



Analog IP Gateway GXW40xx Quick Installation Guide

Part Number: 418-02007-10
Document Version Number: 1.0



GXW 4004/8



GXW 4024

Grandstream Analog IP Gateway GXW40xx Quick Installation Guide

WARNING: ⚠ Please DO NOT power cycle the GXW40xx during system boot up or firmware upgrade. You may corrupt firmware images and cause the unit to malfunction.

WARNING: ⚠ Use only the power adapter included in the GXW40xx package. Using an alternative non-qualified power adapter may possibly damage the unit.

Overview

The GXW40xx series has a compact and quiet design (no fans) and offers superb audio quality, rich feature functionality, strong security protection, and good manageability. It is auto-configurable, remotely manageable and scalable.

The GXW40xx features 4, 8 or 24 port FXS interface for analog telephones. It supports 2 SIP account profiles, caller ID for various countries/regions, T.38 fax, flexible dialing plans, security protection (SIPS/TLS/SRTP), comprehensive voice codecs including G.711 (a/u-law), G.723.1, G.726, G.729A/B/E and iLBC. In addition, GXW4004/4008 has dual 10M/100Mbps network ports with integrated router, PSTN life line in case of power failure, and an RS232 serial port for administration.

Equipment Packaging

Unpack and check all accessories

- one device unit
- one Ethernet cable
- one 12V universal power adapter



Application Diagram

There are three scenarios where the GXW40xx series can be effectively used to enable any business to leverage the benefits of VoIP and the Internet.

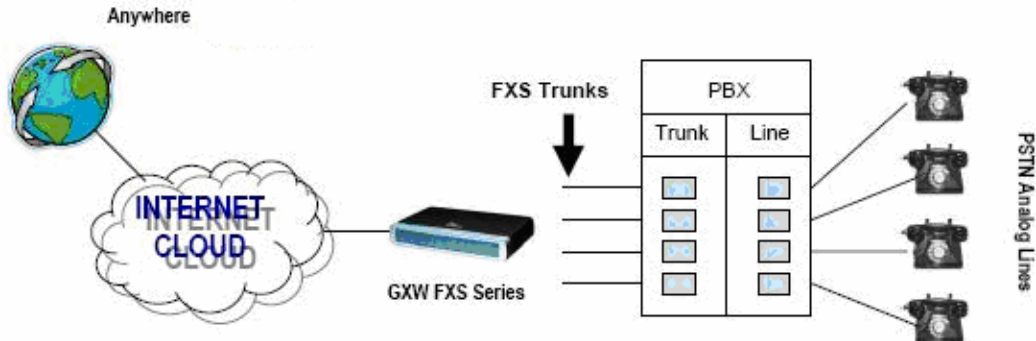
Grandstream Networks, Inc., 1297 Beacon St., 2nd Flr, Brookline, MA 02446 USA
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www.grandstream.com

Last updated on April 1, 2008

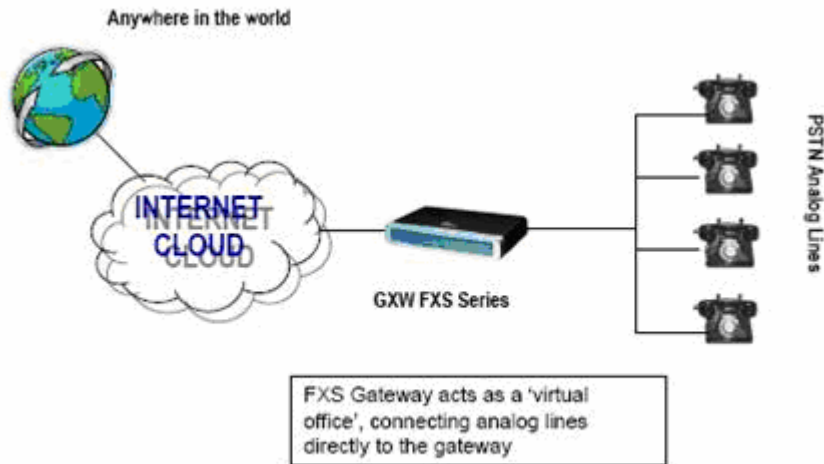
Scenario One:

