer
Backups	Create configuration backups automatically or manually
Ring Profiles	Create custom rings for an iOS device or phone

Starting Savant Configurator

To start the Savant Configurator you must use a web browser and then log in.

To log in to the Savant Configurator for the first time do the following.

 Open Savant Configurator using either System Monitor or Bonjour (described below). In System Monitor select the row with the Device Type: *PhoneSystem.*

00				Sy	stem Monitor -	Scanner				
Share Screen	Mount	Connect							Review Clear Uplo	ad
View Options	_							_		
Scanner			Local Network	\$				Q	(C)	
MyCube			Davisa Nama	Sustem Name	Douise Tune	ID Addross	Version	Savant Unique ID	Redundancy	
,			Device Name	system Name	Device Type	IF Address	version	Savant Unique ID	Redundancy	
			ROSIE System Host	ROSIESystemHost	Host	10.5.225.6	daVinci4.3.2:6	001AAE0015BB0000	Standalone	
				rpmDefault	PhoneSystem	10.5.225.20	mainline:3315	109ADD5B8EF50000	Standalone	
	_									
+	-	-	2 results							1

This will launch Savant Configurator.

Alternatively, to have your Apple® Safari® web browser launch Savant Configurator, select the **Bonjour** pull-down menu.



NOTE: If Bonjour is not showing on your Bookmarks Bar, go to:

Safari > Preferences > Bookmarks. Insert check marks for Include Bonjour.

2. Click the savant-ipbx option to open the login window for Savant Configurator. See the next screenshot.

sa	
Username	
Password	
	Submit Reset

3. Enter the user name and password as follows:

Username: admin Password: savant

4. Click Submit.

Main Page in Savant Configurator

After you log in to the Savant Configurator the interface opens with the focus on the **Overview** tab. The first time you log in, the System Overview will only display data in the System Information table. Data will be displayed in other tables as other entities are configured.

<u>n</u>		Sa			CAN								
01	verview	Users Devic	es Phones	Extension	Call Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups	R
S			Gate	Sys Syst way IP: 10.5	System Ove System IP: 10.1 stem MAC: a8:20: sem UID: 3C0754 .225.2 Name: Gat	5.225.5 66:12:2d:34 3C9CEB0000 seway 1 Statu	us: OK (25 m	s)					
P	hones						Sha	red Lines					
N	umber	Device	Display Name	2	Reg Status	State	Trun	k Name	 Numb 	er of Station	s Assigned	\$	
20	002	SIP/2002	TEL-HST01		OK (9 ms)	N/A	Line	L	2				i.
20	007	SIP/2007	Yues iPad		Unregistered	N/A	Line2	2	2				1
-4 20	008	SIP/2008	Yues iPhone		Unregistered	N/A	Line3	3	0				
20	018	SIP/2018	TEL-HST02		OK (9 ms)	N/A	Line4	•	0				1
20	032	SIP/2032	TEL-WHST01		OK (15 ms)	N/A				First	revious 1		
20	037	SIP/2037	Test1		Unregistered	N/A							
20	041	SIP/2041	PA		Unregistered	N/A							
20	080	SIP/2080	LifeSize		Unregistered	N/A							
20	090	SIP/2090	ios7		Unregistered	N/A							
	First Previous 1 Next Last												
s	ystem Inf	ormation		Calli	Calling Groups								
0	omponent	Description		Version/Infe)		Num	ber 🔺	Name	Туре	# of Membe	ers 💠	
н	ostname	This server's name		savant-ipbx			7000)	RingAll	Ring All	0		
PI	latform	Operating System		Linux 2.6.3	2-28-generic i686		8000)	PageAll	Paging	2		I
U	ptime	How long the syste running	m has been	9 day(s), 23	hour(s), 27 min(s), 49 sec(s)				First	revious 1	Next	
D	isk Usage	How much disk spa	ice is used	44.63 GiB f	ree out of 70.33 0	GiB							
Pł	HP	Web interface scrip	ting language	5.2.10									
A	pache	Web Service		Apache/2.2	.14								
Po	ostgreSQL	Database Service		PostgreSQL	8.4.8 on i486-pc-	linux-gnu							
As	sterisk	Call Processing Ser	vice	Asterisk ast ast21495_3	erisk-1.8.2.3-buik 20110809	j-							
C.	avant	Call Control Service		Asteria_Sav	ant_svn21495_2	0110809_up	13						

Savant Configurator Terminology

Before using the Savant Configurator tool, review the terms shown in the next table.

Term	Description
CDRs	Call Detail Records are server details of each call stored in a data format.
Call Groups	Groups of devices on a specific ring plan. Groups can be Ring All, Hunt, or Find Me/Follow Me type groups. A Ring All group rings all members' devices simultaneously. A Hunt Group dials devices serially, attempting to get an answer until the call terminates to a voicemail (if not answered). A Find Me/Follow Me group is a personal call group where different devices belonging to the same user can ring in a hunt-type fashion.
Devices	Physical handsets (telephones), iOS device, gateway, ATA device (Integrated Access Device—TEL-IAD2), or Public Announcement (PA) system (door entry system).
Direct Inward Dials	Direct Inward Dials (DID)s are numbers that may be dialed from outside the business to access the PBX. (DID)s are associated with an extension. For example, even though there may be four connections to the PBX from the service provider, the service provider may supply a block of numbers (such as, 555-1001 through 555-1020) that will be routed to the four connections on the PBX. This example would allow 20 telephone sets to have their own unique number outside the business.
Extensions	Numbers that identify where a call should go. Extensions may point to a device or some entity of the PBX (such as, a call group).
SIP	Session Initiation Protocol (SIP) is a standard protocol for initiating, modifying, and terminating an interactive user session.
Users	Individuals identified to the PBX for assignment of permissions and access to various functions.

Uploading the plist

To complete this procedure you must have already created a plist using RacePoint Blueprint[™] (see RacePoint Blueprint[™] Procedures.)

If you do not have a gateway as part of your Savant PBX system, uploading of the telephony plist is not required—please skip this procedure.

To load the initial configuration generated from RacePoint Blueprint™, do the following.

1. Click the **Overview** tab.

Phones View Phones Add Phone		-	58			CAN								
Upload New Firmware	Overview	Users	Devices	Phones	Extensions	Call Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups	Ring Profiles
Regenerate Config Files Download Aastra DECT Config		(Browse Upload Cance)Select a File	to Upload									
Devices View Devices Add Device														
Session Logout														
System August 1, 2011 10:40:39am UTC -4 About Network Config														

- 2. Under the System sidebar, click plist Upload.
- 3. Click **Browse** to find and select the plist file you created in the procedure, *Exporting Telephony plist File*, for example, **pbxTelephony.plist**.
- 4. Click Upload. The Savant Configurator will display the configured telephony properties.

Adding a User to the Savant PBX

If an individual voice mail box will be used in the Savant PBX system, a user must be created for each voice mail box. If a global voice mail box will be used or voice mail will not be enabled in the system, there is no need to create a user—you can skip this procedure.

Important! Before installing any hardware or software, a thorough and detailed network analysis should be completed to create an ideal network design and implementation. Because of the technical complexity of setting up networks, Savant recommends that the installer of a Savant system have a general understanding of networks.

To add a user for an individual Savant PBX voice mail box, do the following.

1. Click Users (tab) to open the Users page.

Users Sers Er		9	58			AN								
	Overview	Users	Devices	Phones	Extensions	Call Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups	Ring Profiles
	Users Below is a list	t user on the	e system. To r	modify an ac	count, select i	t and click Edit	User. To de	lete a user, sel	ect the accou	int and click	Delete User.			
System Below is a list user on the system. To mouly an account, select it and dick built over. To delete a user, select the account and dick belete over.														
L					Add User	Edit User	Delete User							
	Show 10	Show 10 ÷ entries						Search:						
	\$	Name			*	Email					\$			
	\bigcirc	John Smit	h			jsmith@gmai	I.com							
	Showing 1	to 1 of 1 e	ntries							evious 1				

2. Click Add User to open the Add User page.

Add User

To add a user, please fill out all appropriate fields below.

First Name:	John
Last Name:	Smith
Email:	jsmitb@gmail.com
Pin:	1234
	PIN-less VoiceMail access from assigned devices
Delete Voicemail after Email	
Forwarding Number	15085551212
Forwarding Timeout	30
	Add User Cancel

3. Use the next table to enter or select values for the fields on the Add User page.

Field	Description
First Name	User's first name.
Last Name	User's last name.
Email	Email address to notify when there is a new voice mail message in the system. Leave it blank if email notification is not wanted.
Pin	PIN used to access the voicemail box and to do sound recording.
Pin-less Voicemail access from assigned devices	If PIN access is not required from assigned device, insert a check mark in the box.
Delete Voicemail after Email	To delete voicemail after sending email notification, insert a check mark in the box. There will be no message waiting indicator on the assigned device is this box is checked.
Forwarding Number	A number that the call can be forwarded to before failover to voicemail. Leave it blank if forwarding is not wanted.
Forwarding Timeout	Time to try the forwarding number before failover to voicemail.

4. Click Add User.

Users View Users Add User			58			AN				
Session	Overview	Users	Devices	Phones	Extensions	Call Groups	SLA	Voicemail	CDRs	IVRs
System March 8, 2013	Users Below is a list	user on the	system. To r	nodify an acc	count, select it	t and click Edit	t User. To de	lete a user, sel	ect the acco	unt and clic
1:49:23pm UTC -5 About					Add User	Edit User	Delete User			
	Show 10	+ entries							Sea	arch:
	\$	Name			*	Email				
	0	John Smith				jsmith@gma	il.com			
	Showing 1	to 1 of 1 en	tries						First	evious 1

5. If more voice mail users must be added, repeat this procedure.

Adding an iOS Device to the Savant PBX

To add an iOS device (iPhone[®], iPad[®] or iPod[®] touch), do the following.

1. Click **Devices** (tab) to open the **Devices** page.

	S			N							
Overview	Users	Devices Phone:	Extensions	Call Groups S	A Volce	mail CD	Rs IVRs	Sounds	Logs	Backups	R
Devices These are all	the devices tha	it the system knows	about.								
		Add Device	Edit Device Dele	te Device							
Show 10	+ entries	Filter: All ÷		Sea	rch:						
Туре	 Name 	Status (SIP Only) 🗘	Friendly Name	Assigned To 🔅	Server 💠	Is Trunk? 🗘					
⊖ SIP	2002	OK (7 ms)	TEL-HST01	John Smith	savant-ipbx	No					
⊖ SIP	2007	Unregistered	Yues iPad		savant-ipbx	No					
⊖ SIP	2008	Unregistered	Yues iPhone		savant-ipbx	No					
⊖ SIP	2018	OK (9 ms)	TEL-HST02		savant-ipbx	No					
⊖ SIP	2032	OK (13 ms)	TEL-WHST01		savant-ipbx	No					
⊖ SIP	2037	Unregistered	Test1		savant-ipbx	No					
⊖ SIP	2041	Unregistered	PA		savant-ipbx	No					
⊖ SIP	2080	Unregistered	LifeSize		savant-ipbx	No					
O SIP	2090	Unregistered	ios7		savant-ipbx	No					
⊖ SIP	Gateway 1	OK (25 ms)	Gateway 1		savant-ipbx	Yes					
Showing 1	to 10 of 11 e	ntries		First Previo	IS 1 2	Next Last					

2. Click Add Device to open the Add Device page.

	Overview Users Devices Phones Extensions Call Groups SLA Voicemail CDRs IVRs Sounds Logs Backups R
--	--

Edit Device Here you enter the settings for this device. The friendly name will be displayed to users on their line buttons and other appropriate places.

Server:	sav	vant-ipbx (localhos	t) ‡
Type:		iOS Device 💠	
Ring Profile		Default \$	
*Device Number:	3	2001	
Assign to:		Unassigned \$)
Friendly Name:	i	OS Simulators	
Friendly Name 2:	i	OS Simulators	
MWI enabled:			
UID:		3C0754275935000	Ą
Context:	(Phone (all_calls)	\$
Usable as Trunk:			
Use TCP:			
Secret:			
Call Limit:	1	2	
Host:		dynamic	
Port:	:	5060	
NAT:			
Register?			
Qualify:			
Advanced:			<i>i</i>
Save & Exit	Save & Clone	Save & New	Cancel

3. Use the next table to enter or select values for the fields on the Add Device page.

Field	Description
Server	Available servers are shown in the drop-down list. Choose the server to which the new device should register. There should only be one (leave as is).
Туре	Provides a drop-down list of the available types of devices that can be added to the server. Select this option: iOS Device .
Device Number	Enter a four-digit number (in the range 2000-2500) for the iOS device.
Assign to	Provides a drop-down list of all users that the device can be assigned to. If individual voicemail box is going to be used in the system and this device should have voicemail access, assign it to a user. In all other cases, Savant Systems recommends this field be unassigned. Leave as is.
Friendly Name	Name that displays when a call is made from this device. This is only applicable if a static UID is entered.
Friendly Name 2	Leave blank.
MWI enabled	This is enabled by default— allows device to receive Message Waiting Indicator.
UID	Enter the Savant UID for the iOS device. Use the default value (dynamic) only when you want to allow guest access into your telephony system.
Context	A collection of extensions on the Savant PBX server. Default is Phone (all_calls) . Use the default value.
Usable as Trunk	Do not insert a check mark.
Use TCP	Insert a check mark in the check box since the device is an iOS device.
Secret	Leave it blank.
Call Limit	Enter 2.
Host	Use the default: dynamic.
Port	Use the default value: 5060.
NAT	Network Address Translation (NAT) helps determine whether this device is on the internal network or outside the firewall. Since you are adding an iOS device, you must insert a check mark in the check box.
Register?	Determines whether the device registers to the carrier to tell them where it is. This is only for carriers. Since you are adding an iOS device, the check box should be blank.
Qualify	Determines whether the system periodically checks to see if the device is still available. Use the default value: YES .
Advanced	See the section Performing Advanced Configuration.

4. Click Add & Exit, or Add & Clone if adding another device.

- 5. Launch the Savant phone service from the device.
- 6. Click the **Devices** (tab) to check the status of the iOS device just added. If it shows **OK**, the device is ready to make and receive internal calls. For external calls, see <u>Adding an iOS Device or Phone to an SLA</u>.

Adding a Phone to the Savant PBX

To add a wired phone, or wireless phone to the Savant PBX as devices, do the following.

- 1. Click the **Devices** tab.
- 2. Click Add Device to open the Add Device page.

Add Device

Here you enter the settings for this device. The friendly name will be displayed to users on their line buttons and other appropriate places.

Server:	sa	want-ipbx (localhost)
Type:		IP Phone 🛟	
*Device Number	[
Assign to:	U	nassigned	÷
Friendly Name:	[
Friendly Name 2:	[
UID:	[
Context:		Phone (all_calls)	
Usable as Trunk:			
Use TCP:			
Secret:	[
Call Limit:		2	
Host:		dynamic	
Port:		5060	
NAT:			
Register?			
Qualify:		V	
Add & Exit	Add & Clone	Add New	Cancel

3. Use the next table to enter or select values for the fields on the Add Device page.

Field	Description						
Server	Available servers will be in a drop-down list. Choose the server in which the new device should register. There should only be one (leave as is).						
Туре	Provides a drop-down list of the available types of devices that can be added to the server. Select this option: IP Phone .						
Device Number	Enter the four-digit number of this IP phone (in the range 2000-2500).						
Assign to	Provides a drop-down list of all users that the device can be assigned to. If individual voicemail box is going to be used in the system and this device should have voicemail access, assign it to a user. In all other cases, Savant Systems recommends this field be unassigned. Leave as is.						
Friendly Name	Name that displays when a call is made from this phone. This is the Caller ID name. This field allows a maximum of 20 alphanumeric characters (including spaces).						
Friendly Name 2	Leave blank.						
UID	This is auto-assigned. No action is needed.						
Context	A collection of extensions on the Savant PBX server. Default is Phone (all_calls) . Use the default value. Leave as is.						
Usable as Trunk	Since a SIP phone is being configured do not insert a check mark.						
Use TCP	Place a check mark in the check box if the device is an iOS device. Whe adding a SIP phone or an analog media gateway leave check box blank.						
Secret	Leave it blank.						
Call Limit	Enter 2.						
Host	Use the default: dynamic.						
Port	Use the default value: 5060.						
NAT	Network Address Translation (NAT) helps determine if this device is on the internal network or outside the firewall. Turn NAT to register devices outside the internal network. Since you are adding a phone, you must insert a check mark in the check box.						
Register?	Determines whether the device registers to the carrier to tell them where it is. This is only for carriers. Since you are adding a phone, the check box should be blank.						
Qualify	Determines whether the system periodically checks to see if the device is still available. Use the default check mark.						

7. Click Add & Exit, or if adding another phone you can click Add & Clone, and then proceed with the next procedure. Or, you can repeat this procedure for each phone to be added. After adding all phones, continue with the next procedure.

Adding a Savant Wired IP Phone as a Phone

It is important to confirm that your Savant IP phones have the most recent firmware. When this procedure is completed check the version of the firmware on the phone. If the firmware needs to be updated, see Updating Savant IP Phone Firmware.

To add a Savant wired IP phone as a phone, do the following.

1. Click the Phones tab to open the Configured Phones page.

Phones															
View Phones Add Phone															
Phone Dialplans	0	verview	lisers	Devices	Dhonos Ex	tensions Call	Groups	SLA	Voicemail	CDRs	TVRs	Sound	s Logs	Backups	Ring Profiles
Download SIP DECT Config			Courto		Pilolies									Buckups	
	Co	nfigured F	hones												
Devices		Phone II	D	IP Address	Model	Device	Assigne	d To	TFTP URL						
View Devices	\odot	1111111	11111	Unable to find IP	Savant PAS-10	000 SIP/2041	Not Assig	ned	tftp://10.5.225.5	/PAS-1000-	1111111111	11.htm			
Add Device	\bigcirc	00085d2	ce7cc	10.5.225.4	Savant TEL-HS	ST02 SIP/2018	8 Not Assig	ned							
Section	\bigcirc	00085d2	f35cf	10.5.225.10	Savant TEL-HS	ST01 SIP/2002	Not Assig	ned							
Logout															
System															
October 22, 2013 3:48:46pm UTC -4 About															
					Add pho	ne Edit Phone	Delete Pho	ne							

2. Click Add Phone to open the Add Phone page.

Add Phone Here you enter the settings for this phone. The friendly name of the lines associated will be displayed to users on their line buttons and other appropriate places.

Interface:	eth0 (system default) 🗘								
Model:	Savant TEL-HST02 Series ÷								
MAC Address:	No colons, spaces, or dashes - eg, 00:00:12:3f:9a:4b would be 0000123f9a								
Ring Profile	Default ‡								
Identity Assignments	Identity 1 TEL-HST02 (SIP/2018) ‡								
Contacts:	I								
Intercom Directory:									
Disable Missed Call Indicator:									
	Add Cancel								

4. Use the next table to enter or select values for the fields on the **Add Phone** page.

Field	Description					
Interface	Use the default value.					
Model	Select a model:TEL-HST01, TEL-HST02, or TEL-HSTW01					
MAC Address	Enter the MAC address from the phone (located on a sticker on a phone).					
Ring Profile	Select a ring profile from the list. If no ring profile created, leave it as Default.					
Identity Assignments	Select one from the device list that matches the one added in the previous procedure.					
Contacts	For TEL-HST01 and TEL-HST02 models only. Insert a check mark if you want all the devices in the system are shown in this phone's directory.					
Intercom Directory	For TEL-HST02 models only. Insert a check mark if you want soft Busy Lamp Field (BLF) buttons are created for every device in the system on this phone.					
Disable Missed Call Indicator	For TEL-HST01 and TEL-HST02 models only. Insert a check mark if you don't want the phone to show there is missed call at all.					

4. Click Add.

5. To open the phone's server settings in the phone's user interface, on the **Configured Phones** page click the IP address of the phone.

Cor	figured Phones					
	Phone ID	IP Address	Model	Device	Assigned To	TFTP URL
۲	0004133307F2	10.5.225.3	Savant PAS-1000	SIP/2041	Not Assigned	tftp://10.5.225.15/PAS-1000-0004133307F2.htm
0	0358603700139	Unable to find IP	Savant TEL-HSTW01	SIP/2032	Not Assigned	
0	00085d2ce7cc	10.5.225.4	Savant TEL-HST02	SIP/2018	Not Assigned	
0	00085d2f35cf	10.5.225.10	Savant TEL-HST01	SIP/2002	Not Assigned	

Add phone Edit Phone Delete Phone

To upload the Savant Configurator configuration to the wired phone, see the next procedure <u>Uploading the</u> <u>Configuration to the Wired Phone</u>.

Uploading the Configuration to the Wired Phone

This procedure must be performed using the Safari web browser.

To upload the Savant Configurator configuration to the wired phone, do the following.

1. Open the Savant phone user interface (Aastra) using one of these methods:

Enter the IP address of the phone in the web browser, or From the list of **Configured Phones** under the **Phones** tab in Savant Configurator, click the IP address of the phone to which the configuration will be uploaded.

2. Log in to the Savant phone user interface, if you have not already done so. The default user login is:

Name: a Passwo	dmin rd : 22222
(To view this page, you must log in to this area on 10.5.203.44:80: Aastra 6730i Your password will be sent unencrypted.
	Name:
	Password:
	Remember this password in my keychain
	Cancel Log In

 To ensure that the phone is in the factory default mode—which is necessary to load the configuration properly from the main window under **Operation** in the left pane click **Reset**. See the next screenshot of the Reset page from the Aastra web-based user interface.



- 4. Click Restore.
- 5. Log in again to the phone user interface.
- 6. In the left pane under Advanced Settings, click Configuration Server.

- 7. For the Download Protocol, select TFTP.
- 8. In the TFTP Server field, enter the Savant PBX IP address.

Status System Information Operation User Password Phone Lock Download Protocol Softkeys and XML Primary Server Reset Directory Basic Settings Atternate Server Account Configuration IFTP Path Account Configuration FTP Path Advanced Settings FTP Path Network FTP Path Global SIP FTP Path Line 2 FTP Path Line 3 HTTP Server Line 4 HTTP Server Line 5 HTTP Path Line 6 HTTP Path Line 8 HTTP Server Network HTTP Server FTP Path Bais Settings Mode HTTP Server Line 6 HTTP Server Line 7 HTTP Server Line 8 HTTPS Path Mode Mode Troubleshooting Mode Maximum Delay 15 Days Day	6739
Status Configuration Server Settings Operation Settings User Password Download Protocol Phone Lock Download Protocol System Pinary Server Bais Settings Alternate Server Account Configuration Use Alt TFTP Path Account Configuration Use Alt TFTP Account Configuration Use Alt TFTP Account Configuration Use Alt TFTP Line 1 FTP Path Line 2 FTP Path Line 3 HTTP Server Line 4 HTTP Server Line 5 HTTP Path Line 6 HTTP Path Line 7 HTTP Server Line 8 HTTP Server Line 8 HTTP Server Line 8 HTTP Server Line 9 HTTP Server Line 9 HTTP Server Line 8 HTTP Server Line 9 HTTP Server Bozi Action URI Mode Configuration Server Mode Bozi Actoon URI Mode Time (24-hour) Mode	Log (
System Information Configuration Server Settings Operation Settings Directory Settings Directory Primary Server Reset Atternate Server Directory Atternate Server Preferences Att FTP Path Account Configuration Use Alt TFTP Network FTP Path Account Configuration Use Alt TFTP Other Settings FTP Path Other Settings FTP Path Construction Use Alt TFTP Directory FTP Path Account Configuration Use Alt TFTP Clobal SIP FTP Path Line 1 FTP Pasword Line 2 FTP Pasword Line 3 HTTP Server Line 6 HTTP Path Line 6 HTTP Server Line 7 HTTP Server Line 8 HTTP Server Line 9 HTTP Server Stationul RI Configuration Server Mode Mode Troubleshooting Mode Time (24-hour) Mode Maximum Delay 15 Days Days	
Juer Pasword Phone Lock Softkeys and XML Keypad Speed Diat Directory Pris TFP Path Basic Settings Preferences Atternate Server Basic Settings Preferences Atternate Server Metwork Global SIP Line 1 Line 2 Line 3 Line 4 Line 5 Line 5 Line 5 Line 5 Line 6 Line 6 Line 6 Line 7 Line 8 Line 9 Attornuer FTP Path Attornuer Metwork Configuration Server Firmware Update Attornuer Mode Maximum Delay Directory Maximum Delay Directory Maximum Delay Directory Maximum Delay Directory Maximum Delay Directory FTP Firmware Update Directory Firmware Update Directory Firmware Update Directory Firmware Update Directory Firmware Update Directory Firmware Update Directory Firmware Update Firmware Update	
Use Password Settings Phone Lock Download Protococl Softkeys and XML Primary Server Reset Aternate Server Basic Settings Att FTP Path Preferences Att FTP Path Advanced Settings FTP Server Network FTP Path Line 1 FTP Path Line 2 FTP Path Line 3 HTTP Server Line 4 HTTP Server Line 5 HTTP Path Line 6 HTTP Path Line 8 HTTP Server Line 8 HTTP Server Line 8 HTTP Server Line 8 HTTP Server Line 9 HTTPS Path Configuration Server HTTPS Port B02.1x Support Mode Maximum Delay 15 Outoelse Noting Is	
Download Protocol IFIP Softkeys and XML Primary Server 10.5.225.3 Preferences Atternate Server 0.0.0 Basic Settings Atternate Server 0.0.0 Preferences Att FTP Path Image Server Account Configuration Use Alt FTP Enabled Account Configuration Use Alt FTP Enabled Account Configuration FTP Path Image Server Account Configuration Use Alt FTP Image Server Account Configuration Use Alt FTP Image Server Account Configuration Use Alt FTP Image Server Network FTP Path Image Server Global SIP FTP Path Image Server Line 1 FTP Password Image Server Line 2 FTP Pash Image Server Line 3 HTTP Server Image Server Line 6 HTTP Path Image Server Line 7 HTTPS Server Image Server Line 8 HTTPS Server Image Server Line 9 HTTPS Server Image Server B02.1x Support Mode None B02.1x Support Mode None B03.1x Support Mode Image Server	
Keybad Speed Diat Primary Server 10.5.225.3 Directory Pri TFTP Path	
Directory Pri TFTP Path Reset Aternate Server 0.0.0 Basic Settings Att TFTP Path	
ResetAlternate Server0.0.0Basic SettingsAlt TFTP Path	
Basic Settings All TFTP Path Preferences All TFTP Path Advanced Settings FTP Server Network FTP Path Global SIP FTP Path Line 1 FTP Demme Line 2 FTP Pasword Line 3 HTTP Server Line 4 HTTP Path Line 5 HTTP Path Line 6 HTTP Path Line 7 HTTP Server Line 8 HTTP Server Line 9 HTTPS Path Action URI HTTPS Path Troubleshooting Time (24-hour) Mode None Troubleshooting Time (24-hour) Maximum Delay 15 Days HTS	
Preferences Alt TFTP Path Account Configuration Use Alt TFTP Use Alt TFTP Enabled Advanced Settings FTP Server Global SiP FTP Usemame Line 1 FTP Usemame Line 2 FTP Password Line 3 HTTP Server Line 4 HTTP Server Line 5 HTTP Path Line 6 HTTP Path Line 8 HTTPS Server Line 9 HTTPS Path Action URI Configuration Server Firmware Update Mode Toubleshooting Time (24-hour) Maximum Delay 15 Days Intervent	
Account Configuration Use All TFTP Enabled Advanced Settings FTP Server Image: Setting Settin	
Advanced Settings FTP Server Network FTP Path Global SIP FTP Path Line 1 FTP Username Line 2 FTP Password Line 3 HTTP Server Line 6 HTTP Path Line 6 HTTP Path Line 7 HTTP Server Line 8 HTTP Server Line 9 HTTPS Path Mode None B02.1x Support Mode Maximum Delay 15 Days 0	
NetworkFTP PathImage: Constraint of the sector of th	
Global SIP FTP Usemane Line 1 FTP Usemane Line 2 FTP Pasword Line 3 HTTP Server Line 4 HTTP Path Line 6 HTTP Path Line 8 HTTPS Server Line 9 HTTPS Server Line 9 HTTPS Path Action URI HTTPS Path Configuration Server HTTPS Path Firmware Update Auto-Resync TLS Support Mode 802.1x Support Mode Maximum Delay 15 Days O	
Line 1 FTP Usemame FTP Usemame FTP Usemame FTP Usemame FTP Dassword Interver FTP Password Interver FTP Path Interver Int	
Line 2 Line 2 Line 3 Line 4 Line 4 Line 6 Line 6 Line 7 Line 8 HTTP Path Action URI Action URI Action URI TLS Support B02.1x Support Mode Time 2(4-hour) Maximum Delay Descent Auto-Resync Mode Toobleshooting Time (24-hour) Maximum Delay Descent Auto-Resync Mode Toolog (24-hour) Maximum Delay Descent Descen	
Line 3 Line 4 Line 5 Line 6 Line 6 HTTP Path Line 7 HTTP Server Line 8 HTTPS Server Line 9 HTTPS Path HTTPS Path	
Line 5 HTTP Path Intervention 1 Auto-Resynce	
Line 5 HTTP Park Line 5 HTTP Port 80 Line 7 HTTPS Server Line 9 HTTPS Park Action URI HTTPS Park Action URI HTTPS Port 443 Configuration Server Firmware Update TLS Support Auto-Resync 802.1x Support Mode None 802.1x Support Time (24-hour) 000.00 \$ Maximum Delay 15 Days 0	
Line 7 HTTP Port 80 Line 8 HTTPS Server Image: Configuration Server Action URI HTTPS Path Image: Configuration Server Configuration Server HTTPS Port 443 Firmware Update Auto-Resync Image: Configuration Server TLS Support Auto-Resync Image: Configuration Server B02.1x Support Mode None Troubleshooting Time (24-hour) 00:00 @ Maximum Delay 15 Days 0	
Line 8 HTTPS Server Line 9 HTTPS Path Action URI HTTPS Path Configuration Server HTTPS Pott Firmware Update Auto-Resync B02.1x Support Mode Troubleshooting Time (24-hour) Maximum Delay 15 Days 0	
Line 9 Action URI Configuration Server Firmware Update TLS Support B02.1x Support Troubleshooting Time (24-hour) Maximum Delay Days	
Action URI HTTPS pain Configuration Server HTTPS Port Firmware Update Auto-Resync TLS Support Mode 802.1x Support Mode Troubleshooting Time (24-hour) Maximum Delay 15 Days 0	
Configuration Server HTTPS Port 443 Firmware Update Auto-Resync TLS Support Mode 802.1x Support Mode Troubleshooting Time (24-hour) Maximum Delay 15 Days 0	
Firmware Update TLS Support Auto-Resync Node None Troubleshooting Time (24-hour) Maximum Delay Days 0	
TLS Support Auto-Resync 802.1x Support Mode Troubleshooting Time (24-hour) Maximum Delay 15 Days 0	
B02.1x Support Mode None Troubleshooting Time (24-hour) 00:00 @ Maximum Delay 15 Days 0	
Troubleshooting Time (24-hour) 00:00 2 Maximum Delay 15 Days 0	
Maximum Delay 15 Days 0	
Days 0	
XML Push Server List(Approved IP Addresses)	
(Save Settings)	

- 9. Click Save Settings.
- 10. In the left pane under **Operation**, click **Reset**.

		67 3 9i
		Log Off
Status		
System Information	Reset	
Operation		
User Password	Phone	
Phone Lock	Restart Phone (Restart)	
Softkeys and XML		
Keypad Speed Dial	Current Settings	
Directory	Restore To Factory Defaults Restore	
Reset	Remove Local Configuration Settings	
Basic Settings	remote cour comgatation county	
Preferences		
Account Configuration		
Advanced Settings		
Network		
Global SIP		
Line 1		
Line 2		
Line 3		
Line 4		
Line 5		
Line 6		
Line 7		
Line 8		
Line 9		
Configuration Sector		
Eirmware Update		
TI S Support		
802.1x Support		
Troubleshooting		
rissereariosting		

- 11. Click **Restart** to restart the phone.
- 12. After the phone restarts from reboot, in Savant Configurator click the **Devices** (tab) to check the status of the phone just added. If it shows **OK**, the phone is ready to make and receive *internal* calls. To configure the phone to handle external calls, go to the procedure <u>Adding an iOS Device or Phone to an SLA</u>.

Adding a Savant Wireless Phone

This procedure assumes you have added the Savant wireless phones as devices—see Adding a Phone to the Savant PBX.

After you have added Savant wireless phones as phones (described in this procedure), you must configure the base station to activate the handsets. See the section, *Savant DECT Base Stations*.

To add a Savant wireless handset (TEL-HSTW01) do the following.

1. Click the Phones tab open the Configured Phones page.

Phones View Phones Add Phone			58			AN							
Upload New Firmware	Overview	Users	Devices	Phones	Extensions	Call Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups
Phone Dialplans													
Download SIP DECT Config	Add Phone Here you enter places.	the setting	s for this pho	ne. The frier	dly name of t	he lines associa	ted will be	displayed to use	ers on their	line buttons i	and other appr	opriate	
Devices	Assign to use	r:	Unassigne	d	•								
View Devices Add Device	Interfac	e:	eth0 (syst	tem default)	•								
	Mode	d:	Savant TEL-	HSTW01 Serie	s 🗘								
Session	IPE	I:	035860	3700139									
Logout	Identi Assignmen	ty Ide	ntity 1 🔳	ar (SIP/2032)	\$								
System October 10, 2011 10:03:00am UTC -4 About Network Config		Add	C	ancel									

2.

Click Add Phone to open the Add Phone page.

3. Use the next table to enter or select values for the fields on the **Add Phone** page.

Field	Description
Assign to user	Select Unassigned.
Interface	Use the default value.
Model	Select TEL-HSTW01.
IPEI	Enter the 13 IPEI characters that can be displayed from the handset: system-> show IPEI .
Identity Assignments	Select one from the device list that matches the one added in the procedure: Adding a Phone to the PBX System.

4. Click **Add**. See the next screenshot.

NOTE: It is normal that Savant Configurator shows Unable to find IP for these handsets.

	Savant Now You CAN													
Ove	rview	Users	Devices	Phones	Extensions	Call Group	s SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups	Ring Profiles
Con	figured F	Phones												
	Phone II	D	IP Address	Model		Device	Assigned To	TFTP URL						
$ \mathbf{\bullet} $	1111111	11111	Unable to find IP	Savant	PAS-1000	SIP/2041	Not Assigned	tftp://10.5.2	25.5/PAS-10	00-1111111	11111.htm			
\bigcirc	1234567	89123	Unable to find IP	Savant	TEL-HSTW01	SIP/2018	Not Assigned							
0	00085d2	ce7cc	10.5.225.4	Savant	TEL-HST02	SIP/2018	Not Assigned							
0	00085d2	f35cf	10.5.225.10	Savant	TEL-HST01	SIP/2002	Not Assigned							
					Add phone Ed	it Phone De	elete Phone							

- 5. Repeat this procedure for each Savant wireless handset that is added.
- 6. Click **Download SIP DECT Config** from the **Phones** sidebar to download *sip_dect.cfg*. You will need this file when you configure the base station and add handsets to the base station.
Adding a Savant PA System

The Savant public announcement (PA) system—also a paging system—is added to the Savant PBX configuration similar to the method used to add a phone.

To add the Savant PA system to the Savant PBX system, do the following.

1. Select the **Devices** tab to open the **Devices** page.

Devices View Devices Add Device		S			Ν							
Manage Servers	Overview	Users	Devices Phones	Extensions	Call Groups SI	A Voicer	nail CDR	s IVRs	Sounds	Logs	Backups	Ring Profiles
Session Logout	Devices These are all th	he devices tha	it the system knows a	about.								
System			Add Device	Edit Device Dele	te Device							
4:03:08pm UTC -4	Show 10	: entries	Filter: All :		Sea	rch:						
<u>Manage</u>	Туре	Name 🔺	Status (SIP Only) 🗘	Friendly Name	Assigned To 💠	Server 💠	Is Trunk? 💠					
	O SIP	2002	OK (10 ms)	TEL-HST01	John Smith	savant-ipbx	No					
	SIP	2007	Unregistered	Yues iPad		savant-ipbx	No					
	O SIP	2008	Unregistered	Yues iPhone		savant-ipbx	No					
	⊖ SIP	2018	OK (9 ms)	TEL-HST02		savant-ipbx	No					
	⊖ SIP	2032	OK (13 ms)	TEL-WHST01		savant-ipbx	No					
	⊖ SIP	2037	Unregistered	Test1		savant-ipbx	No					
	⊖ SIP	2041	Unregistered	PA		savant-ipbx	No					
	⊖ SIP	2080	Unregistered	LifeSize		savant-ipbx	No					
	⊖ SIP	2090	Unregistered	ios7		savant-ipbx	No					
	O SIP	Gateway 1	OK (28 ms)	Gateway 1		savant-ipbx	Yes					
	Showing 1 t	to 10 of 11 e	ntries				1					

2. Click the Add Device button to open the Add Device page.

Add Device Here you enter the settings for this device. The friendly name will be displayed to users on their line buttons and other appropriate places.

Server:	sa	vant-ipbx (localhost)	\$
Type:		IP Phone \$	
*Device Number	[
Assign to:		Unassigned \$	
Friendly Name:	[
Friendly Name 2:	[
MWI enabled:			
UID:	[
Context:		Phone (all_calls) ‡)
Usable as Trunk:			
Use TCP:			
Secret:	[
Call Limit:	[2	
Host:	[dynamic	
Port:	[5060	
NAT:			
Register?			
Qualify:			
Advanced:			<i>li</i>
Add & Exit	Add & Clone	Add New	Cancel

3. The fields must be completed as shown in the next table:

Field	Description
Server	Available servers will be in a drop-down list. Choose the server to which the new device should register. There should only be one (leave as is).
Туре	Select PA System from the drop-down list of the available types of devices.
Device Number	Enter the extension associated with this device. The range is 2000-2500. The next screenshot shows 2041 as an example.
Assign to	Provides a drop-down list of all users that the device can be assigned to. It can also be unassigned. Savant Systems recommends this field be unassigned.
Friendly Name	Name that displays on the phones when the device registers to the server. This name will be displayed on the iOS devices when engaged in a call.
UID	The Savant user identifier is automatically populated by the Device Number.
Context	A collection of extensions on the Savant PBX server. Default is Phone (all_calls) . Use Phone (all-calls) when adding a phone, PA system, or iOS device including, iPhone, iPad or iPod touch.
Usable as Trunk	This field is disabled—no input is required.
Use TCP	Leave check box blank.
Secret	Leave it blank.
Call Limit	Enter 2.
Host	Use the default value: dynamic.
Port	Use the default value of 5060.
NAT	Network Address Translation (NAT) helps determine if this device is on the internal network or outside the firewall. Turn NAT to register devices outside the internal network. When adding a phone, iOS or analog media gateway device you must insert a check mark in the check box.
Register?	Determines whether the device registers to the carrier to tell the carrier where the device is. This is only for carriers. When adding a phone, iOS device or analog media gateway device, the check box should be blank.
Qualify	Determines whether the system periodically checks to see if the device is still available. Insert a check mark in the box.
Advanced	Leave blank.

4. Click Add & Exit and then you should see the new example device named 2041 on the Devices page.

Thes	e are all the	devices that	Add Device	Edit Device Delete	Device				
She	bw 10 ‡	entries	Filter: All ÷	Search:					
	Туре 🔺	Name 🔺	Status (SIP Only) 💠	Friendly Name \$	Assigned To 💲	Server 💠	Is Trunk? 🗘		
	SIP	2002	OK (10 ms)	TEL-HST01	John Smith	savant-ipbx	No		
0	SIP	2007	Unregistered	Yues iPad		savant-ipbx	No		
	SIP	2008	Unregistered	Yues iPhone		savant-ipbx	No		
0	SIP	2018	OK (9 ms)	TEL-HST02		savant-ipbx	No		
	SIP	2032	OK (13 ms)	TEL-WHST01		savant-ipbx	No		
0	SIP	2037	Unregistered	Test1		savant-ipbx	No		
	SIP	2041	Unregistered	PA		savant-ipbx	No		
0	SIP	2080	Unregistered	LifeSize		savant-ipbx	No		
	SIP	2090	Unregistered	ios7		savant-ipbx	No		
0	SIP	Gateway 1	OK (28 ms)	Gateway 1		savant-ipbx	Yes		
She	Showing 1 to 10 of 11 entries First Previous 1 2 Next Last								

5. Click the **Extensions** tab and confirm that the extension has been added.

Extensions

Below is a list of all extensions on the system.

