

## Time Sensitive Information!

These Configuration Changes Must Be Applied Ten Days Prior to Absolute VOICE Cut-Over

Sophos Router Configuration For Absolute VOICE Cloud Telephony Deployment Document Version 1.2

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www.callabsolute.com



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#### Read Me!

- 1. These changes must be applied before client implements their Absolute VOICE hosted telephony solution.
- 2. If you are <u>experienced</u> with business class firewalls and routers, please have your IT staff/contractor perform these changes for you.
- 3. Please read this entire document before attempting to make any changes.
- 4. If you have questions about this document, you can call 800-955-6703 to schedule an appointment with one of our firewall support specialists. We will attempt schedule your appointment within 24- 48 hours of your call to us so please allow adequate time.
- 5. After changes are completed please let your client or Absolute VOICE Customer Support specialist know.
- 6. Once completed, an Absolute VOICE technician will be requesting access or a collaborative web session to verify settings prior to customer cut over.

#### Introduction

This document is for IT administrators and illustrates configuration changes required on Sophos firewall & router appliances to support Absolute VOICE's cloud communications telecommunications platform. This document assumes a basic network deployment consisting of one internal LAN network containing the IP phones and one WAN network connected to the Internet. While we strongly recommend a dedicated network for VoIP traffic, the instructions below can be used for a "converged" network whereby both VoIP and non-VoIP traffic share one physical WAN network. With basic modifications (such as adding access rules for additional interfaces); this configuration can be extrapolated for other network layouts. The screenshots below may vary slightly from what is displayed while configuring the device depending on model (SG105, etc...) and UTM software

version. Setting values not mentioned may be left at default or changed as required for specific purposes.

# Please call Absolute VOICE Customer Support at 800-955-6703 if you need any further information. Firewall changes can be in depth and you will need to schedule time with one of our specialists if you need assistance.

Screenshots and instructions are based on Sophos SG105 running UTM 9.315-2.

We recommend loading the latest Sophos UTM OS (firmware).

Note: Default access address to Sophos https://192.168.2.1:4444



*After applying* the GUI configurations in this document, please take the appropriate screen shots to provide the firewall "verification" to Absolute.

Screen Shot #:	Configuration:	Completed:
1	Network Protection $\rightarrow$ VoIP $\rightarrow$ SIP tab	
2	Network Protection → Firewall → Policies → showing rules for at minimum "Abs Traffic, NTP"	
3	Interfaces & Routing $\rightarrow$ Quality of Service $\rightarrow$ Traffic Selector $\rightarrow$ show "Abs Traffic" details	
4	Interfaces & Routing $\rightarrow$ Quality of Service $\rightarrow$ Bandwidth Pool $\rightarrow$ showing guaranteed bandwidth for the Absolute VOICE traffic	
5	Networking Protection $\rightarrow$ Intrusion Preventions $\rightarrow$ Exceptions Tab showing Absolute VOICE subnet excluded "Coming from" and "Going to"	



SIP ALG is used to try and avoid configuring Static NAT on a router. Its implementation, however, varies from one router to another, often making it difficult to inter-operate a router with SIP ALG enabled with a PBX. In general, you would want to disable SIP ALG and configure one to one port mapping on the router.

#### Network Protection $\rightarrow$ VoIP

SOPHOS	UTM 9	上 admin   🗊   🕜 C 🔅
🔎 search	VoIP	
Dashboard	SIP H.323	
Management	SIP protocol support	
Definitions & Users		
Interfaces & Routing	Global SIP Settings	
Network Services	SID Server Networks	To activate SIP support, please specify SIP Server Networks and
Network Protection		the internal Client Networks that should be handled. Select the Strict mode to enhance security
Firewall NAT Advanced Threat Protection Intrusion Prevention	DND DND DND DND DND DND DND DND DND	alo da lo more lo amarico society.
Server Load Balancing VolP Advanced	SIP Client Networks	
Web Protection		
Email Protection	- DND DND DND DND	
Endpoint Protection	Evnectation mode: Any	
Wireless Protection	Expectation model. Party	
Webserver Protection		Apply
RED Management		
Site-to-site VPN		
Remote Access		
Logging & Reporting		
Support		
Log off		

- Select the "SIP" Tab
- Set the "SIP Protocol Support to OFF or "O"

Note: SIP ALG Can be disabled using command line:

system system\_modules sip unload



#### Network Protection → Firewall

Network Protection	🗌 📝 Edit	1	Any 😰 💶	Crexendo Servers	0
Firewall	× Delete		💉 Any		
NAT	Clone	Abs Traffic			
ntrusion Prevention	🗌 📝 Edit	2	Absolute VOICE Servers 📮	🖌 🧕 Any	0
Server Load Balancing	× Delete		🖌 Any		
VOIP	Clone	Abs Traffic			

- Click on "New Rule" •
- Position:
- Sources: Any •
- Services: •

•

- Any (Can specify ports UDP 5060, 16000-16999, 11780-11800, 80, 443) Absolute VOICE Servers object (184.178.213.0/24)
- Destination:

Тор

Comment: Abs Traffic •

Group:	:: Pleas	se select	:	•
 Position:	1			•
 Sources:			-	+
	1	Any		
Services:		DND	-	
	8	Any	_	Ŧ
	6	DND		
	5115	DND		- 11
Destinations:				+
	1	Absolute	VOICE Ser	vers
Action:	Allow			•
 Comment:	Abs Traffi	c		
unneed				



- Click Save
- Once rule is save ensure it is enabled by clicking the enable/disable slider:

Action	Sort by: Position asc 🔻
🗌 📝 Edit	1
🗙 Delete	
Clone	Abs Traffic

• Create additional "Allow" rules for any other network services such as "NTP, Ping, etc..."

