Ribbon SBC SWe Lite Configuration Guide for SIPREC with a BroadSoft AS

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Document overview

This document outlines the best practices for configuring Ribbon SBC SWe Lite when it is deployed in hosted mode with a BroadSoft Application Server (AS) for SIPREC feature verification.

SIPREC Overview

SIP Recording (SIPREC) is a recording capability which can be utilized for various purposes: to comply with regulation, to monitor quality of service of representatives, to store call information for quality analysis, and so on. The Ribbon SBC SWe Lite supports SIPREC towards multiple recorders based on the Internet Engineering Task Force(IETF) standard.

The Ribbon SBC SWe Lite SIPREC supports the RFC standard for a SIP recording interface. To support SIPREC, the SBC SWe Lite acts as a Session Recording Client (SRC) initiating a Recording Session (RS) towards a Session Recording Server (SRS). The SBC SWe Lite initiates a recording session for all the Communication Sessions (CS) to be recorded over SIP from the SRC to the SRS. The CS output is based on the SBC SWe Lite's Web UI configuration for enabling recording.

SIP Recording is supported on the SBC SWe Lite for the following purposes:

- · Storing call information for quality analysis.
- Recording call and media sessions on a third party recording server.
- Checking the call detail records and determine if a call is being recorded or not.
- Providing call detail records for recorded calls.

References

For additional information on the Ribbon SBC support for SIPREC, refer to https://ribboncommunications.com/

Non-Goals

It is not the goal of this guide to provide detailed configurations that will meet the requirements of every customer. Use this guide as a starting point and build your SBC configurations in consultation with network design and deployment engineers.

Audience

This is a technical document intended for telecommunications engineers tasked with configuring the Ribbon SBC SWe Lite. Steps require navigating through Ribbon SBC configuration and require basic knowledge of TCP/UDP, IP/Routing, SIP/RTP, and the SIPREC feature to complete the configuration and any necessary troubleshooting.

Note

This configuration guide is offered as a convenience to Ribbon customers. The specifications and information regarding the product in this guide are subject to change without notice. All statements, information, and recommendations in this guide are believed to be accurate but are presented without warranty of any kind, express or implied, and are provided "AS IS". Users must take full responsibility for the application of the specifications and information in this guide.

Product and Device Details

The following equipment and software were used for the sample configuration provided:

	Equipment	Software Version	
Ribbon Communications	Ribbon SBC SWe Lite	V09.00.00_246	
BroadSoft	Broadsoft Network Server	Rel_22.0_1.1123	
	Broadsoft Application Server	Rel_22.0_1.1123	
Third-Party Equipment	Kapanga Softphone	1.00	
	Zoiper	5.4.5	
	Polycom	5.5.2.12475	

DNS	9.16.5





Signaling and Media Flow



Accessing the SBC SWe Lite

Open a browser and enter the SBC SWe Lite IP address.



Click on Enter and then log in using admin credentials.

Welcome to Ribbon SBC SWe Lite

intercepted, monitored, recor	ded, copied, audited, inspected, and disclosed to
authorized site, customer adm well as authorized officials of	ninistrative, and law enforcement personnel, as government agencies, both domestic and foreign.
By using this system, the user recording, copying, auditing, i authorized personnel.	consents to such interception, monitoring, nspection, and disclosure at the discretion of
	of this system may result in administrative
Unauthorized or improper use disciplinary action and civil an	d criminal penalties. By continuing to use this
Unauthorized or improper use disciplinary action and civil an system you indicate your awa of use. CANCEL YOUR LOGIN	d criminal penalties. By continuing to use this reness of and consent to these terms and conditions IMMEDIATELY if you do not agree to the conditions
Unauthorized or improper use disciplinary action and civil an system you indicate your awa of use. CANCEL YOUR LOGIN stated in this warning.	d criminal penalties. By continuing to use this reness of and consent to these terms and conditions IMMEDIATELY if you do not agree to the conditions
Unauthorized or improper use disciplinary action and civil an system you indicate your awa of use. CANCEL YOUR LOGIN stated in this warning.	d criminal penalties. By continuing to use this reness of and consent to these terms and conditions IMMEDIATELY if you do not agree to the conditions
Unauthorized or improper use disciplinary action and civil an system you indicate your awa of use. CANCEL YOUR LOGIN stated in this warning.	d criminal penalties. By continuing to use this reness of and consent to these terms and conditions IMMEDIATELY if you do not agree to the conditions
Unauthorized or improper use disciplinary action and civil an system you indicate your awa of use. CANCEL YOUR LOGIN stated in this warning.	d criminal penalties. By continuing to use this reness of and consent to these terms and conditions IMMEDIATELY if you do not agree to the conditions
Unauthorized or improper use disciplinary action and civil an system you indicate your awa of use. CANCEL YOUR LOGIN stated in this warning.	d criminal penalties. By continuing to use this reness of and consent to these terms and conditions IMMEDIATELY if you do not agree to the conditions

SBC SWe Lite Configuration

1. View License

This page describes how you can view the status of each license along with a copy of the license keys installed on your SBC.

Navigate to System > Licensing > Current Licenses

Search	Current Licenses Historical Usage Download License File	_	_	_
Call Routing Signaling Groups	License Format Version 3			
Vetworking Interfaces System Node-Level Settings		F	eature Licenses	
Licensing Current Licenses Install New License	Total 5 Feature License Rows Feature	Licensed	Total Licenses	Available Licenses
🕨 🃁 Software Management	SIP Signaling Sessions	₩/	300	300
Auth and Directory Services	Enhanced Media Sessions with Transcoding	₩⁄	100	100
▶ 🥖 SIP	Enhanced Media Sessions without Transcoding	₩/	3000	3000
▶ Ø Security	AMR-WB		Unlimited	Unlimited
 Media Tone Tables 	SIP Recording		300	300

2. Configure Networking Interfaces

This section contains information about how to manage the way the Ribbon SBC SWe Lite interfaces with the network. The SBC SWe Lite supports five system-created logical interfaces (known as Administrative IP, Ethernet 1 IP, Ethernet 2 IP, Ethernet 3 IP, and Ethernet 4 IP). In addition to the system-created logical interfaces, the SBC SWe Lite supports user-created VLAN logical sub-interfaces.

Configure Ethernet 1 and Ethernet 2 IPs for SBC SWe Lite as follows:

Navigate to Networking Interfaces > Logical Interfaces

Q Search	Logical Interfaces				
Expand All Collapse All Reload	🧹 🧭 Create VLAN I/F 🗙	Total 5 LogicalInterf	ice Rows		
▶ 🥖 Call Routing	Interface Name	IPv4 Address	IPv6 Address	Description	Admin State
Signaling Groups	🕨 📋 🗌 Admin IP	10.54.183.61			Enabled
Vetworking Interfaces	Ethernet 1 IP	10.54.			Enabled
Admin IP	Ethernet 2 IP	10.54.			Enabled
Ethernet 1 IP	🕨 📄 📄 Ethernet 3 IP	11.11.11.11			Enabled
Ethernet 3 IP	Ethernet 4 IP	12.12.12.12			Enabled
Ethernet 4 IP					

Ethernet 1 IP

Q Search	• [] Ethernet 1 IP 10.54.
Expand All Collapse All Reload	Identification/Status
🕨 🍺 Call Routing	
Signaling Groups	Interface Name Ethernet 1 IP
Vetworking Interfaces	I/F Index 8
▼ 🜽 Logical Interfaces	
Admin IP	Allas
Ethernet 1 IP	Description
Ethernet 2 IP	Admin State Enabled
Ethernet 3 IP	Rammi State Linabled
Ethernet 4 IP	
k 🥌 Sustam	Networking
Gystelli	
Protocolo	
	MAC Address 52:54:00:81:0a:3a
k d Security	IP Addressing Mode Both
Madia	
Tana Tablas	
Tolophony Manping Tobles	IPv4 Information
Elephony mapping tables	
Similarity Configuration	IP Assign Method Static 🗸
Energency Services	
Intergency Services	Primary Address 10.54. * xxxx
- Notification manager	Primary Netmask 255.255.255.0 * x.x.x.x
	Media Next Hop IP 10.54