	Add Extension Edit Extension Delete Extension Graph									
Sho	Show 10 children Filter: All children Search:									
	Number 🔺	Туре 🗘	Destination	\$	Time rules					
0	2000	Direct To Device	SIP/2000		N/A					
0	2040	Direct To Device	SIP/2040		N/A					
0	2041	Direct To Device	SIP/2041		N/A					
Sho	wing 1 to 3 of 3 ent	ries								
			F	First P	revious 1 Next Last					

- 6. Click Phones tab to open the Phones page.
- 7. Click Add Phone. See the next screenshot.

Add Phone

Here you enter the settings for this phone. The friendly name of the lines associated will be displayed to users on their line buttons and other appropriate places.

Assign to user:	Unassigned
Interface:	eth0 (system default)
Model:	Savant PAS-1000 Series
MAC Address:	0004133307f2 No colons, spaces, or dashes - eg, 00:00:12:3f:9a:4b would be 0000123f9a4b
Identity Assignments	Identity 1 PA-1 (SIP/2041)
	Add Cancel

8. Use the next table to enter or select values for the fields on the Add Phone page.

_									
	Fi	ield		Descriptio	on				
Field	A	ssign to 🎝	escriptio	Select Una	assigne	ed			
Assign to Use	Assign to User Interface Select Unassignese the default value								
Interface	Μ	lodel Us	se the defa	ultSpand Sav	ant PA	S-1000			
Model	Μ	IAC Addr 6s	sect Savan	Enter the N t PAS-1000	/AC ac	dress of	the PA system (loca	ited on a st	icker on the
MAC Address	ld	lentity As §i	ytanehesM/	Cadlerated	fdelvad€∕	- Calendary	604AFEPA9y&Fetial46	r enetheið A	ક્રાનીનીનીની)∙1
Field tity Assig	nm Clic Cor	ients De k Add. Tae nfigured Pl	eSavaas Bavaas Bavaas Baa	evice created Se ¹ 000 is ac	for the Ided ar	e PA systend there i	m for the field, Ide s an IP address and	n tity 1 I a TFTP UI	RL displayed on the
Interface		Use	e the defau	ilt value					
Model	Con	figured Phones Phone ID	IP Address	Model	Device	Assigned To	TFTP URL		
MAC Address	۲	0004133307F2	10.5.225.3	Savant PAS-1000	SIP/2041	Not Assigned	tftp://10.5.225.15/PAS-1000-00	04133307F2.htm	1000).
	0	0358603700139	Unable to find IP	Savant TEL-HSTW01	SIP/2032	Not Assigned			2000).
identity Assigi	0	00085d2ce7cc	10.5.225.4	Savant TEL-HST02	SIP/2018	Not Assigned			
	0	00085d2f35cf	10.5.225.10	Savant TEL-HST01	SIP/2002	Not Assigned			

- 10. Write down the IP address of the Savant PAS-1000 for future reference. This will be used to upload the configuration file to the Savant PAS-1000.
- 11. Copy the entire TFTP URL which will later be used in the **Advanced Settings** configuration (in the next procedure: <u>Uploading Configuration File to the Savant PA System</u>).
- 12. Confirm the Savant PAS-1000 exists in the **System Overview** by selecting the **Overview** tab. The Savant PAS-1000 is shown as a phone extension in the list of **Phones** as *Unregistered*.

		sav	NOW YOU	J CAN						
Overview	v Users	Devices Ph	ones Extensio	ons Call	Groups SLA	Voicemail	CDRs IV	Rs Sounds	Logs	Backups
Phones			Sy Sy	/stem (Overview 10.5.200.150 Shared Lines					
Number -	Device o	Display Name	Reg Status	State	Trunk Name 🔹 👌	Number of	Stations Assigned	Ŧ		
2000	SIP/2000	Alejandro's iPad	OK (222 ms)	N/A	No matching records	ound				
2040	SIP/2040	YeaLink Video Phone	OK (32 ms)	N/A						
2041	SIP/2041	SNOM PA-1	Unregistered	N/A Last						

After the next procedure (<u>Uploading Configuration File to the Savant PA System</u>) is completed the Savant PAS-1000 registration status should change to **OK**.

Uploading Configuration File to the Savant PA System

For the Savant Public Announcement System (PAS-1000) the default user name and password are as follows:

User: admin Password: 0000

Note that the password uses zeros.

To upload a configuration file to the Savant PAS-1000, do the following.

1. Open a web browser and type in the IP address you wrote down from the previous procedure. This will open the main page of the Savant PAS-1000 web-based user interface. See the next screenshot.

00		snom PA1		\bigcirc
	http://10.5.200.38/		😭 🔻 🚷 🚼 🕻 Google	Q
Most Visited - Getting Started	Latest Headlines ふ ADP ezLaborManage	Wireless WiFi VoIP P Log On Miscellaneous Ac	ccou Bugzilla Main Page	
() snom PA1	+			च
			A HTTP Passwo	ord not set! 👗
Securit	t y			
	-	VERSION 🕉		
Operation	Security Advice			
Directory				
Setun	We strongly recommend that you secure the web	interface in order to protect your phone against		
Preferences	remote attacks. Therefore the HTTP User and Pas	ssword as well as the Administrator Password should	l	
Sneed Dial	be changed from the default value.			
Eunction Keys	Security			
Identity 1	Administrator Password:			
Identity 2	Administrator Paceword (Confirmation)			
Identity 3	Administrator Password (commatten).	······		
Identity 4	HTTP Server:			
Action URL Settings	User:	?		
Advanced	Password:			
Certificates				
Software Update				
Status	Additionally you should protect the web interface	with hidden security tags against remote attackers		
System Information	trying to change phone settings with faked HTTP	POST requests.		
Log	Use hidden tags:	Oon Ooff ?		
SIP Trace	-			
DNS Cache				
Subscriptions	Press to save the settings as shown above			
PCAP Trace	These to save the settings as shown above			
Memory	Press to ignore the warning until report			
Settings	Thesa to ignore the warning until reboot.			
Manual	Drace to ignore the warping forewar			
	Press to ignore the warning forever.			
SIGII				
VoIP phones				
© 2000-2010 snom AG				
				4
				۲
🕄 Find: 🔍	Next Previous O Highlight all	Match case		
				/

2. Select Advanced under Setup in the side bar, then click Update.

Advand	ced Settings	VERSION 8
Operation Home Directory Setup Preferences Speed Dial Function Keys Identity 1 Identity 2	Network Behavior Audio SIP/R Update: Update Policy: Setting URL: Settings refresh timer: Subscribe Config: PnP Config:	OoS/Security Update Never update, load settings only ? tftp://10.5.225.21/PAS-1000-0 ? 0 ? Oon Ooff ? ?
Identity 3 Identity 4 Action URL Settings Advanced Certificates Software Update Status	Save By clicking on the Load button below the ph the specified file and reboot. So all current	Reset Reboot
System Information Log SIP Trace DNS Cache	Upload Setting File manually: Load	Choose File no file selected
Subscriptions PCAP Trace Memory Settings	Load TR069 Parameter Map Manually: Load	Choose File no file selected
SNOM* VoIP phones	Load Dialplan XML Manually: Load	Choose File no file selected
© 2000-2010 snom AG		

3. Paste the TFTP URL copied above into the Setting URL field.

4. Click Save.

Advan	ced Settings	VERSION 8
Operation Home Directory Setup Preferences Speed Dial Function Keys Identity 1 Identity 2 Identity 3 Identity 4 Action URL Settings Advanced	Apply setting changes? Reboot Network Behavior Audio SIP/R Update: Update Policy: Setting URL: Settings refresh timer: Subscribe Config: PnP Config: Save	QoS/Security Update Never update, load settings only ? (tftp://10.5.225.15/PAS-1000-0) ? 0 ? 0 ? 0 ? 0 ? 0 ? 0 ? 0 ? 0 ? 0 ? 0 ? 0 ? 0 ? 0 ? 0 ? Pon Off ? ? Reset Reboot ?
Certificates Software Update Status System Information Log SIP Trace	By clicking on the Load button below the pl the specified file and reboot. So all current	hone will RESET its settings, load the new settings from t settings will be lost!
Subscriptions PCAP Trace Memory Settings Manual	Load TR069 Parameter Map Manually: Load	Choose File <u>no file selected</u>
Snop* VolP phones	Load Dialplan XML Manually: Load	Choose File no file selected

- 5. Click Reboot.
- 6. After the Savant PAS-1000 boots up it should be registered with the Savant PBX. You can check the registration status by viewing the Savant Configurator system **Overview** page (accessed from the **Overview** tab). See the next screenshot.



Configuring the Door Entry Systems

The Savant PBX can be integrated with the following door entry systems:

- Holovision 404
- Siedle

Both of these are analog systems, hence they need an Integrated Access Device (TEL-IAD2)—also referred to as a Linksys PAP2T or ATA device—to be able to connect to the Savant PBX system.

For more details on configuring door entry systems, see the section on <u>*Third-Party Door Entry Systems Integration*</u>, which also includes VoIP door entry systems.

This procedure describes the configuration of the Holovision 404 but the steps are also applicable to the Siedle. The only configuration required for the entry unit is the TEL-IAD2.

NOTE: The door entry system requires no configuration in RacePoint Blueprint™.

After the TEL-IAD2 is configured, this device must be added to the Savant PBX configuration.

To add the TEL-IAD2 to the Savant PBX configuration, do the following.

- 1. Open your web browser and enter the IP address of the Savant PBX. This opens the Savant Configurator.
- 2. Select the **Device** tab to open the **Devices** page.



Overview Users Devices Phones Extensions Call Groups SLA Voicemail CDRs IVRs Sounds Logs Backups

Devices

These are all the devices that the system knows about.

	Add Device Edit Device Delete Device									
Show 10 C entries Filter: All C Search:										
	Туре 🔺	Name 🔺	Status (SIP Only) 💠	Friendly Name 🗘	Assigned To 💲	Server \$	Is Trunk? 💠			
0	SIP	2000	Unregistered	Alejandros iPad		savant-ipbx	No			
0	SIP	2050	OK (16 ms)	Aastra 6739i		savant-ipbx	No			
0	SIP	2051	OK (31 ms)	Yealink Video Phone		savant-ipbx	No			
0	SIP	2060	OK (21 ms)	PA-1 System		savant-ipbx	No			
0	SIP	2080	Unregistered	Other		savant-ipbx	No			
0	SIP	TelephonyGateway	OK (24 ms)	TelephonyGateway		savant-ipbx	Yes			
Sh	Showing 1 to 6 of 6 entries									
					First	evious 1	Next Last			

3. Select Add Device to open the Add Device page. See the next screenshot.

Add Device Here you enter the settings for this device. The friendly name will be displayed to users on their line buttons and other appropriate places.

Server:	s	avant-ipbx (localhost)	\$
Type:		IP Phone ÷	
*Device Number			
Assign to:		Unassigned \$	
Friendly Name:			
Friendly Name 2:			
MWI enabled:			
UID:			
Context:		Phone (all_calls) \$)
Usable as Trunk:			
Use TCP:			
Secret:			
Call Limit:		2	
Host:		dynamic	
Port:		5060	
NAT:			
Register?			
Qualify:			
Advanced:			l
Add & Exit	Add & Clone	Add New	Cancel

4. Use the next table to enter or select values for the fields on the Add Device page.

Field	Description
Server	Available servers will be in a drop-down list. Choose the server in which the new device should register. There should only be one (leave as is).
Туре	Provides a drop-down list of the available types of devices that can be added to the server. Select this option: ATA Device .
Device Number	Enter the value you used when the TEL-IAD2 was initially configured.
Assign to	Provides a drop-down list of all users that the device can be assigned to. It can also be unassigned. Savant Systems recommends this field be unassigned.
Friendly Name	Name that displays when a call is made from this phone.
UID	This is auto-assigned. No action is needed.
Context	A collection of extensions on the Savant PBX server. Default is Phone (all_calls) . Use the default value.
Usable as Trunk	Leave the check box blank.
Use TCP	Leave the check box blank.
Secret	Leave it blank.
Call Limit	Enter 2.
Host	Dynamic
Port	5060
NAT	Network Address Translation (NAT) helps determine if this device is on the internal network or outside the firewall. Turn NAT to register devices outside the internal network. Insert a check mark in the check box.
Register?	Leave the check box blank.
Qualify	Insert a check mark in the check box.
Advanced	Leave blank.

4. Click Add & Exit.

Adding an iOS Device or Phone to an SLA

Shared Line Appearance (SLA) allows a station to be mapped to a SIP telephony gateway (device). The SLA feature allows extensions to share an external Central Office (CO) line—sometimes referred to as POTS (plain old telephone service). Calls coming from the CO line will ring all member extensions assigned to the line. Answering from one member extension will stop ringing on all other extensions. The call can be easily transferred from one member extension to another by putting it on hold and picked up from the other. It also allows one to join the active call from a member extension, so that a two-party conversation becomes a multi-party conference.

Your system is pre-configured with up to four SLA lines. These lines are named "Line1", "Line2", "Line3" and "Line 4". Please do not modify the names of these SLA lines.

To add a previously configured phone or iOS device (iPhone/iPad/iPod touch) to an existing Shared Line Appearance (SLA) line, do the following.

1. Click the SLA tab to open the Shared Lines page.

Shared lines Stations		9	sav			CAN		
Add SLA	Overview	Users	Devices	Phones	Extensions	Call Groups	SLA	Voice
tations	Shared I	ines.						
Session			Add Shared Line	Edit Shared	Line Delete	Shared Line		
	Show 10	÷ entri	es			Search:		
System	Nan	ne 🔺	Mapped Device	e	\$	Stations	DND	\$
tober 22, 2013 30:01pm UTC -4		1	SIP/Gateway 1	L	:	2	۷	
bout		2	SIP/Gateway 1	L	:	2		
		3	SIP/Gateway 1	L	()		
		4	SIP/Gateway 1	L	()		
	Showing 1	L to 4 of 4	entries		Fi	rst Previous	s 1 Next	Last

- 2. Select the radio button for the SLA line to which you want to add a phone or iOS device.
- 3. Click Edit Shared Line to open the Edit Shared Line page.

Edit Shared line

Name:	Outside 1
Device:	SIP/TelephonyGateway
Ring Timeout:	25
Barge:	
Hold:	open 🛟
Fail Extension:	
Save Shared Li	me Members Cancel

Here you modify the basic settings for this shared line.

- 4. Click Members (no changes are required).
- 5. From the **Available Stations** list box, drag a selected station number (phone or iOS device) or click the arrow (<<) for a selected station number to be added to the **Shared Line Members** list box.

View/Edit Shared Line Stations Here you modify the basic settings for this shared line.

Shared Line Members	Available stations	
2050 (SIP/2050)	<pre>2020 (SIP/2020) 2021 (SIP/2021) 2055 (SIP/2055) 2051 (SIP/2051) 2000 (SIP/2000) 2001 (SIP/2001) 2040 (SIP/2040)</pre>	

Save Cancel

- 6. Click Save.
- 7. Click Save Shared Line.
- 8. For iOS devices, reload the instance on the device so that the SLA data is updated.
- 9. For wired Savant phones follow the next procedure, Regenerating a Configuration File for a Savant Phone.

Regenerating a Configuration File for a Savant Phone

To regenerate a configuration file for a Savant phone after the phone has been added to a shared line (SLA), do the following.

- 1. Click the Phone tab to open the Configured Phones page.
- 2. Select the radio button for the phone you want to add to the shared line.
- 3. Click Edit Phone.
- 4. Click **Save**, since there is no need to change anything.
- 5. To reload the configuration to the phone, you must open the Savant phone web-based user interface (Aastra). On the **Configured Phones** page click the IP address of the phone.

Phones View Phones Add Phone		9	5av								
Upload New Firmware	Overview	Users	Devices	hones Extens	ions Call Groups	SLA Voice	mail CDRs	IVRs	Sounds	Logs	Backups
Regenerate Config Files	Configured	Phones									
Download Aastra	Phone	ID	IP Address	Model	Assigned To	Has Sidecar?					
Decirconing	 00041 00085 	341184a	10.5.225.2	Snom 870	Not Assigned	No					
	0 00085	d2ce7be	10.5.225.17	Aastra 6739	Not Assigned	No					
Devices View Devices	0 03586	04445153	Unable to find I	P AastraDECT (520d Not Assigned	No					
Add Device											
Session Logout											
System August 1, 2011 9:48:07am UTC -4 About Network Config			Add phone Ec	lit Phone Delete	Phone						

6. Under **Operation** in the left pane, click **Reset**. See the next screenshot.

		6739i
TAX DI KA		Log Off
Status		
System Information	Reset	
Operation		
User Password	Phone	
Phone Lock	Restart Phone	Restart
Softkeys and XML		
Keypad Speed Dial	Current Settings	
Directory	Restore To Factory Defaults	Restore
Reset	Remove Local Configuration Settings	Parroua
Basic Settings	Remove Local Conliguration Settings	Kellove
Preferences		
Account Configuration		
Advanced Settings		
Network		
Global SIP		
Line 1		
Line 2		
Line 3		
Line 4		
Line 5		
Line 6		
Line 7		
Line 8		
Line 9		
Action URI		
Eirmeara Lodate		
TI S Support		
802.1x Support		
Troubleshooting		
in our standardy		

- 7. Click **Restart** to reboot the phone.
- 8. After the phone restarts from reboot, in Savant Configurator click **Devices** to check the status of the phone for which a configuration file has been regenerated. If the **Devices** page shows OK, the phone is ready to make and receive calls.

Adding Voice Mail to a Savant PBX

Voice mail in a Savant PBX system can work in two different ways:

• Use one global voice mail box.

There is only one voice mail box in the system, and all devices in the system can share the voice mail box. When a voice mail is left, all devices sharing the voice mail box would receive notification, unless Message Waiting Indicator (MWI) is disabled for the device (see <u>Adding Endpoints to the Savant PBX</u>). The message can be retrieved from any device without entering a PIN when the PIN-less access is enabled, and once it is retrieved the MWI on all devices would reflect the change.

Use individual voice mail boxes.

There is one voicemail box per user, and one device needs to be assigned to each user. When voice mail is invoked, the caller can select to which person he/she wants to leave a message through an Interactive Voice Response (IVR) so that the message will be left to that person's voicemail box. Only the device assigned to the person who is left a message receives notification. PIN-less access to voicemail, if enabled for a user, can only be done through the device assigned to the user.

NOTE: You can either enable global voicemail box or individual voicemail box, but not both in the same system.

Global Voice Mail Boxes

To add global voice mail functionality to the Savant PBX for individual mailboxes, do the following.

- 1. Click the Voicemail tab to open the Voicemail Settings page.
- 2. Insert a check mark in the Voicemail Enabled check box.

Voicemail Voicemail IVR		C	5a)			AN								
Session Logout	Overview	Users	Devices	Phones	Extensions	Call Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups	Ring Profiles
System October 22, 2013	Voicemai Modify Voicen	I Setting nail settings I	S here.											
4:32:20pm UTC -4 About	Vo	icemail Ena	bled:		2									
	Voic	email Exten	sion:	2999										
	Maximun	n # of Mess	ages:	100										
	Maximum I	Message Le	ngth:	180										
	Minimum I	Message Le	ngth:	3										
	Maximum Q	Greeting Le	ngth:	60										
	Time	e before fail	over:	30										
	G	ilobal Voice	mail:		2									
	Globa	al Voicemail	Box:	2998										
			PIN:	1234 I-less VoiceMai	I access from as	signed devices								
		E	mail:	yzhou	.yue@gmail.cor	n								
			Save	Cancel										

3. Use the next table to enter or select values for the fields on the Voicemail Settings page.

Field	Description
Voicemail Extension	Extension number to access voice mail system. Use the default value.
Maximum # of Messages	Maximum number of messages stored in the system. Enter a value from 1-100. Default is 100.
Maximum Message Length	Maximum number of seconds an incoming message can be recorded. Enter a value from 120–300. The default value is 180 seconds.
Minimum Message Length	Minimum number of seconds an incoming message must before notification is generated by the voice mail system.
Maximum Greeting Length	Maximum number of seconds that an outgoing greeting message can be recorded. Enter a value from 30–120. The default is 60 seconds.
Time before failover	Number of seconds to ring before failover to voice mail system. Enter a value from 10–60. The default is 30.
Global Voicemail Box	Default is 2998.
PIN	PIN used to access the global voicemail box. PIN-less voice mail access is available from assigned devices. If PIN access is not required, insert a check mark in the box.
Email	Email address to notify when there is a new voice mail message in the system. NOTE: If you are not receiving email, likely your Internet Service Provider (ISP) has implemented messaging restrictions. Please contact the Technical Assistance Center.

4. Click Save.

Individual Voice Mail Boxes

To add individual voice mail functionality to the Savant PBX, do the following.

- 1. Create a user for each person who wants to have a voice mail box. If you have not done so, please refer to the procedure: *Adding a User to the Savant PBX*.
- 2. Assign a device to each user. Ensure that it is one user per one device. If you have not done so, please refer to these procedures: <u>Adding an iOS Device to the Savant PBX</u> or <u>Adding a Phone to the Savant PBX</u>.
- 3. Insert a check mark in the Voicemail Enabled check box.

Voicemail Settings

Modify Voicemail settings here.

Voicemail Enabled:	
Voicemail Extension:	2999
Maximum # of Messages:	100
Maximum Message Length:	180
Minimum Message Length:	3
Maximum Greeting Length:	60
Time before failover:	10
Global Voicemail:	
Voicemail IVR Extension:	2996
Default Voicemail Box:	John Smith – John Bedroom 💲
Enable Individual Voicemails	John Smith John Bedroom 🥑
Enable Individual voicemail:	Yue Zhou TEL-HST02 🥑
Save	Cancel

4. Use the next table to enter or select values for the fields on the Voicemail Settings page.

Field	Description
Voicemail Extension	Extension number to access voice mail system. Use the default value.
Maximum # of Messages	Maximum number of messages stored in the system.
	Enter a value from 1-100. Default is 100.
Maximum Message Length	Maximum number of seconds an incoming message can be recorded.
	Enter a value from 120–300. The default value is 180 seconds.
Maximum Greeting Length	Maximum number of seconds that an outgoing greeting message can
	be recorded. Enter a value from 30–120. The default is 60 seconds.
Time before failover	Number of seconds to ring before failover to voice mail system.
	Enter a value from 10–60. The default is 30.
Global Voicemail	Uncheck the box.
Voicemail IVR Extension	Default is 2996.
Default Voicemail Box	Select a default voicemail box from the drop down list. This will be
	used when there is no selection made on the IVR.
Enable Individual Voicemail	A table with all the users and their assigned devices. Insert a check
	mark in the box to enable voicemail for a user. By default, it's
	enabled .

5. Click Save.

Adding Voice Mail IVR to a Savant PBX

If individual voice mail boxes are used in the Savant PBX system, voice mail Interactive voice response (IVR) must be set up. If a global voice mail box is used or voice mail is not enabled in the system, you can skip this section.

To set up the IVR, a sound file for greeting and a sound file for each user's name need to be in the system. For example, if individual voice mail is used for the "Smith family" that has three members, John, Joanne, and Tom, there are four sound files needed. One greeting "Thank you for calling the Smith home", and three for names John, Joanne, and Tom. The IVR will be "Thank you for calling the Smith home. For John press 1, for Joanne press 2, for Tom press 3".

The sound files can be recorded through PBX or uploaded to the PBX.

Recording Sound Files

To record a sound file through Savant PBX, do the following:

- 1. Choose a user.
- 2. Dial 2995.
- 3. When prompted to enter agent number, enter the number of the device that is assigned to the user—for example, 2010.
- 4. When prompted to enter password, enter the PIN number assigned to the user.(PINs must be assigned and you can customize PINs.)
- 5. Follow the prompt to record and save sound file.
- 6. Click **Sounds** tab. The sound just recorded will be shown under the **Contents**, with the <first name>-<last name>-<year-month-day-hour-minute-second> as the file name.

Sounds Sounds Phrases Music On Hold	Savant NOW YOU CAN
Speech Recognition Faxes	Overview Users Devices Phones Extensions Call Groups SLA Voicemail CDRs
Session Logout	Files Folders
	Recording Studio
System	Upload File
March 5, 2013 1:41:44pm UTC -5 About	Image: Add Another File Choose File no file selected Add Another File Upload
	Contents
	Sounds: <u>John-Smith-2013-</u> <u>03-05-13-40-52</u> Submit Delete

7. The file name can be changed by click Rename button, enter new name then click Submit.

Sounds Sounds Phrases Music On Hold Search Paramitian		S			W YOU C	AN		
Faxes	Overview l	Jsers	Devices	Phones	Extensions	Call Groups	SLA	Voicemail
Session	Files Folders							
Logout						Recording	Studio	
System						Upload	File	
March 5, 2013 1:44:48pm UTC -5 About	(/ ‡) Engli	sh 🗘 Ch	noose File no	file selected	I (Add Another Fil	e Upload	
			Conten	ts				
	Sounds:	<u>hn-Smith-2</u> <u>13-40-5;</u> hn-Smith-2 <u>13-42-2</u> ;	2013-03-05- 2 2013-03-05- 8 Submit (E	IVR- Johr	Greeting			

Sounds <u>Sounds</u> <u>Phrases</u> <u>Music On Hold</u> Speech Pacegoition		9	58)		W YOU C	AN		
Faxes	Overview	Users	Devices	Phones	Extensions	Call Groups	SLA	\ \
Session	Files Folde	ers						
Logout						Recording	Studio	
System						Upload	File	
March 5, 2013 1:45:08pm UTC -5 About	/ ÷ E	English 🛟	Choose File r	no file selected	1 	Add Another Fil	e Upload	
		Conte	nts					
	Sounds:	- <u>IVR-</u> <u>Greeting</u> <u>John-</u>	Rename)				
	<u>311</u>	Submit (Delete					

-

8. The content of a file can be listened by click the name, then click the **Listen** button.

Sounds Sounds Phrases Music On Hold	Savant Now You CAN									
Speech Recognition Faxes	Overview	Users	Devices	Phones	Extensions	Call Groups	SLA	Voicemail	CDRs	IVRs
Session Logout					File	name: IVF	R-Greet	ing		
System March 5, 2013 1:45:43pm UTC -5 About	En	iglish	Listen	Download		Langua	ges			
					А	dd / Replace	Language	•		
					English 🗘 🤇	Choose File no) file selecte Back	d		

Uploading Sound Files

To upload IVR sound files to Savant PBX, do the following:

- 1. Have sound files ready on SDE, they can be in .mp3, .wav or .aiff format.
- 2. Click Sounds tab, then click Choose File

Sounds Sounds Phrases Music On Hold Speech Pacegoition		sa			AN		
Faxes	Overview Users	Devices	Phones	Extensions	Call Groups	SLA	١
Session	Files Folders						
Logout					Recording	Studio	
System					Upload	File	
March 5, 2013 1:45:08pm UTC -5 <u>About</u>	(/ ÷) English 3	Choose File	no file selecte	d (Add Another Fi	le Upload	
	Con	tents					
	Sounds:	licentes					
	□ <u>Greeting</u> □ <u>L</u> <u>John</u> <u>Smith-nam</u>	Rename Rename					
	Submit	Delete					

3. Select the file then click **Choose**.

Sour-		Downloads	\$	Q
Phra Phra Musi Spec Faxe Logo Marc 1:47 Abou	FAVORITES All My Files Desktop RacePointM Yuezhou Applications Documents Documents Doropbox SHARED Algacobson Algacobson bhayes-mbp5	Asteria_update > Asteria_update > Asteria_update > Asterisk_patch > Avtest media_zip Avtest media_zip black_zip black_zip black_zip black_zip black_n_rpmTheme blackteria_rpmTheme black_configurator Configurator Configurator Customer Issue > dect3.0 defaultdata.sql black_sip black_	LTRT-52303 Pers Ver S.6.pdf LTRT-59809 MI Ver S.6.pdf LTRT-59809 MI Ver S.6.pdf LTRT-65610 Mtes Ver S.6.pdf LTRT-65610 Mtes Ver S.4.pdf LTRT-65611 Mtes Ver G.0.pdf m9-9-1.2.54-a.bin m9-9.2.54-a.bin m9-9.3.1-a.bin Manual Pagelog Manual Pagelog Manual Pagel0, Mentor, MU-124 Datasheet.pdf MP118_SIP_F6.20A.037.001.cmp d ms9002.WAV	5
	 bleduC_mbps bmyers-mbpS bseifert-m cguistwite All Mucic 	Downloads Downloads Downloads dtmfFlash.cap dtmfFlash.cap dtmfFlackets.Lap dtmfStar.cap echo_minuirector.jpg echo_minuponder.jpg Encollment	multiPhoreAnswer, mobileprovision multiPhoreAnswer, pod my jubscribe, notify, cap MyDVDLibrary04 new_minic backup, 20121031.zip NP133.PPT Numberzine V e1 Issue 1,pdf Numberzine V e1 Issue 2,files Mumberzine V e1 Issue 2,files	Name msg0002.WAV Kind Waveform audio Size 21.K8 Created Wednesday, July 13, 2011 1:34 PM Modified Wednesday, July 13, 2011 1:34 PM Last opened Wednesday, July 13, 2011 1:34 PM Duration 00:13 Audio bit rate 13,000

4. Click Add Another File to add more files. When done click Upload.

Sounds Sounds Phrases Music On Hold	Savant Now You CAN									
Faxes	Overview Users Devices Phor	es Extensions Call Group	ps SLA Voicemail	CDRs						
Session	Files Folders									
		Record	ing Studio							
System	Upload File									
March 5, 2013 1:47:31pm UTC -5 About	(/ +) English +) Choose File in msg0002.WAV Add Another File Upload									
	Contents									
	Sounds: Greeting Smith-name									

5. Uploaded sound file appears under **Contents**.

Sounds Sounds Phrases Music On Hold	9	52		W YOU C	AN			
Speech Recognition Faxes	Overview Users	Devices	Phones	Extensions	Call Groups	SLA	Voicemail	CDRs
Session	Files Folders							
					Recording	Studio		
System					Upload F	ile		
March 5, 2013 1:48:09pm UTC -5 About	(/ ‡) English ‡	Choose File no) file selected		Add Another File	Upload		
	Conter	nts						
	Sounds:	Rename						
	Greeting	Rename						
	Smith-name	Rename						
	Submit	Delete						

Assigning Sound Files to IVR

To assign sound files to voicemail IVR, do the following.

1. Click the Voicemail tab, then click Voicemail IVR from the left. Greeting and all the voicemail box number and it's user will be displayed.

IVRs View IVRs Add IVR Create Folder Voicemail IVR			58			AN		
Time Periods	Overview Us	ers	Devices	Phones	Extensions	Call Groups	SLA	Voicemail
Session Logout	Voicemail IV Choose sound files	R for the	e main voicem	ail greeting	, and for the n	ame of each p	erson.	
System	Greeti	ng C	hoose Sound	\$				
March 5, 2013	2002 John Smi	th	hoose Sound	\$				
About	Save		Cancel					

2. Select the correct sound file from the drop down list for Greeting and all users, then click Save.

IVRs View IVRs Add IVR Create Folder Voicemail IVR	Savant Now You CAN	
Time Periods	Overview Users Devices Phones Extensions Call Groups SLA Voicemail	
Session Logout	Voicemail IVR Choose sound files for the main voicemail greeting, and for the name of each person.	
System	Greeting (IVR-Greeting +	
March 5, 2013	2002 John Smith John-Smith-name 🗧	
About	Save Cancel	

Adding Voice Mail to a Shared Line

NOTE: Voice mail must be added to at least one phone or iOS device to complete this procedure.

To add voice mail to a shared line, do the following.

1. Click the SLA tab to open the Shared Lines page.

SLA Views View Shared_lines View Stations			sa			CAN							
Add SLA	Overvi	ew User	s Devices	Phones	Extensions	Call Group	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups
CO Lines Stations	Shar	ed Lines											
Session			Add Shared Line	dit Shared Line	Delete Shared	Line							
Logout	Show	10 🔹 ent	ries		Sea	rch:							
System		Name 🔺	Mapped Device		Stat	ions 🗘	DND 💠						
October 26, 2011	0	Line1	SIP/TelephonyGate	way	3								
About Network Config	0	Line3	SIP/TelephonyGate	way	0								
instruct solling	Show	ing 1 to 2 of	2 entries			evious 1 N	ext Last						

- 2. Select the radio button for the shared line (SLA) being associated with the voice mail.
- 3. Click Edit Shared Line to open the Edit Shared line page.

Edit Shared Here you modify the	line he basic settings for this shared line.
Name:	Line1
Device:	SIP/Telephony_gateway
Ring Timeout:	30
Barge:	
Hold:	open 🛟
Fail To:	Voicemail 🗘
Fail Extension:	2998
Save Shared L	ine Members Cancel

4. Use the next table to enter or select values for the fields on the Add Extension page.

	Field	Description						
_	Name	Enter a name for this shared line.						
Field	Device	Leave as is.						
Name Device	Ring Timeout	Ring Timeout Use the value (<i>time before failover</i>) that was entered on the Voicemail Settings page in the procedure: <u>Adding Voice Mail to a Savant PBX</u> .						
Ring Timeo	Barge	Leave the check mark.						
Davaa	Hold	Use the default value: open						
Barge	Fail To	Select Voicemail.						
Fail To	Fail Extension	Select the global voicemail box number entered on the Voicemail Settings page in the procedure: Adding Voice Mail to a Savant PBX.						

Fail Extension Select the global voicemail box number entered on the **Voicemail Settings** page 5. Click **Save Shared Line**. In the procedure: <u>Adding Voice Mail to a Savant PBX.</u>

Adding the Paging Functionality

To add paging functionality to the Savant PBX system, do the following.

1. Click the **Call Groups** tab to open the **Call Groups** page. A call group should have been created automatically when you loaded the initial configuration in the procedure, *Uploading the plist*. If you want to use that group, continue this procedure at step <u>5</u>.

Call Groups View Groups Add Group Find Me/Follow Me		DU CAN										
Section	Overview Users Devices Phones Exter	nsions Call Groups SLA Voice	email CDRs IVRs	Sounds Logs Backups								
Logout System December 28, 2012	Call Groups Below is a list of all call groups on the system.											
6:33:32pm UTC -5 About	Show 10 🔹 entries	Search:	Search:									
	Group Name 🔺 Failover Number	☆ Type ☆ Members ☆										
	O PageAll	Paging 0										
	O RingAll	Ring All 0										
	Showing 1 to 2 of 2 entries	First Previous 1 Next Last										

2. Click Add Group to open the Add Call Group page.

Add Call Group

Here you modify the basic settings for this call group.

Name	
Fail Extension	
Distributed Audio Zones	
Туре	Ring All
Ring-All Time:	
Save Group	Cancel

3. Use the next table to enter or select values for the fields on the **Add Call Group** page. Note that when you select *Paging* as the **Type**, the **Fail Extension** field is not available.

Field	Description
Name	Enter the group name.
Full Duplex	Insert a check mark in the Full Duplex check box if two-way communication is required. (This field is enabled after you select the Type : Paging.
Distributed Audio Zones	Insert a check mark if you want to use paging with the PAS -1000 system.
Туре	Select the Paging from the drop-down list.

4. Click Save Group.

- 5. Select the radio button for the call group you want to modify, and then click Edit Members.
- 6. From the **Available Devices** list box—which shows all of the devices added previously— drag a selected device or click the arrow (<<) for a selected device to the **Group Members** list box.

- 7. Click Save.
- 8. **NOTE**: The call group that was created automatically when you loaded the initial configuration in the procedure, *Uploading the plist,* includes the paging extension number 8000. If you want to add another group with a different extension number, continue with the next steps.
- 9. Click the Extensions tab to open the Extensions page.
- 10. Click **Add Extension** to open the **Add Extension** page.

Overview	Users	Devices	Phones	Extensions	Call Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups
Add Exte	ension											
Here you ma	iy configu	re this extension	1.									
Nur	nber:	8000										
Extension	type:	Call Group	+									
Destina	ation:	 Select call group 										
(_	PageAll										
Add N	ew Ext.	RingAll										

11. Use the next table to enter or select values for the fields on the Add Extension page.

Field	Description
Number	Enter an extension number from this range: 8001-8499.
Extension Type	Select Call Group
Destination	Select the call group you created previously in this procedure.

12. Click Add New Ext.

Adding a Phone or iOS Device to a Paging Group

To add a phone or an iOS device to a paging group, do the following.

1. Click the **Call Groups** tab to open the **Call Group** page.

Call Groups View Groups Add Group Find Me/Follow Me		sa											
	Overview Us	ers Devices	Phones Exten	sions Call Groups	SLA	Volcema	all CDRs	IVRs	Sounds	Logs	Backups		
Logout System	Call Groups Below is a list of all	Call Groups Below is a list of all groups on the system.											
December 28, 2012	Add Group Edit Group Edit Members Delete Group												
About	Show 10 🛟	entries		Search:	Search:								
	Group Nam	ne 🔺 Failov	er Number	☆ Type ☆	Members	\$							
	O PageAll			Paging	0								
	O RingAll			Ring All	0								
	Showing 1 to 2	of 2 entries											
					1 Next I	Last							

- 2. Select the group to which the newly added phone or iOS device is to be added.
- 3. Click Edit Group.
- From the Available Devices list box, drag a selected device (phone or iOS device) or click the arrow (<<) for a selected device to the Group Members list box.
- 5. Click Save.

Editing a Dial Plan

A dial plan describes the number and pattern of digits that a user dials to reach a particular telephone number. Access codes, area codes, specialized codes, and combinations of the number of digits dialed are all part of a dial plan. For example, the North American Public Switched Telephone Network (PSTN) uses a 10-digit dial plan that includes a three-digit area code and a seven-digit telephone number.

For Savant wired phones—TEL-HST01 and TEL-HST02—if the user picks up a handset or presses the speaker key to get dial tone and then starts to enter a destination number, the phone will initiate the call when an exact match is found in the dial plan. In this case, there is no need to press the Dial key or wait for a timeout. Note that if a user enters the destination number directly when the phone is on-hook the dial plan will not take effect—in which case, the user has to press the Dial key or pick up the handset to initiate the call.

An administrator can use the custom dial plan field on the **Phone** page in Savant Configurator to create a dial plan that fits the needs of users.

The custom dial plan field accepts up to 512 characters. If a user enters a dial plan longer than 512 characters, or a parsing error occurs, the phone uses the default dial plan of "xx+#|xx+*".

Symbol	Description
1, 2, 3, 4, 5, 6, 7, 8, 9, 0	digit symbol
Х	match any digit symbol
*, #, .	other keypad symbol
	Expression inclusive OR
+	0 or more of the preceding digit symbols or [] expression
0	Symbol inclusive OR
-	Used only with [], represent a range of acceptable symbols. For example: [2-8]

The symbols available to create a dial plan are as follows:

Dial Plan Example

An example of a custom dial plan is as follows:

[23]XXX|[4-8]XXXX|1XXXXXXXXXX|*XX

The dial plan in the above example can accept the following:

- Any four-digit dial strings that begins with a 2 or 3
- Any five-digit dial strings that begin with a 4 up to 8
- Any 11-digit dial strings that begin with 1
- Any two-digit code that begins with an asterisk (*).
- **NOTE:** A conflict in the dial plan will cause a call to the wrong destination or even failure. For example, if 2XXX and 202XXXXXXX co-exist in the dial plan, the call can never be made to 202XXXXXXX destinations.

Customization

To access the **Custom Dialplan** field, in Savant Configurator select the **Phones** tab and then click **Phone Dialplans** from the **Phones** side bar on the left. See the next example screenshot.