**GXW40xx FXS Gateway Configuration
PBX Scenario, VoIP**



Scenario Two:

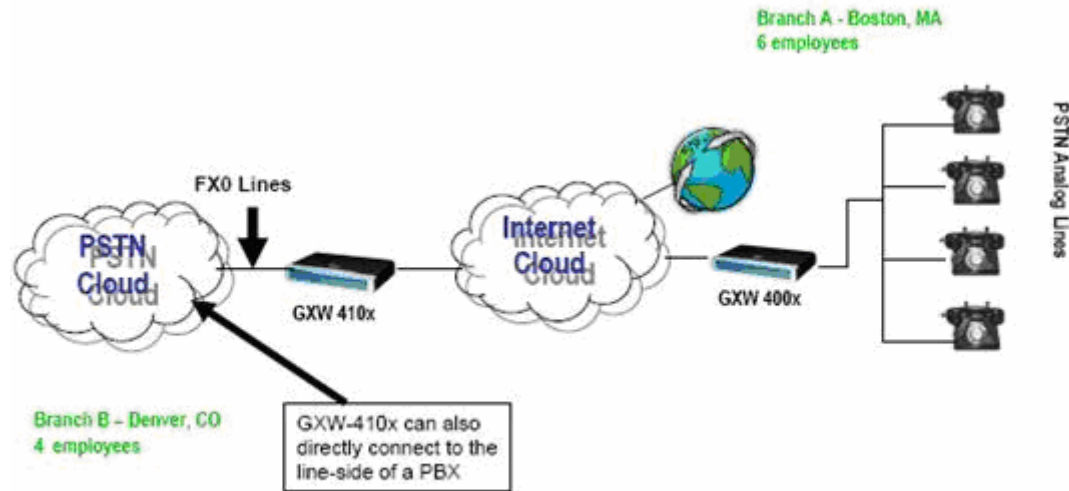
**GXW40xx FXS Gateway Configuration
No PBX Scenario, VoIP**



Scenario Three:

GXW40xx & GXW410x Scenario

Maintain toll-free calling across locations



Connect the GXW40xx

Please use the equipment included in the packaging. Using any other power source may damage the product.

1. Connect one or more standard touch-tone analog telephones (or fax machine) to FXS ports.
2. Connect a PSTN telephone line to LINE port (*optional, GXW4004/4008 only*).
3. Insert the Ethernet cable into the WAN (*GXW4004/4008*) or LAN (*GXW4024*) port and connect the other end of the Ethernet cable to an uplink port (a switch, router or a modem, etc.).
4. Connect a PC to the LAN port (*optional, GXW4004/4008 only*).
5. Insert the power adapter into the GXW40xx and connect it to an electrical outlet.
6. Using the GXW40xx embedded web server or IVR (Interactive Voice Prompt) menu, you can further configure the device using either a static IP or DHCP.

Configuring the GXW40xx using a Web Browser

1. From the analog phone, press *** to get into the IVR menu. Enter option 02 (*GXW4004/4008*) or 002 (*GXW4024*) to obtain the GXW40xx's IP address.
2. For *GXW4004/4008*, please enable the "WAN side HTTP/Telnet access" option by entering IVR option 12 and press 9. A reboot or power cycle of the device is required this change. You can also access the *GXW4004/4008*'s web configuration from a PC connected to the LAN port via 192.168.2.1.
3. Type the GXW40xx's IP address in your PC browser.
4. Log in using password "admin" to configure the unit.

