nhc.

Grandstream GXW42xx Analog Adapter

Installation Guide

Revision History

Revision	Date	Description	Initials
1.0	6/30/23	First published version.	JN
1.1	5/21/24	Updated Configuration drawings	JN

Version 3.0

Overview

This document is to assist in the installation of the Grandstream GXW 42xx Analog Adapter.

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.

Prefered Configurations

Grandstream 4200 Series ATA's
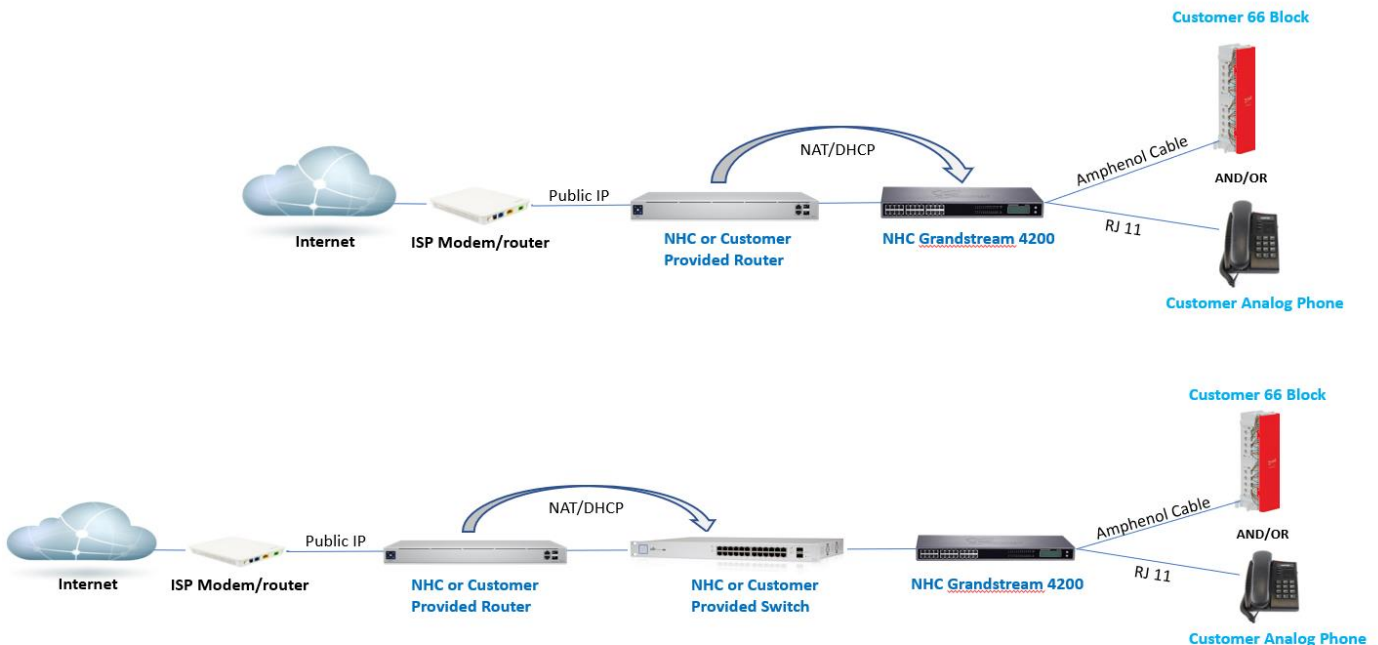
Deploying Grandstream GWC42XX behind a Firewall

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
192.58.90.20/23	SIP/RTP	All	UDP	NHC 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?

- **one device unit**
- **one RJ45 Ethernet cable**
- **one power adapter**
- **mount**

GXW42XX Ports

GXW4216

FXS ports

LCD light   LCD screen

Ethernet port

Analog port

GXW4224

FXS ports

LCD light   LCD screen

Ethernet port

Analog port

GXW4232

FXS ports

LCD light   LCD screen

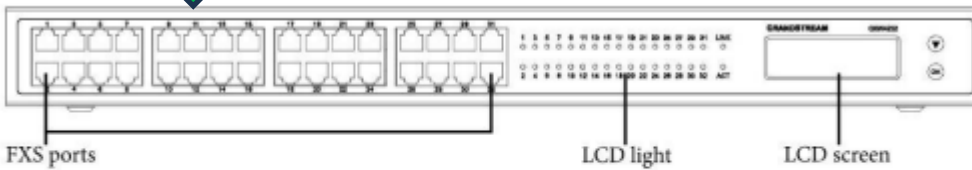Ethernet port
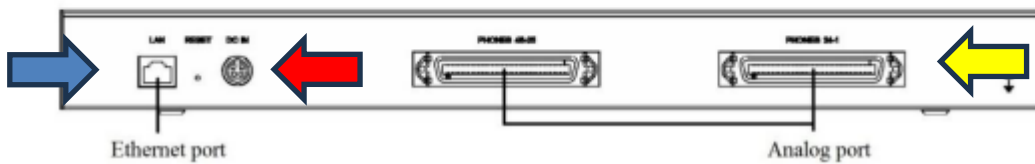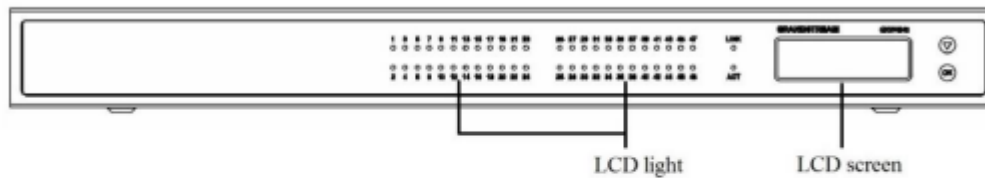
Analog port

GXW4248

LCD light   LCD screen

Ethernet port

Analog port

Installing GXW 42XX

1. Connect one end of a straight through RJ45 Ethernet cable into the WAN port *(Blue Arrow in diagram)* of the GXW42XX; connect the other end into the uplink port of an Ethernet switch/hub. **Device can be set to DHCP or a static Ip depending on your order.*

2. Connect the DC power adapter into the DC power jack on the back of the GXW42XX. Insert the main plug of the power adapter into a surge-protected power outlet.

3. Wait for the GXW42XX to boot up. The front LCD display will show the GXW42XX hardware information when the boot process is completed.

4. Once the GXW42XX is successfully connected to the network via WAN port, the Link LED indicator will be lit green, and an IP address will be shown on the LCD display

5. Connect 50 pin Amphenol connector from 66 Block to Amphenol Port on back of the GXW42XX (Yellow arrow).

6. You can alternatively also connect lines to the RJ11 ports on the front of the GXW42XX (Green arrow). (**This is not available on GXW4248 (48 port unit))*

911

Your NHC 911 Service is attached to the BTN at your location on your 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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