Phones View Phones Add Phone			3			AN							
Upload New Firmware	Overvie	w Users	Devices	Phones	Extensions	Call Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups
Phone Dialplans													
Download SIP DECT	Notice:	The dialplan setting	gs are only i	used by the 1	EL-HST01 an	d TEL-HST02 m	odels.						
Config	Active	Name	Value										
	0	North America Dialplan:	*XX xx+#	xx+* 1XXXXX	XXXXX [2-9]11	[2-9]XXXXXXXXX	*#XXXX ##X	xxx					
View Devices	0	International Dialplan:	*XX xx+#	xx+* 1XXXXX	XXXXX [2-9]11	[2-9]XXXXXXXXX	*#XXXX ##X	XXX					
Add Device	\odot	Custom Dialplan:	[23]XXX [4	-8]XXXX 1XXX	XXXXXXX *XX								
Session Logout					Save)							
System October 10, 2011 11:01:15am UTC -4 About Network Config													

For Custom Dialplan enter the characters applicable to the dial plan and then click Save.

You can verify the dial plan from phone's web user interface under **Basic Settings->Preferences**. (for login details see <u>Adding a Savant Wired IP Phone as a Phone</u>.

AZSTRA			Log Off
Status System Information Operation User Password Phone Lock Softkeys and XML Keypad Speed Dial Directory Reset Basic Settings Preferences Account Configuration Advanced Settings Network Global SIP Line 1 Line 2 Line 3 Line 4 Line 5 Line 6 Line 7 Line 8 Line 8 Line 9 Action URI	Preferences General Local Dial Plan Send Dial Plan Terminator Digit Timeout (seconds) Play Call Walting Tone Stuttered Dial Tone XML Beep Support Status Scroll Delay (seconds) Call Hold Reminder Call Walting Tone Period Preferred line Preferred line Preferred line Timeout (seconds) Message Walting Indicator Line DND Key Mode Call Forward Key Mode	[23]pox [4-8]poxpx(1xxxx] Enabled 4 Image: Second S	

Setting Up Time-of-Day Routing

Time of the day routing allows a user to direct incoming calls from Central Office (CO) lines to different destinations based on the time of the day.

To set up the time-of-day routing in Savant Configurator, do the following.

- 1. Click the **Extensions** tab.
- 2. Click DID Routing Rules from the Routing side bar on the left.

Extensions View Extensions Add Extension	2		9	58)			AN							
Pouting	los	Overview	Users	Devices	Phones	Extensions	Call Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups
Outbound Rout		Time-base	ed DID Ro	uting Rul	es g rules for D	ID extensions.								
Directory Printable Exten	sion	DID Exten	sion Start T	ime End Tir	ne Days [Destination Ex	ct.							
List	51011	No t	ime-based ro	uting rules ha	ve been conf	igured.								
Session				Delet	e kule Calic	er								
Logout														
System October 5, 201	1													
8:42:18pm UTC About Network Config	-4													

- 3. Click Add Rule button to open the Add Routing Rule page.
- 4. From the **DID Extension** drop-down list (circled in the next screenshot), select a value.



5. Use the next table to enter or select values for the fields on the Add Routing Rule page.

Field	Description
DID Extension	Select from the list the incoming CO line to which the rule should apply. Choose 6296 for line 1, 6297 for line 2, 6298 for line 3, or 6299 for line 4.
Start Time	Select the desired start time.
End Time	Select the desired start time.
Destination Ext.	Select a desired destination extension.

- 6. Check the box for the day or specific date the rule should take effect.
- 7. Click Add New Rule.

8. Confirm the rule has been added by clicking **DID Routing Rules** from the **Routing** side bar on the left. The new rule should be displayed on the **Time-based DID Routing Rules** page.



- 9. Repeat steps 3-7 to add more rules, if required.
- 10. For the example shown in the next screenshot, on every Thursday from 2:30 PM to 3:00 PM, the call coming from CO line 1 will terminate on extension 2018 only. On every Thursday from 3:00 PM to 3:30 PM the call incoming from CO line 1 will terminate on extension 2002 only. The rest of the time the call will be routed normally as indicated from **Extensions** page.

Extensions View Extensions Add Extension		9	58			AN							
Routing	Overview	Users	Devices	Phones	Extensions	Call Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups
DID Routing Rules Outbound Routing	Time-ba Here you m	ased DIE	• Routing	Rules routing rules	for DID exter	nsions.							
Directory Printable Extension List	DID Extension Start Time End Time Days Destination Ext.												
Session Logout		Add R	ule Edit Rule	Delete Rule	Cancel								
System October 6, 2011 2:49:59pm UTC -4 About Network Config													

Performing a Backup for the Savant PBX

The backup function allows you to save your Savant PBX configuration. If the system needs to be reset to the factory default settings or the hardware itself needs to be replaced, a backup file allows you to restore the system as it was at the time the backup file was generated.

This procedure assumes you have been using Safari as your web browser to open Savant Configurator.

To create a backup of your Savant PBX configuration, do the following.

1. In Safari go to the menu: Safari > Preferences.



2. On the **General** window, ensure the checkbox for **Open "safe" files after downloading** is unchecked (blank). See the next screenshot.

	General
General Appearance Bookmarks Tabs RSS Aut	coFill Security Extensions Advanced
Default web browser:	Firefox (7.0.1)
Default search engine:	Google
-	
New windows open with:	Home Page
New tabs open with:	Top Sites
Home page:	http://www.apple.com/startpage/
	Set to Current Page
Remove history items:	After one month
Save downloaded files to:	Downloads
Remove download list items:	Manually
	Open "safe" files after downloading "Safe" files include movies, pictures, sounds, PDF and text documents, and disk images and other archives.

3. Click the **Backups** tab from Savant Configurator.

About Netwo

		Extensions Call Gro	oups SLA	Voicemail	CDRs	IVRs	Sounds	Logs
Automatic Backups Backups created automatically			Manual Ba Backups create	ackups ed manually or u	ploaded			
Name	Date	Size	Name		Date	Si	ze	
backup_20111105.zip	Nov 5, 2011	41.36 MB		Create	Downl	oad Delete		
backup_20111106.zip	Nov 6, 2011	41.36 MB	Upload Q	eue				
backup_20111107.zip	Nov 7, 2011	41.36 MB						
backup_20111108.zip	Nov 8, 2011	41.37 MB	0 Files Uploade	ed				
backup_20111109.zip	Nov 9, 2011	41.37 MB		Add Fi	es Cancel A	II Uploads		
Restor	re Download Delete							
Max Number of Backu	ps	14						

The left side of the page shows backups automatically generated by the system. By default, a backup file is generated everyday at 3:00 AM, and the system keeps the backups for the last 14 days. If you want to download a automatically generated backup file, go to step 8.

- 4. If you want to manually generate a backup file, click Create button under Manual Backups.
- 5. On the pop up window, enter a name that you want to use as a prefix on the backup file, which will be named <*name>_backup_<date>.zip*.

For example, if you create a backup on November 9, 2011 and enter *mypbx* as the prefix then the backup file name will be *mypbx_backup_20111109.zip*.

Aut Back	tomatic Backups sups created automatically		Manual Backups Backups created manually or uploaded										
	Name	Date	Size	Name	Date	Size							
0	backup_20111105.zip	Nov 5, 2	Backup Name	×	eate Restore Down	load Delete							
0	backup_20111106.zip	Nov 6, 2	File prefix (optional)										
0	backup_20111107.zip	Nov 7, 2	anumbul										
0	backup_20111108.zip	Nov 8, 2	турох		_								
0	backup_20111109.zip	Nov 9, 2	Create	Cancel	Add Files Cancel A	All Uploads							
	Restore Dow	vnload De											
	Max Number of Backups		14		_								
	Backup Time		3:00										
	Backup Email												
	Email Interval		Daily 🗘										
	Save S	ettings											

6. Click Create. The new backup file will display on the backups page in Savant Configurator in a few minutes.

7. Confirm that the backup file is shown under Manual Backups.

Aut Back	comatic Backups ups created automatically			Manual Backups Backups created manually or uploaded								
	Name	Date	Size	Name	Date	Size						
0	backup_20111105.zip	Nov 5, 2011	41.36 MB	mypbx_backup_20111109.zip	Nov 9, 2011	41.37 MB						
0	backup_20111106.zip	Nov 6, 2011	41.36 MB	Create Restore Down	nload Delete							
0	backup_20111107.zip	Nov 7, 2011	41.36 MB	Upload Queue								
0	backup_20111108.zip	Nov 8, 2011	41.37 MB									
0	backup_20111109.zip	Nov 9, 2011	41.37 MB	0 Files Uploaded								
	Restore Dow	nload Delete		Add Files Cancel	All Uploads							
	Max Number of Backups	14										
	Backup Time	3:00										
	Backup Email											
	Email Interval	Daily	\$									
	Save Se	ettings										

- 8. Select the backup file you want to download by clicking the radio button beside the file.
- 9. If an automatic backup is selected, click **Download** under **Automatic Backups**. If a manually generated backup is selected click **Download** under **Manual Backups**.
- 10. The file should be downloaded to the Downloads folder of the computer running Savant Configurator.

Restoring the Savant PBX Configuration

The restore function allows you to restore the Savant PBX with a previously saved configuration using the backup function described in <u>Performing a Backup for the Savant PBX</u>. The Savant PBX can be set up with minimal configuration effort if the system has to be reset to the factory default settings or the hardware itself has to be replaced. Note that the restore is intended to work on the same installation from which the backup file is generated.

When performing a restore of a Savant Configurator configuration, ensure that you are applying the restore to a clean system.

To restore your Savant PBX configuration, do the following.

1. Select **System Reset** from the side bar on the **Overview** page.



If the physical PBX is changed, ensure that the new PBX has the same IP address as the one it replaces.

2. Click the Backups tab.

System <u>aut</u> twork Config	Savant												
	Overview	Users	Devices	Phones	Extensions	Call Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups
	Automati Backups crea	ic Backuj ted automati	DS ically			Ma Bac	nual Ba	ckups d manually or u	ploaded				
	Name	Ŧ	Date Restore Down	nload Delete	Size		Name	Create	Date estore Dow	nload Delete	Size		
	Max	Number of B	ackups		14	C ^I	Upload Qu	eue			-		
		Backup Tim	e		3:00								
		Backup Ema	il										
		Email Interv	al Save Se	ttings	Daily 🛟	0 Fi	les Uploadeo	Add Fi	les Cancel	All Uploads			

- 3. Click the **Add Files** button.
- 4. Select the file you want to use to restore then click **Open** button. See the next screenshot.



There should be a progress bar showing the upload process and the file should show up under **Manual Backups** after the upload completes.

System About Network Config	Savant													
	Overview	Users	Devices	Phones	Extensions	Call Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups	
	Automa Backups cr	atic Backu reated automa	IPS Itically			P								
	Name		Date		Size		Name			Date	Size			
			Restore Do	wnload Dele	te		mypbx_	backup_2011	1109.zip	Nov 10, 20	011 41.3	7 MB		
	Ma	ax Number of	Backups		14			Create	Restore	ownload Delet	e			
		Backup Tir	ne		3:00	3:00 Upload Queue								
		Backup Em	ail											
		Email Inter	val		Daily 🛟)								
			Save	Settings		0	Files Upload	ed Add	I Files Cano	el All Uploads				

5. Under **Manual Backups** click the radio button for the backup file you want to use to restore the system, then click **Restore**. See the next screenshot.

System About Network Config		S	5 a `			AN							
	Overview	Users	Devices	Phones	Extensions	Call Groups	SLA	Volcemail	CDRs	IVRs	Sounds	Logs	Backups
	Automat Backups crea	ic Backup ted automatic	S cally			Ma Bac	nual Ba	ckups d manually or u	ploaded				
	Name		Date		Size		Name			Date	Size		
		Re	estore Down	load Delete)	\odot	mypbx_ba	ckup_201111	09.zip	Nov 10, 2011	41.37 M	1B	
	Max	Number of Ba	ckups		14			Create	estore Dow	nload Delete			
		Backup Time											
		Backup Emai	I		http:	//10.5.225.24							
		Email Interva	Save Set	tin <u>c</u>	Are yo backu	ou sure you want Ip?	to restore th	e system from th	is Cancel	All Uploads			
					-	-							

- 6. Click **OK** on the pop up window.
- 7. Wait until a restore_point_<date> file shows up under Manual Backups.

	-	DC		W YOU C	AN						
Overview	Users	Devices	Phones	Extensions	Call Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Log
Automat Backups crea	ic Back	J PS atically			M Ba	anual Ba	ckups ed manually or	uploaded			
Name		Date Restore Dow	nload Delet	Size		Name	201111	00 710	Date	2011	Size
Max	Number of	Backups		14	0	restore_p	oint_201111	0051149.zip	Nov 10), 2011 ·	42.11 MB
	Backup Ti	me nail		3:00	_	Upload Qu	Create	Restore Dov	nload Delet	te	
	Email Inte	rval	ettings	Daily 🛟							
					0	Files Uploade	ed 🖉	iles Consul	All Union de		

8. Check **Devices**, **Extensions**, **SLA**, **Voicemail** and **Call Groups** page, ensure the configurations are what you expect.

9. Click Phones.

Phones View Phones Add Phone	Phones Phones Phone Phon														
Upload New Firmware	Ove	rview	Users	Devices	Phones	Extensi	ions C	Call Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups
Phone Dialplans	_														
Download SIP DECT	Co	nfigured	Phone	s											
Config		Phone	D	IP Address	Model	De	vice A	Assigned To	TFTP URL						
	۲	00085d	2ce7cc	10.5.225.4	Savant TEL-H	ST02	٨	Not Assigned							
Devices	\odot	00085d	2f35cf	10.5.225.10	Savant TEL-H	ST01	N	Not Assigned							
View Devices Add Device															
Session Logout															
System November 9, 2011 6:01:24pm UTC - 5 About Network Config				Add phone	Edit Phone	Delete Pho	one								

Note that the **Device** field is empty. After performing a restore, a device must be assigned to each phone listed on this page.

10. Click the radio button beside a phone, then click Edit Phone.

Phones View Phones Add Phone		sa			AN							
Upload New Firmware	Overview Us	ers Devices	Phones	Extensions	Call Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups
Phone Dialplans												
Download SIP DECT Config	Edit Phone Here you enter the places.	e settings for this ph	one. The frie	ndly name of	the lines associa	ated will be	displayed to use	ers on their li	ne buttons a	nd other appro	priate	
Devices	Assign to user:		Unassigned	i 🗘)							
View Devices Add Device	Interface:		eth0 (syste	em default) 🛟								
	Model:	0	Savant TEL-H	IST02 Series	•							
Session Logout	MAC Address:	No colons, spaces, or c	00085d2 lashes - eg, 00	ce7cc):00:12:3f:9a:4b	would be 000012	3f9a4b						
System	Identity Assignments	Identity 1	Т	EL-HST02 (SIP/	2018) 🛟							
November 10, 2011 5:51:12pm UTC -5 <u>About</u> <u>Network Config</u>		Save	Ca	incel								

- 11. Select one device from Identity 1 selection list, click Save.
- 12. Restart the phone. For details on restarting the phone, see the procedure, <u>Uploading the Configuration to the</u> <u>Wired Phone</u>.
Configuring Music-On-Hold

The only sound format that the Savant PBX supports for the music-on-hold feature is MP3. To change or customize the music played while a call is on hold, do the following using Savant Configurator.

SLA

Voicemail

CDRs

IVRs

Sounds

Logs

Backups

1. Click the Sounds tab.

Users

Overview



2	From the	Sounds	sidehar	on the le	ft click	Music (On Hold	



3. Click default (circled in the next screenshot).



4. Under MusicOnHold Manager, click Choose File.



5. Highlight the music file you want to use for music-on-hold. Note that the file must be an *.mp3 file.



6. Click Choose.

MusicOnHold Manager Class: default	MusicOnHold Options Changes will not take affect until they are saved.
Upload File	up down delete
Choose File) [7] gmv.mp3 Add Another File Upload	Macroform – Cold Day Macroform – Robot Dity Manolo Camp – Morning Coffee Reno Project – System
	Save Changes Cancel

7. If more music files are required, click Add Another File, repeat steps 4 and 5.

8. Click Upload.

9. All music files, including just added ones, should show up under **MusicOnHold Options.** Highlight one then click the **up**, **down**, or **delete** button to change the order or delete it from the system.

MusicOnHold Manager Class: default	MusicOnHold Options Changes will not take affect until they are saved.
Upload File	up down delete
Choose File no file selected Add Another File Upload	Macroform – Cold Day Macroform – Robot Dity Manolo Camp – Morning Coffee Reno Project – System gmv
	Save Changes Cancel

10. Click Save Changes.

11. Wait for a couple of minutes and then verify that the music file has been changed.

Changing PBX Network Configuration

The Savant PBX network configuration can be changed using Savant Configurator. A Dynamic Host Configuration Protocol (DHCP) IP address or static IP address can be assigned to the PBX.

To change the PBX network configuration, do the following.

1. On the Overview page, click the Network Config from System sidebar on the left.

System Printable Extension List plist Upload		9	58			AN							
Network Config Set Timezone Software Update	Overvlew	Users	Devices	Phones	Extensions	Call Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups
Session Logout		Interfa ethū	ces:										

- 2. Click eth0. Note that the current network configuration is displayed on the left side.
- 3. For the **Configuration Method** select an option from the drop-down list. In the next example screenshot the IP address can be changed from Dynamic Host Configuration Protocol (DHCP) to a static assigned IP address.

Interfaces: > <u>eth0</u>	Editing Interface: eth0
	Configuration Method: dhcp +
	Save Cancel
Current Config for eth0:	
method dhcp inet addr 10.5.225.20 broadcast 10.5.225.255 netmask 255.255.255.0 gateway 10.5.225.1 nameserver 10.5.101.20 nameserver 10.2.1.20	

4. Select **static** for **Configuration Method** to open more options on the **Editing Interface** page. See the screenshot on the next page.

Fields	Value
inet addr	IP address to be assigned to Savant PBX
netmask	Netmask in your network. Check with your network administrator. (Typically this will be the same as displayed in current configuration.)
gateway	Gateway IP in your network. Check with your network administrator. (Typically this will be the same as displayed in current configuration.)
nameserver 1	DNS server in your network. Check with your network administrator. (Typically this will be the same as displayed in current configuration.)
nameserver 2	Second DNS server in your network. Check with your network administrator.(Typically this will be the same as displayed in current configuration.)

Interfaces:

Editing Interface: eth0

>	<u>eth0</u>	

	Configurati	static ‡)			
	Inet Addr:	10	.	5].	225	.	118
Current Config for eth0:	Netmask:	255	.	255].	255	.	0
method dhcp	Gateway:	10	.	5].	225		1
inet addr 10.5.225.20	Nameserver 1	10	.	5].	101		20
netmask 255.255.255.0	Nameserver 2	10	.	2].	1		20
gateway 10.5.225.1 nameserver 10.5.101.20 nameserver 10.2.1.20	S	ave		Canc	el			

5. Use the next table to enter or select values for the fields on the **Editing Interface** page.

Fields	Value
inet addr	IP address to be assigned to Savant PBX
netmask	Netmask in your network. Check with your network administrator. (Typically this will be the same as displayed in current configuration.)
gateway	Gateway IP in your network. Check with your network administrator. (Typically this will be the same as displayed in current configuration.)
nameserver 1	DNS server in your network. Check with your network administrator. (Typically this will be the same as displayed in current configuration.)
nameserver 2	Second DNS server in your network. Check with your network administrator.(Typically this will be the same as displayed in current configuration.)

6. Click Save.

7. Read the message on the page then click here (as shown in the next screenshot) to reboot the system.



8. After the system reboot, open Savant Configurator and verify the change by navigating to the **Overview** page, clicking **Network Config** from the **System** sidebar on the left, and then clicking **eth0**.

Interfaces: > <u>eth0</u>	Editing Interface: eth0							
	Configuration Method: static +							
	Inet Addr:							
Current Config for eth0:	Netmask:							
method static	Gateway:							
inet addr 10.5.225.118	Nameserver 1:							
broadcast 10.5.225.255 netmask 255.255.255.0	Nameserver 2:							
gateway 10.5.225.1	Save Cancel							
nameserver 10.5.101.20								
nameserver 10.2.1.20								

Setting Local Time Zone on PBX and Wired Phones

To set the local time zone for the Savant PBX and TEL-HST01 and TEL-HST02 phones using Savant Configurator, do the following.

1. On the Overview page, click Set Timezone from System panel on the left.



The current time zone information is displayed, as shown in the next screenshot.



2. From the drop-down list select the city that is in your local time zone. For example, choose America/New_York for the US Eastern time zone, or America/Los_Angeles for US Pacific time zone.



- 3. Click Save. This will cause the system to restart.
- 4. If the time zone is changed after the wired phones—TEL-HST01 and TEL-HST02—are configured, restart the TEL-HST01 and TEL-HST02 phones to enable the time zone change on the phones.

Configuring Additional Gateways

Use the information in the next table as a reference when adding the Savant gateways as devices in the PBX system using Savant Configurator. Each gateway has the following lines and Shared Line name assignments. Note that the Gateway Index is the index associated with the gateway in RacePoint Blueprint[™].

Gateway Index Assignment

Gateway Index	Physical FXS Port	SLA Name
1	1	Line1
1	2	Line2
1	3	Line3
1	4	Line4
2	1	Line5
2	2	Line6
2	3	Line7
2	4	Line8
3	1	Line9
3	2	Line10
3	3	Line11
3	4	Line12
4	1	Line13
4	2	Line14
4	3	Line15
4	4	Line16
5	1	Line17
5	2	Line18
5	3	Line19
5	4	Line20
6	1	Line21
6	2	Line22
6	3	Line23
6	4	Line24

To add additional gateways to a Savant PBX system that already has a gateway configured, do the following.

- 1. Click the **Devices** tab.
- 2. Click Add Devices to open the Add Device page.

Devices View Devices Add Device	Savant											
Manage Servers	Overview User	s Devices	Phones	Extensions Ca	all Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups
Session Logout	Add Device Here you enter the s	ettings for this dev	vice. The frien	dly name will be	e displayed t	o users on	their line butto	ns and other	appropriate	places.		
System	Server:	savan	t-ipbx (localho	st) 🗘								
January 3, 2013 4:31:33pm UTC -5	Type:	0	Gateway 🛟)								
About	*DeviceNumber	Gate	eway2									
	Assign to:	Unass	igned	\$								
	Friendly Name:											
	UID:	Not	Applicable									
	Context:	Ca	urrier (in_pri)	•								
	Usable as Trunk:		\checkmark									
	Max Channels:		4									
	Use TCP:											
	Secret:											
	Call Limit:	2										
	Host:	10.5	5.214.20									
	Port:											
	NAT: Register?											
	Qualify:											
	Add 9. Evit	Add & Clana	Add Now	Cancol								
	Add & Exit	Add & Clone	Add New	Cancel								

3. Use the next table to enter or select values for the fields on the **Add Device** page. See the previous screenshot with the example data.

Fields	Value
Туре	Select Gateway
DeviceNumber	Enter a unique name for this gateway. Savant recommends using the gateway index and the end of the name , for example Gateway2.
Friendly Name	For Friendly Name enter the same value you entered for the Device Name
Max Channels	Enter 4.
Host	Enter the IP address of the gateway

4. Click Add & Exit.

If a Shared Line Appearance Group (SLA) group must be assigned to multiple gateways, see <u>Adding an SLA to</u> <u>Multiple Gateways</u>.

Adding an SLA to Multiple Gateways

Depending on the gateway index and lines you want to add , the corresponding Share Line Appearance (SLA) groups must be assigned. Using the table, <u>Gateway Index Assignment</u> enter the associated SLA names when creating the SLA Group.

To add an SLA to multiple gateways, do the following.

- 1. Click SLA tab.
- 2. Click Add SLA.

Overview	Users	Devices	Phones	Extensions	Call G
Add Shar	red line	e by filling in	the fields held		
Here you aut		e by mining in	the neids beit	<i>m</i> .	
Name:					
Device:	Selec	t Device	÷		
Ring Timed	out: 25				
Barge:					
Hold:	open	\$			
Fail Extens	ion:				

- 3. For Name use the table, Gateway Index Assignment. Ensure that the name is typed correctly.
- 4. For **Device** select the required gateway from the drop-down list.

Add Shared Line Members Cancel

5. Click Add Shared Line.

After adding at least one SLA group to the gateway the **Overview** page will show the gateway.

Overview	Users	Devices	Phones	Extensions	Call Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs
				<i>(</i>	System O	verview					
				•	System IP: 1	0.5.214.3					
				Svst	em MAC: c8:2	2a:14:23:93:	5d				
				Syste	m UID: 8585	8585858500	00				
			Gateway I	P: 10.5.214.7	Name: Telep	hony Gatewa	y Status: OK	(28 ms)			
			Gatew	ay IP: 10.5.2	14.20 Name:	Gateway2 St	atus: OK (28	ms)			
A 44 11 +1-	01 4 13		!-+-	+ - · · · - ·						-1:60 t	

After all the SLA lines and associated gateways have been added, you can add endpoints to different SLA groups. See *Adding an iOS Device or Phone to an SLA*.

Performing Advanced Configuration

This feature is intended to simplify configuring additional parameters on a global basis or per device using Savant Configurator. By using Advanced Configuration you avoid the need to manually change configuration files. This feature is not to be used without previously consulting with Savant Technical Support. An incorrect parameter could negatively affect the Savant PBX behavior.

Global

To change a global parameter in a Savant PBX configuration, do the following.

- 1. Click the **Overview** tab.
- 2. In the left pane, click **Advanced**.

	System Printable Extension List		9	58			CAN								
	plist Upload Network Config	Overview	Users	Devices	Phones	Extensions	Call Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups	Ring Profiles
<	Set Timezone Download Log Files Software Update System Reset Advanced	Advance	d Config	uration											
	Session														
	Logout System														
	April 10, 2013 10:17:28am UTC -4 About														
		(Submit) (Cancel)										h		

- 3. After consulting with Savant Technical Support enter the appropriate parameters.
- 4. Click Submit.

Device Configuration

To change a device parameter in a Savant PBX configuration, do the following.

- 1. Click the **Devices** tab.
- 2. Select the appropriate device.
- 3. Click Edit.

Overview	Users	Devices	Phones	Extensions	Call Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups	Ring Profile:
dit Devic ere you ente	e r the settir	igs for this de	vice. The frie	ndly name wil	l be displayed	to users on	their line butto	ns and other	appropriate	places.			
Serv	er:	savant	-ipbx (localho	st) ‡									
ту	pe:		iOS Device 🗧										
Ring Pro	file		Default \$										
*Dev Numb	ice er:	200	1										
Assign	to:	U	nassigned	\$									
Frien Nar	dly ne:	iOS	Simulators										
Friendly Na	me 2:	iOS	Simulators										
MWI enabl	ed:												
U	ID:	3C0	75427593500	0A									
Conte	ext:	Ph	one (all_calls)	\$									
Usable Tru	as nk:												
Use T	CP:												
Sec	ret:												
Call Lin	nit:	2											
н	ost:	dyna	ımic										
P	ort:	506	0										
N	AT:												
Regist	er?												
Qual	ify:												
Advanc	ed:												

- Save & Exit Save & Clone Save & New Cancel
- 4. With the supervision of the Savant Technical Assistance Center enter the appropriate parameter for the device being configured.
- 5. Click Save.

Configuring Distinctive Ringing

Distinctive Ringing allows you to set different ringing tones on your devices (phones and iOS devices). The Savant phones—TELHST01 or TEL-HST02—are the only hardware phones that support this Distinctive Ringing feature.

With Distinctive Ringing, for example, the ring could be used to differentiate external calls and calls that are originated at the gate (door entry) stations.

Savant Systems offers five stock ringtones including a silent one. The iOS devices also allow the creation of up to four custom mp3 files that can be used as ringtones.

The Distinctive Ringing feature is configured in a Savant system using the following procedures:

- Configuring a Configuring a Custom *.mp3 File as a Ring Tone
- Creating a Ring Profile
- <u>Assigning a Ring Profile to a Phone or iOS Device</u>
- <u>Configuring Priority Alerting for an SLA Group</u>
- <u>Configuring Priority Alerting for a Call Group</u>
- Distinctive Ring Configuration Examples

Configuring a Custom mp3 File as a Ring Tone

To add custom rings for an iOS device, do the following.

- 1. Click the Ring Profiles tab.
- 2. In the left pane, click **iOS Ring Tones**.

Ring Profiles Ring Profiles <u>iOS Ring Tones</u>	>	9	58			AN								
System	Overview	Users	Devices	Phones	Extensions	Call Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups	Ring Profiles
June 14, 2013 4:41:34pm UTC -4 <u>About</u>	Ring Prot Below are the	files e ring profiles	s you have cr	eated.										
	Add New [Edit Delete												

The iOS Ring Tones page opens.

	C	58		W YOU C	AN								
Overview	Users	Devices	Phones	Extensions	Call Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups	Ring Profiles
iOS Ring Below are the Add New	Tones e custom ring Edit Delete	g tones you h	nave uploadec	I.									

3. Click Add New.

	9	58			AN								
Overview	Users	Devices	Phones	Extensions	Call Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups	Ring Profiles
Upload Ri To upload a rir Nar	ngtone ng tone, ple ne:	ase fill out all	appropriate 1	fields below.									

4. Use the next table to enter or select values for the fields on the **Upload Ringtone** page.

Field	Description
Name	Name of Custom RingTone. This name will be displayed to the user on the iOS Savant app.
File	Actual audio file. Note that only mp3 files are supported any other audio format will result in no audio being played.

5. Click Save.

Repeat this procedure for every custom ringtone you want to use.

Creating a Ring Profile

This procedure assumes you have completed the procedure <u>*Configuring Distinctive Ringing*</u>. To create a ring profile, do the following.

1. Click Ring Profile Tab.



3. Use the next table to enter or select values for the fields on the **Add Ring Profile** page.

Field	Description
Profile Name	Name of group.
Profile Type	Leave as is.
Ring Tone	Select an option from the drop-down box.
Priority Alerting Allowed	Enter the length of time that you want the devices to ring. Recommended: 30 seconds.
Priority Alerting Groups	In here for the group you intent to use , select the proper ring behavior

4. Click Save.

Assigning a Ring Profile to a Phone or iOS Device

This procedure assumes you have completed the procedure <u>Creating a Ring Profile</u>. After ring profiles have been created, you can assign them to a particular iOS device or phone. To assign a ring profile to an iOS device, do the following.

iOS Device

- 1. Click the **Devices** tab.
- 2. Select a device from the **Devices** page to open the **Edit Device** page.
- 3. For Ring Profile, select an option from the drop-down list.

	9	58			AN								
Overview	Users	Devices	Phones	Extensions	Call Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups	Ring Profiles
Edit Devid Here you ente	ce er the settir ver:	ngs for this de	vice. The frie	ndly name wil	l be displayed	to users on	their line butto	ns and othe	er appropriate	places.			

Server:	savant-ipbx (localhost) 💲
Type:	iOS Device \$
Ring Profile	Default ‡
*Device Number:	2001
Assign to:	Unassigned +

4. Click Save.

Phone

To assign a ring profile to a phone, do the following.

- 1. Click the **Phones** tab.
- 2. Select a phone from the **Phones** page to open the **Edit Phone** page.
- 3. For Ring Profile, select an option from the drop-down list.



Overview Users Devices Phones Extensions Call Groups SLA Voicemail CDRs IVRs Sounds Logs Backups Ring Profile:

Edit Phone

Here you enter the settings for this phone. The friendly name of the lines associated will be displayed to users on their line buttons and other appropriate places.

Interface:	eth0 (system default) 💠	
Model:	Savant TEL-HST02 Series 🗘	
MAC Address:	00085d13e741 No colons, spaces, or dashes - eg, 00:00:12:3f:9a:4b would be 0000123	f9a4b
Ring Profile	Default ‡	
Identity Assignments	Identity 1 (Aastra 6739i (SIP/2050) \$	
Contacts:	2	
Intercom Directory:	ø	
Disable Missed Call Indicator:	ø	
	Save Cancel	

4. Click Save.

Configuring Priority Alerting for an SLA Group

Priority alerting allows certain incoming calls to trigger distinctive ringing. This is done by associating a priority group (alerting group) to either a call group and/or an SLA group, so that member devices will use the applicable ring associated with that call group or SLA group.

To configure priority alerting on an SLA group, do the following.

1. Click SLA tab.

2.



verview	Users Devices	Phones	Extensions	Call Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backup	os Ring Pro
ared Li	nes											
	Add Shared Line	Edit Share	d Line Delete	e Shared Line								
how [10	entries			Search:								
Name	Mapped Device			Stations	s \$	DND 💠						
Line1	SIP/TelephonyG	atewayue1		3								
Line2	SIP/TelephonyG	atewayue1		3								
Line3	SIP/TelephonyG	atewayue1		0								
Line6	SIP/TelephonyG	atewayue1		4								
nowing 1 t	to 4 of 4 entries											
					A New	the I make						
lect the		ine and	click Ed	irst) (Previous	d Line	Last						
ect the	proper SLA L	ine and		Iit Share	1) (Nex	t Last						
lect the	e proper SLA L	ine and	Click Ed	Iit Share	ed Line	Voicemail	CDRs	IVRs	Sounds	Logs	Backups R	ing Profiles
verview	e proper SLA L S a ` Users Devices ed line	ine and	Click Ed	Iit Share	ed Line	ti (Last)	CDRs	IVRs	Sounds	Logs	Backups R	ing Profiles
lect the	e proper SLA L SCO Users Devices d line ty the basic settings for t	ne and	e.	Inst Previous	ad Line	Voicemail	CDRs	IVRs	Sounds	Logs	Backups R	ing Profiles
ect the rerview it Share e you modif bel:	e proper SLA L SCO Users Devices Ind line fy the basic settings for t Linea6	ine and	Extensions	III Share	ad Line	Vokemail	CDRs	IVRs	Sounds	Logs	Backups R	ing Profiles
verview it Share e you modif bel: ime: Line6	e proper SLA L SOON Users Devices def line fy the basic settings for t	Phones	e.	III Share	ad Line	Vokemail	CDRs	IVRs	Sounds	Logs	Backups R	ing Profiles
ect the verview it Share e you modif bel: me: Line6 vvice:	e proper SLA L SOON Users Devices Users Devices the basic settings for t	ine and Control of the second	e.	Iit Share	sla	Voicemail	CDRs	IVRs	Sounds	Logs	Backups R	ing Profiles
ect the rerview it Share e you modif bel: me: Line6 vice: ng Timeoul	e proper SLA L Signal Constraints Users Devices d line fy the basic settings for t Linea6 Line6 SIP/TelephonyGatew tz	Phones	Extensions	irst Previous lit Share	sla	voicemail	CDRs	IVRs	Sounds	Logs	Backups R	ing Profiles
verview it Share e you modif bel: time: Line6 vice: ng Timeout iority Grou	e proper SLA L Signal Constraints of the basic settings for the bas	Phones Phones Note	Extensions e.	Iit Share	sta	Voicemail	CDRs	IVRs	Sounds	Logs	Backups R	ing Profiles
lect the verview lit Share e you modif ibel: ime: Line6 ivice: ing Timeou' iority Grou irge:	e proper SLA L Signal Constraints Users Devices ed line fy the basic settings for t Linea6 is SiP/TelephonyGatew 25 ignal Constraints None 2 ignal Constraints ignal Constrai	Phones Phones	Extensions e.	Iit Share	sta	Voicemail	CDRs	IVRs	Sounds	Logs	Backups R	ing Profiles

3. Select the Priority Group from the list and click **Save Shared Line**.

Fail Extension:

Save Shared Line Members Cancel

Configuring Priority Alerting for a Call Group

Priority alerting allows certain incoming calls to trigger distinctive ringing. This is done by associating a priority group (alerting group) to either a call group and/or an SLA group, so that member devices will use the applicable ring associated with that call group or SLA group.

To configure priority alerting on a call group, do the following.

1. Click **Call Groups** tab.



- savant SLA Voicemail CDRs IVRs Backups Ring Profiles Users Devices Phones Extensions Call Groups Sounds Logs Overview Edit Call Group Here you modify the basic settings for this call group. Name RingAll Fail Extension Distributed Audio Zones Туре Ring All \$ Ring-All Time: 30 **Priority Group** None ‡ Save Group Cancel Select the Priority Group from the drop-down list.
- Select the Priority G
 Click Save Group.

Distinctive Ring Configuration Examples

The following are some examples which demonstrate the use of the Distinctive Ring feature.

Differentiate Calls from the Gate Station with a Different Ring

To differentiate calls from the door entry (gate) station with a different ring, do the following in Savant Configurator.

- 1. Create a ring profile of **Type**: Phone.
- 2. Choose a priority alerting group—Internal: for example Bellcore-dr2.
- 3. Save the phone profile.
- 4. Assign this profile to every phone you want to ring differently when the call is coming from the gate station.
- 5. Open the page for the Call Group associated with the gate station.
- 6. Edit the Call Group and select Internal for the Priority Group field.
- 7. Save.

Now when you receive a call from the door station the phones use a different ringtone.

Differentiate between Two SLA Lines

To differentiate calls between two SLA lines with a different ring, do the following in Savant Configurator.

- 1. Create a ring profile of **Type**: Phone.
- 2. Choose a group for SLA 1 and another for SLA 2.
- 3. Select the applicable tone for each SLA group.
- 4. Save the ring profile.
- 5. Assign this profile to all the phones.
- 6. Open the edit page for SLA 1 and SLA 2 and assign the applicable Priority Group to each SLA.

Now when calls come in from SLA 1 and from SLA 2 the phones will ring differently.

No Ring for a Particular Phone when Calls are Coming from SLA 2

To avoid a phone ringing when a call comes in from a specific SLA group, do the following in Savant Configurator.

- 1. Create a ring profile of **Type**: Phone
- 2. Choose a priority alerting group, for example, **Internal** and select the option *Silent*.
- 3. Save the ring profile.
- 4. Select the Phones tab.
- 5. Select the phone that should not ring when the call is coming from SLA 2 and assign this profile to that device.
- 6. Set the **SLA** tab and open the page to edit SLA 2.
- 7. For the Priority Group field, select Internal from the drop-down list.
- 8. Save the ring profile.

Now when calls are coming in on SLA 2 (which is associated with phone line 2) all the phones but one will ring. However, in any other scenario phones will ring normally.

Shared Lines Label

The name of the Shared Line is separate from the actual Label (displayed name on the devices). Also the SLA Name is provided in a selection list to avoid potential errors on the name of the SLA.

For an SLA created prior to Release PBX 5.2.1 the **Label** field is defaulted to the SLA Name for backward compatibility.

For Release PBX 5.2.1 and later the Label is a user defined field, see below:



Overview	Users	Devices	Phones	Extensions	Call Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups	Ring Profiles
Add Shar Here you add	ed line	e by filling in t	the fields be	low.									
Label:													
Name:	Selec	t Line 💠											
Device:	Selec	t Device	\$										
Ring Timeo	ut: 25												
Priority Gro	None	e +											
Barge:													
Hold:	oper	\$											
Fail Extens	ion:												
Add Si	hared Line	Members	icel										

Downloading Log Files to an SDE

To download log files to a Savant Development Environment (SDE), do the following in Savant Configurator.

1. Click the **Overview** tab.

System Printable Extension List		S	a			N							
<u>plist Upload</u> <u>Network Config</u>	Overview	Users	Devices	Phones	Extensions	Call Groups	SLA	Voicemai	l CDRs	IVRs	Sounds	Logs	Backups
Set Timezone Download Log Files Software Update System Reset Session Logout		System Overview System IP: 10.5.201.90 System MAC: 3::07:54:15:50:9c System UID: 3:075415509C0000 Gateway IP: 10.5.201.203 Name: PBX Gateway Status: OK (21 ms) Gateway IP: 10.0.1.2 Name: PBXGateway2 Status: OFFLINE											
System	Phones								Shared Lines				
October 8, 2012	Number	Device	Disp	lay Name		Reg Status	Sta	te	Trunk Name 🔺	Number	of Stations As	signed	\$
5:47:34pm UTC -4	2000	SIP/2000	Jame	es iPhone 5		Unregistered	N/#	A	Line1	9			
	2001	SIP/2001	TEL-	HST01		OK (9 ms)	N/#	A I	Line2	9			
	2002	SIP/2002	Livin	g Room		OK (9 ms)	N//	A	Line3	9			
	2003	SIP/2003	The	New iPad		Unregistered	N//	Α Ι	Line4	9			
	2004	SIP/2004	Whit	e iPad 2		Unregistered	N/#	A I	Line5	9			
	2005	SIP/2005	Black	k iPad 2		Unregistered	N/#	Α Ι	Line6	9			
	2006	SIP/2006	iPad	1		Unregistered	N/#	A I	Line7	9			
	2007	SIP/2007	Jame	es iPhone 4		Unregistered	N/#	Α Ι	Line8	9			
	2008	SIP/2008	iPod	Touch		Unregistered	N/#	A					tLast
	2009	SIP/2009	TEL-	HSTW01 DEC	т	OK (16 ms)	N/#	A					
						Previous 1	2 Next	Last					

2. From the left sidebar, click **Download Log Files**.

System Printable Extension List		9	58			AN							
plist Upload Network Config Set Timezone	Overview	Users	Devices	Phones	Extensions	Call Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups
Download Log Files Software Update System Reset	Downloa Click the butt	d PBX r	ecords o download th	ie system's P	BX records.								
Session	Click to Dow	nload											
Logout	Progress											_	
System October 8, 2012 5:52:07pm UTC -4 About													

- 3. Press the button **Click to Download**.
- 4. To open the files within the tar file, for example—*savantSystemLog-savant-ipbx-1349733434.tar*—use *<specify application>*.