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You will need the following information to configure the GXW40xx via the web browser:

1. IP address, subnet mask and gateway IP if using static IP.
2. SIP server and/or Outbound Proxy FQDN or IP address.
3. User subscriber information: User ID, Authentication IP, Password (provided by your VoIP service provider).
4. GXW40xx supports “Plug-n-Call” if your ITSP (Internet Telephone Service Provider) provides this automatic provisioning service. Ensure the gateway has an Internet connection (either DHCP or static IP in your Internet ready network), then power up the gateway.
5. Please contact your ITSP for additional settings that may be necessary to configure the device.

Important Settings

Most of the settings on the web configuration pages should be kept to default value. But there are some settings that need to be configured according to the local network environment.

A. NAT Settings

If GXW40xx is connected behind a firewall, an Outbound Proxy or a STUN server must be configured to solve the NAT issue. Here are four settings that can be useful in such a scenario:

1. STUN Server (under Advanced Settings page)
Enter a STUN Server IP or FQDN in this field.
2. Outbound Proxy (Under Profile pages)
Enter an Outbound Proxy server IP or FQDN.
3. Use Random Ports (under Advanced Settings page)

By default, this field is set to No. It may needs to be set to “Yes” depending on your network environment.

4. NAT Traversal (under the Profile pages)
Set to Yes.

B. DTMF Methods

Under Profile pages, there are three DTMF modes to choose from:

- DTMF in-audio
- DTMF via RTP (RFC2833)
- DTMF via SIP INFO

One or more DTMF methods can be selected at the same time.

C. Preferred VOCODER (Codec)

Under Profile pages, user can choose from the following different codecs:

PCMU (G711u), PCMA (G711a), G729A/B/E, G723, G726-16/24/32/40 and iLBC.

D. Firmware Upgrade

Under Advanced Settings page, enter “Firmware Server Path” (IP address or FQDN) under “Firmware Upgrade and Provisioning” field. Select upgrade protocol TFTP, HTTP or HTTPS accordingly. By default, “Always Check for New Firmware at Boot up” is selected.

E. Factory Reset

Below are the steps to reset the unit to factory default via the reset button.

1. Unplug the Ethernet cable.
2. Locate a needle sized hole on the back panel of the gateway unit next to the Power connection.
3. Enter a pin in this hole, and press for about 10 seconds till LED changes and a minor click sound.
4. Take out the pin. All configuration settings are restored to factory settings.

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About Grandstream Networks

Grandstream Networks, Inc. is an award-winning designer and manufacturer of next generation IP voice & video products for broadband networks. Grandstream's products deliver superb sound and picture quality, rich telephony features, full compliance with industry standards, and broad interoperability with most service providers and 3rd party SIP based VoIP products. Grandstream is consistently recognized in the VoIP industry for their innovation, affordability and superior value in their products. Grandstream Networks is a private company headquartered in Brookline, MA with offices in Los Angeles, Dallas and China. For more information, please visit www.grandstream.com.



Declaration of Conformity for GXW4004/8: (page 8-9)

Declaration of Conformity for GXW4024: (page 10-11)

**Konformitätserklärung gemäß dem Gesetz über Funkanlagen und
Telekommunikationsendeinrichtungen (FTEG) und der Richtlinie 1999/5/EG (R&TTE)**

Declaration of Conformity in accordance with the Radio and Telecommunications Terminal
Equipment Act (FTEG) and Directive 1999/5/EC (R&TTE Directive)

Hersteller /Verantwortliche Person / The manufacturer / responsible person

Manufacturer: **Grandstream Networks, Inc.**
Suite 201-205, Bldg #1 (LangFeng Bldg), Industrial Zone
#2 KeFa Road NanShan High Tech Industrial Park, ShenZhen, China

Responsible Laboratory: **Bay Area Compliance Lab Corp. ShenZhen**
Suite C, 41-D Electronics Science & Technology Building,
No. 2070 Shennanzhong Rd ShenZhen,
Guandong 518031, P.R. China
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Fax: (755) 83273756

erklärt, dass das Produkt/ declares that the product:

Series: VoIP Gateway
Model: GXW 4004/8
Attestation Number: RSZ06110801-1, RSZ06110801-2
Date of Issue: January 11, 2007

