

Time Sensitive Information!

These Configuration Changes Must Be Applied
Ten Days Prior to Norcom Solutions Group
Cut-Over

Peplink – Pepwave MX BRI Mini Router Configuration
For Norcom Solutions Group Cloud Telephony
Deployment
Document Version 1.0

October 18st, 2018

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Read Me!

1. These changes must be applied before client implements their Norcom Solutions Group 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 877-667-2661 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 Norcom Solutions Group Customer Support specialist know.
6. Once completed, a Norcom Solutions Group 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 Peplink firewall & router appliances to support Norcom Solutions Group'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 software version. Setting values not mentioned may be left at default or changed as required for specific purposes.

Please call Norcom Solutions Group Customer Support at 877-667-2661 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 Pepwave BRI running Software Version 7.1.1 build 3102.

We recommend loading the latest software version (firmware).

Firewall Checklist

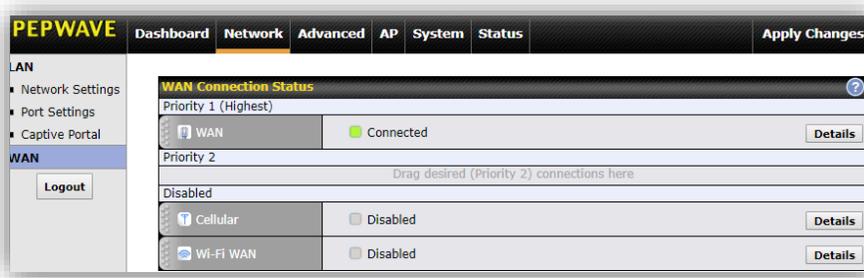
Please provide screen shots to Norcom Solutions Group for verification of settings. This will allow the implementation process to be smooth and ensure quality audio and proper signaling.

Screen Shot #:	Configuration:	Completed:
1	Network → WAN → Priority	
2	Network → WAN → Bandwidth	
3	Network → WAN → MTU Size	
4	Advanced → Misc Settings → Service Passthrough (SIP Compatibility)	
5	Advanced → QoS → Application (QoS)	
6	Advanced → QoS → Bandwidth Control	
7	Health Check - Disabled	

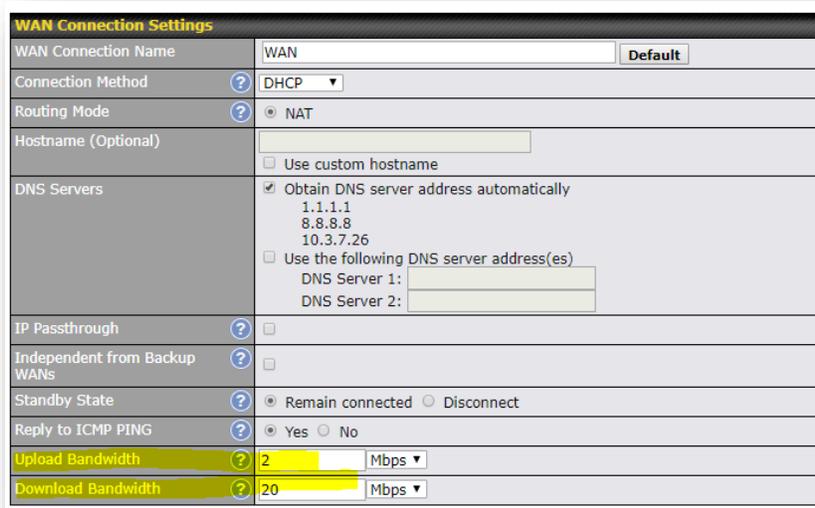
WAN Setup

Network → WAN

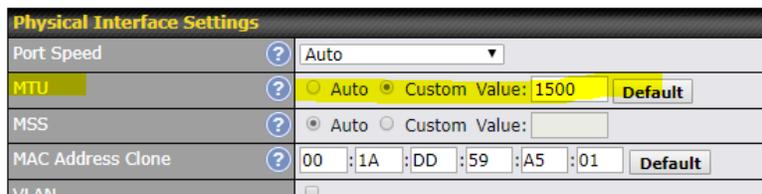
Note: Please set the WAN (broadband) interface as Primary and if there is a secondary WAN interface, please set it as a Priority 2 Status. VoIP will not work correctly with load balancing WAN interfaces.



- Once the WAN interface is set, click the “Details” button.
- Set the Upload and Download speeds to the internet contracted speeds.



- Set the “MTU size” to 1500
- Click “Save and Apply.”



Disable SIP – ALG

Advanced → Misc Settings → Service Passthrough

- Please disable SIP ALG by selecting “Compatibility Mode.”
- Click “Save”

The screenshot shows the PEPWAVE web interface with the following structure:

- Navigation Bar:** Dashboard, Network, **Advanced**, AP, System, Status, Apply Changes
- Left Sidebar (Misc. Settings):**
 - SpeedFusion
 - IPsec VPN
 - Outbound Policy
 - Port Forwarding
 - NAT Mappings
 - QoS
 - Bandwidth Control
 - Application
 - Firewall
 - Access Rules
 - Content Blocking
 - Routing Protocols
 - OSPF & RIPv2
 - BGP
 - Remote User Access
 - Misc. Settings**
 - High Availability
 - Certificate Manager
 - Service Forwarding
 - Service Passthrough** (highlighted)
 - GPS Forwarding
- Main Content Area: Service Passthrough Support**