What To Do Next

Unless you require some optional devices as part of your Savant PBX system, your PBX system is now configured.

The optional devices that can be added to your Savant PBX system, are as follows:

- Savant Public Announcement System —click this link here.
- Door Entry System—click this link <u>here</u>.

5. SAVANT DECT BASE STATIONS

Use this section to set up your wireless phone system and base station with your Savant PBX system.

Important! The following procedures included in this section apply when adding newer base stations to your Savant PBX system—that is, base station models TEL-BST11 and/or TEL-BST12. If you are adding the older base station models,TEL-BST01 and/or TEL-BST02, as the only base stations to be used with your Savant PBX system, the procedures presented in this guide are not applicable. You must use the relevant procedures included in the Savant Telephony Solution Deployment Guide (009-0406-06), which refers to OpenMobility Manager SIP-SECT 2.1SP4.

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OpenMobility Manager: Before You Begin	133
Generating a License for Multiple Base Stations	134
Booting the Base Station	138
Adding a Base Station	148
Adding Handsets to the Base Station	151
Subscribing Handsets to the Base Station	154

If the newer base stations are being added to a PBX system that already has older base stations installed using a previous software release, you only need to perform this procedure:

Integrating TEL-BST11/TEL-BST12 with TEL-BST01/TEL-BST02......157

Hardware Considerations

The following information will help you determine what procedures to use when installing hardware.

- If installing only new base station models (TEL-BST11/TEL-BST12) use the procedures in this section (pages 108-132).
- If integrating new base station models (TEL-BST11/TEL-BST12) with older models already in use, perform the procedure on page 133, *Integrating TEL-BST11/TEL-BST12 with TEL-BST01/TEL-BST02*.
- If installing only old base station models (TEL-BST01/TEL-BST02) use the Release PBX 5.1.1 Savant Telephony Solution Deployment Guide (009-0406-06).

The model numbers referred to in this section include the following:

Model Number	Description
TEL-HSTW01	Wireless DECT Handset
TEL-BST01	Indoor DECT Base Station for integrating with TEL-BST11
TEL-BST11 (new)	Indoor DECT Base Station
TEL-BST01I	Indoor International DECT Base Station
TEL-BST02	Outdoor DECT Base Station for integrating with TEL-BST12
TEL-BST12 (new)	Outdoor DECT Base Station
TEL-BST02I	Outdoor International DECT Base Station
TEL-BSTMMT	Mast Mount for Outdoor Base Station
TEL-BSTWMT	Wall Mount for Outdoor Base Station

Installing Base Stations

Employing DECT wireless technology, the Savant SIP-DECT mobility solution offers superior levels of interferencefree performance and reliability in a cordless SIP telephone system.

The Savant DECT—Digital Enhanced Cordless Telecommunications— base stations comprises the following:

- Savant Base Stations (SIP-DECT Access Points) being distributed over an IP network and offering DECT wireless and IP interfaces
- Savant PBX platform
- Savant DECT Handsets Savant TEL-HSTW01—also known as Portable Parts (PP)
- OpenMobility Manager (OMM) SIP-DECT 3.0: Management interface for the DECToverIP using SIP solution, which runs on one of the base stations (Radio Fixed Parts)
- o OpenMobility Configurator—a Java tool used to do the initial boot up. Available on the OMM Activation CD

The Savant PBX server and the Savant Gateway, OpenMobility Manager (OMM) and the base stations communicate through the IP infrastructure. The base stations and the Portable Parts communicate over the air, where the DECT GAP protocol or DECT GAP with proprietary enhancements is used.

Savant Telephony DECT wireless handsets are available with indoor (TEL-BST11) and outdoor (TEL-BST12) DECT base stations.

Both DECT base stations are the Radio Fixed Parts for the Savant TEL-HSTW01 handset solution and are directly connected to the LAN. The indoor base station TEL-BST11 enables the complete integration of DECT radio networks into the IP infrastructure and provides eight simultaneous call connections. It is powered either via a separate power supply unit or using Power over Ethernet (PoE).

The outdoor base station TEL-BST12 performs the outdoor operating requirements and is powered using Powerover- Ethernet.



On the base station locate the port marked **LAN** and plug in an Ethernet cable. Plug the other end of the Ethernet cable in to the managed ethernet switch. Savant recommends using Power Over Ethernet. Standards-based (802.3af compliant) Power Over Ethernet affords a one-wire solution for connecting Ethernet devices, delivering power and data over a single CAT5/6 network cable. Using 802.3af compliant PoE injectors or PoE Ethernet Switches, there is no need to install a separate power supply at the device location. The PoE injector or PoE Ethernet Switch can simply be mounted at any convenient location up to 100 meters (328 feet) from the device.

Due to the inherent voltage drop over copper wire, a maximum of 12.9 W is guaranteed to be received by the PoE powered device over a cable run length of 328 feet (100 meters) per specification.

The figure above shows the Outdoor (right) and Indoor Base Station

Mounting the Base Station

An indoor base station can be mounted on a wall or ceiling, or placed on a flat surface. Outdoor base stations can be mounted on a wall or mast (2.55 in. or 65 mm or larger). The outdoor base stations can be used for indoor areas with difficult radio characteristics. For example, when equipped with beam antennas it can the ideal solution for long corridors or elevator shafts.

A base station installation is more reliable if a base station can receive the signal from more than only one base station, because the other signals are also used for synchronization.

The sync-over-air solution is very reliable, because all existing redundant paths are used for synchronization. Thus, hardware tolerances have only very little influence. No base station has a key position. Only unfavorable setups without redundant synchronization paths can cause problems.

Sometimes base stations do not need to be synchronized, for example, if they are in different buildings. These base stations can be put into different clusters. Base Stations in different clusters will not be synchronized with each other. Different clusters start-up at the same time independently. See the next diagrams.







For optimum range performance, wall mounting is recommended. Location of the base station can have significant impact on performance. It is recommended that the base station be located:

- Away from metal objects such as filing cabinets, metal blinds or other metal support structures
- Away from other electronic devices such as CRT's, desktop computers and other cordless products
- As high as possible with the antennas pointing up in a vertical position.
- The antenna used for the base station transmitter must be installed to provide a separation distance of at least 20 cm from all persons.

Signal Loss Guidelines

Signal loss related to the building materials which exist at an installation is determined in detail by a site survey, but the following table provides some guidelines. For more details on these guidelines see the DECT site survey document: http://www.aastra.com/cps/rde/aareddownload?file_id=6023-13550- _P06_XML&dsproject=aastra&mtype=pdf

Building materials	Range loss as a % of the free radio hop
Glass, timber, untreated	approx. 10
Timber, treated	approx. 25
Plasterboard	approx. 27 – 41
Brick wall, 10 to 12 cm	approx. 44
Brick wall, 24 cm	approx. 60
Aerated concrete wall	approx. 78
Armoured glass partition	approx. 84
Steel-reinforced concrete ceilin	g approx. 75 – 87
Metal-coated glass	approx. 100

LEDs for Indoor Base Station



The figure above shows the LEDs for the Indoor Base Station (TEL-BST11)

The next table describes the callouts in the previous figure.

LED 1	LED 2 (DECT)	LED 3 (OMM)	LED 4
	Orange: DECT not configured	Orange on/off every second: connecting to OMM	Red: power on
	Green with short off every two seconds: DECT inactive (not synchronized yet)	Orange on with a quick off every two seconds: OMM connecting failure	Orange: booting
UNUSED	Green: DECT ready	Green: OMM connected	Green: ready
	Green with quick flashing of orange every two seconds: call active on this Radio Fixed Part	Green with quick flashing of orange every 2 seconds: OMM running with warning	Green with quick flashing of orange every two seconds: ready and the Radio Fixed Part houses OMM.

OpenMobility Manager: Before You Begin

The application used to configure a wireless phone system and base station is the OpenMobility Manager (OMM). The login details for this application are described in *Booting the Base Station*. Before you start configuring your wireless phone system and base station associated with your Savant PBX system, ensure that you have the following files or information available, or procedures completed. Note that the OMM CD is included with the Savant PBX (SPX-1000).

- OM_Configurator.jar Java tool to do the initial boot up, is available on the OMM Activation CD. Copy OM_Configurator.jar from the CD to your Savant Development Environment (SDE) machine.
- PARK Portable Access Rights key (PARK) is a unique key to configure the base station and add a handset, included the OMM Activation CD. Save this key for future reference. You must enter this key (without hyphens) during configuration.
- Reserve an IP address for each base station
- You must have already added wireless handsets in Savant Configurator, see the section on the Savant Configurator, *Adding a Savant Wireless Phone*. To summarize, this procedure assumes you have added a device, adds a phone, and exports the *sip_dect.cfg* file.
- TAD Transaction Data used to generate license file, shown on the OMM Activation CD. Only needed if there will be three or more base stations in the system.

OMM Display of Model Numbers

The OpenMobility Manager (OMM) displays model numbers that are different from the Savant model numbers of the base stations.

Savant Model Number	OMM displays
TEL-BST01	RFP L32
TEL-BST02	RFP L34
TEL-BST11	RFP L35
TEL-BST12	RFP L36

Generating a License for Multiple Base Stations

Perform the following procedure only if there will be three or more (up to 20) base stations in the wireless system. Before starting this procedure, the OpenMobility Manager (OMM) Activation CD and MAC addresses of three base stations must be available.

1. Open a web browser, and go to http://license.aastra.de

A STRA Licence Server	english endlish
Information To use the License Server, your web browser needs to support JavaScript and accept cookies.	Dear Client, This application allows you to generate activation keys for the service packages of the TK system you have ordered. Using these activation keys, it is possible to activate the corresponding service package during or after configuration of the system.
	GENERATION OF LICENCES You can create activation keys in the licence generation centre using the transaction data (TAD). The TAD can be found on the licence confirmation, which you received after purchasing the service package.
	INFO CENTRE In the info centre, you will find all the information on the activation keys you have generated and the transaction data records you have used.

2. Click Generation of License tab (circled in the next screenshot).

A STRA Licence Server	~	english endlish endlish
 » Generate Licence » Aastra Business CTI » Generate free licences » Upgrade release 		GENERATION OF LICENCES Please click on generate licence to redeem your transaction data record. Here, you can generate activation keys to activate the service package you have ordered. To do this, enter the created serial number of your configuration and the transaction data record (TAD) of your licence confirmation. IMPORTANT: The service packages contained in a transaction data record can each be used only once. Each transaction data record is only valid for one licence carrier. If activation keys have been generated to all service packages of a TAD, then the TAD is invalid.

3. Click Generate License in the left sidebar. See the next screenshot as circled.

A STRA Licence Server	N C	http://ww	Generation of Licences Info Centre Login
Generate Licence Adstra Businesse GTI Generate free licences Upgrade release	Licence Carrier Type	SIP-DECT MAC 1 MAC 2 MAC 3 Check MAC(s) >>	New Selection

- 4. For License Carrier Type, select *SIP-DECT*. Enter the MAC address for each base stations in the format of 00-30-42-xx-xx. Then click **Check MAC(s)**.
 - **NOTE:** Only three base stations need to be entered here to generate the license. If your system will contain various models—TEL-BST01, TEL-BST02, TEL-BST11, or TEL-BST12 base stations—use at least two TEL-BST11, and/or TEL-BST12 base stations here. Once the license file is uploaded, up to 20 base stations can be added to the system.

A STRA Licence Server	r c	h	ttp://ww	Generation of Licer	englinces Info Centre	sh 🔹
» Generate Licence » Aastra Business CTI	Licence Carrier Type	SIP-DECT	00-30-42-12-5E-85	\$	New Selection	
 » Generate free licences » Upgrade release 		MAC 2 MAC 3	00-30-42-12-5E-11 00-30-42-0D-1D-27 Check MAC(s) >>			

5. The Release field will show up if MAC(s) are verified. Select Release 4.0 for release.

A STRA Licence Server	r C	http://ww	Generation of Licences Info Centre Login
Generate Licence Aastra Business CTI Generate free licences Upgrade release	GENERATION The chosen rel licence! Licence Carrier Type Release	IOF LICENCES lease must be licenced. Note: To run your system, you n SIP-DECT MAC 1 00-30-42-12-5E-85 MAC 2 00-30-42-17-93-EE MAC 3 00-30-42-0D-1D-27 Release 3.0 Release 3.0	eed a valid system
	TAD-TAN	Check TAD 🦻	

6. In the TAD-TAN field, enter the TAD that can be found on the OMM Activation CD. Then click Check TAD.

A STRA Licence Server	N C	http://ww	Generation of Licences	english 🗘
Generate Licence Aastra Business CTI Generate free licences Upgrade release	GENERATION The chosen relicence!	OF LICENCES ease must be licenced. Note: To run your system, you ne	eed a valid system	v Selection
	Release TAD-TAN	MAC 1 00-30-42-12-5E-85 MAC 2 00-30-42-17-93-EE MAC 3 00-30-42-0D-1D-27 Release 3.0 MV672-ZQVBR-KVYN9-ADD17-1FC24	¢)	
		Check TAD »		

7. In the **Park** field, enter the Portable Access Rights key (PARK) that can be found on the OMM Activation CD. Then click **Generate License** button at the bottom of the page. These will be displayed in the OpenMobility Manager—see *Booting the Base Station*, <u>step 16</u>.

enerate Licence astra Business CTI enerate free licences pgrade release	GENERATION Using the serial that has possib This is entered reconfiguration However, you c in the automatif if you expect y sure to activate PARK for large Please note ho You should als You should als You should als	OF LICENCE I numbers or I ly already been in the Park file of your Dect an also enter c allocation of our installation e the corresp a systems. wever that the on or activation isproportional aase must be l	AC addresses entered, the system tries to detect a park in used. Id and can be reused for regeneration. This means that system is not necessary. another (valid) park or leave the field empty, which will result a free park. On to grow beyond the 256 RFP limitation, please make bonding checkbox. This way you will obtain a special the OMM must be installed on a Linux-PC in that case. It bits checkbox for small installations, because this the installation effort.		
Licence (Carrier Type	SIP-DECT	· · · · · · · · · · · · · · · · · · ·	\$	New Selection
		MAC 1	00-30-42-12-5E-85		
		MAC 3	00-30-42-0D-1D-27		
Release		Release 3	.0	¢	
TAD-TAN	1	GU56U-P	QC84-5G5NA-M8HB8-78F9C		
Park		1F-10-23	-13-E9		
Licence	Products	The insta	allation will contain more than 256 RFPs in the future.		
Licitor		SIP-DECT:	tem Activation for L-RFP installations 1		

8. Click the link: **Download Importable File** circled in the next screenshot. A file named *ommsip.xml* should be saved in the Downloads folder. Please keep this file with other important information about your installation, in case there is a need to reset to the factory default in the future.

AZSTRA Licence Server	n (http://www. Generation of Licences	english 🔹
			1
» Generate Licence		SIP-DECT	
» Aastra Business CTI	Licence Carrier Typ	e: SIP-DECT	
» Generate free licences	Park:	1F-10-23-13-E9	
» Upgrade release	MAC:	• 00-30-42-12-5E-11 • 00-30-42-12-5E-85 • 00-30-42-0D-1D-27	
	Release:	Release 2.1 (Do upgrade until 11.04.2013 15:46:12)	
	State:	Active	
	Created:	11.04.2012 15:46:12	
		TAD from 09.05.2011 (SAP Order: 0021345537, SAP Customer Number:)	
	11.04.2012 15:46:	OM System Activation for L-RFP installations RGEZA-RLLBL-ZREHG-DPSKM-8XT1M Generated by SAP Production System	
	Download Importable	9 File.	

Booting the Base Station

The Savant PBX includes support for the access point base stations: Savant TEL-BST11, or TEL-BST12. The Savant documentation refers to these devices as SIP DECT. If a license file was generated in the previous procedure, <u>Generating a License for Multiple Base Stations</u>, start with the base stations used to generate the license, and run the primary and secondary OpenMobility Manager (OMM) on two of them.

To boot the SIP-DECT, do the following.

- 1. Run OM_Configurator.jar from your SDE.
- Click Add parameter (tab), select Country then click Add. Repeat to add DNS addresses, NTP server name and 2nd OMM IP address (when there are at least two base stations in the system). The next screenshot shows example values. See the next table for help on entering values.

00	OpenMobility Configurator SIP-DECT 3.0		
Configuration Help			
Scan Save RFPs Load config	Run config's Add parameter Send	config. Reset config. English	‡ en0 ‡
RFP configuration list	Connection to RFP		
	🗹 Login	User:	omm
	Factory defaults	Password:	•••
	RFP IP address:		🗌 as proxy
	MAC address:	00:30:42:17:93:ee	List configuration
	Configuration of the RFP		
	Use local configuration:	💽 yes 🔵 no	
	IP address:	10.5.225.66	
	Net mask:	255.255.255.0	
	TFTP server address:	10.5.225.3	
	TFTP file name:	/SIP-DECT_3_0/ipi	fp3G.dnld
	OMM IP address:	10.5.225.66	
	Router addresses:	10.5.225.1	
	DNS addresses:	8.8.8	
	NTP server name:	1.aastra.pool.ntp.o	rg 🕜 🔀
	Country:	100	
	2nd OMM IP address:	10.5.225.68	

10.5.225.11

3. The fields in the Radio Fixed Part (RFP) configuration page should be set as shown in the next table. Fields that are not shown in the table do not need to be set or modified.

Field	Description
Login	Insert check mark
User	Enter omm
Password	Enter omm
MAC address	Enter MAC address of the base station with format: 12:34:56:78:ab:cd
Use Local Configuration	Insert check mark beside yes
IP address	IP address that you have reserved for this device (the base station).
Net mask	Enter your network mask
TFTP server address	Enter Savant PBX IP address
	Enter Trivial File Transfer Protocol (TFTP) file name: /SIP-DECT_4_0/iprfp3G.dnld
TFTP file name	If you are configuring base station models TEL-BST01 or TEL- BST02, the following Trivial File Transfer Protocol (TFTP) file name name should be used (for more details see the <i>Savant Telephony</i> <i>Solution Deployment Guide 009-0406-06</i>):
	/omm_ffsip.tftp
	Ensure the file path and name is exactly as shown above.
	Important! Do not cut and paste this file name. You must type the file name in the field.
OMM IP address	IP address of the first base station. If there is only one base station or this is the first base station, enter the IP address of the base station. This is where the primary OMM will be running. Make sure you use the same address in this field for each base station that you add later.
Router address	Click plus button then enter the gateway IP address of local network.
Country	Click question button to find out proper country code. United States is 100.
DNS addresses	Enter Domain Name Server (DNS) address. You should be able to find your DNS server address from the router of your local network. Use your router's web user interface which should display general router information, including DNS. You can also choose to use Google Public DNS instead, for example: 8.8.8.8
NTP server name	Enter Network Time Protocol (NTP) server name: 1.aastra.pool.ntp.org
2nd OMM IP address	If there is more than one base station, enter the IP address of a base station where the secondary OMM is to run. Ensure that you use the same address in this field for each base station that you add later.

4. If you have not done so already and you have more than one network interface, verify your network interface on your SDE by using the **Terminal** utility and the command ifconfig.

The base station and the Savant Development Environment (SDE) must be on the same network. Typically, the first three octets of the broadcast IP address will match those of the base station IP address. See the next two screenshots.

Select the network interface from the drop-down list (circled in red in the next screenshot) that has a broadcast IP address with the same first three octets as the base station IP address. Use the next two screenshots to help determine the correct network interface.

00	OpenMobility Cont	figurator 1.8.9	
Configuration Help			
Scan Save RFPs Load config	Run config's Add parameter Send config.	Reset config. English	¢ en0 ¢
RFP configuration list	Connection to RFP		
	Login User	:	
	Factory defaults Pass	word:	
	RFP address:		🗌 as proxy
	MAC address: 00:	30:42:12:5e:85	List configuration
	Configuration of the RFP		
	Use local configuration:	💽 yes 🔘 no	2
	IP address:	10.5.225.66	
	Net mask:	255.255.255.0	

Note that the IP Address circled in green in the previous screenshot is the base station IP address. Compare this to the broadcast IP address circled in the next screenshot taken from **Terminal**.

\varTheta 🔿 🔿 🐘 RPM@savant-ipbx: /usr/src/Asteria_Savant_svn21495_20110809/aste
Connection to 10.5.225.20 closed.
yzhou-mbp:telephony yue.zhou\$ ifconfig
lo0: flags=8049 <up,loopback,running,multicast> mtu 16384</up,loopback,running,multicast>
inet6 ::1 prefixlen 128
inet6 fe80::1%lo0 prefixlen 64 scopeid 0x1
inet 127.0.0.1 netmask 0xff000000
gif0: flags=8010 <pointopoint,multicast> mtu 1280</pointopoint,multicast>
stf0: flags=0<> mtu 1280
en0: flags=8863 <up,broadcast,smart,running,simplex,multicast> mtu 1500</up,broadcast,smart,running,simplex,multicast>
ether 00:25:00:a5:95:70
inet6 fe80::225:ff:fea5:9570%en0 prefixlen 64 <u>scopeid 0x4</u>
inet 10.5.225.9 netmask 0xffffff00 broadcast (10.5.225.255)
<pre>media: autoselect (1000baseT <full-duplex>)</full-duplex></pre>
status: active
fw0: flags=8863 <up,broadcast,smart,running,simplex,multicast> mtu 4078</up,broadcast,smart,running,simplex,multicast>
lladdr 00:25:00:ff:fe:a5:95:70
media: autoselect <full-duplex></full-duplex>
status: inactive
en1: flags=8863 <up,broadcast,smart,running,simplex,multicast> mtu 1500</up,broadcast,smart,running,simplex,multicast>
ether 00:23:6c:81:d4:22
inet6 fe80::223:6cff:fe81:d422%en1 prefixlen 64 scopeid 0x6
inet 10.5.210.27 netmask 0xffffff00 broadcast 10.5.210.255
media: autoselect
status: active
uzhan mbeitalashasu una zhanĝ

5. Click Send Config, check if status "sending ok" shows on the bottom left.

All LEDs on the base station light up orange then off, wait until the bottom LED is up green and the second from bottom LED flashing orange.

- 6. If there will be more than one base station in the system, repeat steps 3 to 6 to boot up all base stations.
- 7. Open your web browser and type in the OMM IP address. Note that the OMM runs in active and standby mode (if a second OMM IP is configured), and the system will automatically switch to the active OMM. You can not open OMM on any other base stations in the system.

risk

8. With initial installation enter the default user name and password:

User Name: omm Password: omm

Leave **System** blank. The value for **PARK** is populated by default as 1F100CF0A6. This is a demo license. It must be replaced by uploading a license file for a system containing 3 - 20 base stations, or by entering the PARK on the OMM CD for a system containing only one or two base stations.

AASTRA			OpenMobility Manager SIP-DECT 3.0
			X = 11 🔤
		Login	
	System	-	
	PARK	1F100CF0A6	
	User name	໑ຒຠ	
	Password	•••	
		ОК	
	v	goahead VEBSERVER	

9. Read the end-user license agreement, and click Accept on the end-user license agreement page.

AASTRA	OpenMobility Manager SIP-DECT 3.0
Logout	n de la companya de l
Status Status Status Stean Sites Radio fixed parts Portable parts WLAN System features Licenses Info	End-user license agreement BY CLICKING "ACCEPT", INSTALLING, COPYING, OR OTHERWISE USING ANY PART OF THE SOFTWARE (AS DEFINED BELOW), YOU AGREE TO BE BOUND BY THE TERMS OF THIS EULA. IF YOU DO NOT AGREE WITH THE TERMS OF THIS EULA, DO NOT INSTALL OR USE THE SOFTWARE. Aastra Software End User License Agreement (EULA) for RFP (L)3x/P, RFP (L)4xWLAN, OpenMobilityManager (OMM), OM Management Portal (OMP), OM Locating (OML), OM Configurator (OMC) 2010/06/09 These license terms are an agreement between Aastra Telecom Schweiz AG or one of its affiliates (Aastra) and you. By downloading or installing the Software, or using the product containing the Software, you represent and warrant that you have read, understand, have the legal capacity to, and hereby agree to be legally bound by these terms and conditions. If you do not agree to all of these terms, then you may not download, install or use the software. 1. License. Subject to the terms and conditions of this Agreement, Aastra grants the original end user purchaser of the Software or the Aastra product containing the Software was intended or (where authorized in the applicable documentation) for communication with such product. This license may not be sublicensed, and is not transferable except to a person or entity to whom you transfer ownership of the complete Astra product containing the Software, norwiched you permanently transfer all rights under this Agreement. This license applies also to Software that is distributed for free. 2. "Software in any full or partial copies of the Software, and the recipient agrees to the terms of this Agreement. This license applies also to Software that is distributed for free. 3. "Software' in dudes, and this Agreement will apply to (a) the Aastra software provided in or with the applicable Aastra

10. <u>Change the **Full Access** and **root** account password</u>, and then for future reference write down the user names and passwords. The password must be at least five characters, contain both upper and lower case characters, and include a numerical digit. If no user action takes place, the OMM logs out the user after five minutes. See the next two screenshots.

A/ASTRA		OpenMobility Manager SIP-DECT 3.0					
Logout		** 💻 🖬 🖬 🖬					
Status Sustem	User administration						
System System settings SIP	Change passwords ① Currently the default password for 'Full access' is active! Please change the password first.						
User administration Time zones SNMP	OK Cancel						
DB management	Local user account						
Event log Sites Radio fixed parts Portable parts WLAN System features Licenses	Account type	Full access 🗘					
	Active	\checkmark					
	User name	admin					
	Old password						
	Password	•••••					
	Password confirmation						
Info	Password aging	None ‡					

AASTRA		OpenMobility Manager SIP-DECT 3.0					
Logout		🕂 💻 🔢 🖬 🖬 🖬					
Status	User administration						
▼ System	Change passwords ① Currently the default password for 'Root (SSH only)' is active! Please change the password first.						
System settings SIP							
User administration							
Time zones SNMP	OK Cancel						
DB management	Local user account						
Event log Sites Radio fixed parts Portable parts WLAN System features Licenses	Account type	Root (SSH only) 🗘					
	Active	\checkmark					
	User name	root					
	Old password						
	Password	•••••					
	Password confirmation						
Info	Password aging	None ‡					

11. The system shows that it is running on a temporary license that is valid for 72 hours. This temporary status will change to a permanent license after you enter a Portable Access Rights key (PARK)—for a system that has one or two base stations—or upload a valid license file (for a system having 3-20 base stations). If a license is not needed, skip steps 14-17, and continue on **System** settings.

A⁄ STRA		OpenMobility Manager SIP-DECT 3.0
Logout		💥 💻 🚺 🚾
Status	Status	
▶ System		
Sites		General
Radio fixed parts Portable parts	OpenMobility Manager	SIP-DECT 3.0
	Uptime	0:00
* WLAN	Licenses 😑	Please import a valid license file to ensure the correct operation of the OpenMobility Manager!
System features	Grace period	72:00
Licenses	Standby OMM	✓
1110	IP address	10.5.225.68
	OM Integrated Messaging & Alerting service	X
		Radio fixed parts
	Total number	0
		Portable parts
	Total number	0
	Subscription allowed	×
	Downloading new firmware to portable parts	1
	Loading firmware from	tftp://10.5.225.3/SIP-DECT_3_0/aafon6xxd.dnld
	Firmware version	[650c: 1.01.RC3] - [600d: 4.00.01]
	Number of known downloadable portable parts	50
	Number of already updated portable parts	0
	Number of portable parts waiting for download	10
	Number of portable parts currently downloading	0
	Number of barred portable parts	0
	Number of portable parts with download error	0
	Number of portable parts not reachable	0
	Number of detached portable parts	0

12. Click Licenses in the left sidebar.

A ⁄3STRA						OpenMobility Manager SIP-DECT 3.0		
Logout						* = 💷 📼		
Status	Licenses							
System	Status							
Sites	Please check the status page.							
Portable parts	-							
▶ WLAN								
System features	 Changing these settings may cause the 	Ope	enMobility Manager to be reset	t.				
Licenses								
Info	License file import							
	Choose File no file selected							
	Import							
			General					
	Status	0	Please import a valid license	file to ensure the	correct opera	ation of the OpenMobility Manager!		
	License type		Demonstration mode					
	Grace period	1	72:00					
	PARK		1F100CF0A6	(31100147412	2304)			
			System					
	Number of radio fixed parts		256			OM System License XXX		
	Software version		3.0.x currently running SIP-DECT 3.0					
			Messaging					
	Number of users allowed to send messages		512			OM Messaging License XXX		
	Receiving text messages		1			OM Messaging & Alerting System License		
			Locating					
	Number of users allowed to be located		512			OM Locating License XXX		
	External locating application		1			OM Locating Server License		
			G.729					
	Number of G.729 channels		-			OM G.729 License XXX		

- 13. Click the Choose File button to open Finder.
- 14. Select the license file *ommsip.xml* that was downloaded when you generated the license. Click **Choose**, as circled in the next screenshot.



15. Click Import, as circled in the next screenshot.

AASTRA					OpenMobility Manager SIP-DECT 3.0			
Logout					** 💻 🛄 📼			
Status	Licenses							
▶ System	Status							
Sites	Please check the status page.							
Portable parts								
* WLAN								
System features	Changing these settings may cause the OpenMobility Manager to be reset.							
Licenses								
Info	Info License file import							
	Choose File ommsip.xml							
	Import							
	import							
			General					
	Status	•	Please import a valid license	file to ensure the correct opera	ation of the OpenMobility Manager!			
	License type		Demonstration mode					
	Grace period	-	72:00					
	PARK		1F100CF0A6	(31100147412304)				
			System					
	Number of radio fixed parts		256		OM System License XXX			
	Software version		3.0.x	currently running SIP-DECT	3.0			
			Messaging					
	Number of users allowed to send messages		512		OM Messaging License XXX			
	Receiving text messages		V		OM Messaging & Alerting System License			
	Number of users allowed to be located		Locating		OM Locating License XXX			
	External locating application		512		OM Locating Server License			
	External locating application		•		on Locating Server Litense			
			6 729					
	Number of G.729 channels		-		OM G.729 License XXX			
The system will restart after the license file is uploaded. Note that on the login page, the **PARK** field now displays the PARK values you used to generate the license file in the procedure, <u>Generating a License For Multiple Base</u> <u>Stations</u>.

AASTRA		c	penMobility Manager SIP-DECT 3.0
			* 💻 🔝 🔤
		Login	
	System	-	
	PARK	1F1023199B	
	User name)
	Password]
		ОК	
	V	goahead	

16. Ensure that all three base stations used to generate the license are added to the system—these were entered in the <u>License Carrier Type</u> field, in the procedure *Generating a License For Multiple Base Stations*. Otherwise, a license violation will occur and lead to the system not working properly.

AZSTRA		OpenMobility Manager SIP-DECT 3.0
Logout		📰 📰 🗮 📰 🖬
Status	Status	
System		
Sites		General
Radio fixed parts	OpenMobility Manager	SIP-DECT 3.0
Portable parts	Uptime	0:03
 WLAN System features 	Licenses 🛕	Not all of the RFPs selected for licensing are currently connected to the OpenMobility Manager. If the next RFP fails the license becomes invalid. Please reconnect the missing RFP, let it repair or obtain a new license with other RFPs.
Licenses	Grace period	72:00
Into	Standby OMM	✓
	IP address	10.5.225.66
	OM Integrated Messaging & Alerting service	X
		Radio fixed parts
	Total number	3
	Connected	2
	DECT activated	0
	WLAN activated	0
		Portable parts
	Total number	0
	Subscription allowed	X
	Downloading new firmware to portable parts	✓
	Loading firmware from	tftp://10.5.225.3/SIP-DECT_3_0/aafon6xxd.dnld
	State 😒	Delayed during startup phase

17. Under System click System Settings in the left pane.

AASTRA			OpenMobility Manager SIP-DECT 3.0
Logout			* = 1 =
Status	System settings		
▼ System	Status		
System settings	Please check the status page.		
User administration	-		
Time zones			
SNMP	 Changing these settings may ca 	use the OpenMobility Manager to be reset.	
DB management			
Event log	OK Cancel		Update Restart
Padio fixed parts		General settings	
Portable parts	System name	Building45	
* WLAN	Remote access	3	
System features			
Licenses		Net parameters	
Info	ToS for voice packets	88	
	ToS for signalling packets	88	
	TTL (Time to live)	32	
	VLAN priority call control	6 \$	
	VLAN priority audio	6 \$	
		DECT settings	
	PARK	1F1023199B (31100430631547)	
	Encryption		
	DECT monitor		
	Regulatory domain	US (FCC/IC) ‡	When changing the DECT regulatory domain all radio fixed parts will be reset.
	DECT authentication code		
	Portable part user login type	Number ÷	
		Downloading new firmware to portable parts	
	Active	<u>ح</u>	
		Voice mail	
	Voice mail number	2999	

18. The fields on the **System Settings** page should be set as shown in the next table. Fields that are not shown in the table do not need to be set or modified.

Field	Description
System name	Enter a name for the DECT system. It will be displayed on the handsets after handsets have subscribed to the system successfully.
Remote access	Insert a check mark in the box.
	Either of the following two scenarios will apply:
PARK	 Enter the Portable Access Rights key (PARK) included with the OMM package (on the CD) if installing only one or two base stations.
	 If you uploaded a valid license for 3-20 base stations, the OMM user interface will display the PARK you used to generate the license.
Encryption	Insert a check mark the box.
Regulatory	Select the required value from the drop-down list.
Downloading new firmware to portable parts (Active)	Insert a check mark the box.
Voice mail number	Enter the Voicemail Extension number. Refer to the procedure, Adding Voice mail to Savant PBX. Leave it blank if there is no voicemail in Savant PBX.
Active (under Syslog)	Insert a check mark in the box.
IP address	Enter Savant PBX IP address.
Port number	Click the Default button, which adds 514.
Regulatory domain	Select the required value from the drop-down list.
Time zone	Select one. All available time zones are listed in alphabetical order. For users in the US, use Eastern, Central, Mountain, Pacific or Hawaii depending on the place of installation.

19. Click **OK**. The system may restart.

- 20. Log in with the **Full Access** user name and password after system starts up. See <u>step 11</u> in the *Booting the Base Station* procedure.
- 21. Click System (circled in the next screenshot) in the left pane to expand the options.
- 22. Click SIP to open the SIP page.

AASTRA			OpenMobility Mar SIP-DE	1ager CT 3.0
Logout			× = 1	
Status ▼ System	OK Cancel			
System settings		Basic settings		
SIP	Proxy server	10.5.225.3		
User administration	Proxy port	5060		
SNMP	Registrar server	10.5.225.3		
DB management	Registrar port	5060		
Event log	Registration period	3600	sec	
Sites		A duran and a atting		
Radio fixed parts	Outbound proxy server	Advanced setting	gs	
Portable parts	Outbound proxy port	5060		- 1
WLAN	Explicit MWI subscription	5000		_
System features				- 1
Info	Dial terminator			_
Ino		1200		- 1
		1200	sec	_
	Transaction timer	4000	msec	- 1
	Blacklist time out	5	min	_
	Determine remote party by	P-Asserted-Identity	y 🗧 header	
	Multiple 180 Ringing			- 1
		RTP settings		
	RTP port base	16320		
	Preferred codec 1	G.722 \$		
	Preferred codec 2	G.711 u-law ‡		
	Preferred codec 3	G.711 A-law \$		
	Preferred codec 4	G.729 A ‡		
	Preferred packet time	20 \$ msec		
	Silence suppression			
	Receiver precedence on CODEC negotiation			
	Eliminate comfort noise packets			
		DTMF settings		
	Out-of-band	Ø		
	Method	RTP(RFC 2833) \$		
	Baulaad tura	101		

23. The fields in the SIP settings page should be set as shown in the next table. Fields that are not shown in the table do not need to be set or modified.

Field	Description
Proxy server	Enter Savant PBX IP address
Proxy port	5060
Registrar server	Enter Savant PBX IP address
Registrar	5060
Dial terminator	Clear this field and leave blank

- 24. Click OK. The system will restart.
- 25. Log in after system starts up.

Next add a base station. See the next procedure, Adding a Base Station.

Adding a Base Station

This procedure is used for adding a single base station or adding multiple base stations. Repeat this procedure for each base station. When adding multiple base stations, it is assumed the procedure, <u>Generating a License for</u> <u>Multiple Base Stations</u>, has been performed.

Whether a license is required (three to 20 base stations in the system) or not, this procedure is the same. All booted base stations are displayed here so they can be added to the system. However, if a license was uploaded to the system, all three base stations—based on their MAC addresses that were used to generate a license—will be displayed, even if they are not booted yet.

To add a base station, do the following in OpenMobility Manager.

- 1. Click Radio fixed parts in the left pane.
- 2. Click the **Start** button and wait for 10 seconds. All booted base stations should display on this page. If there is base station still missing, double check if that station is booted up with the correct OMM IP.

A⁄astra							OpenMobility I SIP-	DECT 3.0
Logout							*	
Status System Sites Radio fixed parts Inactive Portable parts WLAN System features Licenses	New Import Capturing unconfigured radio fixed	parts					Sorted by DE	CT clusters ÷
All C	Inactive: 3 Radio fixed parts			3 Radio fixe	d parts			
	ID Name	MAC address	IP address	HW type	Site	RPN	Reflective environment	ted Active
	📝 🔞 0000 License RFP 3	00:30:42:12:5E:11	-	unknown	1	-	- 🗙	-
\rightarrow	3 1001License RFP 2	00:30:42:17:93:EE	10.5.225.66	RFP L35	1	-	- 🗸	-
	📝 🔞 0002 License RFP 1	00:30:42:17:93:E9	10.5.225.68	RFP L35	1	-	- 🗸	-

3. Select one base station. If a license file was uploaded, start with a base station that is used to generate the license file. Click the edit icon in front of the selected base station (shown by the red arrow in the previous screenshot), the **Configure radio fixed part** page opens. See the next screenshot.

🔴 😑 🛛 Open M	Mobility Manager SIP-DECT 3.0 🔒 🖉
onfigure radio fixed pai	rt
Please configure the W Please configure a WLA	/LAN regulatory domain on the system settings page. AN profile of proper type.
	General settings
MAC address	00:30:42:17:93:EE
Name	License RFP 2
Site	1 ‡
1	DECT settings
DECT cluster	1
Preferred synchronization source	I
Reflective environment	
)	WLAN settings
WLAN profile	1 \$
802.11 channel	\$
Output power level	Full \$
ОК	Cancel

4. The fields in the **Configure radio fixed part** page should be set as shown in the next table. Fields that are not shown in the table do not need to be set or modified.

Field	Description
MAC address	Enter MAC address of the base station.
Name	Enter a name, for example, House (Inside).
DECT settings	Insert a check mark in the box.
DECT cluster	Enter: 1
Preferred synchronization source	Insert a check in the box if this is the base station you want to use as the synchronization source. For a system that has multiple base stations, the synchronization source should be the one in the middle.