Ethernet 2 IP

O Search	▼ 📋 🗋 Ethernet 2 IP 10.54.
Expand All Collapse All Reload	Identification/Statue
Call Routing	identification/status
Signaling Groups	Interface Name Ethernet 2 IP
Vetworking Interfaces	I/F Index 9
Version Contraction Contractio	Alias
Ethernet 1 IP	Description
Ethernet 2 IP	Admin State Enabled V
Ethernet 4 IP	
 ▶ Ø System ▶ Ø Auth and Directory Services 	Networking
🕨 📁 Protocols	MAC Address _ 53/54/00 0.50
🕨 🍎 SIP	MAC Address 52:54:00:ae:co:59
🕨 📁 Security	IP Addressing Mode Both 🗸
🕨 📁 Media	
F Tone Tables	IPv4 Information
Ielephony Mapping Tables	
SIMMP/Alarms	IP Assign Method Static 🗸
	Primary Address 10.5.4
Notification Manager	
	Primary Netmask 255.255.0 * x.x.x
	Media Next Hop IP 10.54.

3. Configure Static Routes

Static routes are used to create communication to remote networks. In a production environment, static routes are mainly configured for routing from a specific network to another network that can only be accessed through one point or one interface (single path access or default route).

- For smaller networks with just one or two routes, configuring static routing is preferable. This is often more efficient since a link is not being
 wasted by exchanging dynamic routing information.
- For networks that have a LAN-side gateway on Voice VLAN or Multi-Switch Edge Devices (MSEs) with voice VLAN towards the SBC Edge, static routing configurations are not required.

Destination IP

Specifies the destination IP address

Mask

Specifies the network mask of the destination host or subnet. If the 'Destination IP Address' field and 'Mask' field are both 0.0.0.0, the static route is called the 'default static route'.

Gateway

Specifies the IP address of the next-hop router to use for this static route.

Navigate to Protocols > IP > Static Routes

Protocols	Statio	Static IP Route Table							
V DNS	+13	🗙 Total S 1P Route Rows							
C Static Routes	Ro	ow ID	Destination IP	Mask	Gateway	Administrative Distance			
Coung Table	1		0.0.0.0	0.0.0.0	10.54.	1			
Access Control Lists	2		10.54.	255.255.255.0	10.54.	1			
NAT	3		10.54.	255.255.255.0	10.54.	1			
SIP	4		10.54.	255.255.255.0	10.54.	1			
🕨 💋 Local Registrars	5		10.54.	255.255.255.0	10.54.	1			

4. Configure a Local Registrar

SIP provides a registration function that allows users to upload their current locations for use by proxy servers. Registration creates bindings in a location service for a particular domain that associates an address-of-record URI with one or more contact addresses.

Registration entails sending a REGISTER request to a special type of UAS (User-Agent Server) known as a registrar. A registrar acts as the front-end to the location service for a domain, reading and writing mappings based on the contents of REGISTER requests.

In this interop, the Broadsoft AS handles the registration for its users with authentication.

(i) warning

Registration on SBC Edge with the reg-key parameter will be supported in the upcoming release. During this interop, incoming routes were configured for each user/endpoint as a workaround.

Navigate to SIP > Local Registrars

Q Search	SIP Local	Registrar Table				
Expand All Collapse All Reload	+1 X	Total 1 SIP L	ocal Registrar Row			
🕨 🃁 Call Routing		Description		Max. Users		Display
Signaling Groups	v	REGISTRAR		1000		Counters Registered Users
Metworking Interfaces						
System Auth and Directory Services					1	
Protocols		Description	REGISTRAR		J	
V 🖾 SIP	Maxim	um Number of Users	1000 * [15000]			
V Local Registrars						
REGISTRAR						
Local / Pass-thru Auth Tables						Apply
 SIP Server Tables 						

5. Configure a SIP Profile

SIP Profiles control the how the SBC Edge communicates with SIP devices. They control important characteristics such as: session timers, SIP header customization, SIP timers, MIME payloads, and option tags.

Navigate to SIP > SIP Profiles

 Call Routing Signaling Groups 	Description Sip Profile					
	Ses	sion Timer	MIME Payloads			
Auth and Directory Services Protocols	Session Timer Disable	~	ELIN Identifier			
V SIP Cocal Registrars Local / Pass-thru Auth Tables			Unknown Subtype Passthrough Disable V			
Sip Profile	Header	Customization	Options Tags			
 SIP Server Tables Trunk Groups 	FQDN in From Header Static Host FQDN/IP[:port]	Server FQDN V	100rel Supported V Path Not Present V			
 NAT Qualified Prefix Tables Remote Authorization Tables 	FQDN in Contact Header	Static 🗸	Update Supported V			
 Contact Registrant Table Message Manipulation Node-Level SIP Settings 	Send Assert Header SBC Edge Diagnostics Header	Enable				
 SIP Recording Security 	Trusted Interface UA Header	Ribbon				
▶ 🥖 Media ▶ 💋 Tone Tables	Calling Info Source Diversion Header Selection	RFC Standard				
 Felephony Mapping Tables SNMP/Alarms 	Record Route Header	RFC 3261 Standard 🗸				

6. Configure SIP Sever Tables

SIP Server Tables contain information about the SIP devices connected to the SBC Edge. The entries in the tables provide information about the IP addresses, ports, and protocols used to communicate with each server.

3 SIP devices are used in this case.

Navigate to SIP > SIP Server Tables

UAC

O Search	UAC					
Expand All Collapse All Reload	Create SIP Server 🔻 🗶 🦯 Tota	al 1 SIP Server Row				
🕨 💋 Call Routing	Host / Domain	Server Lookup		Port	Protocol	Display Counters
🕨 💋 Signaling Groups	🔻 📋 🗌 10.70. 	IP/FQDN		5060	UDP	Counters
Metworking Interfaces						
🕨 📁 System	Server Host		Transport			
Auth and Directory Services						
Protocols	Server Lookup IP/FQDN		Monitor None	~		
	Priority 1		None			
Local Registrars		- 1				
SIP Profiles	Host FQDN/IP 10.70.	<u> </u>				
SIP Server Tables	Port 5060 * [165535]					
Default SIP Server	Protocol UDP ×					
UAC						
UAS						
UAC2	Remote Authorization and Con	tacts				
SIPREC						
💋 Trunk Groups	Remote Authorization Table None	~ +				
📁 NAT Qualified Prefix Tables	Contact Registrant Table None	✓ +				
📁 Remote Authorization Tables	Session URI Validation	~				
💋 Contact Registrant Table		_				
🕨 🏓 Message Manipulation						
Node-Level SIP Settings					-	
SIP Recording				Apply		

UAC2

	UAC2					
G search	Create SIP Server 🔻 🗙 🌽	al 1 SIP Server Row				
Call Routing	Host / Domain	Server Lookup		Port	Protocol	Display Counters
Signaling Groups	v 📋 🗌 10.54. <mark> </mark>	IP/FQDN		5060	UDP	Counters
Metworking Interfaces						
System	Server Host		Transport			
Auth and Directory Services						
Protocols	Server Lookup IP/FQDN		Monitor None	~		
SIP	Priority 1					
Local / Pass-thru Auth Tables		- .				
SIP Profiles	HUST PQDIV/1P 10,54					
V SIP Server Tables	Port 5060 * [165535]					
C Default SIP Server	Protocol UDP V					
CAC 📄 UAC						
UAS I		t t-				
UAC2	Remote Authorization and Con	tacts				
E SIPREC	Demote Authorization Table					
💋 Trunk Groups	None None	*				
💋 NAT Qualified Prefix Tables	Contact Registrant Table None	✓ +				
Premote Authorization Tables	Session URI Validation Liberal	~				
Contact Registrant Table						
Message Manipulation						
Node-Level SIP Settings						
SIP Recording				Apply		

7. BroadSoft Configuration on SBC SWe Lite

7a. SIP Server Table entry for the BroadSoft FQDN

(

warning 3xx SIP response handling on SBC Edge with maddr in the Contact header will be supported in the upcoming release.

