



Time Sensitive Information!

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

Ubiquiti Edge Router Configuration
For Absolute VOICE Cloud Telephony Deployment
Document Version 1.2

June 2nd, 2017

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 experienced 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 Ubiquity 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 and OS/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 EdgeRouter XSFP running EdgeOS v1.7.1.

We recommend loading the latest EdgeOS (firmware).

Firewall Checklist

After applying the configurations commands in this document please use one of the following methods to provide router “verification” to Absolute.

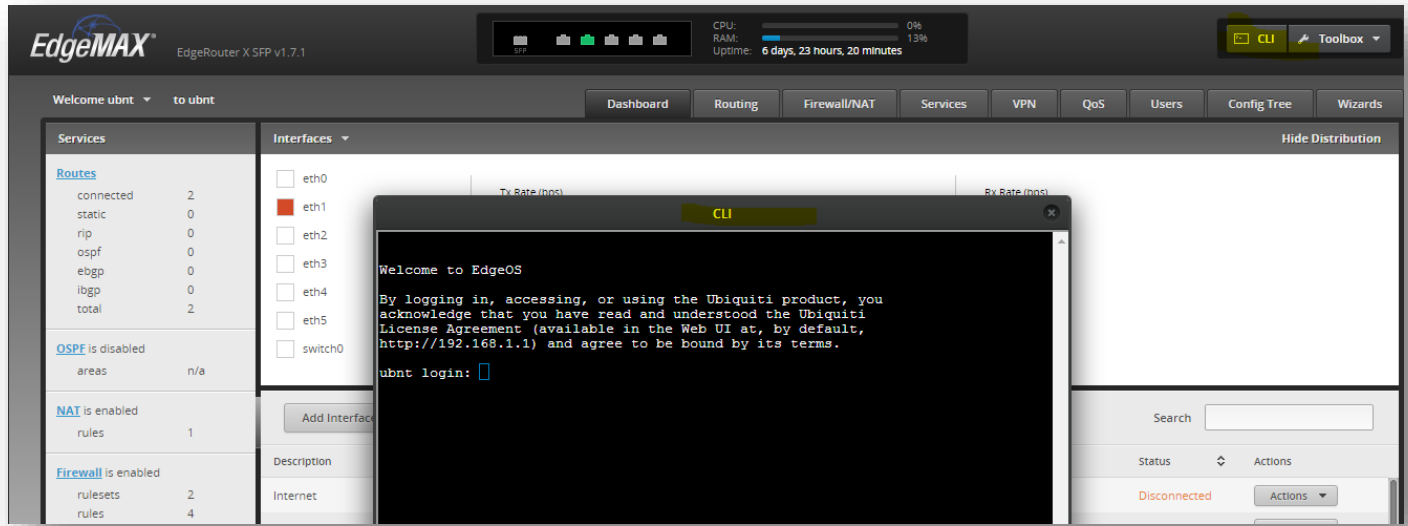
Item #:	Configuration:	Completed:
1	Copy configuration into a text file using the following command in the CLI: Show configuration	
Or		
2	Provide a text file with the commands applied to Ubiquity firewall I.E. <ul style="list-style-type: none"> • Disable SIP module • Downstream Policy • Upstream Policy 	

Disable SIP ALG

Utilize CLI tool such as Putty or Teraterm

Connect via SSH to the Ubiquiti IP address

(Note: SSH allows you copy and paste)



- Login into the CLI:
 - UN: ubnt (default)
 - PW: ubnt (default)
- Enter the following commands:

```
configure
set system conntrack modules sip disable
commit
save
exit
```

Traffic Shaping QoS Configuration - Downstream

Dashboard → Click on “CLI”

Or you can SSH to the Ubiquity (Note: SSH allows you copy and paste)

Note: Please confirm your ISP's download (downstream) and Upload (upstream) speeds. This example assumes the contacted bandwidth is 25/5mbps.

Note: The class percentages are predefined and can be adjusted if needed.

- Enter the following commands for the “Downstream traffic”:

```
configure
# Set-up the details of the DownStream Policy
set traffic-policy shaper DownStream description "DownStream QoS policy"
set traffic-policy shaper DownStream bandwidth 25000kbit
set traffic-policy shaper DownStream class 10 description "RTP"
set traffic-policy shaper DownStream class 10 bandwidth 25%
set traffic-policy shaper DownStream class 10 ceiling 100%
set traffic-policy shaper DownStream class 10 match VOIP-RTP ip dscp 46
set traffic-policy shaper DownStream class 20 description "SIP"
set traffic-policy shaper DownStream class 20 bandwidth 5%
set traffic-policy shaper DownStream class 20 ceiling 100%
set traffic-policy shaper DownStream class 20 match VOIP-SIP ip dscp 24
set traffic-policy shaper DownStream default bandwidth 70%
set traffic-policy shaper DownStream default ceiling 100%
```

Traffic Shaping QoS Configuration - Upstream

Note: Please confirm your ISP's download (downstream) and Upload (upstream) speeds. This example assumes the contacted bandwidth is 25/5mbps.