5. Click **OK**. After a few seconds, the base station should show as active with a green check mark.

A ASTRA							OpenMob	ility Ma SIP-DE	nager CT 3.0
Logout									
Status	Radio fixed parts								
System	Status								
Sites									
Radio fixed parts	Please check the status page.								
DECT cluster 1									
Inactive	New	1					Sorted	by DECT cl	usters ‡
Portable parts									
WLAN	Capturing unconfigured radio fixed	parts							
System features	Stop							Canture all	owed: 🗸
Licenses								capture an	oweu. v
Info									
				3 Radio fixe	d parts				
	DECT cluster 1: 1 Radio fixed p	art							
	ID Name	MAC address	IP address	HW type	Site	RPN	Reflective environment	Connected	Active
	i 0001License RFP 2	00:30:42:17:93:EE	10.5.225.66	RFP L35	1	00	×	 Image: A second s	V
	Inactive: 2 Radio fixed parts								
	ID Name	MAC address	IP address	HW type	Site	RPN	Reflective environment	Connected	Active
	📝 🔞 0000 License RFP 3	00:30:42:12:5E:11	-	unknown	1	-	-	*	-
	📝 🔞 0002 License RFP 1	00:30:42:17:93:E9	10.5.225.68	RFP L35	1	-	-	 Image: A second s	-

6. Repeat steps 3-5 to add all base stations to the system.

A ASTRA							OpenM	obility M SIP-I	lanager DECT 3.0
Logout								₩ =	
Status System Sites Radio fixed parts DECT cluster 1 Inactive Portable parts busies and busies	Radio fixed parts Status Please check the status page. New Import 						Sorte	ed by DECT c	lusters 🗧
▶ System features Licenses Info	Capturing unconfigured radio fixed part Stop	<u>s</u>		3 Radio fixed	parts			Capture al	lowed: ✔
	DECT cluster 1: 2 Radio fixed parts								
	ID Name	MAC address	IP address	HW type	Site	RPN	Reflective environment	Connected	Active
	📝 🔞 0001 License RFP 2	00:30:42:17:93:EE	10.5.225.66	RFP L35	1	01	×	 Image: A second s	1
	📝 🔞 0002 License RFP 1	00:30:42:17:93:E9	10.5.225.68	RFP L35	1	00	×	 Image: A second s	√
	Inactive: 1 Radio fixed part ID Name	MAC address	IP address	HW type	Site	RPN	Reflective	Connected	Active
	0000 License RFP 3 1	00:30:42:12:5E:11	-	unknown	1	-	-	×	-

Now you can add handsets. See the next procedure, Adding Handsets to the Base Station.

Adding Handsets to the Base Station

To add wireless handsets to the base station, do the following in OpenMobility Manager.

1. Click Portable parts.

AASTRA		OpenMobility Manager SIP-DECT 3.0
Logout		X 💻 💷 🚾
Status	Portable parts	
▶ System	Status	
Sites Radio fixed parts	1 Please check the status page.	
Portable parts		
* WLAN	New Import Search	PARK: 31100430631547
Licenses		Subscription allowed: 🗱 Auto-create on subscription: 🗱
Info	Subscription with configured IPEIs	
	Start	
	Wildcard subscription	
	2 min 🗘 Start	
	0 Portable parts	

2. Click Import.

AASTRA	OpenMobility Manager SIP-DECT 3.0
Logout	
Logout Status System Sites Radio fixed parts Portable parts WLAN System features Licenses Info	Portable part enrolment Status Please check the status page. Enrolment data import Choose File no file selected Import Log file Enrolment data
	Add Delete Log file O Portable parts

- 3. Click **Choose File**, there should be a pop up directory to allow you choose file.
- 4. Find *sip_dect.cfg*, click **Choose**. The file name displays on the page. See the next screenshot.
- **NOTE:** The file, *sip_dect.cfg*, is the one that you saved when adding a Savant wireless phone using the Savant Configurator.

5. Click **Import**. Available handsets will be displayed. If the import fails, click the **Log file** button to get detailed information. You may need to go back to the procedure, <u>Adding Savant Wireless Phone</u>, and generate sip_dect.cfg file again.

A⁄astra	OpenMobility Manager SIP-DECT 3.0
Logout	n de la companya de l
Logout Status > System Sites > Radio fixed parts Portable parts > WLAN > System features Licenses Info	Portable part enrolment Status Please check the status page. Enrolment data import Choose File sip_dect.cfg Import Log file Enrolment data
	Add Delete Log file O Portable parts

- 6. Insert a check mark in each box beside the names of the required handsets. Insert a check mark beside **Name** to select all handsets.
- 7. Click Add.

AASTRA					OpenMobility M SIP-D	anager ECT 3.0
Logout						
Status	Portable part enrol	nent				
System Sites	Status	status nage				
 Radio fixed parts Portable parts 		status page.				
F WLAN	Enrolment data impor	t				
Licenses	Choose File no file se	lected				
Info	Import		Log file			
	Enrolment data					
	Add	Delete	Log file			
	2 Portable parts					
	Name	Number	IPEI	DECT authentication code	Additional ID	Added
	TEL-WHST630	2033	0358603700139	-	-	-
	✓ TEL-WHST620	2032	0358604445153			-

8. Confirm the handsets have been added (indicated by the green check marks).

A/ASTRA					OpenMobility I SIP-	Manager DECT 3.0
Logout						
Status	Portable part enrol	nent				
 System Sites Radio fixed parts Portable parts WLAN System features Licenses 	Status Please check the Enrolment data impor Choose File no file se	status page. t				
Info	Import Enrolment data		Log file			
	Add 2 Portable parts	Delete	Log file			
	Name	Number	IPEI	DECT authentication code	Additional ID	Added
	TEL-WHST630	2033	0358603700139		-	
	TEL-WHST620	2032	0358604445153	-		v

9. Click Portable parts in left pane.

Handsets are shown as not subscribed to the base station. See the next screenshot.

A⁄ASTRA				OpenMobility I SIP-	Manager •DECT 3.0
Logout					II Z
Status	Portable parts				
 System Sites Radio fixed parts 	Status Please check the status page.				
Portable parts VULAN System features Licenses Tofo	New Import	Search		PARK: 311 Subscriptic Auto-create on su	00430631547 on allowed: 🗸 ubscription: 🗙
	Subscription with configured IPEIs Stop				
	Wildcard subscription 2 min ‡ Start				
			1 - 2 (2) Portable parts		
	Name	Number	IPEI	Subscribed	Download
	📝 🍿 TEL-WHST620	2032	03586 0444515 3	×	-
	DEL-WHST630	2033	03586 0370013 9	×	-

Next, subscribe wireless handsets to a base station. See the next procedure.

Subscribing Handsets to the Base Station

To subscribe handsets to the base station, do the following in OpenMobility Manager.

- Ensure subscription is allowed and the handset is added to the system by checking the OMM Portable parts page. If subscription is allowed, you will see a green check mark for Subscription allowed. If added, you will see the handset's IPEI displayed. If subscription is not allowed, click the Start button under Subscription with configured IPEI to enable subscription."
- 2. From a handset, press right softkey to Menu screen.
- 3. Use $\nabla \Delta$ to select **System**.
- 4. Press left softkey for ok to the System menu.
- 5. Use $\nabla \Delta$ to select **Subscriptions**.
- 6. Press left softkey for ok to the Subscriptions menu.
- 7. Select New system. Press ok.
- 8. Leave Auth. Code blank.
- 9. Press left softkey for Next to the New system menu.
- 10. Select Enter PARK, press left softkey for ok.
- 11. Enter the numeric PARK number shown on the **Portable parts** page, circled in the next screenshot.

A ASTRA				OpenMobility I SIP-	Manager DECT 3.0
Logout					
Status	Portable parts				
System	Status				
Radio fixed parts	Please check the status page.				
Portable parts					
▶ WLAN	New Import	Search		PARK: 3110	0430631547
System features				Subscriptio	on allowed: 🗸
Licenses				Auto-create on su	bscription : 🗱
Info	Subscription with configured IPEIs				
	Wildcard subscription				
	2 min ‡ Start				
			1 - 2 (2) Portable parts		
	Name	Number	IPEI	Subscribed	Download
	📝 🍿 TEL-WHST620	2032	03586 0444515 3	✓	A
	📝 🍿 TEL-WHST630	2033	03586 0370013 9	 Image: A second s	 Image: A second s

12. Press left softkey for Next.

Screen displays **please wait**. After the subscription process is done, the screen will show handset's extension number, the system name and time. It is now ready to make and receive calls.

13. Confirm that the handset is subscribed by viewing the **Status** section in the **Portable parts** page. If subscribed, you will see a green check mark for **Subscribed**. Repeat to subscribe all handsets.

Integrating TEL-BST11/TEL-BST12 with TEL-BST01/TEL-BST02

If the Savant PBX system includes more than one base station, when a handset detects that another base station has a better signal strength, the handset starts the handover process, so that it will have better voice quality and extended coverage area.

Before You Begin

This procedure is only applicable if you are adding a TEL-BST11 or TEL-BST12 to a Savant PBX system already running with a TEL-BST01 or TEL-BST02.

- 1. In the left pane of OpenMobility Manager, click Radio fixed parts.
- 2. Under HW type, check the base station that OMM is running on-information is displayed in Bold.

DECT	clust	er 1: 3 Radio fixed parts								
		ID Name	MAC address	IP address	HW type	Site	RPN	Reflective environment	Connected	Active
2	0	0001 License RFP 2	00:30:42:17:93:EE	10.5.225.88	RFP L35	1	02	×	v	 Image: A second s
2	8	0002 License RFP 1	00:30:42:17:93:E9	10.5.225.86	RFP L35	1	00	×	1	A
2	ŵ	0003 Yard	00:30:42:12:5E:85	10.5.225.68	RFP L32 US	1	01	×	v	v

If the base station running OpenMobility Manager (OMM) in the current system is a TEL-BST11 or TEL-BST12 follow the steps in the procedure <u>Booting the Base Station</u> and <u>Adding a Base Station</u>. Note if the current system does not have a license and the number of base stations is three or more (up to twenty) after expansion, a license is needed. Refer to the procedure, <u>Generating License for Multiple Base Stations</u>, to download a license file before adding a new base station to the system.

If the base station type in the current Savant PBX system is a TEL-BST01 or TEL-BST02, follow this procedure to add the TEL-BST11 or TEL-BST12 base station(s) to the existing system. For example, an existing system has two TEL-BST01 or TEL-BST02 base stations— running redundant OMM—with IP addresses: 10.5.225.66 and 10.5.225.68. Two TEL-BST11 or TEL-BST12 base stations will be added to the system, using IP addresses: 10.5.225.86 and 10.5.225.88.

If the current system does not have a license and the number of base stations is three or more (up to twenty) after expansion, a license is needed. Refer to the section <u>Generating License for Multiple Base Stations</u> to download a license file.

NOTE: For more details on the way the OMM displays the base station model numbers, click here.

To add a TEL-BST11 or TEL-BST12 base station to a running system, do the following.

- 1. Open a web browser and log in to OMM.
- 2. To back up the current configuration, click System > DB management from the left pane.
- 3. Under Manual export, for Protocol select FILE. Leave the other fields blank.

The file name is pre-defined as date_system name_PARK_omm_conf.gz and not changeable. The next screenshot shows an example filename, *120914_Building45_1F1023199B_omm_conf.gz*.

A⁄astra		Ор	enMobility Manager SIP-DECT 3.0
Logout			米 🔳 💷
Status		Automatic import	
▼ System	Startup only	۲	
System settings	periodically		
User administration	Time		
Time zones	URL	-	
SNMP		OK	
DB management			
Event log		Manual export	
Sites	Protocol	FILE \$	
Radio fixed parts	Server		
Portable parts	User name		
• WLAN	Password		
Licenses	File	120914_Building45_1F1023199B_omm_conf.gz	
Info		Save	
		Automatic export	
	Active		
	Protocol	HTTP \$	
	Server		
	User name		
	Password		
	File	/120914_Building45_1F1023199B_omm_conf.gz	
		ОК	

- 4. Click **Save**. This will download the system configuration to the *Downloads* folder under your user folder on your Savant Development Environment (SDE).
- 5. Perform the procedure, *Booting the Base Station* to boot up TEL-BST11 or TEL-BST12 base station(s).
- Important! In a system running both TEL-BST01 or TEL-BST02, and TEL-BST11 or TEL-BST12 base stations, OMM must run on a TEL-BST11 or TEL-BST12 base station. If the system has a secondary OMM, OMM also must run on a TEL-BST11 or TEL-BST12 base station. As an example, the OMM IP address is set to 10.5.225.86 and 2nd OMM IP address is set to 10.5.225.88.
- 6. After booting up the new base stations, log in to a new OMM (the next screenshot shows 10.5.225.86 as an example) using omm/omm as the user name/password. Accept the end user license agreement. When you are asked to change Full Access and root user name and password, use the same as in the old OMM. Upload the license file, if needed. Keep the OpenMobility Configurator open for later use.

$\Theta \Theta \Theta$	OpenMobility Config	gurator SIP-DE	CT 3.0		
Configuration Help					
Scan Save RFPs Load config Run conf	ig's Add parameter Send config. Reset con	fig. Englis	h	\$ en0	\$
RFP configuration list	Connection to RFP				
	🗹 Login	User:		omm	
	Factory defaults	Password:		•••	
	RFP IP address:			as proxy	
•	MAC address:	00:30:42:17:	93:ee	List configura	ation
00:30:42:17:93:ee	Configuration of the RFP				
_	Use local configuration:		💿 yes no		
	IP address:		10.5.225.86		
	Net mask:		255.255.255.0		
	TFTP server address:		10.5.225.14		
	TFTP file name:		/SIP-DECT_3_0/iprfp3G.dnld		
	OMM IP address:		10.5.225.86		
00:10:42:12:5e:11	Router addresses:		0.5.225.1	•	
00:30:42:12:5e:85	DNS addresses:		8.8.8	•	
	NTP server name:		1.aastra.pool.ntp.org		
	Country:		100		
	2nd OMM IP address:		10.5.225.88		

7. Load the configuration from the old OMM. Click **System > DB management** from the left.

AZSTRA			OpenMobility Manager SIP-DECT 3.0
Logout			📰 🔢 📰 🔛
Status	Database man	agement	
▼ System	Status		
System settings	Status		
SIP	Please che	k the status page.	
User administration			
Time zones		Manual import	
SNMP	Protocol	FILE +	
DB management	Sanvar		
Event log	Server		
Sites	User name		
Radio fixed parts	Password		
Portable parts	File	Choose File no file selected	
* WLAN			
System features		Load	
Licenses		Automatic import	
Info	Startup only	•	
	Startup and periodically		
	Time		
	URL	-	

8. Under **Manual import**, select **FILE** for Protocol field, leave other fields empty then click **Choose File**. This will open a Finder window.

▲ ► ::: = ::: ::: ::: ::: ::: ::: ::: :::	ads 🛟	
FAVORITES In Art rest media.zip Image: All My Files BoatRetinarpmThem Image: Desktop BoatRetinarpmThem Image: RacePointMedia BoatRetinarpmThem Image: PointMedia Configurator Image: PointMedia Desktop Image: PointMedia Desktop Image: PointMedia Documents ImanembpS <td< th=""><th> 6739_background_old.png 6739_background.png 120910_FI0231998_omm_conf.gz 120914_Building45_FF10231998_omm_conf.gz 1347394079 aag_c45_556315.pdf aastra_6739_ma_c010_en_2011-10.pdf aastra_dect-1.cfg aastra_dect-2.cfg </th><th>GZ</th></td<>	 6739_background_old.png 6739_background.png 120910_FI0231998_omm_conf.gz 120914_Building45_FF10231998_omm_conf.gz 1347394079 aag_c45_556315.pdf aastra_6739_ma_c010_en_2011-10.pdf aastra_dect-1.cfg aastra_dect-2.cfg 	GZ
bidyes=hilps gettree gettree_4_3_2 gettree_5_0_0 gettree_5_1_0 gettree_5_1_0 gettree_mainline Music wrDPBX home home home_gateway.ini home telephone.plist	 aastra_dect.cfg aastra_sip_dect_solution_admin_guide.pdf aastra_sip_Phones_Matrix_NA_0210.pdf aastra_template.cfg aastra_1.cfg aastra.cfg Aastra600d_201006_EN.pdf About Downloads.pdf II AdbeRdr1012_en_US.dmg 	Name 120914_Building45_1F 10231998_omm_conf.g z Kind gzip compressed archive Size 1 KB Created Today 11:48 AM Modified Today 11:48 AM Last opened Today 11:48 AM
in the reconstructions	Entry endorseners	Cancel Choose

9. Select the file downloaded in step 3, click **Choose**.

10. The file name selected displays (as circled in the next screenshot) on the **Database management** page.

AZSTRA		OpenMobility Manager SIP-DECT 3.0
Logout		📰 📰 📰 📰 📰 📰 📰 📰 📰
Status	Database man	agement
▼ System	Statuc	
System settings	Status	
SIP	Please cheo	ik the status page.
User administration		
Time zones		Manual import
SNMP	Protocol	FILE +
DB management	Server	
Event log	User name	
Badio fixed parts	Password	
Portable parts	File	Chaose File 120014 Rui m conf az
▶ WLAN	rile	
System features		Load
Licenses		
Info		Automatic import
	Startup only	•
	Startup and periodically	
	Time	
	URL	-

11. Ensure that the pop-up window is not blocked. If using the Safari web browser, go to **Safari > Preference > Security**. Uncheck the box for **Block pop-up windows**.

O O Security						
General Appearance Bookmarks Tabs	RSS AutoFill Security Privacy Extensions Advanced					
Fraudulent sites: I Warn when visiting a fraudulent website The Google Safe Browsing Service is unavailable. No updates have occurred in 2 days.						
Web content: 🗹	Enable plug-ins					
	Enable Java					
	Enable JavaScript					
Block pop-up windows						
Ask before sending a non-secure form from a secure website						

12. Click **Load**. Click **OK** on the pop up window. This will restart OMM. After log in, you may be asked to accept end user license and change Full Access and root user name/password again. Use the same user name and password as in <u>step 6</u>.

13. Click Radio fixed parts from the left. Click Start so that there is a green check mark for Capture allowed.

AASTRA							OpenMob	ility Ma SIP-DE	nager CT 3.0
Logout								# 💻 [
Status System Sites Radio fixed parts	Radio fixed parts Status Please check the status page.								
DECT cluster 1 Inactive Portable parts	New Import						Sorted	by DECT cl	usters 🗧
 WLAN System features Licenses Info 	Capturing unconfigured radio fixed p	arts						Capture all	owed: 🗸
				4 Radio fixe	d parts				
	DECT cluster 1: 2 Radio fixed pa	rts							
	ID Name	MAC address	IP address	HW type	Site	RPN	Reflective	Connected	Active
	📝 🔞 0000 House	00:30:42:12:5E:11	-	unknown	1	00	×	×	-
	📝 🍿 0001 Yard	00:30:42:12:5E:85	-	unknown	1	01	×	×	-
	Inactive: 2 Radio fixed parts								
	ID Name	MAC address	IP address	HW type	Site	RPN	Reflective environment	Connected	Active
	🔰 🔞 0002License RFP 2	00:30:42:17:93:EE	10.5.225.88	RFP L35	1	-	-	1	-
	📝 🔞 0003 License RFP 1	00:30:42:17:93:E9	10.5.225.86	RFP L35	1	-	-	 Image: A second s	-

- 14. The TEL-BST01 or TEL-BST02 base stations in the original system should show up as not connected. The new TEL-BST11 or TEL-BST12 base stations booted in step 6 should show up as inactive.
- 15. Add new base stations to the system. Click the edit icon for each inactive TEL-BST11 or TEL-BST12 base station, configure following fields then click **OK**.

Field	Description
MAC address	Enter MAC address of the base station.
Name	Enter a name, for example, House (Inside).
DECT settings	Insert a check mark in the box.
DECT cluster	Enter: 1
Preferred synchronization source	Insert a check in the box if this is the base station you want to use as the synchronization source. For a system that has multiple base stations, the synchronization source should be the one in the middle.

16. Wait a moment so that all newly added TEL-BST11 or TEL-BST12 base stations become connected and active.

17. Confirm that all newly added TEL-BST11 or TEL-BST12 base stations are display as connected and active.

AASTRA							OpenMobi	ility Mar SIP-DE	nager CT 3.0
Logout								# 💻 🛛	
Logout Status System Sites Radio fixed parts DECT cluster 1 Portable parts WLAN System features Licenses Info	Radio fixed parts Status Image: Capturing unconfigured radio fixed parts Stop	parts					Sorted	by DECT clu Capture allo	isters 🗧
				4 Radio fixe	d parts				
	DECT cluster 1: 4 Radio fixed pa	rts							
	ID Name	MAC address	IP address	HW type	Site	RPN	Reflective	Connected	Active
	📝 🔞 0000 House	00:30:42:12:5E:11	-	unknown	1	00	×	×	-
	📝 🍿 0001 Yard	00:30:42:12:5E:85	-	unknown	1	01	×	×	-
	📝 🔞 0002License RFP 2	00:30:42:17:93:EE	10.5.225.88	RFP L35	1	02	×	A	1
	📝 🔞 0003 License RFP 1	00:30:42:17:93:E9	10.5.225.86	RFP L35	1	03	×	v	1

- 18. Move the base stations controlled by the old OMM to the new OMM. Go to the OpenMobility Configurator used in step 6.
- 19. For the MAC address field, enter the MAC address of one TEL-BST01 or TEL-BST02 base station.
- 20. In the **User** and **Password** fields, enter full access user name and password. Make sure the **Login** box is checked. Keep all other fields the same as in step 6 when you booted up TEL-BST11 or TEL-BST12 base stations, except the following:

Field	Description
IP address	IP address assigned to base station
TFTP file name	/SIP-DECT_3_0/iprfp2G.tftp

21. Click Send config.

00	OpenMobility Config	gurator SIP-DECT 3.0				
Configuration Help						
Scan Save RFPs Load config Run confi	g's Add parameter Send config. Reset con	fig. English	\$ en0 \$			
RFP configuration list	Connection to RFP					
	🗹 Login	User:	admin			
	Factory defaults	Password:	••••			
	RFP IP address:		as proxy			
	MAC address:	00:30:42:12:5e:85	List configuration			
00:30:42:17:93:ee	Configuration of the RFP					
	Use local configuration:	💽 yes 🔵 no				
	IP address:	10.5.225.66				
	Net mask:	255.255.255.0				
	TFTP server address:	10.5.225.14				
	TFTP file name:	/SIP-DECT_3_0/iprfp2C	G.tftp			
	OMM IP address:	10.5.225.86				
00:30:42:12:5e:11	Router addresses:	10.5.225.1				
00:30:42:12:5e:85	DNS addresses:	8.8.8.8				
	NTP server name:	1.aastra.pool.ntp.org				
	Country:	100				
	2nd OMM IP address:	10.5.225.88				

22. Once the base station is booted up, it should show connected and active under the Radio fixed parts in OMM.

23. Repeat steps 17-21 to reconfigure all TEL-BST01 or TEL-BST02 base stations.

AZSTRA							OpenMobi	lity Mai SIP-DE	nager CT 3.0
Logout								K 💻 [
Status System Sites Radio fixed parts DECT cluster 1 Portable parts WLAN System features Licenses	Radio fixed parts New Import Capturing unconfigured radio fixed parts Stop Capture allo								usters 🗧
Info	DECT cluster 1: 4 Radio fixed pa	arts			d parts				
	ID Name	MAC address	IP address	HW type	Site	RPN	Reflective	Connected	Active
	🔰 🔞 0000 House	00:30:42:12:5E:11	10.5.225.66	RFP L32 US	1	00	×	√	A
	🔰 🍿 0001 Yard	00:30:42:12:5E:85	-	RFP L32 US	1	01	×	×	-
	🔰 该 0002License RFP 2	00:30:42:17:93:EE	10.5.225.88	RFP L35	1	02	×	1	1
	📝 🔞 0003 License RFP 1	00:30:42:17:93:E9	10.5.225.86	RFP L35	1	03	×	√	1

24. If voice mail is configured in the Savant PBX system, click **Systems > System settings.**

Enter the voice mail extension number used in Savant Phone Configurator in the Voice mail number field.

25. Click **OK**.

6. SAVANT PUBLIC ANNOUNCEMENT SYSTEM

This section describes the Savant Public Announcement (and paging) system (PAS-1000).

PAS-1000 Hardware

The Savant Public Announcement device requires the following cables for a proper installation: Power cable (sold separately), Ethernet cable and a 1/8 inch audio jack to RCA cable as is shown in the next image.



The audio control system PAS-1000 augments an existing SIP PBX as another communications component. An announcement, using the PAS-1000, is produced by initiating a call from a telephone or iOS Device. The PAS-1000 unites the functions of a telephone with a high-performance digital amplifier for broadcasting announcements. The PAS-1000 is used to add Whole House Page All functionality to the Savant PBX system. When a call is connected, the PAS-1000 output can be redirected back to the master controller on an RCA Stereo Input, which can then output to all the zones in the house.

PAS-1000 Ports and Connectors

The callouts in the next image of one of the panels of the PAS-1000 relate to the descriptions provided in the next table.



The next table associates the callouts in the previous figure with the functionality of the PAS-1000.

Number	Function	Description
1	IP/Reset	Key for announcement of IP address (press once) Resets IP address (press and hold)
2	Power	Red LED indicates power is on
3	Call	Green LED indicates call is connected
4	5V DC	Optional port for 5V DC power
5	Port 2	RJ-45 port; 10/100 Mbps Base-T, auto-negotiating port
6	Port 1 POE	IEEE 802.3af Power Over Ethernet (PoE)
7	EXT	Not applicable
8	I/O 1	Not applicable

The callouts in the next image of one of the panels of the PAS-1000 relate to the descriptions provided in the next table.



The next table associates the callouts in the previous figure with the functionality of the PAS-1000.

Number	Function	Description
1	VDD	Not applicable
2	I/O 2	Not applicable
3	KBD	Not applicable
4	Speaker	Connects to a speaker—four-watt amplifier (8 ohm) is built-in
5	Mic-In	Used to connect headphone
6	Line Out	Used to connect to Savant controller using headphone to RCA adapter cable

The next diagram shows an overview of the components supported with the Savant PBX system.



Configuration of the PAS-1000

To configure the PAS-1000, ensure the following procedures have been completed:

- 1. Configure the PAS-1000 in RacePoint Blueprint™. See Adding the Savant PA System.
- 2. Configure the PAS-1000 in the Savant Configurator as a device to the Savant PBX. For details, see <u>Adding a</u> <u>Savant PA System</u>.
- 3. Upload the configuration file to the PAS-1000. For details, see <u>Uploading Configuration File to the Savant PA</u> <u>System.</u>

7. THIRD-PARTY DOOR ENTRY SYSTEMS INTEGRATION

This section describes the third-party door entry systems that can be integrated as endpoints into a Savant PBX system. The Savant PBX treats the door unit as an IP phone, thus if your door entry system is an analog one, a conversion is needed to successfully integrate it with the Savant PBX.

The Savant PBX supports the following door entry systems:

Three Analog Door Entry Systems:

Holovision 404 with Viking Dialer

The Holovision 404 intercom system with Viking E-XX functions as a two way call speaker phone. Savant recommends using the Viking E-30 or Viking E-40.

Siedle

This system is set up with an-Integrated Access Device (TEL-IAD1 or TEL-IAD2), and includes a loud speaker, color camera, SIP interface, and PBX interface.

DoorKing 1812 Access Plus

The DoorKing 1812 requires an Integrated Access Device (TEL-IAD1 or TEL-IAD2) and can connect to your home network, program the system, and receive reports via the internet.

• Two VoIP Door Entry Systems:

Holovision with Cyberdata

The Holovision with Cyberdata SIP Intercom is already an integrated IP phone. You must configure the unit to register to the Savant PBX and dial the number that is associated with the Ring Group. The following Holovision models are supported by the Savant PBX:

All_400 Series	All_700 Series
<u>Model</u> 513	All_800 Series
All_600 Series	All_900 Series

Mobotix T24

The Mobotix T24 is a fully operational SIP phone with an IP camera included.

Procedures For Each Door Entry System

Use the following procedures (in the sequence shown) to set up an analog door entry system:

Holovision 404 with Viking Dialer

- Setting Up an Analog Door Entry System
- Adding the Holovision/Viking Dialer in Savant Configurator

Siedle

- <u>Configuring a Siedle Unit using RacePoint Blueprint</u>
- Configuring a Siedle Unit using Savant Configurator
- Setting Up a User for a Siedle Door Entry System

DoorKing

- Configuring a DoorKing Unit using RacePoint Blueprint
- Integrating a DoorKing 1812 with a Savant PBX

Use the following procedures (in the sequence shown) to set up the VoIP door entry systems: Holovision 404 with Cyberdata Module

- <u>Configuring Holovision with Cyberdata SIP Intercom Using Savant Configurator</u>
- <u>Configuring Holovision Cyberdata VoIP Intercom</u>

VIO by Holovision VolP Intercom

Configuring VIO by Holovision VoIP Intercom

Mobotix T24

- Adding the Mobotix T24 Using RacePoint Blueprint
- Adding a Mobotix T24 Using Savant Configurator
- <u>Configuring VoIP Settings for Mobotix T24 Intercom</u>

Setting up an Analog Door Entry System

To operate an analog door entry system—Holovision 404 and Viking intercom module—within a Savant PBX, other hardware components are required, as specified in the next table.

NOTE: It is assumed that a Savant PBX and at least one iPad[®] are already configured and working properly with the Savant PBX, before adding the door entry system.

Hardware	Recommended Model	Description
Door Intercom Unit	Model 100 for Savant Systems	Order Model 100-VIK, plus the SIP adaptor and dialer
SIP Adapter	Cisco SPA112 (TEL-IAD2)	This is an analog telephone adapter (also referred to as an integrated access device) that connects a Viking dialer, such as an E-10, E30, or E-40 to an IP network, enabling SIP-supported VoIP communication. For more information on Cisco SPA112, see: http://www.cisco.com/en/US/products/ps11977/index.html
Dialer	Viking Programable Tone Dialer Model: K-1900-5	This generates a call to contact the Savant PBX server by dialing a preprogramed number. This number will trigger the PBX server to ring one or more iOS devices in the house or facility.
Analog phone	Any available analog phone	Needed to set up the dialer and helps with debugging.

To set up the door entry system, the analog RJ-11 cable from the Holovision 404 unit must be plugged into the Viking dialer phone port. The cable from the dialer must be plugged to the Integrated Access Device (TEL-IAD1 or TEL-IAD2) Phone 1 Port (Phone 2 will be disabled). See the next figure showing the cable connections.



Connections to Analog Door Entry System Holovision 404

Viking Programable Dialer

Perform the following steps to set the "hot" number that will be used when the user presses the intercom button in the Holovision unit.

Currently the Savant PBX has a preassigned number or extension of 7000 for this purpose. Therefore, assign 7000# —# signals end of digits to the Integrated Access Device (TEL-IAD1 or TEL-IAD2) to the Viking Dialer.

- 1. Call the phone connected to the Dialer
- 2. Answer phone. Enter *& and security code (Factory set to 845464)
- 3. Write your security code for future references.
- 4. Enter 7000*##00

For additional programming see www.vikingelectronics.com/products/view product.php?pid=160.

Using Bonjour to Add Integrated Access Device to Network

The Integrated Access Device advertises itself via Bonjour®.

- 1. Connect the power adapter and Ethernet cable to the TEL-IAD2.
- 2. Open Safari and click **Bonjour**. If Bonjour is not included on your Bookmarks Bar, see the procedure for adding it by clicking <u>here</u> (see page 56).
- 3. Select SPA112 from the list of devices that Bonjour has detected.



Reset Procedure for Integrated Access Device: TEL-IAD2

It can be helpful to reset your integrated access device to its factory default settings. If you are using a used device, then resetting your device to factory default settings is highly recommended.

NOTE: The integrated access device is labelled as Cisco SPA112. In the Savant product line this device is referred to as an Integrated Access Device (TEL-IAD2). The Savant Configurator configures this device as an ATA Adapter. The user web interface refers to the Cisco SPA112.

To reset your TEL-IAD2, do the following.

- 1. Using a telephone cable, connect a telephone to the PHONE 1 port of the device.
- 2. Power up your device unit using its power adapter.
- 3. Unplug the Ethernet cable from the device.
- 4. Dial ****, and wait for the Interactive Voice Menu (IVM) to get activated.
- After hearing IVM message, type in the following number with the # symbol: 73738# This number spells RESET.
- 6. Confirm the reset by pressing 1.

Registering Integrated Access Device to Savant PBX: TEL-IAD2

If you believe the settings of your TEL-IAD2 will interfere with the setup of your door entry system, reset the device to the factory defaults before continuing.

To reset your TEL-IAD2 back to its factory default settings, see the <u>Reset Procedure for Integrated Access Device:</u> <u>TEL-IAD2</u>.

To register to the Savant PBX the TEL-IAD2 will be assigned the extension number 2031 and the Savant PBX will be assigned the IP Address as the Registrar Server.

To set the device so that it can be properly registered to the Savant PBX, do the following.

 Determine the IP address of your device. To do this, use your phone handset attached to the Line 1 jack and dial:**** (four asterisks) then dial: 110 #

The interactive voice system will state the IP address of your device (for example, 192.168.0.100).

- 2. Write down the IP address.
- 3. Open your web browser and enter the IP address of your device:

http://<IP ADDRESS>/ (where <IP ADDRESS> is replaced by the address of your device.

The web user interface to your device opens.

4. Log in using the following:

Username: admin Password: admin



5. Click **Quick Setup** to configure **Line 1**.

uluilu cisco	Phone Adapt	ter Configu	uration Utility	/	admin(Admin)	Log Out	About H	Help
Quick Setu	P Network Setu	p Voice	Administration	Status				
Quick Setup	Quick Setup							
	Line 1 Proxy: Display Name: Password: Dial Plan: Line 2 Proxy: Display Name: Password: Dial Plan:	(*xx [3469]11 0 00 (*xx [3469]11 0 00	[2-9]xxxxxx 1xxx[2-9]xxx 2-9]xxxxxx 1xxx[2-9]xxx 2-9]xxxxxx 1xxx[2-9]xxx	User ID: 000xS0 x00000x0000x.) User ID: 000xS0 x000000000x.)				_

6. Use the next table to enter or select values for the specified fields on the **Quick Setup** for **Line 1** shown in the previous screenshot.

Field	Description				
Proxy	The IP address of the Savant PBX in the example screenshot is 10.5.214.3				
Display Name Enter a meaningful name. This will be displayed on the iPads when a call is sent from entry system.					
User ID	Enter the Device Number used when the ATA device (Integrated Access Device—TEL-IAD2) was added in Savant Configurator.				
Password	Leave this blank.				
Dial Plan	Replace *xx with 7000S0 *xx 7000 is the extension associated with a <i>RingAll</i> call group defined in Savant Configurator.				

cisco	Phone Adapt	ter Configura	ation Utility	/	admin	(Admin)	Log Out	About	Help
Quick Setu	p Network Setu	p Voice	Administration	Status					
Quick Setup	Quick Setup								
	Line 1 Proxy: Display Name: Password: Dial Plan: Line 2 Proxy: Display Name: Password:	10.5.214.3 Main Gate (7000S0 *xx [3469]11 0	 D[00][2-9]xxxxxxx 1xx	User ID: x[2-9]xxxxxxS0 xxxxxxxxxxxxxx User ID:	2080				
	Dial Plan:	("xx [3469]11 0 00 [2-9	jxxxxx 1xxx[2-9]xx	000050 00000000000000000000000000000000					

7. Click **Submit**. You will see the following screen. Wait until the device is back.

cisco Phoi	ne Adapter	Configu	ration Utility		admin(Admi	n) Log Out	About H	Help
Quick Setup	Network Setup	Voice	Administration	Status				
SPA112 You will I If you are	is updating y be redirected e not redirect	our cont to the c ed auto	figuration. Un configuration p matically, you	it may reset. bage in 20 sec can click <u>her</u> e	conds. <u>e</u> to return to the	login pa	age.	

8. Check that the device is registered with the PBX.

uluilu cisco	Phone Adapter (Configuratio	n Utility		admin(Admin) Log Ou	t About Help
Quick Setu	p Network Setup	Voice Admi	nistration S	tatus		
Information System	Information					
System SIP Provisioning Regional Line 1 Line 2 User 1 User 2	Product Information Product Name: Software Version: MAC Address: Customization: System Status Current Time: RTP Packets Sent: RTP Packets Sent: SIP Messages Sent: SIP Messages Sent: SIP Messages Recv: External IP: Line 1 Status Hook State: Last Registration At: Message Waiting: Call Back Active: Last Called Number: Call 1 State: Call 1 Tone: Call 1 Decoder: Call 1 FAX: Call 1 Remote Hold: Call 1 Type: Call 1 Remote Hold: Call 1 Peer Name: Call 1 Peer Phone: Call 1 Duration:	SPA112 1.0.1(022) CCEF485C1320 Open 1/23/2013 07:53:45 0 0 4 4 4 On 1/22/2013 23:53:25 No No Idle None		Serial Number: Hardware Version: Client Certificate: Elapsed Time: RTP Bytes Sent: RTP Bytes Sent: SIP Bytes Sent: SIP Bytes Sent: SIP Bytes Recv: SIP Bytes Recv: SIP Bytes Recv: Last Caller Number: Call 2 State: Call 2 State: Call 2 State: Call 2 State: Call 2 State: Call 2 Cone: Call 2 Encoder: Call 2 Decoder: Call 2 Peer Name: Call 2 Peer Name: Call 2 Peer Phone: Call 2 Puration:	CBT154305RV 1.0.0 Installed 00:00:21 0 0 1764 2308 Registered 3550 s	
© 2011 Cisco Sys	Submit Cance stems, Inc. All Rights Reserve	el Refresh				SPA112

9. Click the Voice tab.

10. Click SIP.

ululu cisco	Phone Adapter Configura	ation Utility	admir	(Admin) Log Out About Help
Quick Setu	Network Setup Voice	Administration	Status	
Information System	SIP			
SIP	SIT1 RSC:		SIT2 RSC:	
Provisioning Regional	SIT3 RSC:		SIT4 RSC:	
Line 1 Line 2	Try Backup RSC:		Retry Reg RSC:	
User 1 User 2	RTP Parameters			
	RTP Port Min:	16384	RTP Port Max:	16482
	RTP Packet Size:	0.030	Max RTP ICMP Err:	0
	RTCP Tx Interval:	0	No UDP Checksum:	no 🌩
	Stats In BYE:	yes 🌲		
	SDP Payload Types			
	NSE Dynamic Payload:	100	AVT Dynamic Payload:	101
	INFOREQ Dynamic Payload:		G726r32 Dynamic Payload:	2
	G729b Dynamic Payload:	99	EncapRTP Dynamic Payload:	112
	RTP-Start-Loopback Dynamic Payload:	113	RTP-Start-Loopback Codec:	G711u 💠
	NSE Codec Name:	NSE	AVT Codec Name:	telephone-event
	G711u Codec Name:	PCMU	G711a Codec Name:	PCMA
	G726r32 Codec Name:	G726-32	G729a Codec Name:	G729a
	G729b Codec Name:	G729ab	EncapRTP Codec Name:	encaprtp
	NAT Support Parameters			
	Handle VIA received:	no 🔹	Handle VIA rport:	no 🔹
	Insert VIA received:	no 🛊	Insert VIA rport:	no 🔹
	Substitute VIA Addr:	no 🜲	Send Resp To Src Port:	no 🛊
	STUN Enable:	no 🗘	STUN Test Enable:	no 🌲
	STUN Server:		EXT IP:	
	EXT RTP Port Min:		NAT Keep Alive Intvl:	15
	Submit Cancel Refre	esh		

11. Scroll down to **SDP Payload Types** and delete the value—default is 100—for the **NSE Dynamic Payload** field. See the next screenshot (partial view).

SDP Payload Types			
NSE Dynamic Payload:	100	AVT Dynamic Payload:	101
INFOREQ Dynamic Payload:		G726r32 Dynamic Payload:	2
G729b Dynamic Payload:	99	EncapRTP Dynamic Payload:	112
RTP-Start-Loopback Dynamic Payload:	113	RTP-Start-Loopback Codec:	G711u 🜲
NSE Codec Name:	NSE	AVT Codec Name:	telephone-event
G711u Codec Name:	PCMU	G711a Codec Name:	PCMA
G726r32 Codec Name:	G726-32	G729a Codec Name:	G729a
G729b Codec Name:	G729ab	EncapRTP Codec Name:	encaprtp

12. Click Submit.

13. Wait for the device to reset.



If you require another port to be configured for a second door entry station, click the **Quick Setup** tab and proceed to configure Line 2 to access the options of that line. Repeat Step 6. Ensure that the UserID is unique.