Navigate to SIP > SIP Server Tables

Q Search	UAS				
Expand All Collapse All Reload	Create SIP Server 🔻 💥 🦺 Total 1 SIP Server Row				
Call Routing	Host / Domain	Server Lookup	Port	Protocol	Display Counters
🕨 📁 Signaling Groups	🔻 📋 🗌 ns1.stbroadsoft.com	IP/FQDN	5060	UDP	Counters
Metworking Interfaces					
🕨 📁 System	Server Host	Transport			
Auth and Directory Services		inditoport			
Protocols	Server Lookup IP/FODN	Monitor Nana Y			
V SIP	Priority 1	None			
Local Registrars					
Local / Pass-thru Auth Tables	Host FQDN/IP ns1.stbroadsoft.com *				
SIP Fromes	Host IP Version IPv4 🗸				
Default SIP Server	Port 5060 * /1 655351				
UAC					
UAS I	Protocol UDP V				
UAC2					
E SIPREC	Remote Authorization and Contacts				
💋 Trunk Groups		1			
NAT Qualified Prefix Tables	Remote Authorization Table None 🗸 🕂				
💋 Remote Authorization Tables	Contact Registrant Table				
💋 Contact Registrant Table					
🕨 📁 Message Manipulation	Session URI Validation Liberal				
Node-Level SIP Settings					
SIP Recording					
🕨 🥬 Security		App	v		
k 📹 Modia					

7b. DNS configuration

Use Primary DNS

Specifies whether or not the SBC uses DNS. Available options: $\ensuremath{\text{Yes}}$ or $\ensuremath{\text{No}}$.

Primary Server IP

Specifies the IPv4 or IPv6 address of the Primary DNS server. Field is displayed when the Use Primary DNS field is set to Yes.

Navigate to System > Node-Level Settings

Q Search	Node-Level Settings Set Date/Time Backup Config Restore Config Clear DNS Cache	
Expand All Collapse All Keload	Host Information	Domain Name Service
Signaming strops Networking Interfaces System Networking Interfaces Software Management Auth and Directory Services Protocols Sp Software Management Software	Host Name EISwelite • Domain Name • System Description • System Location • System Contact •	Use Primary DNS Yes Primary Server IP 10.54 Primary Source Auto Use Secondary DNS No

8. SIPREC configuration on SBC SWe Lite

8a. SIP Server Table entry for SIPREC

Navigate to SIP > SIP Server Tables

SIPREC

Q Search	SIPREC			_	_					
Expand All Collapse All Reload	Create SIP Server 🔻 💥 🥂 Total 1 SIP Server Row									
Eall Routing	Host / Domain	Server Lookup	Port	Protocol	Display Counters					
🕨 💋 Signaling Groups	v 📋 🗌 10.54. 🔜 .	IP/FQDN	5060	UDP	Counters					
Metworking Interfaces										
🕨 🏓 System	Server Host	Transport								
Auth and Directory Services	Server Host	Tansport	_							
Protocols	Server Lookup IP/SODN									
🔻 🚧 SIP		Monitor None V								
Local Registrars	Priority 1									
📁 Local / Pass-thru Auth Tables	Host FQDN/IP 10.54.									
SIP Profiles	Part Face									
SIP Server Tables	×[1.65535]									
i Default SIP Server	Protocol UDP 🗸 *									
UAC 📄										
UAS 📄										
UAC2										
SIPREC			pply							

8b. SIP Recording Table entry

Navigate to SIP > SIP Recording

Q Search	SIP Recording Table			
Expand All Collapse All Reload	🧹 l 🥝 l 🕂 l 🗙 🛛 Total 1 SIP	Recording Row		
🕨 🥖 Call Routing	Description	Admin State	Service Status	Display
🕨 📁 Signaling Groups		良/	Up	Counters Channels Sessions
Metworking Interfaces	Description groups	•	· ·	
🕨 🃁 System	Description SIPREC			
Auth and Directory Services	Admin State Enabled 🗸			
🕨 📁 Protocols				
V SIP				
🕨 🥖 Local Registrars	SIP Channels	s and Routing		
📁 Local / Pass-thru Auth Tables				Media Information
SIP Profiles	No. of Channels 10	* [11200]		
🕨 🃁 SIP Server Tables	SIP Profile Default SIP	Profile 🗸 🕇	Crypto	Profile ID None 🗸
📁 Trunk Groups				+
💋 NAT Qualified Prefix Tables	Recording Server Table SIPREC	*	Support	ted Audio Proxy
prote Authorization Tables	Load Balancing Round Robin	л У		Modes
💋 Contact Registrant Table	Channel Hunting Most Idle	~		
Message Manipulation	mostraic			SIP IP Details
Node-Level SIP Settings				
V 💋 SIP Recording			Signalin	g/Media
SIPREC			s	ource IP
🕨 🧯 Security			Signali	ng DSCP 40 * [063]

9. Configure SIP Message Rule Table

The SBC Edge allows a maximum of 100 SIP Message Rule Tables and a maximum of 32 SIP Message rules per table. The maximum of 32 SIP Message rules per table includes all SIP rule types: Header, Request, Status, and Raw.

Navigate to SIP > Message Manipulation > Message Rule Tables

Q Search	SIP Message Rule Table		
Expand All Collapse All Reload	+ 🗙 Test Selected Tables Tota	I 1 SIP Message Manipulation Table Row	
🕨 🥖 Call Routing	Description	Result Type	Message Type
Signaling Groups Metworking Interfaces System Muth and Directory Services Potocols	SMM Outbound Description SMM Outbound Applicable Messages Selected Messages	Optional	INVITE REGISTER
Coal Registrars Coal / Pass-thru Auth Tables SIP Profiles SIP Server Tables	Invite Register ACK	Add/Edit Remove	
 Trunk Groups NAT Qualified Prefix Tables Remote Authorization Tables Contact Registrant Table 	Table Result Type Optional	v	
Message Manipulation Message Rule Tables SMM Outbound			

• Add a Request Line Rule to modify "ns1.stbroadsoft.com" to "stbroadsoft.com" in the "Request Line"

Q Search	SMM Out	bound			
Expand All Collapse All Reload	🗸 I 🔕 I	Create Rule 🔻 🗙	🥂 Test Message 🛛 🛛 Total 4 Message Manipulat	tion Rules Rows	
🕨 💋 Call Routing		Admin State	Rule Type	Result Type	Description
🕨 💋 Signaling Groups	V 🗋 🗆	見/	Request Line Rule	Optional	Request line SMM
🕨 📁 Networking Interfaces		•			
🕨 🥩 System	Test Rule				
Auth and Directory Services					
Protocols					
🔻 💋 SIP		Description Reque	est line SMM		
🕨 🃁 Local Registrars		. [
🥖 Local / Pass-thru Auth Tables	Condit	Ion Expression Add/E	Edit		
SIP Profiles		Admin State Enable	ed 🗸		
🕨 🃁 SIP Server Tables		Result Type Option	nal 🗸		
📁 Trunk Groups					
💋 NAT Qualified Prefix Tables					
Remote Authorization Tables	Req	uest Line Value Modi	ify Add/Edit Match: (.*)ns1.stbroadsoft.com(.	Replace: \1stbroadsoft.com\2	
💋 Contact Registrant Table					
🔻 💋 Message Manipulation					
🔻 🧀 Message Rule Tables					
C SMM Outbound					