SIP	<input type="radio"/> Standard Mode <input checked="" type="radio"/> Compatibility Mode
	<input type="checkbox"/> Define custom signal ports
H.323	<input type="checkbox"/> Enable
FTP	<input checked="" type="checkbox"/> Enable <input type="checkbox"/> Define custom control ports
TFTP	<input type="checkbox"/> Enable
IPsec NAT-T	<input checked="" type="checkbox"/> Enable <input type="checkbox"/> Define custom ports <input type="checkbox"/> Route IPsec Site-to-Site VPN

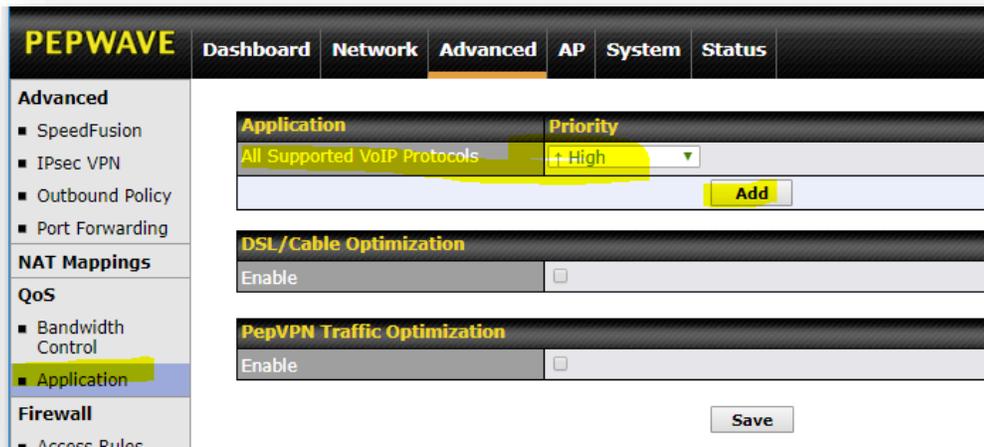
(Registered trademarks are copyrighted by their respective owner)

Save

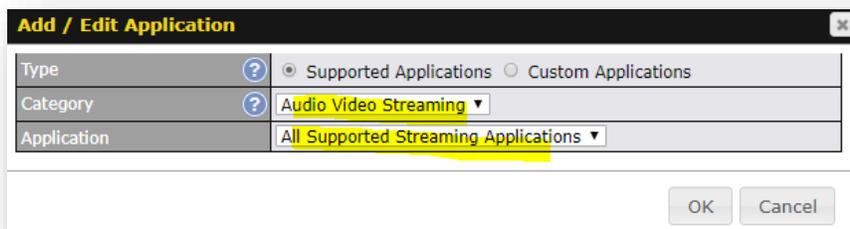
Setup QoS and Traffic Shaping

Advanced → QoS → Application

- Click the “Add” button under the “Application” section



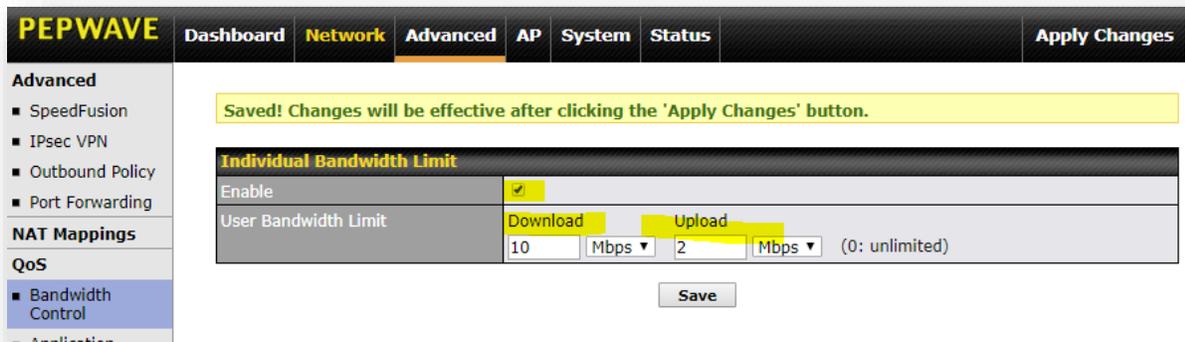
- Choose “Audio Video Streaming” from Category sections.
- Choose “All Supported Streaming Applications” from Application section.
- Click “OK”
- Then set the “Priority” to “High.”
- Click “Save”



Setup QoS and Traffic Shaping

Advanced → QoS → Bandwidth Control

- Enable “Bandwidth Limit”
- Set the “Bandwidth Limit’s” download and upload speeds to the internets contracted speed.
- Click Save



Disable Health Check

Note: Disable this feature if it is causing interface drops and choppy audio.

Browse to <http://ipaddress/cgi-bin/MANGA/support.cgi>

Health Check Failure Simulation			
WAN	Enable	Disable	
Cellular	Enable	Disable	
Wi-Fi WAN	Enable	Disable	

Logical Health Check Info			
Connection	Result	Consecutive Count	Result History
WAN	PASS	2	
Cellular	PASS	38	

Document Revision History

Version	Reason for Change	Date
1.0 Draft	Initial Draft Document	October 18th, 2018