Inhibit Reorder/BusyTones: TEL-IAD2

If you need to inhibit Reorder/Busy tones (usually needed when using Holovision along with Viking Intercom units), do the following.

- 1. Click the **Voice** tab in the web user interface used in the previous procedure.
- 2. Click Regional.
- 3. In the Call Progress Tones section, find the Reorder Tone (as shown circled in the next screenshot).

cisco	Phone Adapter C	Configuration Utilit	у	admin(Admin) Log Out	About Help
Quick Setu	IP Network Setup	Voice Administration	Status		
Information System	Regional				
System SIP Provisioning Regional Line 1 Line 1 Line 2 User 1 User 2	Call Progress Tones Dial Tone: Second Dial Tone: Outside Dial Tone: Prompt Tone: Busy Tone: Busy Tone: Reorder Tone: Off Hook Warning Tone: Ring Back Tone: Off Hook Warning Tone: Confirm Tone: SIT1 Tone: SIT1 Tone: SIT2 Tone: SIT2 Tone: SIT3 Tone: SIT3 Tone: SIT4 Tone: MWI Dial Tone: Cfwd Dial Tone: Cfwd Dial Tone: Conference Tone: Secure Call Indication Ton Feature Invocation Tone: Distinctive Ring Patterne Ring1 Cadence: Ring3 Cadence: Submit Cancel	350@-19,440@-19;10(*/ 420@-19,520@-19;10(*/ 420@-19,520@-19;10(*/ 420@-19,620@-19;10(*/ 480@-19,620@-19;10(* 480@-19,620@-19;10(* 480@-19,620@-19;10(* 440@-19,480@-19;"(1/1 600@-16;1(25/25/1) 985@-16,1428@-16,177 914@-16,1371@-16,177 914@-16,1371@-16,177 914@-16,1371@-16,177 955@-16,1371@-16,177 350@-19,440@-19;2(*/ 350@-19,440@-19;2(*/ 600@-19;"(*/1/1,1/1,1/1) 350@-19;20(*/1/1/1,1/1) 350@-19;20(*/1/1/1,1/1) 350@-19;20(*/1/1/1,1/1) 350@-16;"(*(1/1/1)) s 60(2(4) 60(2(4) 60(2(4)_2,4/2,8/4) Refresh	0/1+2) 0/1+2)	0/3,0/4/0) 0/3,0/4/0) 0/3,0/4/0) 0/3,0/4/0) 0/3,0/4/0) 0/3,0/4/0) 60(.8/.48/4) 60(.3/.2,1/.2,.3/4)	
© 2011 Cisco Sy	stems, Inc. All Rights Reserve	d.			SPA112

- 4. Modify the **Reorder Tone** string as follows: 480@-19,620@-19;0(.25/.25/1+2)
- 5. In the **Call Progress Tone** section, modify the **Off Hook Warning** tone string as follows:

480@-10,620@0;0(.125/.125/1+2)

6. Scroll down to the Control Timer Values section:

Control Timer Values (sec)			
Hook Flash Timer Min:	.1	Hook Flash Timer Max:	.9
Callee On Hook Delay:	0	Reorder Delay:	5
Call Back Expires:	1800	Call Back Retry Intvl:	30
Call Back Delay:	.5	VMWI Refresh Intvl:	0
Interdigit Long Timer:	10	Interdigit Short Timer:	3
CPC Delay:	2	CPC Duration:	.5

- 7. Change the **Reorder Delay** value to 0.
- 8. Click **Submit**. The line will detect "silence" this is enough for some device to go on-hook.
- 9. It may be necessary to add a device which will send a Calling Party Control (CPC) disconnect signal over an analog phone line. If this is the case, Savant Systems recommends installing a Viking CPC unit. This unit will disconnect the analog line upon detection of reorder tone and or silence. After setting up the proper wiring connections between the door entry unit, the Viking dialer and the integrated access device (TEL-IAD2), pressing the intercom button will start a call and the iPads will ring. The first person to answer the call will be connected to the door entry unit allowing a full duplex conversation. The other iPads will be disconnected.

Reset Procedure Integrated Access Device: TEL-IAD1

It can be helpful to reset your Integrated Access Device (TEL-IAD1) to factory default settings. If you are using a used TEL-IAD1, then resetting your adapter to factory default settings is highly recommended.

NOTE: This integrated access device is labelled as Linksys PAP2T. In the Savant product line this device is referred to as an Integrated Access Device (TEL-IAD1). The Savant Configurator configures this device as an ATA Adapter. The user web interface refers to the Linksys PAP2T.

To reset your TEL-IAD1, do the following.

- 1. Using a telephone cable, connect a telephone to the PHONE 1 port of the TEL-IAD1.
- 2. Power up your TEL-IAD1 unit using its power adapter.
- 3. Unplug the Ethernet cable from the TEL-IAD1.
- 4. Dial ****, and wait for the Interactive Voice Menu (IVM) to get activated.
- After hearing IVM message, type in the following number with the # symbol: 73738# This number spells RESET.
- 6. Confirm the reset by pressing 1.

Registering Integrated Access Device to Savant PBX: TEL-IAD1

If you believe the settings of your TEL-IAD1 will interfere with the setup of your door entry system, please reset the device to the factory defaults before continuing.

To reset your TEL-IAD1 unit back to its factory default settings, see the <u>Reset Procedure Integrated Access Device:</u> <u>TEL-IAD1</u>

To register to the Savant PBX the TEL-IAD1 will be assigned the extension number 2031 and the Savant PBX will be assigned the IP Address as the Registrar Server.

To set the TEL-IAD1 (also referred to as Linksys PAP2T) so that it can be properly registered to the Savant PBX, do the following.

 Determine the IP address of your TEL-IAD1. To do this, use your phone handset attached to the Line 1 jack and dial:**** (four asterisks) then dial: 110 #

The interactive voice system will state the IP address of your device (for example, 192.168.0.100).

- 2. Write down the IP address.
- 3. Open your web browser and enter the IP address:

http://<IP ADDRESS>/ (where <IP ADDRESS> is replaced by the address that was provided in Step 1.

The user interface to your TEL-IAD1 opens. See the next screenshot.

LINKSYS A Division of Cisco Systems, Inc.					
		Phone Adapte	r with 2 Ports for Voice-C	Over-IP	PAP2
Voice	Info System U	ser 1 User 2 Basic View <u>(sv</u>	vitch to advanced view)		Admin Login
System Information					
	DHCP: Host Name: Current Netmask: Primary DNS: Secondary DNS:	Enabled LinksysPAP 255.255.255.0 10.5.101.20 10.2.1.20	Current IP: Domain: Current Gateway:	10.5.200.139 enterprise.886ventures.com 10.5.200.1	
Product Information	Product Name: Software Version: MAC Address: Customization:	PAP2T 3.1.15(LS) 0023697C6ECF Open	Serial Number: Hardware Version: Client Certificate:	FLI00J622924 0.3.5 Installed	
System Status	Current Time: Broadcast Pkts Sent: Broadcast Pkts Recv: Broadcast Pkts Dropped: RTP Packets Sent: RTP Packets Recv: SIP Messages Recv: External IP:	9/10/2010 05:02:03 3 17107 0 0 2 2 2	Elapsed Time: Broadcast Bytes Sent: Broadcast Bytes Recv: Broadcast Bytes Dropped: RTP Bytes Sent: RTP Bytes Recv: SIP Bytes Recv:	00:21:34 1026 5599816 0 0 0 1144 1056	
Line 1 Status	Display Name: Hook State: Last Registration At: Message Waiting: Last Called Number: Call 1 State: Call 1 State: Call 1 State: Call 1 Decoder: Call 1 Acoder: Call 1 Packet Call 1 Packet Sent: Call 1 Peer Name: Call 1 Peer Name: Call 1 Peer Name: Call 1 Peer Name: Call 1 Peer Sent: Call 1 Packets Sent: Call 1 Datos Sent: Call 1 Bytes Sent: Call 1 Dytter: Call 1 Round Trip Delay: Call 1 Packets Lost: Call 1 Packets Lost:	Linksys PAP2T On 9/10/2010 04:40:29 No Idle None	User ID: Registration State: Next Registration In: Call Back Active: Last Caller Number: Call 2 State: Call 2 Encoder: Call 2 Encoder: Call 2 Encoder: Call 2 Encoder: Call 2 Decoder: Call 2 Pacents Call 2 Pacents Call 2 Paer Phone: Call 2 Duration: Call 2 Durat	2011 Online 2277 s No Idle None	

- 4. Click System (circled in the previous screenshot).
- 5. Ensure that DHCP is set to **yes**. See the next screenshot.

		Phone Adapter v	with 2 Ports for Voice	-Over-IP	PAP2
Voice	Info System	User 1 User 2			
		Basic View (swite	ch to advanced view)		Admin Logi
vstem Configuratio					
,	User Password:				
net Connection Typ	e				
	DHCP:	yes 🗘			
	Static IP:		NetMask:		
	Gateway:				
Optional Networ Configuratio	k n				
	HostName:		Domain:		
	Drimon (DNIC)		Secondary DNR:		

- 6. Save the settings. Repeat step 1-3 with the new IP address.
- 7. Click Admin Login (circled in the previous screenshot).
- 8. After you click Admin Login a view of the available lines displays. See circled area of next screenshot

LINKSYS A Division of Cisco Systems, Inc.					
				Phone Adapter with 2 Ports for Voice-Over-IP	PAP2
Voice	Info	System	SIP	Regional Line 1 Line 2 User 1 User 2	
				Basic View (switch to advanced view)	<u>User Login</u>
System Information					

A Division of Cisco Systems, Inc.					Firmware Version: 3.1.15
		Phone Adapter with	2 Ports for Voice-0	Over-IP	PAP2
Voice	Info System Sil	P Regional Line 1 Lir	ne 2 User 1 User	r 2	
		Basic View (switch to	advanced view)		<u>User Logi</u>
	Line Enable:	yes 🗘			
SIP Settings					
	SIP Port:	5060			
Proxy and Registration					
	Proxy:	10.5.200.169	Register:	ves 🛊	
	Make Call Without	no	Pegieter Expires	3600	
	Reg:		Register Expires.	3000	
	Ans Call Without Reg.				
Subscriber Information					
	Display Name:	Linksys PAP2T	User ID:	2011	
	Password:	*******	Use Auth ID:	no 🗘	
	Auth ID:	2011			
Supplementary Service Subscription					
ouboonption	Call Waiting Serv:	yes ≑	Block CID Serv:	yes 🗘	
	Block ANC Serv:	yes 🗘	Dist Ring Serv:	yes 🗘	
	Cfwd All Serv:	yes 🗘	Cfwd Busy Serv:	yes 🗘	
	Cfwd No Ans Serv:	yes 🔹	Cfwd Sel Serv:	yes 🗘	
	Cfwd Last Serv:	yes 🗘	Block Last Serv:	yes 🗘	
	Accept Last Serv:	yes 🗘	DND Serv:	yes 🗘	
	CID Serv:	yes 🗘	CWCID Serv:	yes 🗘	
	Call Return Serv:	yes 🗘	Call Back Serv:	yes V	
	Three Way Call Serv:	yes 🗘	Three Way Conf Serv:	yes 🗸	
	Attn Transfer Serv:	yes V	Unatth Transfer Serv:	yes V	
Audio Configuration	WINT OUT	yes V	VMVVI Serv:	yes v	
Audio Configuration	Profession data	(7711	0		
	Preterred Codec:		Silence Supp Enable: FAX CED Detect		
	Use Pref Codec Only:	no 🔻	Enable:	yes 🔽	
	DTMF Tx Method:	Auto 🗘			
					Cieco Sverca

9. Click Line 1 to access the options of that line. See the next screenshot.

10. Use the next table to enter or select values for the specified fields on the **Basic View** page shown in the previous screenshot.

Field	Description
Line Enable	Set to yes .
SIP Port	Use 5060.
Proxy	The IP address of the Savant PBX in the example screenshot is 10.5.200.169
Display Name	Enter a meaningful name. This will be displayed on the iPads when a call is sent from the door entry system.
User ID	Enter the Device Number used when the TEL-IAD1 device was added in Savant Configurator.
Password	Leave this blank.
Auth ID	Enter the device number used when the TEL-IAD1 device was added in Savant Configurator.
Use Auth ID	Set to no .

11. Click Save Settings.

12. Click switch to advance view, as circled below.

LINKSYS A Division of Cisco Systems, Inc.	0		Firmware Version: 3.1.15(LS)
		Phone Adapter with 2 Ports for Voice-Over-IP	PAP2
Voice	Info System SIP	Regional Line 1 Line 2 User 1 User 2	
		Basic View (switch to advanced view)	<u>User Login</u>
System Information			

13. Click SIP tab.

A Division of Cisco Systems, Inc. Firmware Version: 3.1.15(LS)								
	Phone Adapter with 2 Ports for Voice-Over-IP			PAP2				
Voice	Info System SII	Provisioning Reg	onal Line 1 Line 2	User 1 User 2				
		Advanced View (switch to basic view)		<u>User Login</u>			
SIP Parameters								
	Max Forward:	70	Max Redirection:	5				
	Max Auth:	2	SIP User Agent Name:	\$VERSION				
	SIP Server Name:	\$VERSION	SIP Reg User Agent Name:					
	SIP Accept Language:		DTMF Relay MIME	application/dtmf-rela				
	Hook Flash MIME	application/hook-flas	Remove Last Reg:	no ‡				
	Use Compact Header:	no ‡	Escape Display Name:	no ‡				
	RFC 2543 Call Hold:	yes ‡	Softswitch Features:					
SIP Timer Values (sec)								
	SIP T1:	.5	SIP T2:	4				
	SIP T4:	5	SIP Timer B:	32				
	SIP Timer F:	32	SIP Timer H:	32				
	SIP Timer D:	32	SIP Timer J:	32				
	INVITE Expires:	240	ReINVITE Expires:	30				
	Reg Min Expires:	1	Reg Max Expires:	7200				

14. Scroll down to **SDP Payload Types** and delete the value—default is 100—for the **NSE Dynamic Payload** field. See the next screenshot (partial view).

SDP Payload Types				
	NSE Dynamic Payload:	100	AVT Dynamic Payload:	101
	INFOREQ Dynamic Pavload:		G726r16 Dynamic Pavload:	98
	G726r24 Dynamic Payload:	97	G726r32 Dynamic Payload:	2
	G726r40 Dynamic Payload:	96	G729b Dynamic Payload:	99
	NSE Codec Name:	NSE	AVT Codec Name:	telephone-event
	G711u Codec Name:	PCMU	G711a Codec Name:	РСМА
	G726r16 Codec Name:	G726-16	G726r24 Codec Name:	G726-24
	G726r32 Codec Name:	G726-32	G726r40 Codec Name:	G726-40
	G729a Codec Name:	G729a	G729b Codec Name:	G729ab
	G723 Codec Name:	G723		
NAT Support Parameters				
	Handle VIA received:	no ‡	Handle VIA rport:	no 🕈
	Insert VIA received:	no ‡	Insert VIA rport:	no ‡
	Substitute VIA Addr:	no ‡	Send Resp To Src Port:	no ‡
	STUN Enable:	no ‡	STUN Test Enable:	no 🕈
	STUN Server:		EXT IP:	
	EXT RTP Port Min:		NAT Keep Alive Intvl:	15
		Save Settings	Cancel Settings	

- 15. Click Save Settings.
- 16. If you require another port to be configured for a second door entry station, click Line 2 to access the options of that line. See the next screenshot. If you do not require a second port, skip this step and Step 17-18, and continue with Step 19.
| LINKSYS
A Division of Cisco Systems, Inc. | 0
1
1 | firmware Version: 3.1.15(LS) |
|--|--|------------------------------|
| | Phone Adapter with 2 Ports for Voice-Over-IP | PAP2 |
| Voice | Info System SIP Regional Line 1 Line 2 User 1 User 2 | |
| | Basic View (switch to advanced view) | <u>User Login</u> |
| System Information | | |

17. Use the next table to enter or select values for the specified fields on the **Basic View** page for Line 2.

Field	Description
Line Enable	Set to yes .
SIP Port	Use 5061.
Proxy	Use the same IP address of the Savant PBX that you entered for Line 1.
Display Name	Enter a meaningful name. This will be displayed on the iPads when a call is sent from the door entry system.
User ID	Enter the Device Number used when the TEL-IAD1 was added in Savant Configurator.
Password	Leave this blank.
Auth ID	Enter the device number used when the TEL-IAD1 was added in Savant Configurator.
Use Auth ID	Set to no .

18. Click Save Settings.

Inhibit Reorder/BusyTones: TEL-IAD1

If you are integrating Siedle door units with your Savant PBX system, please skip this section.

The TEL-IAD1 does not go "on hook" immediately after the SIP side has been torn down. Instead, the device sends a reorder tone and an "Off Hook Warning" tone on the analog line after the SIP side has disconnected.

If you need to inhibit Reorder/Busy tones (usually needed when using Holovision along with Viking Intercom units), do the following.

1. To inhibit the tones, in the **Advanced View** click the **Regional** tab.

2. In the Call Progress Tones section, find the Reorder Tone (as shown circled in the next screenshot).

LINKSYS A Division of Cisco Systems, Inc	0				Firmware Version: 3.1.15(LS)
		Phone Adapter w	rith 2 Ports for Voice-	Over-IP	PAP2
Voice	Info System S	IP Provisioning Reg	jional Line 1 Line 2	User 1 User 2	
		Advanced View	(switch to basic view)		<u>User Login</u>
Call Progress Tones					
	Dial Tone:	350@-19.440@-19:10	(*/0/1+2)		
	Second Dial Tone:	420@-19,520@-19;10	(*/0/1+2)		
	Outside Dial Tone:	420@-16;10(*/0/1)			
	Prompt Tone:	520@-19,620@-19;10	(*/0/1+2)		
	Busy Tone:	480@-19,620@-19;10	(.5/.5/1+2)		
	Reorder Tone:	480@-19,620@-19;10	(.25/.25/1+2)		
	Off Hook Warning Tone:	480@-10,620@0;10(.1	125/.125/1+2)		
	Ring Back Tone:	440@-19,480@-19;*(2	2/4/1+2)		
	Confirm Tone:	600@-16;1(.25/.25/1)	1		
	SIT1 Tone:	985@-16,1428@-16,1	777@-16;20(.380/0/	1,.380/0/2,.380/0/3,	
	SIT2 Tone:	914@-16,1371@-16,1	777@-16;20(.274/0/)	1,.274/0/2,.380/0/3,	
	SIT3 Tone:	914@-16,1371@-16,1	777@-16;20(.380/0/	1,.380/0/2,.380/0/3,	
	SIT4 Tone:	985@-16,1371@-16,1	777@-16;20(.380/0/	1,.274/0/2,.380/0/3,	
	MWI Dial Tone:	350@-19,440@-19;2(1/.1/1+2);10(*/0/1+	2)	
	Cfwd Dial Tone:	350@-19,440@-19;2(2/.2/1+2);10(*/0/1+	2)	
	DND Dial Tone:	350@-19,440@-19;2(.2/.2/2);10(*/0/1+2)		
	Holding Tone:	600@-19;*(.1/.1/1,.1/	.1/1,.1/9.5/1)		
	Conference Tone:	350@-19;20(.1/.1/1,.	1/9.7/1)		
	Secure Call Indication Tone:	397@-19,507@-19;15	(0/2/0,.2/.1/1,.1/2.1	/2)	
	Feature Invocation	350@-16;*(.1/.1/1)			
Distinctive Ring Patterns					
	Ring1 Cadence:	60(2/4)	Ring2 Cadence:	60(.8/.4,.8/4)	
	Ring3 Cadence:	60(.4/.2,.4/.2,.8/4)	Ring4 Cadence:	60(.3/.2,1/.2,.3/4)	
	Ring5 Cadence:	1(.5/.5)	Ring6 Cadence:	60(.2/.4,.2/.4,.2/4)	
	Ring7 Cadence:	60(.4/.2,.4/.2,.4/4)	Ring8 Cadence:	60(0.25/9.75)	
Distinctive Call Walting					

- 3. Modify the **Reorder Tone** string as follows: 480@-19,620@-19;0(.25/.25/1+2)
- 4. In the Call Progress Tone section, modify the Off Hook Warning tone string as follows:

480@-10,620@0;0(.125/.125/1+2)

5. Scroll down to the Control Timer Values section:

Control Timer Values (sec)				
	Hook Flash Timer Min:	.1	Hook Flash Timer Max:	.9
	Callee On Hook Delay:	0	Reorder Delay:	10
	Call Back Expires:	1800	Call Back Retry Intvl:	30
	Call Back Delay:	.5	VMWI Refresh Intvl:	0
	Interdigit Long Timer:	10	Interdigit Short Timer:	3
	CPC Delay:	2	CPC Duration:	1

- 6. Change the Reorder Delay value to 0.
- 7. Save the settings. The line will detect "silence" this is enough for some device to go on-hook.

It may be necessary to add a device which will send a Calling Party Control (CPC) disconnect signal over an analog phone line. If this is the case, Savant Systems recommends installing a Viking CPC unit. This unit will disconnect the analog line upon detection of reorder tone and or silence. After setting up the proper wiring connections between the door entry unit, the Viking dialer and the TEL-IAD2, pressing the intercom button will start a call and the iPads will ring. The first person to answer the call will be connected to the door entry unit allowing a full duplex conversation. The other iPads will be disconnected.

Adding Holovision 404 in Savant Configurator

To add the Holovision 404 (with a Viking intercom module) as an endpoint to the Savant PBX using Savant Configurator, do the following.

1. Select the **Devices** tab and click **Add Device** to open the **Add Device** page.



Add Device

Here you enter the settings for this device. The friendly name will be displayed to users on their line buttons and other appropriate place

Server:	sa	vant-ipbx (localhost)	•
Type:		ATA Device	
Device Number		2031	
Assign to:	Ur	assigned	•
Friendly Name:		Holoxision E10	
UID:		2031	
Context:		Phone (all_calls) 🛟	
Usable as Trunk:			
Use TCP:			
Secret:	[
Call Limit:		2	
Host:	dynamic		
Port:	5060		
NAT:			
Register?			
Qualify:	2		
Add & Exit	Add & Clone	Add New	Cancel

2. Use the next table to enter or select values for the fields on the Add Device page.

Field	Description
Server	Leave as is.
Туре	Select this option: ATA Device.
Device Number	Enter a four-digit number (in the range 2000-2500) for this device. The previous screenshot uses 2031 as an example.
Assign to	Provides a drop-down list of all users that the device can be assigned to. It can also be unassigned. Savant Systems recommends this field be Unassigned .
Friendly Name	Name that displays when a call is made from this device. The previous screenshot uses Holovision E10 as an example.
UID	The Savant user identifier is automatically populated by the Device Number .
Context	Default is Phone (all_calls). Use the default value.
Usable as Trunk	Do not insert a check mark.
Use TCP	Do not insert a check mark.
Secret	Leave it blank.
Call Limit	Enter 2.
Host	Use the default: dynamic.
Port	Use the default value: 5060.
NAT	Network Address Translation (NAT) helps determine whether this device is on the internal network or outside the firewall. You must insert a check mark in the check box.
Register?	Do not insert a check mark.
Qualify	Insert a check mark.

3. Confirm that the device has been added correctly.

Devices These are all the devices that the system knows about.

			Add Device	Edit Device Delete Device		
She	ow 10 🛟	entries	Filter: All		Search:	
	Туре 🔺	Name 🔺	Status (SIP Only) 🗘	Friendly Name 💠 Assig	ned To 💠 Server	S Is Trunk? 🗘
\bigcirc	SIP	2000	Unregistered	Guest1	savant-ipt	ix No
0	SIP	2001	OK (234 ms)	guest22	savant-ipt	ix No
0	SIP	2010	Unregistered	Arts iPad	savant-ipt	x No
0	SIP	2011	Unregistered	Arts iPhone	savant-ipt	ix No
0	SIP	2020	Unregistered	Mikes Phone	savant-ipt	ix No
0	SIP	2021	OK (4 ms)	Mikes Snom Phone	savant-ipt	ix No
0	SIP	2030	Unregistered	PA System	savant-ipt	x No
0	SIP	2031	N/A	Holovision E10	savant-ipt	ix No
0	SIP	2040	Unregistered	Mobotix Door Entry	savant-ipt	x No
0	SIP	2041	Unregistered	Holovision Cyberdata	savant-ipt	ix No
She	Showing 1 to 10 of 16 entries					
					Previous 1 2	Next Last

4. Click Call Groups and then click Add Group to open the Add Call Group page.

Add Call Group Here you modify the	p basic settings for this cal	l group.
Name	Fail Extension	Туре
Gate		Ring All

30 Save Group Cancel

Name of such

Ring-All Time:

5. Use the next table to enter or select values for the fields on the Add Call Group page.

Field	Description
Name	Name of group.
Fail Extension	Leave as is.
Туре	Select Ring-All.
Ring-All Time	Enter the length of time that you want the devices to ring. Recommended 30 seconds.

- 6. Click Save.
- 7. Click View Groups from the side bar on the left.
- 8. Select the group you just created.

Call Groups

Below is a list of all call groups on the system.

	Add Group Edit Group Edit Me	mbers	elete Group	
Show	w 10 🗘 entries		Search:	
	Group Name Failover Number	\$	Type 💠	Members \$
۲	Gate		Ring All	1
0	Kids		Paging	0
0	PageAll		Paging	1
0	RingAll		Ring All	0
Show	wing 1 to 4 of 4 entries			
		Firs	st Previous	1 Next Last

9. Click Edit Members.

View/Edit Group Members for Ring-All group 'Gate' Here you modify the basic settings for this group.



10. Select all the endpoints from the **Available Devices**—that you want to include in the Ring-All group—and use the arrow button to move the device to the **Group Members** area.

11. Click Save.

Configuring a Siedle Unit using RacePoint Blueprint

To add the Siedle door entry system to the Savant PBX configuration using RacePoint Blueprint, do the following.

1. From the Library window, type door and select Generic Door Entry System. See the next screenshot.



2. Drag the component to main window and select the zone. Savant Systems recommends the global zone.

000	
Choose	e zone to place component
Zone Name:	rack
	Room 1
	Room 2
Component Name:	Siedle Gate 1
?	Cancel Choose

- 3. Click Choose.
- 4. From the **Show** drop-down list select **Telephony**. See the next screenshot.

⊖ ○ ⊖ Inspecting "Siedle Gate 1"
Edit Device Screens Hide Details
\$ 1.4 ?
Class: Door_entry_system
Manufacturer: Generic
Model: Door Entry System
Device Name: Siedle Gate 1
Notes: Show: Telephony ‡ ?
Registration
Settings
~
Properties for: Registration
Registration Enabled 🥑
PBX Ip Address
Username
Password
+ - Show user defined properties Show Data Table

5. Select Registration Enabled.

6. Enter the following:

- PBX IP address
- Username—this must match the **Device Number** you enter in the Savant Configurator.
- Password—leave this field empty.

😑 🔿 🕤 🛛 Inspe	cting "Siedle Gate 1"
C Edit Device	Screens Hide Details
S 1.4	?
Class: Doo	r_entry_system
Manufacturer: Gen	eric
Model: Doo	or Entry System
Device Name: Sied	lle Gate 1
Notes:	
show. Telephony	• ()
Registration	
Settings	
Properties for:	Registration
Registration Enabled	
PBX Ip Address	10.5.214.3
Username	2099
Password	
+ Show user def	ined properties Show Data Table

7. For Video Support, select Enabled.

If there is no Video Support present in the unit, ensure that Enabled is unchecked.

00	Inspecting	g "Siedle Gate 1"
🗹 Edit 📃 🗾 Devi	ce Screens Hide	Details
D 1.4	•	?
Class:	Door_entry_system	
Manufacturer:	Generic	
Model:	Door Entry System	
Device Name:	Siedle Gate 1	
Notes: Show: Telepho	ny 🗘 ?	
Registration		
Video Support		
Due neutice f	Video Sumo	·
Froperties fo	abled 🗹	
Ent		
	U.L.	
+ - Show us	er defined properties	Show Data Table

8. If the door entry station has an IP camera, enter the URL. For Siedle units the URL is the following (as shown circled in the next screenshot):

http://root:root@10.5.203.47/mjpg/video.mjpg

O O O Inspecting "Door Entry System"
Edit Device Screens Hide Details
D 1.4
Class: Door_entry_system
Manufacturer: Generic
Model: Door Entry System
Device Name: Door Entry System
Notes: Show: Telephony 🗘 ?
Registration
Video Support
~
Properties for: Video Support
Enabled 🗹
URL (http://root:root@10.5.203.47/mjpg/video.mjpg)
+ - Show user defined properties Show Data Table

9. Next generate services, save and upload the configuration.

Configuring a Siedle Unit using Savant Configurator

Because the Siedle door entry system is analog and the Savant system is IP, the signaling must be converted from analog to IP and vice-versa by using an Integrated Access Device, also referred to as Analog Telephone Adapter (ATA). Before you begin configuring the Siedle unit in Savant Configurator, you must configure the ATA—see the procedure, *Registering Integrated Access Device to Savant PBX: TEL-IAD2*. Ensure that the registration credentials of the ATA match the ones you use when you add the ATA in Savant Configurator.

After the ATA is successfully registered and the Siedle door entry system is programed to dial the proper extension, the door entry system is ready.

The hardware parts included with the Siedle door system are as follows:

- BTLM650-04 LoudSpeaker
 - ACEO Of Call Dutter Madula
- DCA650-02 DoorCom PBX Interface
- BTM650-01 Call Button Module
- CMC612-1 Color Camera Module
- BNG650-1 Power supply

.

- IM7001 Video Encoder
- VNG602-1 Power Supply

DCA-SIP IP Interface

To add the Siedle unit as an endpoint within a Savant PBX system using Savant Configurator, do the following.

1. Select the **Devices** tab and click **Add Device** to open the **Add Device** page.

 \checkmark

Cancel

Add New

	Savant										
Overview Users	Devices	Phones	Extensions Ca	all Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups
Here you enter the s	settings for	this device.	The friendly	name will	be displa	ayed to users	s on 1				
Server:		savant-ipb	x (localhost)	\$							
Type:		ATA	Device 😫								
*DeviceNumber											
Assign to:		Unassigned	1	\$							
Friendly Name:											
UID:											
Context:		Phone (all_calls) 🛟								
Usable as Trunk:											
Use TCP:											
Secret:											
Call Limit:		2									
Host:		dynamic									
Port:		5060									
NAT:											
Register?											

Add & Exit Add & Clone

Oualify:

Field		Descrip	tion		
Server		Leave as	is.		
Туре		Select th	is option: ATA Device .		
Device N	lumber	Enter a fo	our-digit number (in the range 2000-2500) for this device.		
Assign to)	Provides also be u	a drop-down list of all users that the device can be assigned to. It can massigned. Savant Systems recommends this field be unassigned.		
Friendly	Name	Name th	Name that displays when a call is made from this device.		
UID		The Sava	nt user identifier is automatically populated by the Device Number .	o. It can	
Context		Default is	Default is Phone (all_calls) . Use the default value.		
Usable as Trunk		Do not ir	Do not insert a check mark.		
Use TCP		Do not ir	Do not insert a check mark.		
Secret		Leave it b	plank.		
Call Limit	t	Enter 2 .			
Host		Use the o	default: dynamic .		
Port		Use the d	default value: 5060.		
NAT		Network the inter the chec	Address Translation (NAT) helps determine whether this device is on nal network or outside the firewall. You must insert a check mark in k box.		
Register?		Do not ir	Do not insert a check mark.		
Qualify		Insert a d	check mark.	1 the	
	Register?		Do not insert a check mark.		
	Qualify		Insert a check mark.		

- 3. Click Add & Exit.
- 4. Click the **Devices** tab to ensure the new device appears in the list.
- 5. Click the **Call Groups** tab.
- 6. Click Add Group to open the Add Call Group page.

Add Call Group Here you modify the basic settings for this call group.

Name	Fail Extension	Туре
Gate		Ring All 🛟
Ring-All Time:	30	
Save Grou	Cancel	

7. Use the next table to enter or select values for the fields on the Add Call Group page.

	Field	Description
Field	Name	Name of group.
Name Fail Extensior	Fail Extension	Leave as is.
	Туре	Select Ring-All.
	Ring-All Time	Enter the length of time that you want the devices to ring.
туре		Recommended: 30 seconds.
Ring-All Time	Click Save. Enter the le	ength of time that you want the devices to ring.

9. Click **View Groups** from the side bar on the left.

10. Select the group you just created.

Call Groups

Below is a list of all call groups on the system.

	Add Group Edit Group Edit Members Delete Group						
Show	Show 10 + entries Search:						
	Group Name		Failover Number	\$	Туре	Member	rs ≎
۲	Gate				Ring All	1	
\odot	Kids				Paging	0	
0	PageAll				Paging	1	
0	RingAll				Ring All	0	
Show	Showing 1 to 4 of 4 entries First Previous 1 Next Last						

11. Click Edit Members.

View/Edit Group Members for Ring-All group 'Gate' Here you modify the basic settings for this group.



- 12. Select all the endpoints from the **Available Devices**—that you want to include in the Ring-All group—and use the arrow button to move the device to the **Group Members** area.
- 13. Click Save.

Next assign an extension to the call group just created. Note that the extension number is the number the Siedle unit will be dialing out.

14. Click the **Extensions** tab to open the Extensions page.

Ext Belov	Extensions lelow is a list of all extensions on the system.								
	Add Extension) [Edit Extension] [Delete Extension] [Graph]								
Sho	w 10 🛟 entr	ies Filter: All	Search:						
	Number 🔺	Type \$	Destination \$	Time rules 🗘 🗘					
0	2002	Direct To Device	SIP/2002	N/A					
0	2007	Direct To Device	SIP/2007	N/A					
0	2008	Direct To Device	SIP/2008	N/A					
\bigcirc	2018	Direct To Device	SIP/2018	N/A					
0	2020	Direct To Device	SIP/2020	N/A					
0	2035	Direct To Device	SIP/2035	N/A					
0	2080	Direct To Device	SIP/2080	N/A					
0	6296	DID	9001	N/A					
0	6297	DID	9002	N/A					
0	6298	DID	9003	N/A					
Sho	Showing 1 to 10 of 17 entries								

15. Click Add Extension.

Add Extension Here you may configure this extension.

Number:	
Extension type:	Select type
Destination:	Select user
Add New Ext.	. Cancel

16. Enter or select values as shown in the next table.

Field	Description
Number	Number of extension (do not enter the door station extension)
Extension Type	Select Call Group from the drop-down list.
Destination	Select the call group your created in steps 6-8.

17. Click Add New Ext.

Setting Up a User for a Siedle Door Entry System

To complete configuration of the Siedle door entry system as part of the Savant PBX, a user must be set up on the DCA 650-02 component.

The DCA 650-02 is a universal a/b interface which connects the Siedle door station (shown below on the left) and in-house telephony with the public network. For a view of the DCA 650-02, see the figure to the right.



To set up a user on the Siedle door entry system, do the following.

- 1. Open the cover on the DCA 650-02.
- 2. On the DCA 650-02 main menu, press the OK button.
- 3. Press ▼ (down) arrow until you see "Register new user with <ok>".
- 4. Press OK button.
- 5. Wait until "Register user Please wait!" message stops flashing.
- 6. Use the down/up arrows to change the number of users to be registered, for example 1.
- 7. Press OK button.
- 8. Wait until "Register. running 01 new users" stops flashing. This can take up to one minute.
- 9. When you see "Switch on prog. mode at BNG/BVNG" message flashing, using a pin press the "Prog. Mode" button on the BNG 650-1 power supply unit (as shown on the previous figure).
- 10. Next, you should see a "Door loudspeaker enable" message flashing on the DCA 650-02.
- 11. Go to the door station and press the top right button (lightbulb icon as shown in the door station figure on above left) until you hear a long tone.

- 12. "Door loudspeaker activated" should now be displayed. You will hear a quick tone every five seconds.
- 13. Press OK button.
- 14. You should now see "Assign call btw. for user (user number)"
- 15. Press and hold the second button from the top-right which shows a bell. You will hear a long tone then three quick tones.
- 16. You should now see "Direct call (user number)".
- 17. Using the arrows on the DCA 50-02, enter an extension number to be dialed when the Siedle button is pressed and then press **OK** button (# may be required at the end of the extension).
- 18. Press OK button.
- 19. Perform a quick press of the "Prog. Mode" button on the BNG 650-1 unit.
- 20. Press ESC on the unit to exit back to the top menu.
- 21. To communicate with the person who rang the doorbell at the door station, select the following from the DCA 650-02:

service function > door call acceptance > No DTMF

If you do not do this step, then you will only hear beeping when you answer the phone after someone rings the doorbell.

Configuring DoorKing 1812 using RacePoint Blueprint

To add the DoorKing 1812 door entry system to the Savant PBX configuration using RacePoint Blueprint, do the following.

1. From the Library window, type door and select Generic Door Entry System. See the next screenshot.

000	Components – Pro		
All C	omponents	; ⊗ ?)
All M	anufacturers	😫 🛇 🛛 All Control Types 💌 🛇	3
Q- do	pr	8	2
Compon	ents	TI	L
	Generic Door Entry System (Generic Door Entry System)		
6	Generic Doorbell Generator [Trig]		
			4

2. Drag the component to main window and select the zone. Savant Systems recommends the global zone.

000	
Choose	zone to place component
Zone Name:	rack
	Room 1
	Room 2
Component Name:	DoorKing 1812 Gate 1
?	Cancel Choose

3. Click Choose.

4.	From the Show dro	p-down list select	Telephony.	See the next	screenshot.

00	Inspecting "DoorKing 1812 Gate 1"	1
Edit Device	Screens) Hide Details	
S 1.4	•	
Class: Doo	r Entry System	
Manufacturer: Gen	eric	1
Model: Doo	r Entry System	1
Device Name: Doo	rKing 1812 Gate 1	1
Notes:		
Show: Telephony	• ?	
Registration		
		Т
		Т
	•	
Properties for:	Registration	
Registration Enabled		
PBX Ip Address		
Username		
Password		
+ - Show user def	ined properties Show Data Table	11.

5. Select Registration Enabled.

6. Enter the following:

- PBX IP address
- Username—this must match the Device Number you enter in the Savant Configurator.
- Password—leave this field empty.

00	Inspecting "DoorKing 1812 Gate 1"
Edit Device	Screens) (Hide Details)
S 1.4	?
Class: Door	r Entry System
Manufacturer: Gen	eric
Model: Doo	r Entry System
Device Name: Doo	rKing 1812 Gate 1
Notes:	
Show: Telephony	• ?
Registration	
	e
Properties for: Registration Enabled	Registration
PBV In Address	10.5.210.5
PDA IP Address	2009
Password	2005
1 assword	
+ - Show user defi	ned properties Show Data Table

- 7. Generate services, save, and upload the configuration.
- 8. Next, follow the procedure, *Integrating a DoorKing 1812 with a Savant PBX*.

Integrating a DoorKing 1812 with a Savant PBX

This section provides an overview of the integration of a DoorKing 1812 with a Savant PBX.

To complete the configuration of the DoorKing 1812 refer to the product installation manual, which is available from the Web site: <u>http://www.doorking.com/pages/dks-tel-1812.php</u>

The next figure shows the gateway port (line) sending the gate calls into the Savant PBX system.



DoorKing 1812 uses Savant Gateway (TEL-GWO4) with Savant Telephony Solution

The DoorKing 1812 allows two modes of operation:

- Phone Mode
- Intercom Mode

Each mode has a different wiring scheme from the DoorKing 1812 to the Savant PBX system.

All devices that are to communicate with the DoorKing 1812 must be added to a Shared Line Appearance (SLA) group. By doing so, when the call button is pressed from the DoorKing 1812, all of these devices will ring. Also, since the devices are added to the relevant SLA, the devices can call the DoorKing 1812 using an *attention* number. If the device is a Savant phone (TEL-HST02), you can program a speed dial button to the DoorKing 1812.

Phone Mode

This mode assumes you will be using an existing phone line or you will have a dedicated phone line. After the wiring is done, refer to the DoorKing 1812 installation manual to complete the configuration.







Multiple DK1812 Wiring

Testing the DoorKing 1812 in Phone Mode

After you have completed your DoorKing 1812 installation and configuration, you must test the system.

To test making a call *to* your DoorKing 1812 system, do the following.