• Add a Header Rule to modify "ns1.stbroadsoft.com" in the "From" header to "stbroadsoft.com"

Q Search	SMM Outbound			
Expand All Collapse All Reload	🧹 ⊘ Create Rule 🔻 🗙	🖊 Test Message Total 4 Message Manipuk	ation Rules Rows	
🕨 🃁 Call Routing	Admin State	Rule Type	Result Type	Description
Signaling Groups	▶ 🗊 🗆 🐶	Request Line Rule	Optional	Request line SMM
Vetworking Interfaces System	▼ 🗀 🗆 🦞	Header Rule	Optional	From header Rule
Auth and Directory Services	Test Rule			
Protocols				
 SIP Local / Pass-thru Auth Tables SIP Profiles SIP Server Tables Truk Groups NAT Qualified Prefix Tables Remote Authorization Tables Condicat Registrant Table Message Manipulation SM0 dubound Condition Rule Table 	Description From H Condition Expression Add/E Admin State Enable Result Type Option Header Action Modify Header Name From	eader Rule dit	lace:\1stbroadsoft.com\2	

• Follow the same procedure to add Header Rules for "To" and "PAI" headers

10. Configure Signaling Groups

Signaling groups allow telephony channels to be grouped together for the purposes of routing and shared configuration. They are the entity to which calls are routed, as well as the location from which Call Routes are selected.

Navigate to Signaling Groups (Add SIP SG)

INGRESS_SG

- In SIP Profile, choose the "Sip Profile" created in step 5.
- In SIP Mode, select Local Registrar and attach the SIP Local Registrar created in step 4.
- In Agent Type, select Access Mode.

Q Search	Signaling Group Table									
Expand All Collapse All Reload	V [1, 1] Add SIP SG X Total 2 Signaling Group Rows									
🕨 🍺 Call Routing	Type Description	Admin State	Service St	atus	Display					
Signaling Groups	▼ 📄 SIP INGRESS_SG	₽ v	Up		Counters Channels Sessions					
(SIP) EGRESS_SG	Description INGRESS_SG									
Metworking Interfaces	Admin State Enabled 🗸									
🕨 📁 System	Service Status Up									
Auth and Directory Services										
Protocols	SIP (Channels and Routing								
🕨 🃁 SIP		shannolo ana rtoa ang								
Security	Antine Cat Table				Media Information					
🕨 🥖 Media	Action Set Table No	one 🗸	•			_				
🕨 🥖 Tone Tables	Call Routing Table IN	GRESS 🗸	•		DSP	A distance of a				
Telephony Mapping Tables	No. of Channels 10	* [1 1200]		Supported Audio	Proxy	Add/Edit =				
🕨 🧯 SNMP/Alarms		[111200]		modes	Direct	Remove				
Logging Configuration	SIP Profile Sip	Profile 🗸	•		Proxy with Local SRIP					
Emergency Services	SIP Mode Lo	cal Registrar 🗸 🗸		Supported	Proxy	Add/Edit				
📁 Notification Manager	Registrar DE			Video/Application	Direct					
	Registral RE			Modes		Kemove				
	Agent Type Ac	cess Mode 🗸 🗸 🗸		Media List ID	Default Media List	1.				
		1		. ieula List ID	Delault media List	•				

- Enable SIP recording and attach the Recording Server Table created for SIP recording.
- Select Ethernet 1 as the Signaling/Media Source IP.

V C SIP INGRESS_SG	₩/	Up	Counters C	hannels Sessions
SIP Recording				
SIP Recording Status Enabled 🗸	1		Марр	bing Tables
SIP Recorder SIPREC 🗸	j		SIP To Q.850 Override Table	Default (RFC4497)
			Q.850 To SIP Override Table	Default (RFC4497)
			Pass-thru Peer SIP Response	♥ Enable ♥
			SIP	IP Details
			Teams Local Media Optimization	Disable 🗸
			Signaling/Media Source IP	Ethernet 1 IP (10.54.
			Signaling DSCP	40 * [063]
_				

• Configure A1 and A2 IP addresses as the Federated IPs for the INGRESS_SG.

Listen Ports					F	ederated IP/FQDN
👍 🗙 Total 3 SIP Listen Port Rows			+1	X Total 2 SIP	Federated IP Rows	
	Port	Protocol	TLS Profile ID		IP/FQDN	Netmask/Prefix
/ 🗆	5060	UDP	N/A	/ 0	10.70.	255.255.255
/ 🗆	5060	TCP	N/A	/ 0	10.70.	255.255.255
/ 🗆	5061	TLS	Default TLS Profile			
				-		
Messag	e Manipulation	Disabled 🗸				

EGRESS SG

- In SIP Profile, choose the "Sip Profile" created in step 5.
- In SIP Mode, select Basic Call.
- In Agent Type, select Access Mode from the drop down.

Ŀ	🕫 📄 SIP	EGRESS_S	iG 🔍		Up		Co	ounters Channels Sessions	
	Description E	EGRESS_ <u>SG</u>]				
	Admin State E	Enabled 🗸	•						
	Service Status U	p							
						_			
		5	SIP Channels and Routing						
								Media Information	
	Acti	ion Set Table	None 🗸	+					
	Call R	Routing Table	EGRESS V	+				DSP	
	No.	of Channels	10 * [11200]				Supported Audio Modes	Proxy Direct	Remove
		SIP Profile	Sip Profile 🗸	+				Proxy with Local SRTP	
		SIP Mode	Basic Call 🗸				Supported	Proxy	Add/Edit
		Agent Type	Access Mode 🗸 🗸				Video/Application Modes	Direct	Remove
	I	nterop Mode	Standard V]			Media List ID	Default Media List 🗸	+

• Select UAS as the SIP Server Table.

-	SIP	EGRESS_S	sg 🍡	Up	<u>C</u>	ounters Channels Sessions	
		Agent Type	Access Mode 🗸		Modes	•	Remove
		Interop Mode	Standard 🗸		Media List ID	Default Media List	
		Registrant TTL	3600 * [3086400] secs		Proxy Local SRTP		
	- I	SIP Server Table	UAS 🗸	•	Crypto Profile ID	None 🗸	•
		Load Balancing	Round Robin		Play Ringback	Auto on 180 🗸 🗸	
		Chapped Hunting	Mestidie		Tone Table	Default Tone Table	+
					Play Congestion	Disable 🗸	
	Notify	/ Lync CAC Profile	Disable 🗸		Ione		
	C	hallenge Request	Disable 🗸		Early 183	Disable 🗸	
	Outboun	nd Proxy IP/FQDN			Allow Refresh SDP	Enable 🗸	
	Out	bound Proxy Port	5060 [165535]		Music on Hold	Disabled 🗸	
	Call Setup	p Response Timer	255 [180750] secs		RTCP Multiplexing	Disable 🗸	
	Call	Proceeding Timer	180 [24750] secs				
	Forked Call An	nswered Too Soon	Disable 🗸			Mapping Tables	

Enable SIP Recording Status and attach the Recording Server Table created for SIP recording.
Select Ethernet 2 as the Signaling/Media Source IP.

SIP Recording SIP Recording Status Enabled SIP Recorder SIPREC	SIP To Q.850 Override Table Q.850 To SIP Override Table Pass-thru Peer SIP Response Cod
	SIP IP Details
	Signaling DSCP 40 * (0.63)
	Static NAT - Outbound

- Enable Message Manipulation for the Egress SG.
- Configure "stbroadsoft.com" as the Federated IP/FQDN.