Type (ggf. Anlagenkonfiguration mit Angabe der Module):
Type (if applicable, configuration including the modules)

Telekommunikations(Tk-)endeinrichtung
Telecommunications terminal equipment

Funkanlage
Radio equipment

Telecommunication via Voice over IP (VoIP)

Verwendungszweck
Intended purpose

.....
ätekategorie
equipment class

bei bestimmungsgemäßer Verwendung den grundlegenden Anforderungen des § 3 und den
übrigen einschlägigen Bestimmungen des FTEG (Artikel 3 der R&TTE) entspricht.
complies with the essential requirements of §3 and the other relevant provisions of the FTEG
(Article 3 of the R&TTE Directive), when used for its intended purpose.

Gesundheit und Sicherheit gemäß § 3 (1) 1. (Artikel 3 (1) a))
Health and safety requirements pursuant to § 3 (1) 1. (Article 3(1) a))

angewendete harmonisierte Normen ... Einhaltung der grundlegenden Anforderungen auf

Harmonised standards applied...

andere Art und Weise (hierzu verwendete Standards/Spezifikationen) ...
Other means of proving conformity with the essential requirements (standards/specifications used)...

Schutzanforderungen in Bezug auf die elektromagn. Verträglichkeit § 3 (1) 2, Artikel 3 (1) b))
Protection requirements concerning electromagnetic compatibility § 3(1)(2), (Article 3(1)(b))

angewendete harmonisierte Normen
Harmonised standards applied...

inhaltung der grundlegenden Anforderungen auf andere Art und Weise (hierzu verwendete Standards/Spezifikationen)...
Other means of proving conformity with the essential requirements (standards/specifications used)...

EN 55022: 1998+A1:2001+A2:2003 Class B
EN 55024: 1998+A1:2001+A2:2003

Maßnahmen zur effizienten Nutzung des Funkfrequenzspektrums
Measures for the efficient use of the radio frequency spectrum

Non-applicable

Luftschnittstelle bei § 3 Funkanlagen gemäß (2) (Artikel 3(2))
Air interface of the radio systems pursuant to § 3(2) (Article 3(2))

angewendete harmonisierte Normen
Harmonised standards applied

Normen Einhaltung der grundlegenden Anforderungen auf andere Art und Weise (hierzu verwendete Standards/Schnittstellenbeschreibungen)...
Other means of proving conformity with the essential requirements (standards/interface specifications used)...

Non-applicable

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Ort, Datum
Place & date of issue

Name und Unterschrift
Name and signature



Brookline, MA, USA August 20, 2007

Bruce G. MacAloney, Vice President

Harmonised standards applied...	andere Art und Weise (hierzu verwendete Standards/Spezifikationen) ... Other means of proving conformity with the essential requirements (standards/specifications used)...
Schutzanforderungen in Bezug auf die elektromagn. Verträglichkeit § 3 (1) 2, Artikel 3 (1) b)) Protection requirements concerning electromagnetic compatibility § 3(1)(2), (Article 3(1)(b))	
angewendete harmonisierte Normen Harmonised standards applied...	Einhaltung der grundlegenden Anforderungen auf andere Art und Weise (hierzu verwendete Standards/Spezifikationen)... Other means of proving conformity with the essential requirements (standards/specifications used)...
EN 55022: 2006 Class B	
EN 55024: 1998+A1:2001+A2:2003	
EN 61000-3-2 : 2006	
EN 61000-3-3:1995+A1:2001+A2:2005	
Maßnahmen zur effizienten Nutzung des Funkfrequenzspektrums Measures for the efficient use of the radio frequency spectrum	
Non-applicable	
Luftschnittstelle bei § 3 Funkanlagen gemäß (2) (Artikel 3(2)) Air interface of the radio systems pursuant to § 3(2) (Article 3(2))	
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Non-applicable	
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Ort, Datum Place & date of issue	Name und Unterschrift Name and signature
	
Brookline, MA, USA February 15, 2008	Bruce G. MacAloney, Vice President