- 1. Connect an analog phone to the Home (7 8) line.
- 2. Lift the phone's handset to confirm there is dial tone.
- 3. Enter * and the attention number. For example, if you used 7 as the attention number, you would press *7. Now you should be connected and the audio should be two-way.

If you have programmed relay, now is the time to test the programming. See the DoorKing 1812 manual.

To test making a call *from* your DoorKing 1812 system, do the following.

- 1. Push the call button from the DoorKing 1812.
- 2. The analog phone should ring.
- 3. Answer the call. Now you should have two-way voice.

Test the relay codes, if you have them configured. See the DoorKing 1812 manual.

After you have successfully tested the DoorKing 1812, add the gateway to your DoorKing 1812 set up.

Adding Savant Gateway to DoorKing 1812 Configuration

To configure communication between the DoorKing 1812 and the Savant Gateway, do the following. This procedure applies whether you use Phone Mode or Intercom Mode.

- 1. Open a web browser.
- 2. Enter the Savant gateway IP address and log in to the gateway's web interface.
- 3. Select the Configuration tab. and Full.
- 4. Go to VoIP > GW and IP to IP > Analog Gateway > Automatic Dialing.



- 5. For the Destination Phone Number field, enter 3333, and then select Submit.
- 6. From the left sidebar navigate to VoIP > GW an IP to IP > Analog Gateway > Caller Display Information.
- 7. For Port 2 FXO enter a meaningful name under Caller ID/Name, for example, Main Gate.

Gateway Port	Caller ID/Name	Presentation
Port 1 FXO		Allowed
Port 2 FXO	Main Çate	Allowed
Port 3 FXO		Allowed
Port 4 EXO		Allowed

- 8. Click Submit.
- 9. Change the automatic dialed number for **Channel 2** to 3333.

_	Channel(s)	 Phone Number		 Hunt Group ID		Tel Profile ID	1
1	1	 6296		1		0	
2	2	3333		2		0	
3	3	6298		3		0	
4	4	6299		4		0	1

- 10. Go to Voip > GW and IP to IP > Hunt Group > Endpoint Phone Number.
- 11. Click Submit.
- 12. Save and burn the changes to flash memory.

Setting up the DoorKing 1812 Extension in the SLA

Next set up the DoorKing 1812 extension in the Shared Line Appearance (SLA) group.

- 1. Open Savant Configurator and log in.
- 2. Click the **Extension** tab.



Extensions Edit Extension Celete Extension Celete Extension Add Extension Edit Extension Celete Extension Celete Extension Show 50 2 entries Filter: All 2 Set Number Type 0 Destination 0 2001 Direct To Device SIP/2002 2003 Direct To Device SIP/2003 3 3	Graph arch: ↑ Time rules ↓ N/A
Add Extension Edit Extension Delete Extension C Show 50 ± entries Filter: All ± See Number * Type ¢ Destination 2001 Direct To Device SIP/2001 2002 Direct To Device SIP/2002 2003 Direct To Device SIP/2003	Graph arch:
Show 50 ± entries Filter: All ± Sea Number ^ Type _ Destination	arch:
Number Type Destination 2001 Direct To Device SIP/2001 2002 Direct To Device SIP/2002 2003 Direct To Device SIP/2003	
2001 Direct To Device SIP/2001 2002 Direct To Device SIP/2002 2003 Direct To Device SIP/2003	N/A
2002 Direct To Device SIP/2002 2003 Direct To Device SIP/2003	
O 2003 Direct To Device SIP/2003	N/A
	N/A
O 2030 Direct To Device SIP/2030	N/A
O 2050 Direct To Device SIP/2050	N/A
O 2051 Direct To Device SIP/2051	N/A
O 2143 Direct To Device SIP/2143	N/A
O 6296 DID 9001	N/A
O 6297 DID 9002	N/A
O 6300 DID 9005	N/A
O 7000 Call Group RingAll	N/A
O 8000 Call Group PageAll	N/A
9001 Incoming SLA Call Line1 (SIP/TelephonyGatew	ay1) N/A
9002 Incoming SLA Call Line2 (SIP/TelephonyGatew	ay1) N/A
9005 Incoming SLA Call Line5 (SIP/TelephonyGatew	N/A N/A
Showing 1 to 15 of 15 entries	

3. Select the extension associated with Line 2, that is, 6297.

\bigcirc	6296	DID	9001	N/A
ullet	6297	DID	9002	N/A
\bigcirc	6300	DID	9005	N/A
0	7000	Call Group	RingAll	N/A

4. Click Edit Extension.

5. For the **Number** field, enter 3333.

Edit Extension

Here you may configure this extension.

Number:	3333
Extension type:	DID \$
Destination:	9002 \$
Save Ext.	Cancel

6. Click Save.

Next add all the devices to SLA Group 2 that are to ring when a call is sent from the DoorKing 1812. For details on adding devices to an SLA group, see <u>Adding an iOS Device or Phone to an SLA</u>.

Set up Speed Dial for Savant Phone to Connect to DoorKing 1812

Instead of using the "Attention" number to dial the DoorKing 1812 from a Savant phone (TEL-HST02), you can set up a speed dial button from the TEL-HST02.

To program Speed Dial from the TEL-HST02, do the following.

- 1. Open a web browser.
- 2. Enter the IP address of the phone and log in.
- 3. Click Soft-keys and XML.
- 4. Select any unassigned soft-key after the number 11. In the next screenshot 12 is used as an example.

9	Do Not Disturb	\$			1	\$			☑
10	Speeddial	\$	Page All	8000	1	\$			
11	Call Forward	\$			1	*			
12	Speeddial	:	Gate	*7#	1	\$			☑

5. Use the next table to enter or select values.

Field	Description
Туре	Enter SpeedDial
Label	Enter Gate
Value	Enter: *7#
Line	Select 1

6. Click Save.

To call the DoorKing 1812 from a Savant Phone (TEL-HST02) using a speed dial button, do the following.

- 1. Tap the Line 2 button on the screen of the TEL-HST02.
- 2. After you hear the dial tone tap the *Gate* button on the screen.

Now you should be connected to the DoorKing 1812.

Intercom Mode

To complete the configuration of your DoorKing 1812—single unit or multiple units—in Intercom Mode, refer to the product installation manual, which is available from the Web site: <u>http://www.doorking.com/pages/dks-tel-1812.php</u>



Programmed for INTERCOM MODE

Wiring for DoorKing 1812 Intercom Mode

Testing the DoorKing 1812 in Intercom Mode

After you have completed your DoorKing 1812 installation and configuration, you must test the system.

To test making a call to your DoorKing 1812 system, do the following.

- 1. Lift the phone's handset to confirm there is dial tone.
- 2. Enter * and the attention number. For example, if you used 7 as the attention number, you would press *7. Now you should be connected and the audio should be two-way.

If you have programmed relay, now is the time to test the programming. See the DoorKing 1812 manual.

To test making a call *from* your DoorKing 1812 system, do the following.

- 1. Push the call button from the DoorKing 1812.
- 2. The analog phone should ring.
- 3. Answer the call. Now you should have two-way voice.

Test the relay codes, if you have them configured. See the DoorKing 1812 manual.

After you have successfully tested the DoorKing 1812, add the gateway to your DoorKing 1812 set up. See the procedure, <u>Adding Savant Gateway to DoorKing 1812 Configuration</u>.

Configuring Holovision with Cyberdata SIP intercom Using Savant Configurator

The Holovision with Cyberdata unit operates as a fully-operational SIP IP phone-no ATA is required. The following Holovision models are supported by the Savant PBX:

All 400 Series	All_700 Series
<u>Model </u> 513	All_800 Series
All 600 Series	All 900 Series

To add a Holovision with Cyberdata unit as an endpoint within the Savant PBX system, open Savant Configurator and do the following.

1. Click the **Devices** (tab) to open the **Devices** page.

Savant

Overview	Users	Devices	Phones Extens	ions Call Group	s S⊔	Voicen	nail CDRs	IVRs	Sounds	Logs	Backup
evices											
hese are all th	e devices th	hat the system know	s about.								
		Add Devic	Edit Device Delet	e Device							
Show 10	entries	Filter: All)	Sea	rch:						
Туре	Name 🔺	Status (SIP Only) 💠	Friendly Name	Assigned To \$	Server <	Is Trunk? 🗘					
SIP	2000	Unregistered	Guest1		savant-ipb	x No					
O SIP	2001	Unregistered	guest22		savant-ipb	x No					
⊖ SIP	2020	Unregistered	Mikes Phone		savant-ipb	x No					
SIP	2021	OK (4 ms)	Mikes Snom Phone		savant-ipb	x No					
O SIP	2030	Unregistered	PA System		savant-ipb	x No					
SIP	2040	Unregistered	Mobotix Door Entry		savant-ipb	x No					
SIP	2041	Unregistered	Holovision Cyberdat	a	savant-ipb	x No					
O SIP	2050	OK (9 ms)	Aastra 6739i		savant-ipb	x No					
SIP	2051	OK (4 ms)	DO NOT DELETE		savant-ipb	x No					
SIP	2055	OK (4 ms)	Wilson Snom Phone	2	savant-ipb	x No					

2. Click Add Device (button).

Add Device Here you enter the settings for this device. The friendly name will be displayed to users on their line buttons and other appropriate places.

Server:	sa	vant-ipbx (localhost	:)		
Type:		IP Phone			
Device Number	2041				
Assign to:	Unassigned				
Friendly Name:	0	Holoxision Cyberdat	a		
UID:		2041			
Context:	(Phone (all_calls)			
Usable as Trunk:					
Use TCP:					
Secret:	[
Call Limit:		2			
Host:	E.	dynamic			
Port:	[5060			
NAT:					
Register?					
Qualify:					
Add & Exit	Add & Clone	Add New	Cancel		

Field		Description					
Server		Leave as is.					
Туре		Select this option: IP Phone.					
Device Number		Enter a four-digit number (in the range 2000-2500) for this device. The previous screenshot uses 2041 as an example.					
Assign to		Provides a drop-down list of all users that the device can be assigned to. It can also be unassigned. Savant Systems recommends this field be unassigned.					
Friendly Name		Name that displays when a call is made from this device.					
UID		The Savant user identifier is automatically populated by the Device Number.					
Context		Default is Phone (all_calls) . Use the default value.					
Usable as Trunk		Do not insert a check mark.	so be				
Use TCP		Do not insert a check mark.					
Secret		Leave it blank.					
Call Limit		Enter 2 .					
Host		Use the default: dynamic.					
Port		Use the default value: 5060.					
NAT		Network Address Translation (NAT) helps determine whether this device is on the internal network or outside the firewall. Since you are adding an iOS device, you must insert a check mark in the check box.					
Register)	Do not insert a check mark.					
Qualify		Insert a check mark.	internal ert a check				
	Register?	Do not insert a check mark.					
	Qualify	Insert a check mark.					

4. Click Add & Exit.

5. Click the Devices tab to ensure the new device appears in the list.

Devices These are all the devices that the system knows about.

			Add Device	Edit Device Delete	Device		
Sh	ow 10 🛟	entries	Filter: All		Sea	rch:	
	Туре 🔺	Name 🔺	Status (SIP Only) 💠	Friendly Name 🔷 😂	Assigned To 💠	Server \$	Is Trunk? 🗘
0	SIP	2000	OK (142 ms)	Guest1		savant-ipbx	No
0	SIP	2001	Unregistered	guest22		savant-ipbx	No
0	SIP	2020	Unregistered	Mikes Phone		savant-ipbx	No
0	SIP	2021	OK (4 ms)	Mikes Snom Phone		savant-ipbx	No
0	SIP	2030	Unregistered	PA System		savant-ipbx	No
0	SIP	2040	Unregistered	Mobotix		savant-ipbx	No
0	SIP	2041	N/A	Holovision Cyberdata		savant-ipbx	No

6. Click Call Groups (tab) and then click Add Group.

Add Call Group Here you modify the basic settings for this call group.

Name	Fail Extension	Туре
Gate		Ring All 🛟
Ring-All Time:	30	
Save Group	Cancel	

Name

Savant Telephony Solution Deployment Guide Release PBX 6.0 **Description** 009-0406-14 Name of group.

Name	Name of group.
Fail Extension	Leave as is.
Туре	Select Ring-All.
Ring-All Time	Enter the number you want the devices to ring. Recommended: 30 seconds

7. Use the next table to enter or select values for the fields on the Add Call Group page.

Field	Description
Name	Name of group.
Fail Extension	Leave as is.
Туре	Select Ring-All.
Ring-All Time	Enter the number you want the devices to ring. Recommended: 30 seconds

- 8. Click Save.
- 9. Select View Groups from the side bar.
- 10. Select the group you just created.

Call Groups

Below is a list of all call groups on the system.

	Add	Grou	Edit Group Edit Members		elete Group	
Show	w 10 🛟 entries				Search:	
	Group Name	*	Failover Number	\$	Type 💠	Members \$
۲	Gate				Ring All	1
0	Kids				Paging	0
0	PageAll				Paging	1
0	RingAll				Ring All	0
Show	wing 1 to 4 of 4 ent	ries				
				Fin	st Previous	1 Next Last

11. Click Edit Members.

View/Edit Group Members for Ring-All group 'Gate' Here you modify the basic settings for this group.



- 12. Select all the endpoints from the Available Devices—that you want to include in the Ring-All group—and use the arrow button to move the device to the Group Members area.
- 13. Click Save.

14. Click the Extension (tab) and then click Add Extension to open the Add Extension page.

Add Extensio Here you may confi	n gure this extension.
Number:	3000
Extension type:	Call Group
Destination:	Gate
Add New Ext	. Cancel

15. Use the next table to enter or select values for the fields on the Add Extension page.

	Field	Description
Field	Number	Number will be the number that the door entry will dial. In the previous screenshot 3000 is shown as an example.
Number	Extension Type	Select Call Group.
Extension Type	Destination	Select the Call Group created in step 6. In the previous screenshot Gate is shown as an example.

Destination

- Select the Call Group created in step 6. In the previous screenshot
- 16. Click Add New E8ate is shown as an example.

Configuring Holovision Cyberdata VolP Intercom

This door entry system is configured as DHCP from the factory. Ensure that you reserve the DHCP-assigned IP address on your DHCP server. This procedure assumes you are installing the Cyberdata VoIP Intercom based on firmware version: 6.3.0.

To configure the Cyberdata VoIP Intercom, do the following.

- 1. Open your web browser and enter the door entry system's IP address.
- 2. Log in using the following:

User N Passw	lame: admi rord: admin	in เ
	To view thi on 10.5.19 CyberData Your passwo	is page, you must log in to this area 96.70:80: I VoIP Intercom ord will be sent unencrypted.
	Name:	admin
	Password:	
	🗌 Remem	ber this password in my keychain
		Cancel Log In

- 3. Click Log In. The Cyberdata Intercom page opens. See the next screenshot.
- 4. Click SIP Config.

1	Home	Device Settings	
1	Device Config	Device Name:	CyberData VolP Intercom
1	Networking	Change Username:	admin
-	SIP Config	Re-enter Password:	
1	Nightringer	Current Settings	
•	Sensor Config	Serial Number: Mac Address:	176000020 00:20:f7:00:fa:2f
•	Multicast Config	Firmware Version:	v6.3.0
2	Audio Config	IP Addressing: IP Address:	dhcp 10.5.196.70
ſ	Event Config	Subnet Mask:	255.255.254.0
		Default Gateway:	10.5.196.1
1	Autoprovisioning	DNS Server 1: DNS Server 2:	10.5.101.20 10.2.1.20
Ľ	Update Firmware	Speaker Volume:	4
		Microphone Gain:	9
		SIP Mode is:	enabled
		Multicast Mode is:	disabled
		Event Reporting is:	disabled
		Nightringer is:	disabled (NOT Registered with SIP Server)
		Primary SIP Server:	(Registered with SIP Server)
		Backup Server 1:	(NOT Registered with SIP Server)
		Backup Server 2:	(NOT Registered with SIP Server)

The **SIP Configuration** page opens.

	CvberData Inte	rcom
Home	SIP Configuration	
Device Config	Enable SIP operation: 🗹	
Networking	SIP Server:	10.5.196.114
SIR Config	Backup SIP Server 1:	
SIP Coning	Backup SIP Server 2:	
Nightringer	Remote SIP Port:	5060
	Local SIP Port:	5060
Sensor Config	Outbound Proxy:	
Multicast Config	Outbound Proxy Port:	0
	SIP User ID:	2012
Audio Config	Authenticate ID:	2012
Event Config	Authenticate Password:	2012
Autoprovisioning	Register with a SIP Server:	
	Re-registration Interval (in seconds):	360
Update Firmware		
	Unregister on Reboot:	
	Call disconnection	
	Terminate call after delay (in seconds):	0
	Note: A value of 0 will disable this function	
	RTP Settings	
	RTP Port (even):	10500
	Dial Out Settings	
	Dial out Extension:	3002
	Extension ID:	Holovision
	* You need to reboot for changes to take effect	
	Save Keboot	

5. Use the next table to enter or select values for the relevant fields on the **SIP Configuration** page.

Field	Description
SIP Server	Enter the Savant PBX address
Remote SIP Port	Leave as is (5060)
Local SIP Port	Leave as is (5060)
Outbound Proxy	Leave blank.
Oubound Proxy Port	Leave blank.
SIP User ID	Enter the Device Number used when you added the device in Savant Configurator.
Authenticate ID	Enter the Device Number used when you added the device in Savant Configurator
Authenticate Password	Enter the Device Number used when you added the device in Savant Configurator.
Call disconnection	Change the value to 0 (zero) seconds.
Dial Out Extension	Enter the extension associated with the Ring group you added in Savant Configurator.
Extension ID:	Enter the user Friendly Name used when you added the device in Savant Configurator

6. Click Save.

7. Click **Reboot**. The next status message is displayed.

CyberData Intercom	
Rebooting Please Wait 00:29	

Next, the Enable SIP operation field is confirmed as Registered with SIP Server.

	CuborData Into	reom
	CyberData Inte	
Harma	SID Configuration	
nome		Convort
Device Config	Enable SIP operation: M (Registered with Sir	- Server)
Networking	SIP Server:	10.5.196.114
	Backup SIP Server 1:	
TP Config	Backup SIP Server 2:	
lightringer	Remote SIP Port:	5060
	Local SIP Port:	5060
Sensor Config	Outbound Proxy:	
lulticast Config	Outbound Proxy Port:	0
	SIP User ID:	2012
udio Config	Authenticate ID:	2012
vent Config	Authenticate Password:	2012
		4
lutoprovisioning	Register with a SIP Server:	
Ipdate Firmware	Re-registration interval (in seconds):	360
	Unregister on Reboot:	
	Call disconnection	
	Terminate call after delay (in seconds):	0
	Note: A value of 0 will disable this function	
	RTP Settings	
	RTP Port (even):	10500
	Dial Out Settings	
	Dial out Extension:	3002
	Extension ID:	Holovision
	* You need to reboot for changes to take effect Save (Reboot)	

Now you are ready to make a call.

Configuring VIO by Holovision VoIP Intercom

This door entry system is configured as DHCP from the factory. Ensure that you reserve the DHCP-assigned IP address on your DHCP server.

To configure the ViO by Holovision VoIP Intercom, do the following.

1. Open your web browser and enter the door entry system's IP address in the browser's address bar .

HOME	CONFIGURATION	STATUS	DEFAULTS	UPDATE	REBOOT
SIP CLIENT					
SIP Door Station					
APPLICATION STATUS					
Application Mode	SIP Mode				
SIP PBX					
SIP ID					
Time till next Registration	0 seconds				
Call State	Idle				
Remote Party					
AUDIO STATUS					
Current Set Volume	0 %				
Left Output Peak Level	0 dBFS				
Right Output Peak Level	0 dBFS				
Left Input Peak Level	0 dBFS				
Right Input Peak Level	0 dBFS				
DEVICE & X8 I/O STATUS					
I/O Contacts	7 6 5 4 3	2 1 0			
Inputs					
Relays					
X8 status:	X8 not detected				

2. Click the **CONFIGURATION** tab. See the next screenshot.

HOME	CONFIGURATION	STATUS	DEFAULTS	UPDATE	REBOOT
SIP CLIENT					
SIP Door Station	BASIC SETTINGS				
Basic Settings Advanced Settings	SIP PROTOCOL SETTINGS				
	Peer to Peer	💿 No 🔘 Yes			
Apply Cancel	SIP Server (PBX)				
	SIP ID (username)				
	SIP Password (secret)				
	SIP Display Name				
	OUTBOUND CALL SETTINGS				
	Call on Device Inputs				
	Input 0 Call ID				
	Input 1 Call ID				
	Input 2 Call ID				
	INBOUND CALLS				
	Phone pickup mode	autoanswer	\$		
	Pick/hang up time	20 ‡ seconds			

3. Use the next table to enter or select values for the fields on the SIP Client page (Basic Settings).

Field	Description
Peer to Peer	Use the default: No .
SIP Server (PBX)	Enter the IP address of the Savant PBX.
SIP ID (username)	Enter the device number used when you added the device in Savant Configurator
SIP Password (secret)	Enter the device number used when you added the device in Savant Configurator
SIP Display Name	Enter the user-friendly name used when you added the device in Savant Configurator.
Input 0 Call ID	Enter the extension associated with the ring group you added in Savant Configurator.
Input 0 Call ID	Leave blank
Input 1 Call ID	Leave blank
Input 2 Call ID	Leave blank
Phone pickup mode	Leave as is (autoanswer)
Pick/hang up time	Leave as is (20 seconds)

4. Click Apply. The unit will reset in 4 seconds, see next screenshot.

HOME	CONFIGURATION STATUS	DEFAULTS	UPDATE	REBOOT	VIO v 1.0 MAC: 00:08:E1:03:38:D2 FW F1.0
SIP CLIENT					
SIP Door Station	Cattlene and Discount the device is reducted				Help
Basic Settings	Settings saved. Please wait, the device is restarting!				BASIC SETTINGS
Advanced Settings	2				SIP PROTOCOL
Apply Cancel	Please click <u>here</u> after the countdown if your browser doesn't support forwa	rding.			Peer to Peer Choose whether peer to peer calls should be allowed. NOTE:/Whon using F2P, the device uses always the default SIP (port 5060) and RTP (port 5004) ports. Make sure the remote peers are configured to listen on the default ports as well.
					SIP Server (PBX) Enter here the hostname/IP address of the SIP server.
					SIP ID Enter the SIP ID (username) that has been created for this device.
					SIP Password Leave this field empty if the PBX doesn't require authentication.
					OUTBOUND CALLS
					Call on Level If enabled, call can be initiated by audio level. If set to "Yes", then Call on Level ID, Level Threshold and Close Call on Level options are also visible. NOTE: Call on level is unsupported with "Background Music" enabled.
					Call on Level ID SIP extension of the device that will be called on audio level detection. In case of using "Pier to Pier/ mode, enter here the ID and the IP address of the remote peer, for example: 1234(g152.168.0.123)
					Level Threabold Mirmal acido level to initiate a call. If the input audio level reaches at least the configured threabold, a call will be initiated. The same threabold level is used to terminate the call if the Close Call on Level option is enabled Values: 06 32787, Default: 1000
					Cless Call on Level When minibid, and the input peak level is below the level threshold for the configured when it of the the call is terminated. Values 5 fo 30 seconds. Default: 0 (disabled)
					Call on Device Input 0 Extension to be called when input 0 is closed.

If required, a door code may be set using the **Advanced Settings**. The following example screenshot, shows the number **11** used to connect the gate to the relay. Pressing 11 will open the gate.

Enter the **Door Open Code** you wish to use to connect the gate to the relay. Click **Apply**.

HOME	CONFIGURATION	STATUS	DEFAULTS	UPDATE	REBOOT
SIP CLIENT					
SIP Door Station	INBOUND CALLS				
Basic Settings	Input Buffer Level	300 ms			
Advanced Settings	Stream Timeout	0 minutes			
SIP Protocol	Beep on Call Answer	💿 Off 🔾 On			
Outbound Calls	Power Door Relay Control				
Inbound Calls	Door Open Code	11			
Audio	Open Door Relay for	1 ÷ seconds			
Security	Relay Number to Enable at Call Answe	disabled +			
Apply Cancel	Switched Door Relay Control				
	Door Open Code	22			
	Open Door Relay for	1 ÷ seconds			
	Relay Number to Enable at Call Answe	disabled 🗘			
	Request To Exit Call ID 2	\$			

5. Click the Home tab.

The Time till next Registration field is confirmed in green text. See the next screenshot.

HOME	CONFIGURATION	STATUS	DEFAULTS	UPDATE	REBOOT
SIP CLIENT					
SIP Door Station					
APPLICATION STATUS					
Application Mode	SIP Mode				
SIP PBX	10.5.214.2				
SIP ID	2046				
Time till next Registration	1521 seconds				
Call State	Idle				
Remote Party					
AUDIO STATUS					
Current Set Volume	50 %				
Left Output Peak Level	-99 dBFS				
Right Output Peak Level	-99 dBFS				
Left Input Peak Level	-99 dBFS				
Right Input Peak Level	-99 dBFS				
DEVICE & X8 I/O STATUS					
I/O Contacts	7 6 5 4 3	2 1 0			
Inputs					
Relays					
,.					
X8 status:	X8 not detected				

Now the unit is ready to make and receive calls.

Adding the Mobotix T24 Using RacePoint Blueprint™

The Mobotix T24 door entry unit is a fully operational SIP phone with an IP camera included.

To add the door entry unit as part of the Savant PBX configuration in RacePoint Blueprint, do the following.

1. From the Library, select Generic Door Entry System.



- 2. Drag the component to the Layout window.
- 3. Enter a unique name for the component.

N	Enter a unique name for the component
	Main Gate
?	Cancel Create

- 4. Inspect the component.
- 5. Select **Telephony** from the **Show** popup menu.
- 6. Select Registration, on the Detail window, enter the following.
 - Savant PBX IP address
 - User name (same as the one used in Savant Configurator, for example, 2050)
 - Leave password blank.

See the next screenshot.
Important! The user name entered for this step match the one used when the device is added in Savant Configurator.

$\Theta \cap \Theta$	Inspecting "Main Gate"
	Detaile
Edit Device Screens Hide	Details
D 1.4	(?)
Class: Door_entry_syst	tem
Manufacturer: Generic	
Model: Door Entry Syst	em
Device Name: Main Gate	
Notes:	
Show: Telephony ;	
Registration	
Video Support	
video support	
	•
Properties for: Registratio	in
Username -	
Password	You must enter the Savant
	PBX IP address and a User
	name (same as the device
	Configurator for example
	2050.
+ - Show user defined properties	Show Data Table

7. Select Video on the Detail window.

8. Enter the URL for the camera feed as follows:

http://username:password@camera_ip/control/faststream.jpg?stream=full&fps=30

Where: Username: the user name of the camera

Password: password of the camera camera_ip: IP Address of the camera.

$\Theta \cap \Theta$	Inspecting "Main Gate"
Edit Device	Screens Hide Details
S 1.4	
Class:	Door_entry_system
Manufacturer:	Generic
Model:	Door Entry System
Device Name:	Main Gate
Notes:	
Show: Telephony	•
Registration	
Video Support	
	*
Properties for	Video Support
Enab	led 🖌

9. Generate services, save, and upload the configuration.

Next add the Mobotix T24 as a device in Savant Configurator. See the next procedure, <u>Adding a Mobotix T24 Using</u> <u>Savant Configurator</u>.

Adding a Mobotix T24 Using Savant Configurator

To add the Mobotix T24 unit as an endpoint within the Savant PBX using Savant Configurator, do the following.

- 1. Click the **Devices** tab.
- 2. Click Add Device to open the Add Device page.





Add Device Here you enter the settings for this device. The friendly name will be displayed to users on their line buttons and other appropriate places.



3. Use the next table to enter or select values for the fields on the Add Device page.

Field	Description
Server	Leave as is.
Туре	Select this option: IP Phone.
Device Number	Enter a four-digit number (in the range 2000-2500) for this device.
Assign to	Provides a drop-down list of all users that the device can be assigned to. It can also be unassigned. Savant Systems recommends this field be unassigned.
Friendly Name	Name that displays when a call is made from this device.
UID	The Savant user identifier is automatically populated by the Device Number.
Context	Default is Phone (all_calls) . Use the default value.
Usable as Trunk	Do not insert a check mark.
Use TCP	Do not insert a check mark.
Secret	Leave it blank.
Call Limit	Enter 2.
Host	Use the default: dynamic.
Port	Use the default value: 5060.
NAT	Network Address Translation (NAT) helps determine whether this device is on the internal network or outside the firewall. You must insert a check mark in the check box.
Register?	Do not insert a check mark.

Qualify	Insert a check mark.
---------	----------------------

4. Click Add & Exit.

5. Click **View Devices** from the left side bar and confirm the new device appears in the list. See the next screenshot with the Mobotix device circled.

Devices These are all the devices that the system knows about.

			Add Device	Edit Device Delete D	evice		
She	ow 10 🗘	entries	Filter: All		Sea	rch:	
	Туре 🔺	Name 🔺	Status (SIP Only) 💠	Friendly Name 💠	Assigned To 💠	Server \$	Is Trunk? 💠
0	SIP	2000	OK (142 ms)	Guest1		savant-ipbx	No
0	SIP	2001	Unregistered	guest22		savant-ipbx	No
0	SIP	2020	Unregistered	Mikes Phone		savant-ipbx	No
0	SIP	2021	OK (4 ms)	Mikes Snom Phone		savant-ipbx	No
0	SIP	2030	Unregistered	PA System		savant-ipbx	No
0	SIP	2040	Unregistered	Mobotix		savant-ipbx	No
0	SIP	2041	N/A	Holovision Cyberdata		savant-ipbx	No

6. Click Call Groups and then click Add Group to open the Add Call Group page.

Add Call Group Here you modify the basic settings for this call group.			
Name			
Fail Extension			
Distributed Audio Zones			
Туре	Hunt		
Save Group	Cancel		

Field 7. Use the next table to enter or select values for the fields on the Add Call Group page.

Name	Field	Description
Fail Exte	Name	Name of group.
Туре	Fail Extension	Leave as is.
Distribut	Туре	Select Ring-All.
Fail Exte	Distributed Audio Zones	Insert a check mark in the box, if required.

Type 8. Click **Save**. Select Ring-All.

Distributed Audio Zones Insert a check mark in the box, if required.

9. Click **View Groups** from the left side bar, and then from the list select the group you just created.

Call Groups

Below is a list of all call groups on the system.

	Add Gro	up Edit Group Edit Members	De	elete Group	
Shov	v 10 🗧 entries			Search:	
	Group Name	Failover Number	\$	Type 🗘	Members \$
۲	Gate			Ring All	1
0	Kids			Paging	0
0	PageAll			Paging	1
0	RingAll			Ring All	0
Shov	Showing 1 to 4 of 4 entries				
			Firs	Previous	1 Next Last

10. Click Edit Members to open the edit group members page. See the screenshot on the next page.

View/	Edit	Group	Memb	ers for	Ring-All	group	'Gate'
Here you	modif	y the basi	c settings	for this gr	oup.		

Sroup Members	Available Devices
Aastra 6739i (SIP/2050)	OO NOT DELETE (SIP/2051) Guest1 (SIP/2000) guest22 (SIP/2001) Holovision Cyberdata (SIP/2041) Mikes Phone (SIP/2020) Mikes Snom Phone (SIP/2021) Mobotix (SIP/2040) PA System (SIP/2030) Wilson Snom Phone (SIP/2055)

- 11. Select all the endpoints from the **Available Devices**—that you want to include in the Ring-All group—and use the arrow button to move the device to the Group Members area.
- 12. Click Save.
- 13. Click the Extension tab and click the Add Extension button to open the Add Extension page.

Add Extension Here you may configure this extension.				
Number:	3000			
Extension type: Call Group				
Destination: Gate				
Add New Ext.	Cancel			

14. Use the next table to enter or select values for the fields on the Add Extension page.

Field	Description
Number	Number will be the number that the door entry will dial.
Extension Type	Select Call Group.
Destination	Select Ring-All.
Description	·

Field

Number

Number will be the number that the door entry will dial.

Configuring the VoIP Settings for Mobotix T24 Intercom

The Mobotix T 24 intercom can be configured using the Mobotix web interface. When using this interface you may be prompted to store your configuration. If so, click OK to avoid losing data.

call with PIN code:	

The Mobotix T24 advertises itself via Bonjour®.

NOTE: This procedure is based on the Mobotix web interface version: 4.1.1.21. If the Mobotix website is using a different version, please contact Mobotix customer support.

To configure the VoIP Settings for the Mobotix T24 Intercom, do the following.

1. Open Safari and click **Bonjour**. If Bonjour is not included on your Bookmarks Bar, see the procedure for adding it by clicking <u>here</u> (see page 56).



2. Enter the user name and password as follows:



3. Click Log in to open the main page of the Mobotix web interface. See the next screenshot.

Main Page in Mobotix Web Interface



4. Click Admin Menu to open the Mobotix Administration Overview page in the web interface. See the next screenshot.

Administration Overview Page

00	O Mobotix Administration Overview			
榆 мово	OTIX T24 Mobotix Admini	stration Overview Ø 0		
Logos	s and Image Profiles	Manage Image Files Logo Profiles Image Profiles		
	Transfer Profiles	E-Mail Profiles IP Notify Profiles		
Audio	and VoIP Telephony	Speaker and Microphone Manage Audio Messages Sound Profiles for playing back audio files SIP Server Settings for configuring integrated SIP server SIP Client Settings for VoIP telephony Outgoing Calls Settings Incoming Calls Settings		
Car	mera Administration	 <u>Time and Date</u> <u>LED Setup</u> <u>Time Tables</u> for arming and services <u>Time Tasks</u> for image transfer and other jobs 		
	Configuration	 Store current configuration permanently (to flash) <u>Reset</u> configuration to factory defaults <u>Restore</u> last stored configuration from flash <u>Load</u> configuration from local computer <u>Save</u> current configuration to local computer <u>Show</u> current configuration (raw version) <u>Edit</u> configuration file (for experts) <u>Backup and Restore</u> system configuration to/from SD card <u>Manage</u> other cameras 		
	System Update	<u>Update System Software</u>		
	General Tasks	<u>Reboot</u> the camera		
Security Warning:	Browsers retain password info protected pages, make sure th so will leave the password in t	rmation until they are closed completely. To prevent unauthorized use of tat you close all browser windows at the end of your session. Failing to do the browser cache and other users may manipulate your camera(s)!		

5. In the **Audio and VoIP Telephony** group, click **SIP Client Settings** to open the page for these settings. See the next screenshot.

00		Mobotix SIP Client Settings	2
⋒ ♦ ।		Nobotix SIP Client Settings	
You can v	iew the current state	us and detailed messages of the SIP Client in the <u>SIP Client: Messages, Calls, Status</u> dia	ıl
Genera	Phone Setting	S	
SIP Client:	Enabled \$	Enable or disable SIP Client.	COM ACCOUNT AND
Automa	tic Phone Setti	ngs	
Camera SIP Address:	sip:Mobotix	You can call the camera using this SIP address. Your SIP phone must be on the same subnet and should be able to make a direct device-to-device call.	ADDRESS STREET, STREET
Audio Mode for Calls:	Intercom	The best available audio mode is selected here. The available modes depend on the camera model and the <u>audio settings</u> .	
Video Mode for Calls:	Enabled	Video is normally activated by the quick setup.	A PROPERTY AND A PROP
Call the ca	amera using the add	ress specified above to generate a phone profile with the address of the caller.	
Setup N	lode		
Setup Mode:	Quick Setup 🗧	Choose the setup type. Quick Setup can configure the camera for peer-to-peer telephony with another phone and sets all required camera parameters automatically. Expert Setup allows configuring everything manually.	
Warning: Calls Set	Setting the Quick tings dialog!	Setup configuration overwrites already existing VoIP settings and changes some <u>In</u>	0
Se	t Facto	ry Close	

6. In the **Setup Mode** group, select **Expert Setup.** This enables more options for the **General Phone Settings** and shows the **Add new SIP account** button.

00	A			Mobotix SIP	Client Settin	ngs			1
🏫 🔶 МОВОТІ	X T24 Mobotix	SIP Client Se	ttings						Ø (
You can view the cu	ou can view the current status and detailed messages of the SIP Client in the SIP Client: Messages, Calls, Status dialog.								
General Phone	Settings								
SIP Client	Enabled +		Enable o	r disable SIP Client.					
Hangup on Outgoing Calls	tangup on Outgoing Disabled ÷ Hang up an ongoing call, if an outgoing Calls: call is triggered.								
Parallel Dialing	Disabled \$		Enable o multiple p	r disable simultaneous phones.	calls to				
SIP Accounts									
SIP Add	dress	Authe	ntication	Server		Available as Proxy	Use as Registrar	Register Expiration	
User Name	Domain	User Name	Password	Hostname / Address	Port				
2011 @	10.5.201.90	2011	۵	sip:10.5.201.90 :			٢	5 min. +	Delete
	Add new SIP account								

7. Click Add new SIP account once to add a blank row for entering a SIP account.

Field	Description
SIP Client	Select Enabled
Hangup On Outgoing Calls	Select Disabled
Parallel Dialing	Select Disabled
SIP Address: User Name	Assigned Device Number of Mobotix system in Savant Configurator.
SIP Address: Domain	IP Address of the Savant PBX
Authentication: User Name	Assigned Device number of Mobotix system in Savant Configurator. This user name should match the SIP Address: User Name.
Authentication: Password	Leave field blank.
Server: Hostname/address	Make sure the Use as Registrar boxes are checked.
Server: Port	Leave field blank.
Available As Proxy	Leave field blank.
Use As Registrar	Add check mark.
Registrar Expiration	Use 5 minutes

9. Scroll down to the Audio Codec Settings section and insert a check mark for Use PCMA Codec and Use PCMU Codec.

26623	Audio Codec Settings	3		
and sold	Use PCMA Codec	\checkmark	Activate or deactivate the use of the PCMA codec.	1111
	Use PCMU Codec		Activate or deactivate the use of the PCMU codec.	
•	Video Settings			
.8	1 <i>1</i>		Enclose an declaration	

10. Scroll down and click Set.

At this point the Mobotix unit should be registered with the Savant PBX.

- 11. Go back to the Admin Menu by clicking the left arrow at the top of the page. See Administration Overview Page.
- 12. From the Audio and VoIP Telephony group select Outgoing Calls Settings.
- 13. Click the Add button to open the Mobotix Outgoing Calls Settings page.
- 14. Enter a **Profile** name in the field as circled in red in the next screenshot.

00		Mobotix Outgoing Calls Settings
🏠 🔶 MOE	BOTIX T24 Mobo	otix Outgoing Calls Settings 00
Test Profile		
Name	call_1 ‡	Test Note: Set the changes to a profile before you test it.
Profile	Configuration	
call_1		Phone Number or SIP Address Dial Attempts Dial Timeout SIP Proxy
Delete		3001@10.5.201.90 1 ‡ 20 ‡ None ‡
		Add
	Connection type:	SIP Audio 💠
	Message name:	Select +
	Confirm call with Pl	IN code:
	After the message	has been sent: Intercom + If you intend to use all audio modes (<i>Speak, Listen, Listen, Intercom</i>) make sure you have activated all options in the <u>Speaker and Microphone</u> dialog.
	Camera Remote Co	ontrol: Off + Note: configure the remote control parameters (e.g. the dial-out profile) in the Incoming Calls Settings dialog.
	Hangup after:	1 minute +
		Add new profile
Explanation	Every profile can stor answered. Dial Time phone number or SIR	re several phone numbers or SIP addresses which will be tried in turns until the call is out controls the timeout for each call and Dial Attempts limits the number of calls for each P address.
Set	Factory	Restore Close

Field	Description	
Phone Number or SIP Address	Enter the extension you selected for the ring group followed by @ and the Savant PBX IP address.	
Message Name	Leave as is.	
Connection Type	Select SIP Audio.	
Confirm call with PIN code	Leave blank.	
After the message has been sent	Select Intercom.	
Camera Remote Control	Select On .	
Hangup after:	Select 1 minute.	

- 16. Click Set.
- 17. Go back to the <u>Administration Overview page</u> and click the **Incoming Calls Settings** option in the Audio and VoIP Telephony group. See the next screenshot.