41 X	Total 3 SIP Listen Port R	Rows	Total 1 SIP Federated IP Row		
Port	Protocol	TLS Profile ID	IP/FQDN Netmask/Prefix		
/ 🗍 5060	UDP	N/A	/ _ stbroadsoft.com 255.255.255		
/ 🗌 5060	ТСР	N/A			
/ 🗌 5061	TLS	Default TLS Profile			
Message Manipulatio	Message Manipulation Enabled V				
	Inbound Message Manipulation Outbound Message Manipulation				
	Inbound Mess	sage Manipulation	Outbound Message Manipulation		

11. Configure Call Routing Transformation Tables

Transformation Tables facilitate the conversion of names, numbers and other fields when routing a call. They can, for example, convert a public PSTN number into a private extension number, or into a SIP address (URI). Every entry in a Call Routing Table requires a Transformation Table, and they are selected from there.

Navigate to Call Routing > Transformation

Q Search	ROUTING						
Expand All Collapse All Reload	VI 🖉 I 🕂 I 🗶 I 🥂 Total 1 Transformation Entry Row						
💌 💋 Call Routing	Admin State Input Field Type	Input Field Output Field Type					
Transformation	🔻 📋 🗌 🍢 Called Address/Number	(.*) Called Address/Number					
Cassing Untouched							
📁 Time of Day Table	Description MY NUM						
Call Routing Table	Admin State Enabled						
Call Actions	Mahar Ture Mandata (Aust Match) 44						
Gignaling Groups	Mandatory (Must Match) V						
Networking interfaces							
definition							
Protocols	Input Field	Output Field					
🕨 🏓 SIP							
🕨 🧯 Security	Type Called Address/Number 🗸	Type Called Address/Number					
🕨 🧯 Media	Value (.*)	Value \1					
🕨 🥖 Tone Tables							
🕨 🭺 Telephony Mapping Tables							

12. Configure Call Routing Tables

Call Routing allows calls to be carried between signaling groups, thus allowing calls to be carried between ports, and between protocols (like ISDN to SIP). Routes are defined by Call Routing Tables, which allow for flexible configuration of which calls are carried, and how they are translated.

Navigate to Call Routing > Call Routing Table

INGRESS

- Attach the Transformation Table entry created in the previous step.
- Select the **Destination Signaling Group** as EGRESS_SG.

O Search	INGRESS	
Expand All Collapse All Reload	🤜 🚫 🕂 🗶 🥂 Display Counters 🛛 🛛 Total 1 C	Call Route Entry Row
龙 Call Routing	Admin Priority Transformation Table	e Destination First Signaling Group
Figure 10 Transformation	🔻 📄 🛛 🎼 1 ROUTING	Normal (SIP) EGRESS_SG
Call Routing Table		Route Details
EGRESS	Description ROUTE_TO_EGRESS	
🕨 📁 Call Actions	Admin State Enabled 🗸	
Signaling Groups	Route Priority 1 🗸	
Networking Interfaces	Call Priority Normal V	
Auth and Directory Services	Number/Name Transformation Table ROUTING	× +
Protocols	Time of Day Restriction None	× +
SIP SIP	i litera	
Security		Destination Information
Media		Destination mornation
Telephony Manning Tables	Destination Type Normal	
SNMP/Alarms	Message Translation Table None	
Logging Configuration		
Emergency Services	Cause Code Reroutes None	· •
Notification Manager	Cancel Others upon Forwarding Disabled	
	Fork Call No 🗸	
	(SIP) EGRESS_SG Destination Signaling Groups	Up Down Add/Edit

EGRESS

- Attach the Transformation Table entry created in the previous step.
- Select the **Destination Signaling Group** as INGRESS_SG.

G Search								
Expand All Collapse All Reload	🗸 🖉 🗮 🗙 🥼 Display Counters Total 1 Call Route Entry Row							
V 🖉 Call Routing	Admin State Priority	Transformation Table	Destination Type	First Signaling Group				
Figure (Dec. Table	v 🗋 🗌 🖖 🛛 1	ROUTING	Normal	(SIP) INGRESS_SG				
Call Routing Table		Route Details	3					
EGRESS	Descrip	tion ROUTE_TO_INGRESS		כ				
Call Actions	Admin 9	tate Enabled 🗸						
Signaling Groups	Route Pri	prity 1 🗸						
Metworking Interfaces	Call Pri	ority Normal 🗸						
System	Number/Name Transformation T							
Protocols	Time of Dev Booki							
k 💋 SIP	Time or Day Restric	None 🗸 🕇						
🕨 🍺 Security								
🕨 📁 Media		Destination Inform	nation					
🕨 📁 Tone Tables								
Telephony Mapping Tables	Destination Type	Normal 🗸						
SNMP/Alarms	Message Translation Table	None 🗸 🔸						
Logging Configuration	Cause Code Reroutes	None 🗸 🕇						
Motification Manager	Cancel Others upon Forwarding	Disabled 🗸						
	Fork Call	No						
	Destination Signaling Groups	(SIP) INGRESS_SG	Up lown d/Edit					

13. Configure Surrogate Registration

This section verifies the DUT's capability to provide a surrogate registration to BroadWorks for a non-registering IP-PBX, trunking gateway, or other device.

Ensure all the users are configured in SBC SWe Lite if surrogate registration is expected from SBC SWe Lite towards BroadSoft.

O	warning
0	Surrogate registration is currently not supported with redirect 3xx response. During this interop, SBC SWe Lite was pointed directly to the
	BroadSoft AS.

To configure the profile for surrogate registration, navigate to Signaling Groups > INGRESS_SG and make the following changes.

Q Search	Signaling Group Table							
Expand All Collapse All Reload	VILIS GING STP SG X							
▶ 🥬 Call Routing	Type Description	Admin State	Service Status	Display				
V Signaling Groups	▼ □ SIP INGRESS_SG	R.	Up	Counters Channels Sessions				
(SIP) INGRESS_SG	SID Chann	els and Pouting						
Networking Interfaces				Media Information				
System System System Sult and Directory Services SiP SiP Security Media Tone Tables Telephony Mapping Tables SiMPAlarms Logging Configuration Emprovement	Action Set Table None Call Routing Table INGRESS No. of Channels 10 SIP Profile Sip Profil SIP Mode Basic Cal Agent Type Access M Interop Mode Standard Registrant TTL 3600		Supported Audio Modes Video/Application Modes Media List ID Proxy Local SRTP	DSP Proxy Direct Prosy with Local SRTP Proxy with Local SRTP Direct Default Media List Lofault Media List				
Emergency Services	SIP Server Table UAC1	~ +	Crypto Profile ID	None +				
	Load Balancing Round R Channel Hunting Most Idle	obin	Tone Table Play Congestion	Default Tone Table				

