



Grandstream HT 818 Installation Guide

New Voice Business Cloud



Revision History

Revision	Date	Description	Initials
1.0	8/11/26	First published version.	JN

Overview

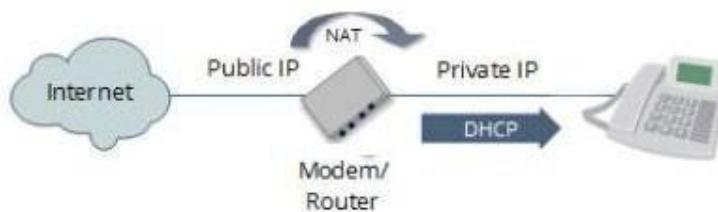
This document is to assist in the installation of the Grandstream HT 818 Voip Analog Telephone Adapter on the New Voice Business Cloud system.

Network Design Considerations

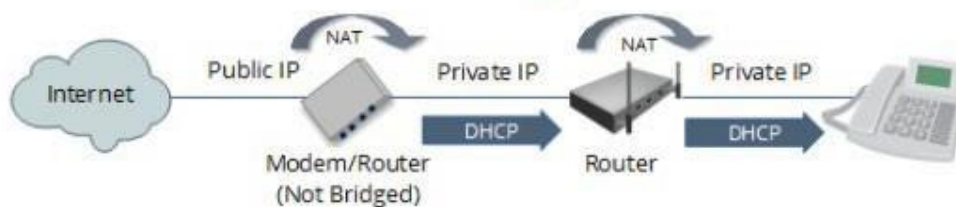
Double – NAT (Network Address Translation)

- Whenever possible the phones should be connected to your ISP's (Internet Service Provider) Modem/Router if that Modem/Router is providing NAT and DHCP service. If the voice traffic is routed through more than one device providing NAT, this can cause several issues. Symptoms of double NAT include but are not limited to: Endpoint registration issues, one-way audio, and no audio. Double NAT is not a supported LAN Topology for VoIP.
- If you are utilizing your own router or firewall, please arrange with your ISP to set the modem in bridged mode to hand off the Public IP to your router or firewall.

Correct configuration:



Incorrect configuration:





Deploying Grandstream HT818 behind a Firewall

Firewalls are designed to protect you from unauthorized traffic and to secure your data. With this principle in mind, rules may need to be configured in your firewall to ensure NHC newVoice traffic is allowed.

Disable SIP aware Functionality.

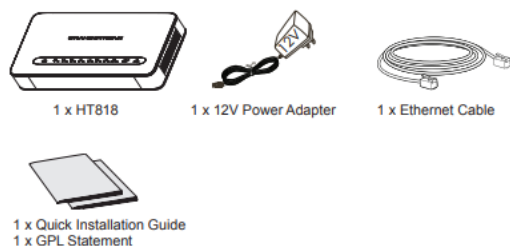
- Disable SIP ALG, SIP NAT, Stateful Packet Inspection (SPI), SIP Fix up, and SIP Transformations.
- Configure rules to allow Traffic for New Horizons Service (see table below)

Ip Address	Protocol	Port	UDP/TCP	Service
208.93.8.0/23	SIP/RTP	All	UDP/TCP	NHC -NVBC VoIP Network
172.171.174.48/28	SIP/RTP	All	UDP/TCP	NHC -NVBC VoIP Network
128.138.141.172	NTP	123	UDP	Time Server
35.161.51.90 (www.gdms.cloud)	UDP/TCP	80,443	UDP/TCP	GDMS Provisioning
144.202.94.88 (us.download.gdms.cloud)	UDP/TCP	80,443	UDP/TCP	GDMS Provisioning
34.215.167.138 (syslog.gdms.cloud)	UDP/TCP	3478,6514	UDP/TCP	GDMS Provisioning
34.210.35.207 (gdms.cloud)	UDP/TCP	80,443	UDP/TCP	GDMS Provisioning
45.32.83.51 (nat-a.gdms.cloud)	UDP/TCP	3478,32768-65535	UDP/TCP	GDMS Provisioning

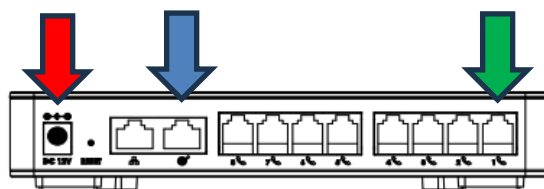


What's in the box?

PACKAGE CONTENTS



HT818 Ports



Port	Description
	Power socket. Used to power HT818 (12V - 1.5A)
	Network LAN port. Used to connect your HT818 to local network when using as router.
	Network WAN port. Used to connect HT818 to your router or gateway using an Ethernet RJ45 cable.
	FXS ports to connect analog phones / fax machines to HT818 using RJ11 telephone cable.
	Factory reset button. Press for 7 seconds to reset to factory default settings.

Installing HT 818

Step 1 – Insert Ethernet Cable into Network Wan Port. This is indicated by the Blue Arrow above in the diagram. The Port will be blue in color and be the 2nd from the left. There is an icon of a globe on it. Connect the other end to an uplink port that provides DHCP and has internet access, such as a switch, router, or modem.

Step 2 – Insert standard RJ11 telephone cable into phone port that corresponds phone you wish line to ring when called. (NHC will provide guidance on which tn's are programmed on which ports) This is indicated by the Green Arrow above in the diagram. Port 1 is the right most green port, Next port to the left is port 2 and so on. Repeat until all lines are terminated.

Step 3 - Plug in Power Adapter. This is indicated by the Red Arrow above in the diagram.

Step 4 – When Power, Ethernet, and Phone LEDs are solidly lit, the Phone Adapter is ready for use.



VLAN (Virtual Local Area Network)

Using VLAN's allow you to segment the IP phone traffic onto its own virtual network. VLANs will also allow you to create rules and configurations that apply only to your IP phones. The HT818 should be connected to an Access port that is programmed with the VLAN you wish the HT818 to be on. The HT818 can be programmed to a Specific VLAN via the NHC Commportal. Please contact NHC for assistance.

QOS Recommendations

Network congestion can delay or drop packets. Even a few dropped packets on a voice data stream can introduce echo, breaks in voice conversation, or even dropped calls.

- Each phone call utilizes approximately 100 kbps of bandwidth, including calls between two phones at the same site. Please keep bandwidth per call and the maximum number of simultaneous calls in mind when determining requirements for your deployment.
Example 10 concurrent calls at 100kbps = 1.0Mbps of throughput necessary
- When possible, Voice traffic should be prioritized. NHC will mark its VOIP traffic with DSCP (Differentiated Services Code Point) 46.
- We recommend that any equipment match and prioritize traffic using DSCP 46. When spikes in non-voice traffic occur, the equipment will prioritize the voice traffic and decrease the chances of any service interruption.

**** Since voice services travel across the Internet, NHC cannot guarantee call quality. Not all providers will honor DSCP tagging****

911

Your NHC 911 Service is attached to the telephone numbers at your location at the time of initial installation. If you move your service or your phone to another location, please contact NHC Customer service at 866.241.9423 to have your address of record updated. Failure to do so may prevent emergency services from reaching you in a timely manner. Loss of power or network connectivity may render 911 emergency service inoperable on NHC NewVoice.

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