Incoming Calls Set	tings	
Phone Call-In	VolP ‡	Activate or deactivate VoIP phone calls into the camera.
Accepted Phone Numbers or SIP Addresses		You can enter several phone numbers or SIP addresses, one per line. Only calls <i>originating from</i> these numbers or SIP addresses will be answered by the camera. To help you identify the caller, the <i>last caller's number</i> is shown here: Unknow ; the <i>last calling SIP address</i> is shown here: sip:2002@10.5.201.90 . Simply call the camera from a device that you want to be able to access your camera, close and reopen this page and add the phone number or SIP address to the list. Press this button to add the SIP address: <u>sip:2002@10.5.201.90</u> . If you do not enter anything, all calls will be answered. For security reasons this is not recommended!
Accepted SIP Proxies		You can enter several SIP Proxy addresses, one per line. Only call invitations which request to answer to one of these addresses will be accepted by the camera.
		If you do not enter anything, all invitations will be accepted. For security reasons this is not recommended!
Welcome Message	- none - +	Select the voice message that callers will hear, e.g. to greet the or to identify the camera.
PIN Code	<u> </u>	You can enter a Personal Identification Number to restrict access to the camera. If a PIN code is set, the caller has to enter this code using the telephone's keypad.
Audio Mode	Speak ‡	Select the audio mode. The available audio modes depend on your <u>audio</u> settings and the model of the camera.
Intercom Settings	Threshold Duration Disabled Medium	The Intercom audio mode simulates an intercom between the camera and a telephone. To minimize distortions, the camera's microphone is muted when you speak into the telephone. For muting to work properly, you can configure the following two parameters: Threshold specifies the level when the camera's microphone is muted and the Duration is the minimum time during which the microphone is muted.
Hangup call after	1 minute 📫	Enter a limit for the maximum duration of a call.
E-Mail Profile	- disabled - +	After connecting to the camera successfully, you can send the last event image by pressing 5 on your telephone's keypad. Select the <u>e-mail profile</u> you would like to use for sending.
Set	Factory Restore	Close

Field	Description
Phone Call-In	Select VoIP.
Accepted Phone Numbers or SIP addresses	Leave blank.
Accepted SIP proxies	Leave blank.
PIN Code	Leave blank.
Audio Mode	Select Speak
Intercom Settings	Threshold: Disabled Duration: Medium
Hangup call after	Select 1 minute.
E-mail Profile	Select disabled.

19. Click Set.

20. Go back to the <u>Administration Overview page</u> and click the **LoudSpeaker and Microphone** option in the Audio and VoIP Telephony group. See the next screenshot.

000		Mobotix Speaker and	Microphone
渝 ←	MOBOTIX T24	Mobotix Speaker and Microph	none 🤗 🕅
Device	Enabled/Level	Test	Explanation
Audio Input	 Disabled Microphone Medium sensitivity 	Ŧ	Activate or deactivate the microphone for video recording and streaming. A deactivated microphone can still be used to trigger events. To test the sensitivity, speak into the camera microphone while the upper three LEDs are blinking. The recording is then played back on the camera speaker.
Audio Output	Obisabled ●Speaker Volume 0 ≑	Alarm ‡ Test	Activate or deactivate the speaker and set the amplification. You can choose between several sound files for testing purposes.
		Audio System Status: waiting	
	Parameter	Value	Explanation
Echo Ca	ancellation	Enabled 🗘	Enable or disable echo cancellation. Can be used during VoIP calls to prevent the sound from the speaker from being directly recorded and retransmitted to the remote station. Not available for ExtIO.
	Set Fac	tory Restore C	Close More

Field	Description
Audio Input	Select Microphone and select Medium sensitivity.
Audio Output	Select Speaker .
Echo Cancellation	Select Enabled.

- 22. Click Set.
- 23. Go to the Mobotix T24 main web page by clicking and then click Setup Menu (on the left).
- 24. From the Event Control group, click Event Overview.

00		Mobotix Event Overview			H
🏫 🔶 МОВОТІХ Т2	4 Mobotix Event	Overview			00
Environment Events	PI	The selected sensor is currently not available!	✓	Delete	Edit
	М	Microphone	 ✓ Inactive 	Delete	
Image Analysis Events	VM	Video Motion	Inactive	Delete	Edit
	VM2	Video Motion	 ✓ Inactive 	Delete	
Internal Events	No profiles defined				Edit
Message Events	No profiles defined				Edit
Meta Events	No profiles defined				Edit
Signal Events	SI	Signal Input	 ✓ Inactive 	Delete	Edit
	UC	UC Soft Button	Inactive	Delete	
	CameraBellButton	Signal Input	Inactive	Delete	
	CameraLightButtor	Signal Input	 ✓ Inactive 	Delete	
Time Events	PE	Periodic Event	2	0	Edit
Set F	Restore Cl	DSe	1000 PM 5410 - 2016 - 54		

25. Use the next table to complete the fields shown in the Signal Events group in the previous screenshot.

Field	Description
Signal Input	Select SI and add a check mark to Inactive
UC Soft Button	Select UC. Leave Inactive and leave Delete unchecked.
Signal Input	Select CameraBellButton. Leave Inactive and Delete unchecked.
Signal Input	Select CameraLightButton. Add a check mark to Inactive and leave Delete unchecked.

- 26. Click Set.
- 27. Go back to the Mobotix Setup Overview page.
- 28. From the **Event Control** group select the **Action Group Overview** to open the configuration settings for the **Action Group Overview** page.

00	R		
🏠 🔶 МОВО	FIX T24 Mobotix Action Group C	verview	00
Name	Arming	Events & Actions	Edit
VisualAlarm Delete	Off (No time table)	 (select all) VA 	Edit
	Add r	new group	
Set	Restore Close		

29. Click Add new group to open the configuration settings for an action group.

30. Enter a name for the action group and then click **Edit** to open the action group details.

00	Mobotix Action Group Details	<u>M</u>
nobotix t24	Mobotix Action Group Details	0 0
General Settings	Value	Explanation
Action Group	Doorbell	Name: The name is purely informational.
	Enable ÷	Arming: Controls this action group: Enable: activate the group. Off: deactivate the group. Sr: group armed by synal input. CS: group armed by custon signal as defined in <u>General Event Settings</u> .
	(No time table) ‡	Time Table: Time table for this action profile (Time Tables).
Event Selection	(Image Analysis: VM2) (Signal: SI) Signal: UC Signal: CameraBellButton (Signal: CameraLightButton)	Event Selection: Select the events which will trigger the actions below. Use [Ctrl]-Click to select more than one event. Events in brackets need to be <u>activated</u> first.
Action Details	0	Action Dead Time: Time to wait [03600 s] before a new action can take place.
	Simultaneously ÷	Action Chaining: Choose how the status of each subaction influences the execution of all others. Simultaneously: All actions are executed simultaneously until first success: Simultaneous execution, but as soon as one action succeeds (i.e. has been completed or the phone is picked up), all others are terminated. Consecutively: All actions are executed in the specified order. Consecutively until first success: Consecutive execution, but as soon as one action succeeds, the following actions are not executed. Consecutively until first failure: Consecutive execution, but as soon as one action fails, the following actions are not executed.
Actions	Value	Explanation
	Add new action	
Set Facto	ory Restore Close	

31. Use the next table to complete the fields shown in the Action Group Details page in the previous screenshot.

Field	Description
Action Group: Name	Select the action group created in step 28. The previous screenshot shows for example, Doorbell.
Arming	Select Enable.
Event Selection	Select SignalCameraBellButton.
Action Details	Enter 0 Use Simultaneously

32. Click Add new action to open the ... Action Group Details page. See the next screenshot

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3

00	Mobotix Action Group De	etails 🖉
🏠 🔶 МОВОТІХ Т	T24 Mobotix Action Group Details	00
Event Selection	Signal: UC Signal: CameraBellButton (Signal: CameraLightButton) (Time: PE) (Time: TT)	Event Selection: Select the events which will trigger the actions below. Use [Ctri]-Click to select more than one event. Events in brackets need to be <u>activated</u> first.
Action Details	0 Simultaneously ÷	Action Dead Time: Time to wait [0.3600 s] before a new action can take place. Action Chaining: Choose how the status of each subaction influences the execution of all others. Simultaneously: All actions are executed simultaneously. All actions are executed (i.e. has been completed or the phone is picked up), all others are terminated. Consecutively. All actions are executed in the specified order.
Actions	Value	execution, but as soon as one action succeeds, the following actions are not executed. <i>Consecutively until first failure:</i> Consecutive execution, but as soon as one action fails, the following actions are not executed. Explanation
Action 1	Phone Call: call_1 +	Action Type and Profile: Select the Action Profile to be executed.
Delete	0	Action Timeout: If this action runs longer than the time specified [03600 s], it is aborted and returns an error; 0 to deactivate.
	Add new action	
Note: You may need adminis Notify, FTP, E-Mail, Pl	tration privileges to add or modify the action pro ay Sound.	files: <u>Signal Out, Visual Alarm, Phone Call, IP</u>
Set	Factory Restore Close	

33. Use the next table to complete the fields shown in the ...Action Group Details page in the previous screenshot.

Field	Description
Action 1: Action Type and Profile	Select Phone Call:call_1
Action 1: Action Timeout	Select 0

- 34. Click Set.
- 35. Go to the Mobotix T24 main web page by clicking and then click Admin Menu (on the left).
- 36. From the **Configuration** group click **Store** to open the **Mobotix Permanently Store Configuration** page. See the next screenshot.

00		Mobotix Permanently Store Configuration	R.
^	МОВОТІХ Т2	4 Mobotix Permanently Store Configuration	00
	Why is this necessary?	Changes to the configuration are only temporary. To use the current settings after the next reboot, you have to permanently store the configuration.	
	Current Configuration	You can <u>view</u> the current configuration file.	
		Store Permanently	

Now a call can be sent to the door entry unit. When you receive a call from the endpoint associated with the Mobotix T24, you will see the message, **Incoming Call**. See the next screenshot.





If answered, you will see the **Connected** message. See the next screenshot.

8. APPENDIX 1

Use this appendix to update the Savant IP Phone Firmware, and to install the Savant phones: TEL-HSTW01, TEL-HST01, TEL-HSTW02.

Updating Savant Phone Firmware using PBX 6.0

If you are using pre-Release PBX 5.2 software, see - Savant Phone Firmware using Pre PBX 5.2.

The table below represents the PBX Releases and coordinating Firmware that should be used for them.

PBX Release	Use This Firmware
Pre 5.2.1.13:1	3.2.2.56 or higher
Post 5.2.1.13:1	3.2.2.2112 or higher

If you are using Release PBX 5.2.1 or later to update the firmware on the wired Savant IP phones—TEL-HST01 and TEL-HST02—do the following.

- 1. Open Savant Configurator and click the Phone tab.
- 2. Click the IP address of the phone for which the firmware is to be updated. This opens the web user interface of that phone.

Phones View Phones Add Phone			Sa			CAN							
Upload New Firmware	Ove	rview Users	s Device	s Phones	Extensions	Call Groups	SLA	Voicemail	CDRs	IVRs	Sounds	Logs	Backups
Regenerate Config Files	Conf	gured Phones	:										
Download Aastra DECT Config	F	Phone ID	IP Address	Model	Assigned To	TFTP URL							
	• •	0085d296466	10.5.225.5	Aastra 6730	Not Assigned								
Devices	0 0	0085d2ce7cc	10.5.225.4	Aastra 6739	Not Assigned								
View Devices	0 0	004133307f2	10.5.225.24	Snom PA-1	Not Assigned	tftp://10.5.22	5.15/snomP	A-1-00041333	807F2.htm				
Add Device													
Session Logout													
System August 17, 2011 12:55:40pm UTC -4 About Network Config				Add phone	Edit Phone De	lete Phone							

- 3. Under Advanced Settings, click Firmware Update.
- 4. Use the next table to modify the fields on the Manual Firmware Update page.

Field	Description
File Name	Enter TEL-HST01.st if the phone is TEL-HST01 model, or TEL-HST02.st if the phone is the TEL-HST02 model. Double check the file name and phone model is correct.
Download Protocol	TFTP
Server	Enter the IP address of PBX
Path	Leave it empty
Port	Use the default: zero (0)
Username	This is not required
Password	This is not required

See the next screenshot.

AZSTRA			6739i			
Status						
System Information	Manual Firmware Update					
Operation						
User Password	Enter the server's IP address and the na	ime of the firmware below to initiate a firmware update.				
Phone Lock	5 % - No					
Softkeys and XML	File Name	TEL-HST02.st				
Reypad Speed Dial	Download Protocol	TFTP ‡				
Reset	Server	10.5.225.14				
Basic Settings	Both					
Preferences	Faul					
Account Configuration	Port	0				
Advanced Settings	Username					
Network						
Global SIP	Password					
Line 1						
Line 2						
Line 4	Download Firmware					
Line 5						
Line 6						

- 5. Click **Download Firmware**. Wait for a couple of minutes.
- 6. Confirm that the web interface displays: "*Firmware upgrade successful. The phone is restarting*." See the next screenshot.

AZSTRA		6739i Log Off
Status System Information Operation User Password Phone Lock Softkeys and XML Keypad Speed Dial Directory Reset Basic Settings Preferences Account Configuration Advanced Settings Network Global SIP	Firmware upgrade successful. The phone is restarting	

7. After the phone restarts, under **Status** click **System information**. Confirm the **Firmware Version** under **Firmware information**.

Status				
System Information System	vstem Informat	ion		
operation				
User Password Ne	etwork Status			
Phone Lock At	tribute	LAN Port	PC Port	
Softkeys and XML	nk State	Un	Down	
Keypad Speed Dial	anotiation	Auto	Auto	
Directory	bood	1000Mbpc	n/a	
Reset	, eeu	Tuul	11/0	
sic Settings	piex	ruii	пан	
Preferences				
Account Configuration Ha	ardware Information			
anced Settings At	tribute	Value		
Network M	AC Address:	00-08-5D-2C-E7-CC		
Global SIP BT	MAC Address:	00-00-00-00-00		
Line 1 Pla	atform	6739i Revision 0		
Line 2				
Line 3 Fit	rmware Information			
Line 4 At	tribute	Value		
Line 5 Fir	rmware Version	3.2.2.56		
Line 6 Fir	rmware Release	CID		
Line 7 Co	ode	JIF		
Line 8 Bo	oot Version	3.0.0.221		
Line 9 Da	ate/Time	Jun 18 2011 03:53:23		
Action URI				
Eirmware Undate SI	P Status			
TLS Support Lin	ne	SIP Account	Status	Backup Registrar Used?
Traublashasting		2018@10.5.225.8:5060	Registered	No
110ubleshooting 2		2018@10.5.225.8:5060	Registered	No
3		2018@10.5.225.8:5060	Registered	No
		-	-	

Off

Updating Savant Phone Firmware using Pre-PBX 5.2

If you are using pre-Release PBX 5.2. software to update the firmware on the wired Savant IP phones—TEL-HST01 and TEL-HST02—see the Release PBX5.2 Savant Telephony Solution Deployment Guide (009-0406-08).

If you are using Release PBX 5.2.1 to update the firmware on the wired Savant IP phones—TEL-HST01 and TEL-HST02—see the procedure <u>Updating Savant Phone Firmware using PBX 5.2.1</u>.

Installing the Savant Wireless Phone: TEL-HSTW01

Inserting the Standard Battery

Push the battery cover downwards until it disengages from the locking mechanism and lift off. Insert the battery with the contacts downwards. Replace the battery cover and push upwards until it snaps into place.

Installing the Mounting Bracket

Place the supplied fixing bracket on both openings at the upper end of the handset and snap in place by pressing downwards. To remove the fixing bracket, press into the small cutouts at the edge of the bracket and pull the two sides slightly apart.



Attaching the Carrying Strap

There are two openings in the upper part of the fixing bracket. Feed the lower end of the carrying strap through these openings (please install with the fixing bracket removed).



Headset Connection: Bluetooth®

All handsets have a 2.5 mm jack plug at the bottom left for connecting a headset. Only use the recommended headsets

The TEL-HSTW01 mobile handset has a Bluetooth interface (2.0) for corresponding headsets. With a headset only audio data can be transferred via the Bluetooth interface.

Headset Safety Information

Headsets (earphones and headphones) can produce very loud and high-pitched feedback. Exposure to such feedback can damage hearing. Before using a headset, set the volume as low as possible. For wired headsets, you can adjust the settings in the menu **>>>** Audio > Volume > Headset (wire). In the case of Bluetooth headsets, adjust the setting on the device (please consult the User's Guide for the device). If you are making a call with the headset, adjust the volume slowly if necessary.

USB and External Charging Connection

A mini USB connection (2.0) is located at the bottom right. This has two functions:

- as an interface for connecting to a PC to load data from or to the device, for example. If the handset is
 connected to a PC, the battery is charged at the same time. The charging process is, however, slower
 than if the handset is charged in the charging unit.
- as a connection socket for a USB charging device to charge the handset even when it is in a leather pouch. The charging process is also slower here than charging in the charger cradle.

Only use a shielded USB cable of the type "USB 2.0 A on USB Mini B".

Connecting the Charging Unit

This handset can be used without any changes to the charger cradle.



The plastic guides can also be removed, by pushing a suitable screwdriver into the slits on the bottom of the charger.



Connect the plugin power supply to the charger cradle and place the connection cable through the cable guide. Place the charger cradle on a nonslip surface. Change the plug of the power supply unit if necessary.

Power Supply

The power supply unit is designed for 100V to 240V AC (50-60 Hz). It is supplied with four change adapters enabling virtually worldwide use. Where necessary, connect the plug normally used in your country to the power supply unit. There are two versions of the plug-in power supply unit that are connected slightly differently:

Version 1: Set the switch on the power supply unit to OPEN and push out the existing plug upwards. Then insert the new plug required into the power supply unit and lock it with the switch (LOCK).

Version 2: Remove any existing plug by pressing OPEN. Then insert the required new plug into the power supply unit at a slight angle with the label TOP upwards. Press downwards until it snaps into place.

Micro SD Card

There is a slot for a micro SD card under the battery in the Savant TEL-HSTW01 handset. This is not used in the current delivery condition and is available for future applications. Please make sure that the card slot is not damaged when inserting the battery.

Important Information about the Battery

The devices are powered by a Li-ion battery (both standard and power battery). It is vital that you read the safety regulations before using the battery for the first time. Keep these safety regulations and all instructions for use at hand for future reference.

- Dispose of used batteries in accordance with local regulations.
- Failure to heed any of the following precautions when using the battery can lead to overheating, fire and danger of explosion.
- CAUTION: Risk of explosion if the battery is replaced by an incorrect type.
- Never try to use the battery for the power supply of any device other than these handsets.
- Never use or leave the battery close to a naked flame.
- Never put the battery into a microwave oven, do not throw it into a fire and do not expose it to high temperatures by any other means.
- Never carry or store the battery together with electrically conducting objects (neck chains, pencil leads, etc.)
- Never attempt to open the battery, never modify it in any way or subject it to severe blows.
- Never immerse the battery in fresh or salt water.
- Never use or leave the battery in direct sunlight, in a vehicle parked in blazing sunlight or in any other location with high temperatures.

- If you ever notice liquid leaking out, unusual odor, build-up of heat, discoloration, deformation or any other abnormal condition when you use, charge or store the battery, remove the battery immediately from the handset and keep it away from naked flames.
- The battery fluid can damage your sight. If at any time battery fluid accidentally gets into your eyes, rinse your eyes immediately with clean tap water and contact a doctor.
- If the battery is to be used by children, make sure a responsible adult instructs the children in the precautions and proper handling, and make sure the children handle the battery correctly.
- If battery fluid accidentally gets onto your clothing or skin, rinse the affected place immediately with pure tap water. Prolonged contact with battery fluid can lead to skin inflammation.

Precautions During Use:

- The battery is designed for use with these handsets only.
- Only use the charger cradle supplied for charging.
- A new battery is not charged so you need to charge it before using for the first time.
- Using the battery in a cold environment can shorten the expected operating life of a full charge. Charge the battery at a location with a temperature between 10° C and 35° C. Charging outside this temperature range can lead to a longer-than-usual charging time or even to failure of the charging process.
- An extremely short operating time after a full charge indicates that the lifetime of the battery has expired. Replace the battery.
- Never wipe the battery with thinners, benzene, alcohol, or other volatile substances, or chemically treated cloths. These can cause deformation of the battery and malfunction.
- If you need to send your handset with an installed LI-ion battery or LI-ion batteries separately, make sure you comply with the applicable laws and regulations with regard to the shipment of hazardous goods.

Installing the Savant Phone: TEL-HST02

The Savant TEL-HST02 communicates over an IP network allowing you to place and receive calls in the same manner as a regular business telephone. The Savant TEL-HST02 is capable of supporting the SIP IP protocol.

Requirements

The Savant TEL-HST02 requires the following environment:

- SIP-based IP PBX system or network installed and running with a SIP account created for the TEL-HST02 phone.
- Access to a Trivial File Transfer Protocol (TFTP) server, File Transfer Protocol (FTP) server, Hypertext Transfer Protocol (HTTP) server or access to Hyper Text Transfer Protocol over Secure Sockets Laver (SSL) (HTTPS) server.
- Ethernet/Fast Ethernet LAN (10/100 Base-T), Gigabit Ethernet LAN (1000 Base-T) recommended
- . Category 5/5e straight through cabling
- Power source

For Ethernet networks that supply in-line power to the phone (IEEE 802.3af):

For power, use the Ethernet cable (supplied) to connect from the phone directly to the network for power. (No 48v AC power adapter required.)

Standards-based (802.3af compliant) Power over Ethernet affords a one-wire solution for connecting Ethernet devices, delivering power and data over a single CAT5/6 network cable. Using 802.3af compliant PoE injectors or PoE Ethernet Switches, there is no need to install a separate power supply at the device location. The PoE injector or PoE Ethernet Switch can simply be mounted at any convenient location up to 100 meters (328 feet) from the device.

NOTE: Due to the inherent voltage drop over copper wire, a maximum of 12.9 W is guaranteed to be received by the PoE powered device over a cable run length of 328 feet (100 meters) per specification.

For Ethernet networks that DO NOT supply power to the phone (optional):

For power, use the 48V AC Power Adapter (optional accessory) to connect from the DC power port on the phone to a power source.

Phone Parts (TEL-HST02)

When you unpack your phone, you should ensure that you have all of the following items. If any part is missing, contact the supplier of your phone.

Savant Phone (TEL-HST02)



Wall Mount

Drilling Template







Ethernet Cable



Screws and Anchors for Wall Mounting

Optional Accessories (Not Included)



Adapter

Additional Ethernet Cable (category 5/5e straight through cable)

PoE (Power over Ethernet) Inline Power Injector

A PoE (Power over Ethernet) inline power injector supplies 48v power to the HST-02 through the Ethernet Cable on pins 4 & 5 and 7 & 8.

Warning: Do not use this PoE inline power injector to power other devices.

Installation and Setup

The HST02 can be setup to share a network connection with another network device. Power can be provided by an AC adapter (optional accessory), an 802.3af compliant network power source, or with a PoE inline power injector (optional accessory). It can also be installed on a desk or mounted on the wall.

Direct or Shared Network Connection

The phone can be set up as a direct network connection to the Ethernet wall jack or as a shared network connection as a pass-through if connecting a computer or another network device to the phone.

Direct Network Connection

Located at the top of the phone are two fully switched 10/100/1000 Mbps Ethernet cable ports. The port marked with LAN is used to connect the phone to the network, as well as provide power to your phone (if required).



Shared Network Connection

To connect a network device (such as a computer) to the phone, connect an Ethernet cable into the network port on the top of the phone marked PC. Plug the other end of the Ethernet cable into the network port on the network device with which you are sharing the network connection.

Note: The **PC** jack on the HST02 does not supply inline power onto other network devices. All Ethernet cables used must be category 5/5e straight-through cables, such as the cable provided with your phone

Connecting to the Network and to Power

Inline Power Provided

If your network provides 802.3af compliant in-line power, the phone is powered through the network.

1. On the top of your phone, connect the Ethernet cable (provided with your phone) into the network port marked with LAN.

2. Plug the other end of the Ethernet cable directly into the network jack on the wall.



Inline Power Not Provided

If your network does not provide 802.3af compliant in-line power, you need to install the supplied AC adapter or the PoE inline power injector (optional accessory).

1. On the top of your phone, connect the Ethernet cable (provided with your phone) into the network port marked with LAN.

2. On the PoE power injector, plug the other end of the Ethernet cable into the network jack marked as indicated in the following illustration.

3. On the PoE power injector, connect an additional Ethernet cable into the network port as indicated in the following illustration.

4. Plug the other end of the Ethernet cable into the network jack on the wall.

5. Plug the PoE power injector into a power outlet.



Note: You should connect the power supply to a surge protector or power bar. All Ethernet cables used must be category 5/5e straight-through cables, such as the cable provided with your phone.

Connecting a Handset, Headset, or DHSG Headset

Handset

To connect the handset to the phone:

1. On the back of the phone base, locate the handset port marked ?. Insert one end of handset cord into the port until it clicks into place.

2. Route the handset cord through the channel as shown in the illustration on the next page.

3. Attach the handset to the other end of the handset cord.

Headset (Optional)

To connect a headset to the phone:

1. On the back of the phone base, locate the headset port marked \bigcirc . Insert the headset cord into the port until it clicks into place.

2. Route the headset cord through the channel as shown in the above illustration on on the next page.

DHSG Headset (Optional)

You can attach an optional DHSG headset to the HST02 Phone if required.

To connect a DHSG headset to the phone:

1. On the back of the phone base, locate the DHSG port marked **AUX**.

2. Attach your 3rd party DHSG headset cable to Savant's DHSG jack.

Note: DHSG headsets may require further configuration before use. Refer to your headset documentation or contact your headset vendor for more information.

Attaching Cords and Cables







Attaching Cords to the Phone Base

Desk or Wall Installation

Install on the Desk

The desk installation for the HST01 consists of two legs that attach to the back of the phone near the top corners. A total of four different viewing angles allows users to personalize their phone viewing preference.

1. Attach each leg by inserting the tabs on the leg into the slots on the bottom of the phone. There are three pair of leg slots on each corner of the phone; each leg uses two pairs (1&2, or 2&3) giving two leg positions designating different viewing angles. Furthermore, the legs can be reversed which offer two additional viewing angles.

2. For a higher viewing angle, use the second and third slots from the top.

- 3. For a lower viewing angle, use the first and second slots from the top.
- 4. Push the stand towards the phone until it snaps into place.



Three leg slot locations for customizing the height of the desk phone.

20.7 deg. Incline Angle



23.3 deg. Incline Angle



26.6 deg. Incline Angle



30.9 deg. Incline Angle

Total 4 Viewing Angles

Install on the Wall

The HST02 phone has two pre-drilled wall mounting holes on the back of the phone.

1. Using the provided wall mount drilling template, locate and mark the position for the mounting screws on the wall. Depending on the wall type, you may need to use wall anchors. Both the screws and wall anchors are included with your phone.

2. Place the wall mount holes on the phone over the screw heads on the wall and pull down to lock the phone in.

Note: You may wish to purchase a short Ethernet cable from a local supplier for a wall installation. Also, if 802.3af compliant in-line power is not provided on your network, and you are installing the 6739i on a wall using a PoE in-line power injector, you may also wish to use an equivalent flat Ethernet cable rather than the one provided.



3. In the handset cradle, there is a small clip that sits flush with the cradle surface. Using a small flathead screwdriver, pull the clip up and remove it from the phone.

4. With the arms on the clip facing you and the flat side of the clip towards the phone, turn the clip 180 degrees and reinsert it back into the clip cavity in the phone's cradle.

5. Push the clip in until it snaps into the slot flush with the surface and only the legs on the clip are sticking up.



6. Place the handset into the phone's cradle, inserting the legs on the clip into the square hole on the handset. This allows the handset to rest in the cradle in a vertical position without slipping off when the phone is installed on the wall.

Installing the Savant Phone: TEL-HST01

The Savant TEL-HST01 phone communicates over an IP Network, allowing you to receive and place calls in the same manner as a regular business telephone.

Requirements

The following are required to operate a TEL-HST01

- SIP-based IP PBX system or network installed and running with a SIP account created for the TEL-HST01 phone.
- Access to a Trivial File Transfer Protocol (TFTP), File Transfer Protocol (FTP), Hypertext Transfer Protocol (HTTP) server, or Hyper Text Transfer Protocol over Secure Sockets Layer (SSL) (HTTPS).
- Ethernet/Fast Ethernet LAN (10/100 Base-T)
- Category 5/5e straight through cabling
- Power source

Phone Parts (TEL-HST01)

When you unpack your phone, you should ensure that you have all of the following items. If any part is missing, contact the supplier of your phone.







Telephone

Handset Hand Cord

Handset Key Card Cord

Wall Mount Drilling Template



Base Desk Legs

Power Et Adapter Ca



Ethernet Cable

Screws and Anchors for Wall Mounting
Network Connection

The port marked with LAN is used to connect the phone to the network.

Power Adapter

Use the power adapter (provided) with your phone and plug your phone into a power source.



Connecting a Handset

Turn the phone over and locate the handset jack marked ? Insert one end of handset cord into the jack until it clicks into place. Then route the handset cord through the groove as shown in the illustration below. Attach the handset to the other end of the handset cord.



Desk or Wall Installation

Install on the Desk

The desk installation for the HST01 Phone IP phone consists of two legs that attach to the back of the phone near the top corners. A total of four different viewing angles allows users to personalize their phone viewing preference.

1. Attach each leg by inserting the tabs on the leg into the slots on the bottom of the phone. There are three pair of leg slots on each corner of the phone; each leg uses two pairs (1&2, or 2&3) giving two leg positions designating different viewing angles. Furthermore, the legs can be reversed which offer two additional viewing angles.

2. For a higher viewing angle, use the second and third slots from the top.

3. For a lower viewing angle, use the first and second slots from the top.

4. Push the stand towards the phone until it snaps into place.



Install on the Wall

The HST01 IP phone has two pre-drilled wall mounting holes on the back of the phone.

1. Using the provided wall mount drilling template, locate and mark the position for the mounting screws on the wall. Depending on the wall type, you may need to use wall anchors. Both the screws and wall anchors are included with your phone.

2. Place the wall mount holes on the phone over the screw heads on the wall and pull down to lock the phone in.



3. In the handset cradle, there is a small clip that sits flush with the cradle surface. Using a small flathead screwdriver, pull the clip up and remove it from the phone.

4. With the arms on the clip facing you and the flat side of the clip towards the phone, turn the clip 180 degrees and reinsert it back into the clip cavity in the phone's cradle.

5. Push the clip in until it snaps into the slot flush with the surface and only the legs on the clip are sticking up.



6. Place the handset into the phone's cradle, inserting the legs on the clip into the square hole on the handset. This allows the handset to rest in the cradle in a vertical position without slipping off when the phone is installed on the wall.



Inserting the Key Card

This card contains the label identification spaces for 8 programmable keys.

1. Remove the logo plate from the top front panel of the telephone by gently pressing down and sliding upward.

2. Slide the card into the programmable key card slot on the top front panel of the telephone using the display slots for alignment. Ensure the tabs are sticking out for future removal of the card.

3. Gently slide the logo plate back in place, covering the paper tabs.



Key Cards for TEL-HST01

The next page includes printer-ready labels (key cards) for the Savant phone (TEL-HST01).



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9. APPENDIX 2: SAVANT PBX INSTALLATION

Print this section to track the progress of your Savant PBX configuration.

Checklist

Print this checklist and check off each task as it is completed. You can also use the hyperlinks to open the procedure associated with a task in the PDF version of this document.

Task	✓
Complete the Savant PBX On-Line Training.	
Enter information in the Savant PBX Worksheets that follow this checklist.	
Router Configuration	
Reserve IP Address for Savant PBX. See page 7.	
Reserve IP Address for Gateway. See page 7.	
Reserve IP Address for each Base Station. See page 7.	
Physical Configuration	
Install Savant PBX. See Page 7.	
Install Gateway. See Page 13.	
Install the Wired Phones: <u>TEL-HST01</u> , See page 252 or <u>TEL-HST02</u> See page 242.	
Install the Wireless Phones: TEL-HSTW01 See Page 239.	
Install the Base Stations See page 130.	
Savant PBX Configuration in RacePoint Blueprint (BP)	
Add the Savant PBX in your BP Configuration. See page 18.	
Add the Gateway Component (TGW-004) to BP configuration. See page 20.	
Add the Public Announcement System (PAS-1000) See page 29.	
Configure Triggers for Savant PA. See page 33.	
Export the Savant Gateway.ini file. See page 23.	
Export the Telephony.plist. See page 28.	
Upload the BP Configuration and Test.	
Savant Gateway	
Uploading the *.ini file to the Savant Gateway. See page 24.	
Continued on next page	

Savant Configurator	
<u>Upload the plist.</u> See page 60.	
Add all the iOS devices to the PBX. See page 63.	
Add the Wired and Wireless Savant Phones as devices. See page 65.	
Add a Savant PA System (PAS-1000). See page 73.	
Add all iOS devices and Phones to the SLA. See page 82.	
Configure the Voice Mail. See page 86.	
Add Voice Mail to Shared Line. See Page 94.	
Add a Savant Wired Phone as a Phone. See page 67.	
Add the Wireless Savant Phones as phones. See page 71.	
Uploading the Configuration to the Wired Phone. See page 69.	
Update Firmware of Wired Savant Phones. See page 236.	
SIP-Dect Base Station Configuration	
Generating a License for Multiple Base Stations. See page 134.	
Boot the Base Station. See page 138.	
Add each Base Station. See page 148.	
Add the Wireless Handsets to the Base Station. See page 151.	
Subscribe the Wireless Handsets to the Base Station. See page 154.	
PAS-1000 Configuration	
Upload Configuration File to the Savant PA System. See page 77.	
Emergency Call Testing	
Savant Systems recommends performing <u>a test of emergency calls</u> . See page 271.	

MAC Addresses and IP Addresses

All the MAC Addresses can be found on stickers that are on the box or the equipment. The IP addresses depend on how you would like to configure the network at this particular location.

Item	Model	Name	Mac Address	IP Address
1	SPX-1000			
2	TGW-0004			
3	TEL-HST0_			
4	TEL-HST0_			
5	TEL-HST0_			
6	TEL-HST0_			
7	TEL-HST0_			
8	TEL-HST0_			
9	TEL-HST0_			
10	TEL-HST0_			
11	TEL-HSTW_			
12	TEL-HSTW_			
13	TEL-BST0_			·
14	TEL-BST0_			·
15	TEL-BST0_			·
16	TEL-BST0_			·
17	TEL-BST0_			·
18	TEL-BST0_			·
19	TEL-BST0_			·
20	TEL-BST0_			·
21	TEL-BST0_			·
22	TEL-BST0_			·
23	PAS-1000			·
24				
24				
26				
27				
28				
29				
30				

Wireless Handset Information

Enter the 13-digit IPEI characters (they can include *) that can be displayed from the handset: **Menu->System->Show IPEI**

ltem	Model	Name	IPEI
1	TEL-HSTW01		
2	TEL-HSTW01		
3	TEL-HSTW01		
4	TEL-HSTW01		
5	TEL-HSTW01		
6	TEL-HSTW01		
7	TEL-HSTW01		
8	TEL-HSTW01		
9	TEL-HSTW01		
10	TEL-HSTW01		

iOS Device Information

On the iOS device, the device UID is a 16-digit number accessed as follows: **Settings** -> **Systems** -> **Settings** -> **Device Info**-> **Device UID**.

Item	Model	Name	UID
1	WIA-		
2	WIA-		
3	WIA-		
4	WIA-		
5	WIA-		
6	WIA-		
7	WIA-		
8	WIA-		
9	WIA-		
10	WIA-		
11	WIA-		
12	WIA-		
13	WIA-		
14	WIA-		
15	WIA-		
16	WIA-		
17	WIA-		
18	WIA-		
19	WIA-		
20	WIA-		

Other SIP Base Station General Information

Item	Name	Description	Value
1	Net Mask	This will determine your IP Subnet, default is 255.255.255.0	
2	Router Address	This is the IP Address of the Router	
3	DNS Address	Using Google DNS Address is fine "8.8.8.8" and "8.8.4.4"	
4	NTP Server Name	You can use "1.aastra.pool.ntp.org"	
5	Primary OMM	The IP Address of the Primary Base Station	··
6	Secondary OMM	The IP Address of the Secondary Base Station	··
7	Park	This is a unique key to configure the base station and add a handset. The key is shown on the OMM package (on the CD).	

These are general network guidelines based on how the network is setup at the particular installation.

Add a Wired Phone to an Existing Configuration Checklist

Tasks	
Add a Wired Phone as a Device See page 65.	
Add the Wired Phone Device to the SLA. See page 82.	
Add the Wired Phones as a Phone. See page 67.	
Optionally, add the Wired Phone to the Page Group. See page 97.	
Update to the latest firmware version. See page 236.	
Reset the Phone.	

Add a Wireless Phone to an Existing Configuration Checklist

Tasks	✓
Add a Wireless Phone as a Device. See Page 65.	
Add the Wireless Phone Device into the SLA. See Page 82.	
Add the Wireless Phones as a Phone. See page 71.	
Optionally, add the Wireless Phone to the Page Group. See page 97.	
Export the sip_DECT.cfg file. See Page 71.	
Add the wireless handsets to the Base Station. See Page 151.	
Subscribe the wireless handsets. See Page 154.	

Add an iOS device to an Existing Configuration Checklist

Tasks	✓
Add an iOS device as a device. See Page 63.	
Add the iOS device into the SLA. See Page 82.	
Optionally, add the iOS device to the page group. See page 97.	
Update to the latest Savant app version. Refer to the da Vinci 6.0-Release ReadMe notes to verify the correct software version.	
Relaunch the Savant app on the iOS device.	

Add a new Base Station to an Existing Configuration Checklist

Tasks	✓
Configure each Base Station. See page 155.	

10. TESTING EMERGENCY CALLS

Savant Systems recommends that after installing any Savant PBX system the emergency call functionality be tested. Savant also recommends testing this functionality regularly as a preventative measure. The test procedure for verifying emergency call services is different from one country to another. The next procedure applies to the United States. Outside of the United States, Savant dealers can contact local agencies to determine how emergency calls should be tested.

In the United States to test that calls to 911 are working properly using the Savant PBX system, do the following.

- 1. Find your local public safety answering point (PSAP): http://www.fcc.gov/pshs/services/911-services/ enhanced911/psapreg...
- 2. Call the PSAP administrator (non emergency) and ask how to perform a 911 test in your area.
- 3. Schedule a 911 test.
- 4. Call 911 at the scheduled time.
- 5. During the call confirm the following:
 - the Automatic number identification (ANI) and Automatic Location Identification (ALI) that is shown on the screen of the call taker
 - · the PSAP to which the call was routed
 - that answer supervision was received by looking at the call duration timer on the IP phone—an active call timer is an indication that answer supervision is working properly.

11. DOCUMENT CHANGE HISTORY

The next table outlines the changes that have been included in this document for Release 6.0.

Page Number	Description
202	Added new step 4: Go to VoIP > GW and IP to IP > Analog Gateway > Automatic Dialing.
213	Added procedure Configuring VIO by Holovision VoIP Intercom.

The next table outlines the changes that have been included in this document for Release 6.0.

Page Number	Description
	Removed obsolete procedure, Configuring a DoorKing 1812 using Savant Configurator
12	Added PBX Support of Call Features table
59	Updated screenshot for Main Page in Savant Configurator
183	Added statement: If you are integrating Siedle door units in your Savant PBX system, please skip this section.

The next table outlines the changes that have been included in this document for Release 5.2.1 ER2.

Page Number	Description
65	In Step 3 added the following information to the table: MWI enabled—Insert checkmark to enable Message Waiting Indicator. Advanced— See the section <u>Performing Advanced Configuration</u> .
88	Added note to Step 3 description of Email .
90	Added more detail to Step 4: Step 4. When prompted to enter password, enter the PIN number assigned to the user.(PINs must be assigned and you can customize PINs.)

The next table outlines the changes that have been included in this document for Release 6.0.

Page Number	Description
12	Added "Important! You should avoid using iOS devices and full duplex (two-way) PBX functions with in-wall docks. Otherwise, the iOS devices will experience acoustic issues. Instead, half duplex (one-way) Push-To-Talk intercom functions must be used with in-wall docks."
184	Updated Table to reflect image options more precisely.
225	Updated image to show one SIP account as only one is necessary.
236	Added Firmware data details.