Navigate to Signaling Groups > EGRESS_SG

Q Search	Signaling Group Table						
Expand All Collapse All Reload	🗸 📙 🧭 Add SIP SG 🗙	Total 2 Signaling G	roup Rows				
🕨 🥖 Call Routing	Type Descrip	ion /	Admin State	Service Status		Display	
Signaling Groups	SIP INGRES	s_sg i	V	Up		Counters Channels Session	5
(SIP) INGRESS_SG	v 📄 SIP EGRES	5_SG	∎⁄	Up		Counters Channels Sess	ions
Metworking Interfaces	Action Set Table	None	✓ +				
	Call Routing Table No. of Channels	EGRESS * [1 1200	→ +	Supporte	d Audio Pro Modes Dir	P xy ect	Add/Edit *
▶ j SIP	SIP Profile	Sip Profile	✓ +		Pro	xy with Local SRTP	
Security	SIP Mode	Basic Call	~	Su	ported Pro	xy	Add/Edit
Media Interface	Agent Type	Back-to-Back User Agent	~	Video/App	lication Dir Modes	ect	Remove
 John Hasses Telephony Mapping Tables 	SIP Server Table	UAS	✓ +	Media	List ID Def	ault Media List 🗸 🗸	ī. I
▶ 💋 SNMP/Alarms	Load Balancing	Priority: Register All	~	Proxy Loc	al SRTP		
Elegging Configuration Emergency Services	Channel Hunting	Most Idle	~	Crypto Pr	ofile ID	100 ·	
	Notify Lync CAC Profile	Disable	~	Play K	ngback Aut	o on 180 V	
	Challenge Request	Disable	~	Ior	e lable Def	ault Tone Table 🗸 🗸	J•
	Outbound Proxy IP/FQDN			Play Con	Tone Dis	able 🗸	
	Outbound Proxy Port	5060 [165535]	1	Ea	rly 183 Dis	able 🗸	

14. GIN Registration

This section verifies the DUT's interoperability with BroadWorks for GIN registration. With GIN registration, the access device, an IP-PBX or PBXtrunking gateway, registers a trunk as a single contact address, which implicitly registers all PBX subscribers. The single register Address of Record (AoR) is the trunk main line or pilot number.

For GIN registration, a PBX sends a REGISTER request to the service provider's registrar for a specially designated AoR, with a specially formatted Contact URI without a user portion and containing a bnc parameter, and with a Require header field containing the value "gin".

The registered contact address is used in the Request-URI for calls from BroadWorks to the DUT. BroadWorks populates the user portion with the specific PBX user's number.

warning

Reg-key support is required for GIN registration of a Pilot number and incoming calls for PBX users. GIN registration will be supported along with reg-key implementation in the upcoming release

Broadsoft Configuration

1. Network Server

Make sure the SBC SWe Lite SipSg IP (configured towards Broadsoft) is added in the network server in order to receive 3xx Redirect response with multiple AS FQDNs in the Contact header.

1a. Accessing the Broadsoft Network Server

Open a browser and enter the Broadsoft Network Server IP.

👎 broadsoft	
User ID Login Password Remember Password	
Copyring This software and its documentation are protected by copyring or any part thereof, may result in severe civil and crim BroadSoft and BroadWorks and The programs included herein are subject to a l	ght 2000-2015, BroadSoft, Inc. ght law and international treaties. Unauthorized reproduction or distribution of this software, inal penalties, and will be prosecuted to the maximum extent possible under the law. re registered trademarks of BroadSoft, Inc. Gaithersburg, MD restricted use license and can only be used in conjunction with this application.

Enter the username and password and then click Login.

1b. Adding the SBC SWe Lite Sipsg IP

Navigate to **Network > Routing NEs,** click **Add**.

Administrator,Administrator Image: Control of the second	👎 broadsoft							
Network-Routing NEs Community Nes System Provider Routing NE Name Location State Routing Profile Resources WeLVTE_ALAKH On Line redirect Network UDA'_ YEALINK on Line redirect Carriers access On Line redirect Carriers access On Line redirect Digt Manipulations psin On Line redirect Hosting NEs psin On Line redirect Hosting NEs psin On Line redirect Hosting NE Addrs psin On Line redirect Hosting NE Codecs sipp On Line redirect Resource NE Addrs Resource NE Addrs On Line redirect Resource NE Addrs Resource NE Addrs Carlier Starts With ✓ Carl Page 2 of 2 Resource NE Addrs Routing NE Name ✓ Starts With ✓ Carl Page 2 of 2 Advanced Velocity Install Page Install Page	Administrator,Adm	inistrator					elp Logout	Home
System Provider Routing NE Name Location State Routing Profile Resources SWELITE_SIPREC On Line redirect SWELITE_SIPREC On Line redirect UDAY_YEALINK On Line redirect YEALINK, kanika On Line redirect Carriers access On Line redirect Digit Manpulations pstin On Line redirect Hosting NEs pstin On Line redirect Hosting NE Kodes sipp On Line redirect Hosting NE Kodes sipp On Line redirect Hosting NE Kodes sipp On Line redirect Hosting NE Addrs test On Line routing Resource NEs Resource NEs Resource NEs Resource NEs Resource NEs Routing NE Addrs Routing NE Addrs Find all Routing NE Addrs Routing NE Addrs Routing NE Addrs Find all Routing NE Addrs Routing NE Addrs Starts With V find all Routing NE Addrs Routing NE Addrs find all <	Network - Routing NEs					COMM	PILOT SYSTEM	PROVIDER
Resources SWELITE_SIPREC On Line redirect Network On Line redirect UDA'_YEALINK On Line redirect YEALINK, kanika On Line redirect Carriers access On Line redirect Digit Manjuations pstn On Line redirect Hosting NEs sptp On Line redirect Hosting NE Kodes sipp On Line redirect Resource NEs Resource NEs Resource NEs Resource NEs Resource NEs Reouting NE Addrs Resource NEs Reouting NE Addrs Resource NEs Reouting NE Addrs Starts With > Inst page *	System Provider	Routing NE Name	Location		State	Routing Profi	le	
Resources SWELTE_SIPREC On Line redirect. Network UDAY_YEALINK Tedirect redirect. Carriers access On Line redirect. Carriers access2 On Line redirect. Digit Manipulations psin On Line redirect. Hosting NE: Addrs psin On Line redirect. Hosting NE: Addrs test On Line redirect. Media Server Effities Resource NES Resource NES Resource NES Resource NE: Addrs test On Line redirect. Netion Server Effities Resource NES Inst page Inst page Resource NE: Addrs Resource NE Addrs Resource NE Addrs Inst page Resource NE Addrs Resource NE Addrs Inst page Inst page Resource NE Addrs Starts With ▼ Inst page Inst page Routing NE Codecs Routing NE Name ▼ Starts With ▼ Inst page		SWELITE_ALAKH			On Line	redirect		
Network UDAY_YEALINK redirect. YEALINK, Kanika On Line redirect. Carriers access On Line redirect. Garrier Prefered NEs access. On Line redirect. Digt Manjuations pstn On Line redirect. Hosting NEs sipp On Line redirect. Hosting NEs sipp On Line redirect. Hosting NE Addrs test On Line redirect. Resource NEs Resource NEs Resource NEs Resource NEs Resource NEs Resource NEs Resource NEs Resource NEs Resource NEs Resource NEs Resource NEs Resource NEs Resource NEs Resource NEs Resource NEs Resource NEs Resource NEs Resource NEs Resource NEs Resource NEs Resource NEs Resource NEs Routing NE Addrs Inst all Media Server Entries Routing NE Name V Starts With V Inst all Routing NE Addrs Routing NE Addrs Kaddra Inst all	Resources	SWELITE_SIPREC			On Line	redirect		
Network YEALINK_kanika On Line redirect. Carrier Preferred NEs access On Line redirect. Digit Manipulations pstn On Line redirect. Hosting NE Nodes test On Line redirect. Hosting NE Addrs test On Line redirect. Resource NE Addrs test On Line redirect. Media Server Enrise Resource NE Addrs Inst server. Inst server. Resource NE Addrs Routing NE Ecores Routing NE Addrs Inst server. Routing NE Ecores Routing NE Codecs Inst server. Inst server. Routing NE Ecores Routing NE Codecs Inst server. Inst server.		UDAY YEALINK				redirect		
Carriers access On Line redirect Carrier Preferred NEs access2 On Line redirect Digt Manipulations pstn On Line redirect Hosting NE Notes sipp On Line redirect Hosting NE Notes sipp On Line redirect Hosting NE Notes sipp On Line redirect Hosting NE Kadrs test On Line routing Resource NEs Resource NEs Resource NEs Resource NEs Routing NE Addrs Routing NE Addrs Routing NE Addrs Routing NE Codees Ket Advanced Ket Advance	Network	YEALINK kanika			On Line	redirect		
Carrier Preferred NEs Digit Manpulations Hosting NEs Hosting NE Kodes Resource NEs Resource	Carriers	access			On Line	redirect		
Digit Manipulations Hosting NEs bootcols on Line redirect Hosting NE Addrs Hosting NE Addrs sipp On Line redirect Hosting NE Addrs Hosting NE Addrs test On Line redirect Hosting NE Addrs Hosting NE Addrs test On Line redirect Resource NE Addrs Resource NE Addrs Resource NE Addrs Resource NE Addrs Resource NE Addrs Resource NE Addrs Resource NE Addrs first page (previous) (first page 1) Keila Server Ethries Routing NE Forties Routing NE Codecs first page first page 1) first page 1) Advanced Advanced first page 1) first page 1) first page 1)	Carrier Preferred NEs	access2			On Line	redirect		
Hosting NE's Addrs Hosting NE's	Digit Manipulations	netn			On Line	redirect		
Hosting NE Nodes sup OI Life returned Hosting NE Addrs Resource NE Addrs Resource NE Addrs Resource Thirties Routing NE Addrs Routing NE Codecs Routing NE Codes Routing NE Codes Routing NE Codes Routing NE Codes Routing NE Addrs Routing NE Codes Routing NE Addrs Routing NE Routing NE Addrs Routing NE Routing NE Addrs Routing NE Routing NE Addrs Routing NE Routing NE Rou	Hosting NEs	paul			On Line	redirect		
Hosting NE Addrs test On Line routing Hosting NE Codecs Resource NEs Resource NEs Resource NEs Resource NEs Routing NE Codecs Routing NE Addrs Routing NE Addrs Routing NE Codecs Routing NE Codecs Routing NE Addrs	Hosting NE Nodes	sipp			On Line	redirect		
Resource NES Resource NES R	Hosting NE Codecs	test			On Line	routing		
Resource NE Addrs Media Servere Entries Resource NE Codecs Routing NE Addrs Routing NE Codecs Routing NE Codecs Advanced	Resource NEs	(first page) (previous		[Page 2 of 2]			next 🕨	last page 🕨
Media Server Entries Routing NE Name v Starts With v Tind att Resource NR Eddres Routing NE Codecs India att Routing NE Codecs Adda	Resource NE Addrs							
Resource NE Codecs Routing NE Addrs Routing NE Codecs Routing NE Codecs Advanced	Media Server Entries	Routing NE Name V	Starts With ~				find	find all
Routing NE Addrs Routing NE Entries Routing NE Codeos Advanced	Resource NE Codecs							
Routing NE Entries Routing NE Codecs	Routing NE Addrs			<u>6</u>				
Routing NE Codecs	Routing NE Entries			1 BPL				
Advanced	Routing NE Codecs			Add				
	Advanced							