Note: The class percentages are predefined and can be adjusted if needed.

Note: This example assumes that "eth1" is the WAN interface and "eth0" is the LAN interface.

- Enter the following commands for the "Upstream traffic":

```
# Set-up the details of the UpStream Policy
set traffic-policy shaper UpStream description "UpStream QoS policy"
set traffic-policy shaper UpStream bandwidth 5000kbit
set traffic-policy shaper UpStream class 10 description "RTP"
set traffic-policy shaper UpStream class 10 bandwidth 50%
set traffic-policy shaper UpStream class 10 ceiling 100%
set traffic-policy shaper UpStream class 10 match VOIP-RTP ip dscp 46
set traffic-policy shaper UpStream class 20 description "SIP"
set traffic-policy shaper UpStream class 20 bandwidth 5%
set traffic-policy shaper UpStream class 20 ceiling 100%
set traffic-policy shaper UpStream class 20 match VOIP-SIP ip dscp 24
set traffic-policy shaper UpStream default bandwidth 45%
set traffic-policy shaper UpStream default ceiling 100%

# Apply the policies to the interfaces (this example has eth1 is WAN, eth0 LAN)
set interfaces ethernet eth1 traffic-policy out DownStream
set interfaces ethernet eth0 traffic-policy out UpStream

# Commit, Save, and Exit
commit
save
exit
```

Addendum: Quick Setup Notes

Default information

IP Address:	192.168.1.1/24
UN:	ubnt
PW:	ubnt

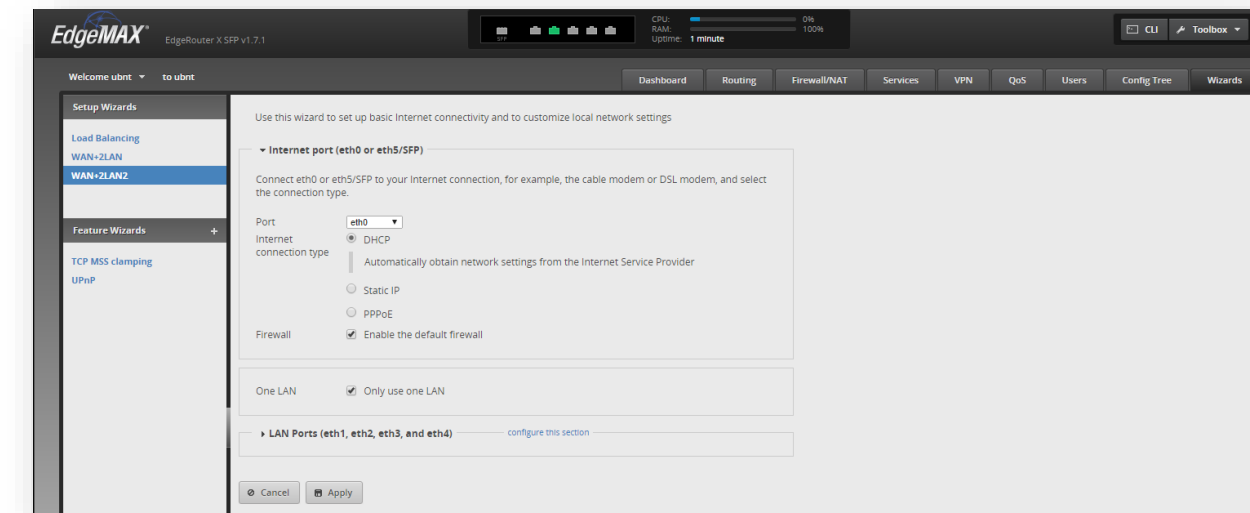
Basic Setup

- Plug laptop/pc into the Ethernet 0 port
- Statically assign your NIC to be on the 192.168.1.0/24 network (i.e. 192.168.1.50)

Web into the Ubiquiti using:	https://192.168.1.1
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- Click on Wizards to setup the device of internet connectivity
- Choose WAN+2LAN2
- Use the following settings:

Port (WAN port):	Eth0
Internet Connection Type:	DHCP (default), can be changed to Static, PPPOE
Firewall:	Enabled
One Lan:	Left default "use only one LAN"
LAN Ports:	192.168.1.1
DHCP:	Enabled



- Hit Save and Apply

Document Revision History

Version	Reason for Change	Date
1.0 Draft	Initial Draft Document	September 28, 2016
1.1	Checklist added SIP Disable command corrected	March 17 th , 2017
1.2	Syntax and direction corrections	June 2 nd , 2017