📝 Edit	8	Any IPv4 햧	>	Any IPv4	0
🗙 Delete			💉 ping		
Clone					
📝 Edit	9	Any IPv4 🕸		Any IPv4	0
🗙 Delete			🖊 NTP		
Clone					



#### Interfaces & Routing → Quality of Service → Traffic Selector

The Traffic Selectors tab is where you specify the type of packet that you would like to control. Generally speaking, traffic classification is based on IP address and service type, or by choosing the application type you wish to control.

• Click "New Traffic Selector"

Name:	Abs Traffic
Name.	
Selector type:	Traffic selector
Source:	📋 💱 Any 🚞 🕇
Service:	📋 🖌 Any 🚞 🕇
Destination:	🔋 🚅 Absolute 🔤 💶
Comment:	
Advanced	
TOS/DSCP:	DSCP bits •
DSCP bits:	DSCP class 🔹
DSCP class:	EF dscp (101110) 🔹
Amount of data sent/received:	
Helper:	none 🔻
	✓ Save 🗙 Cancel

- Name: Abs Traffic
- Selector type: Traffic Selector (default)

Any

- Source:
  - Service: Any
- Destination: Absolute VOICE Servers object (184.178.213.0/24)
- Advanced
  - TOS/DSCP: DSCP bits
  - DSCP bits: DSCP class
  - DSCP class: EF dscp
- Click Save

nterfaces & Routing		
Interfaces	Action	Sort by: Name asc V
Quality of Service (QoS)	📃 📝 Edit	Abs Traffic
Uplink Monitoring	¥ Delete	Any -> / Any -> I Absolute VOICE Servers
IPv6	× 501010	DSCP bits class: EF dscp (101110) )
Static Routing	Clone	
Dynamic Routing (OSPF)		



#### Interfaces & Routing $\rightarrow$ Quality of Service $\rightarrow$ Bandwidth Pool

With a bandwidth pool, you reserve a guaranteed bandwidth for a specific outgoing traffic type, optionally limited by a maximum bandwidth limit.

Click "New Bandwidth Pool" •

Edit Bandwidth Pool	×
Name: Absolute VOICE Servers	
Interface: External (WAN)	Ŧ
Position: 1	•
Bandwidth (kbit/s): 300	
Specify upper bandwidth limit	
Traffic Selectors	
Abs Traffic	
Comment	
🗸 Save 🗙 Car	ncel

- Name: Abs VoIP Bandwidth
- Interface: External (WAN)
- Position:
- 1 Bandwidth: 300Kbps (see note below)
  - Note: please use the following formula for the minimum bandwidth
    - 30% of total # of phones x 100Kbps = minimum bandwidth reservation •
  - I.E. 100phones 30phones x 100Kbps= 3000Kbps
- Check "Abs Traffic" Traffic Selector:
- **Click Save**

Status Traffic Sel	ectors Bandwidth Pools Download Throt Advanced					
+ New Bandwidth Pool Bound to Interface: External (WAN) (up)						
	Search Find					
Action	Sort by: Position asc 🔻					
🗌 📝 Edit	1 Abs VoIP Bandwidth					
🗙 Delete	Guaranteed Bandwidth: 300 kbit/s					
Clone	Abs Traffic					



#### Networking Protection $\rightarrow$ Intrusion Prevention $\rightarrow$ Exceptions Tab

Click the "New Exception List" •

ishboard	🛛 🙁 GI	obal	Attack Pa	itterns	Anti-	DoS/Floo	oding	🙁 Anti-	Portscan	Except	tions	Advanced	
anagement	- Ne	w Excep	tion List					earch			Find		
finitions & Users												-	
erfaces & Routing											1	Display:	10 🔻
twork Services	Add E	xception	List	_		_		20	Action		Sort	by: Name asc	•
twork Protection	Name	č		Abs	olute \	<mark>/OIC</mark> E	Traffic						
rewall	Skip t	hese che	ecks:										
AT	2	Intrusion	Preventio	n									
Ivanced Threat Protection		Portscan	Protection	n									
erver Load Balancing	8	UDP Elor	od Protect	otection									
лР		ICMP Flo	od Protec	tion									
Ivanced	_												
ab Protection	For al	I request	ts					te		Clic	there ar	New Exception	hists defined.
nail Protection		Cor	ning from	these so	burce ne	two 🔻	× Den	ne				create one	
dpoint Protection		Netwo	orks:	uto V(		_	_	+					
reless Protection			Absol	ute vt	DND								
ebserver Protection													
D Management													
e-to-site VPN								DND					
mote Access			UND		DND	_							
gging & Reporting	or	<ul> <li>Goi</li> </ul>	ng to thes	e destin	ations	٠	× Dele	ete					
ipport		Desti	nations:			16		+					
g off			Absol	ute VC	DICE								
							DIAD						
	or	• :: P	lease sele	ct ::		٠							
	Comn	nent:											

- Enter the following information:
  - Name:

**Absolute VOICE Traffic** 

Skip these Checks: 0

For all requests: 0

Intrusion Prevention, Portscan, TCP SYN, UDP Flood, ICMP Flood Coming from and going to Absolute VOICE network group (184.178.213.0/24)

- Click "Save"
- Click the "power" icon to turn the rule on





## **Document Revision History**

Version	Reason for Change	Date
1.0 Draft	Initial Draft Document	June 27, 2016
1.1	Add IPS Exception list for Absolute	September 12, 2016
1.2	VOICE traffic Verification checklist added	March 17 <sup>th</sup> , 2017