This page allows the user to add routing network elements (NEs). Once added, the routing NE appears on the **Routing NEs** page. A routing NE is a network element that provides connectivity to remote networks, for example, the PSTN. A routing NE is a system provider-owned device. It can either be a network gateway or a proxy server used to "front" network gateways.

Enter the Routing NE Name, select the appropriate Routing Profile, and click Save.

🐬 broadsoft	
Administrator, Administrator	
System Provider Resources Network Carrier Preferred NEs Digit Manipulations Hosting NE Hosting NE Addrs Hosting NE Addrs Resource NE Resource NE Resource NE Addrs Resource NE Addrs Resource NE Codecs Resource NE Codecs Routing NE Addrs Routing NE Addrs Routing NE Addrs Routing NE Addrs Routing NE Codecs Advanced	*Routing NE Name: SWELITE_SIPREC Location:

Navigate to **Network > Routing NE Addrs,** click **Add**.

👎 broadsoft			
Administrator,Adn	ninistrator		
System Broyider			
System Provider	Routing NE Name	Address	
Pasourcas	QSBC_BSFT		
Resources	SALESAPAC		
Network	SBC-ALYSSUM		
Network	SBC-HARITHA		
Carriers	SBC-POOJA		
Carrier Preferred NEs	SBC_KANIKA		
Hosting NEs	SBC_SINGTEL2		
Hosting NE Nodes	SBC_STSBX09		
Hosting NE Addrs	SBX-AVARSA		
Hosting NE Codecs Resource NEs	SBX_CORPORATE		
Resource NE Addrs	(first page first page		[Page 1 of 2]
Media Server Entries			
Resource NE Codecs Routing NEs	Routing NE Name 🗸	Starts With 🗸	
Routing NE Addrs			
Routing NE Entries			- A
Routing NE Codecs			<u></u>
Advanced			Add

From this screen, add routing network element (NE) addresses. Once added, the routing NE address displays on the Routing NE Addrs screen.

To add, select the $\ensuremath{\textbf{Routing NE}}\xspace$ neared in the previous step from the drop down.

Add the Sipsg IP and port and then click Save.

Administrator,Adm	Administrator,Administrator				
System Provider	Add				
Resources	*Routing NE Name: SWELITE SIPREC V				
Network	* Address: 1				
Carriers Carrier Preferred NEs	* Cost: 1 ~				
Digit Manipulations Hosting NEs	Include Port in Contacts				
Hosting NE Addrs Hosting NE Codecs Resource NEs	Port:				
Resource NE Addrs Media Server Entries					
Resource NE Codecs Routing NEs Routing NE Addrs Routing NE Entries	Save				
Routing NE Codecs Advanced					

2. Application Server

2a. Accessing the Broadsoft AS to Assign Services to Users

Open a browser and enter the Broadsoft Application Server IP address.

User ID Password Remember Password	Login	
Copyright 2000-2015, BroadSoft, Inc. This software and its documentation are protected by co r any part thereof, may result in severe civil and crimin BroadSoft and BroadWorks are registered trademarks of	opyright law and internati al penalties, and will be j f BroadSoft, Inc. Gaither	ional treaties. Unauthorized reproduction or distribution of this software, prosecuted to the maximum extent possible under the law.

Enter the user credentials and click Login.

2b. User Search

From the BroadSoft home page, navigate to Profile > Users

This page displays users in a group or department. You can display all users or look for specific users.

To display all users: Click on Search.

Or, you can search for users by User ID, Last Name, First Name, Phone Number, Extension, Department, and whether the user is in a Trunk Group. To display specific users: Enter your search criteria and click **Search**.

System broad soft					Welcome	• Default Administ	Help - Home
Options: Profile Resources Services System Services Call Center Communication Barring Meta Met Conferencing	Users Search for users in the system. OK Enter search criteria below Extension	Starts With V		9036		+	Search
nieecnae sodieteinang Utilities	User ID ucone_android36	Last Name_ ucone_android36	First Name ucone36	Phone Number +1-2407209036 [Page 1 of 1]	<u>Extension</u> 9036	<u>In Trunk Group</u>	Edit Edit

2c. Assign Services to the User

Click Assign Services to assign or unassign services and service packs to a user. If a service or service pack is unassigned, the service data that has been filled out will be lost.

		Help - Home		
System > bsft-test > bsft > Users : ucone_android36 Welcome Default Administrator [Logo				
Options:	Profile			
Incoming Calls Outgoing Calls Call Control	Basic Profile Display and confidure profile information such as your name, department and address.	Advanced <u>Alternate User IDs</u> Allows you to view and maintain the list of alternate user IDs for the user.		
Calling Plans Client Applications Messaging Communication Barring Collaborate Utilities	Addresses Addresses allows you to view and maintain your phone numbers and other identities that are used to make and receive calls. Announcement Repository Manage the announcements for a user Passwords	Assign Services Assign or unassign services and service packs. Call Application Policies Select Call Control Applications enabled for a user. Call Policies Configure user Call Policies		
	Set web access and portal passwords. <u>Schedules</u> Add, modify, or remove schedules.	Call Processing Policies Configure user-level Call Processing Policies Communication Barring Authorization Codes Configure Communication Barring Authorization codes for a user.		
		Device Policies Configure user Device Policies. Privacy Set your visibility within the Enterprise or Group Office Zone		

Use this page to display the service packs and individual services available to be assigned to a user.

Using this page, you can also:

- Assign service packs to a user
- Unassign service packs from a user
- Assign services to a user
- Unassign services from a user

Ensure all the required services like Authentication, supplementary services like Call Forwarding, Call Transfer, Call Waiting, and so on, are assigned to the user.

System > bsft-test > bsft > Users : uco	ne_android36	Help - Home Welcome Default Administrator [Logoul]
Options:	Assign Services Assign Services allows you to assign or unassign services and service packs for a user. If a service or service pack OK Apply Cancel Available Service Packs	k is unassigned the service data that has been filled out will be lost.
Client Acelications Messaging Communication Barring Collaborate Utilities	Add> Add> Remove < Add All>> Remove All	
	Available Services	User Services
	BroadWorks Receptionist - Enterprise BroadWorks Receptionist - Office BroadWorks Receptionist - Office BroadWorks Supervisor Business Communicator Desktop Business Communicator Mobile Business Communicator Mobile - Audio Business Communicator Tablet - Audio Remove All	Advice Of Charge Alternate Numbers Anonymous Call Rejection Authentication Authentication Automatic Caliback Automatic Hold/Retrieve Barge-in Exempt Basic Call Logs BroadWorks Anywhere BroadWorks Mobility Business Communicator Desktop - Video
	OK Apply Cancel	

2d. Enable Authentication

Navigate to Profile > Users > Utilities. Click Authentication.

< broadsoft		Help - Home
System > bsft-test > bsft > Users : u	cone_android36	Welcome Default Administrator [Logout]
System > bsft-test > bsft > Users : u options: Profile Incoming Calls Outgoing Calls Call Control Calling Plans Cilent Applications Messaging Communication Barring Collaborate ▶ Utilities	Display the most recently received, missed, or placed calls. Enterprise Directory Display the enterprise directory list. Interprise Directory Display the old recept calls terminated to or originated from a line that has been decommissioned. Push and the interprise directory list. Interprise Directory Display all the system to intercept calls terminated to or originated from a line that has been decommissioned. Push Notification Registrations for a user. Registrations Display all the static and dynamic registrations for a user.	Welcome Default Administrator [Logout]
	Security Classification - On Configure the Security Classification setting for this user.	

Use this page to change the user's authentication password. This password is used to authenticate an IP phone, which allows calls to be made over Internet Protocol (IP) based networks.

The authentication password and user name can be different from the system password and user ID that are used at initial system login. While you can choose to use the same name and password for authentication and initial login, the credentials allow access to different services. The password restrictions may differ.

Enter the user name and password. Click Apply.

broad soft <u>System > bsft-test</u> > <u>bsft</u> > <u>Users</u> : u	Help - Home Ucone_android36 Welcome Default Administrator [Logoul]
Options: Profile Incoming Calls Outgoing Calls	Authentication Authentication allows you to use encryption to safely determine that the user at a given phone is who they say they are. This helps prevent hijacking of service in hosted communications networks. The user name and password must match the user name and password configured on your phone, or in your phone's configuration file.
Call Control	OK Apply Cancel
Calling Plans Client Applications Messaging Communication Barring Collaborate Utilities	* Authentication User Name: ucone_android36 * Type new authentication password: Re-type new authentication password:
	OK Apply Cancel

2e. Handling Incoming Calls

As required, enable or disable the services to handle the incoming calls by navigating to Profile > Users > Incoming Calls

This page displays menu items used to handle incoming calls. You can activate or deactivate some of the services by turning them on or off on the page for the service. To access the page for a particular service, click on the link for that service.

< broadsoft		Help - Home
<u>System</u> > <u>bsft-test</u> > <u>bsft</u> > <u>Users</u> : u	cone_android36	Welcome Default Administrator [Lagout]
Options: Profile Incoming Calls	Incoming Calls Basic	Advanced
Outgoing Calls Call Control Calling Plans Other Applications	Anonymous Rejection - Off Prevent a caller from reaching you when the caller has explicitly restricted his/her number. Calling Line ID Blocking Override - Off	Automatic Hold/Retrieve - Off Automatically place incoming calls on hold, or automatically retrieve an held call. Alternate Numbers
Client Applications Messaging Communication Barring Collaborate Utilities	Allows a user to override cailing line identity presentation restrictions. <u>Calling Name Delivery - On</u> Provides Cailing Name Information for external and Internal callers. Calling Name Retrieval - Off	Allow up to ten additional phone numbers and extensions, with each number having a distinctive ringing pattern. <u>Call Forwarding Selective - Off</u> Automatically forward your incoming calls to a different phone number when pre-defined criteria. such as the phone number, time of day or day of week. are met.
	Provide a caller's name by retrieving the calling name from the network. <u>Calling Number Delivery - On</u> Provides Calling Number information for external and internal callers. <u>Call Forwarding Always - Off</u> Automatically forward all your incoming calls to a different phone number.	Call Me Now - Off BroadWorks "Call Me Now" allows an end user to click on a web-based link or icon, enter their own phone number, and immediately have a call be initiated from BroadWorks to the number entered, at no cost to the end user. This functionality can be thought of as "reverse click-to-clai"; in this scenario the end user is actually requesting a call to the called party and upon answer at the provided number, BroadWorks will initiate a call to the
	Call Forwarding Always Secondary - Off Automatically forward all your incoming calls to a secondary phone number. Call Forwarding Busy - Off	called party. <u>CommPilot Express - Off</u> Manage incoming calls based on four pre-configured profiles. Custom Ringback User - Off
	Automatadamy torward your calls to a different phone number when your phone is busy. Call Forwarding No Answer - On Automatadaly forward your calls to a different phone number when you do not answer your phone after a certain number of rings.	Customize the media ingback to be played to your callers. Different ringbacks may be played, based on pre-defined criteria, such as phone number, time of day or day of week. <u>External Custom Ringback - Off</u> Configure custom ringback to be obtained from an external source.
	Latt Forwarding roard your calls to a different phone number when your phone is unreachable.	Pre-alerting Announcement - Off Allows a user to configure an audio or video announcement to be played to selected callers before rinding.

Features/Services supported on SBC Edge

Sr.no	Features/Services	Supported
1	Basic Registration with Authentication	✓
2	Basic Registration with reg-key	×
3	3xx Response handling with maddr	×
4	Basic calls	✓
5	CANCEL Scenario	✓
6	User Busy	✓
7	Session Audit	✓
8	Session Timers	✓
9	Music on Hold	×
10	Remote Ringback	×

11	Local Ringback followed by Remote Ringback	×
12	Call Forward	\checkmark
13	Voice Portal	✓
14	Anonymous call: Trusted and Non-trusted endpoint	✓
15	Calling Name with Unicode Characters	\checkmark
16	DIVERSION Header: Single and Multiple Redirects	\checkmark
17	HISTORY-INFO	✓
18	Blind Transfer	×
19	Attended Transfer	×
20	Local Conference	✓
21	Network Conference	×
22	Surrogate Registration	×
23	GIN registration	×

Legend



Conclusion

This document provides detailed description required for the configuration of Ribbon SBC SWe Lite with the SIPREC feature enabled and the configuration of BroadSoft Application Server users in a hosted mode.