



## Analog IP Gateway GXW40xx Quick Installation Guide



**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

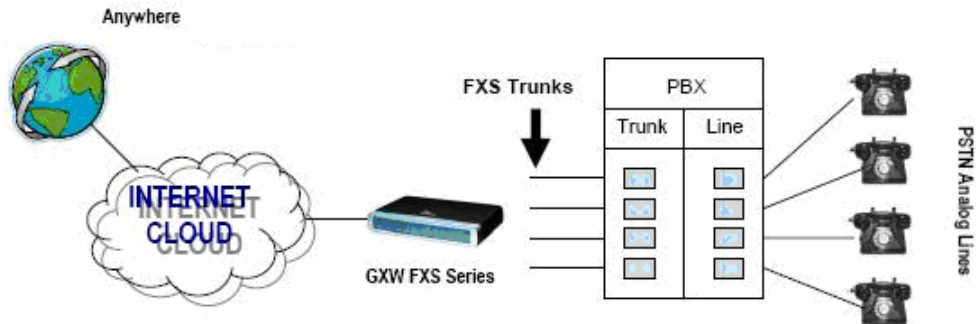


### Application Diagram

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.

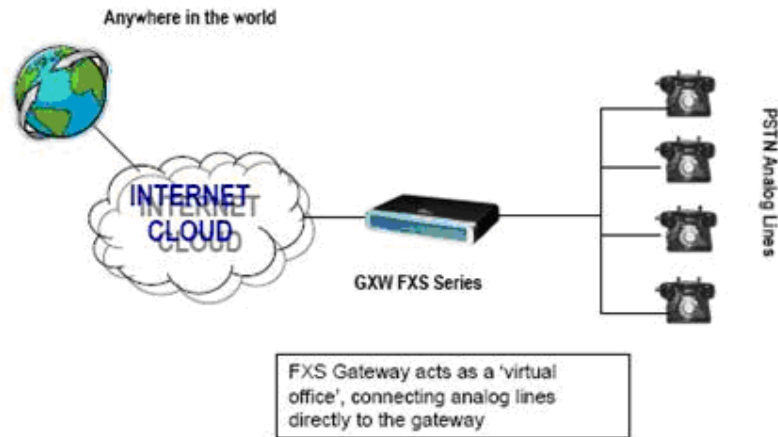
**Scenario One:**

**GXW-40xx FXS Gateway Configuration  
PBX Scenario, VoIP**



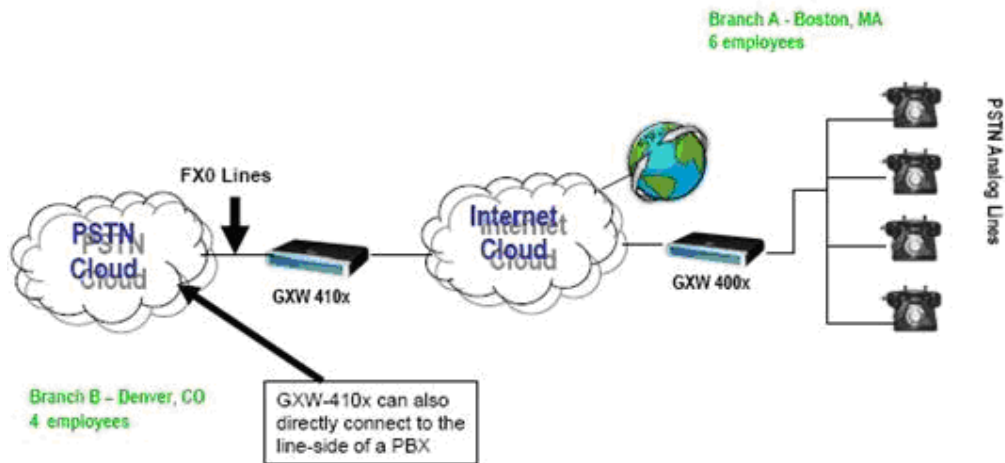
**Scenario Two:**

**GXW-40xx FXS Gateway Configuration  
No PBX Scenario, VoIP**



**Scenario Three:**

**GXW-40xx & GXW-410x 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.

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 3<sup>rd</sup> 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](http://www.grandstream.com).



### Declaration of Conformity for GXW4004/8:

 <p><b>Konformitätserklärung gemäß dem Gesetz über Funkanlagen und Telekommunikationsendeinrichtungen (FTEG) und der Richtlinie 1999/5/EG (R&amp;TTE)</b> Declaration of Conformity in accordance with the Radio and Telecommunications Terminal Equipment Act (FTEG) and Directive 1999/5/EC (R&amp;TTE Directive)</p>	
<p>Hersteller / Verantwortliche Person / The manufacturer / responsible person</p> <p>Manufacturer: <b>Grandstream Networks, Inc.</b> Suite 201-205, Bldg #1 (LangFeng Bldg), Industrial Zone #2 KeFa Road NanShan High Tech Industrial Park, ShenZhen, China</p>	
<p>Responsible Laboratory: <b>Bay Area Compliance Lab Corp, ShenZhen</b> Suite C, 41-D Electronics Science &amp; Technology Building, No. 2070 Shennanzhong Rd ShenZhen, Guandong 518031, P.R. China Tel: (755) 83296449 Fax: (755) 83273756</p>	
<p>erklärt, dass das Produkt/ declares that the product:</p> <p>Series: <b>VoIP Gateway</b> Modell: <b>GXW 4004/8</b> Attestation Number: <b>RSZ06110801-1, RSZ06110801-2</b> Date of Issue: <b>January 11, 2007</b> Type (ggf. Anlagenkonfiguration mit Angabe der Module): Type (if applicable, configuration including the modules)</p>	
<p><input checked="" type="checkbox"/> Telekommunikations(Tk-)endeinrichtung Telecommunications terminal equipment</p> <p><input type="checkbox"/> Funkanlage Radio equipment</p>	
<p><b>Telecommunication via Voice over IP (VoIP)</b></p> <p>Verwendungszweck ..... Intended purpose ..... Geräteklasse Equipment class</p>	
<p>bei bestimmungsgemäßer Verwendung den grundlegenden Anforderungen des § 3 und den übrigen einschlägigen Bestimmungen des FTEG (Artikel 3 der R&amp;TTE) entspricht, complies with the essential requirements of §3 and the other relevant provisions of the FTEG (Article 3 of the R&amp;TTE Directive), when used for its intended purpose.</p>	
<p>Gesundheit und Sicherheit gemäß § 3 (1) 1. (Artikel 3 (1) a)) Health and safety requirements pursuant to § 3 (1) 1. (Article 3(1) a))</p>	
<p>angewendete harmonisierte Normen ... Einhaltung der grundlegenden Anforderungen auf Harmonised standards applied... andere Art und Weise (hierzu verwendete</p>	

 <p>Standards/Spezifikationen) ... Other means of proving conformity with the essential requirements (standards/specifications used)...</p>	
<p>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))</p>	
<p>angewendete harmonisierte Normen Harmonised standards applied...</p> <p>EN 55022: 1998+A1:2001+A2:2003 EN 55024: 1998+A1:2001+A2:2003</p>	<p>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)...</p>
<p>Maßnahmen zur effizienten Nutzung des Funkfrequenzspektrums Measures for the efficient use of the radio frequency spectrum</p>	
<p><b>Non-applicable</b></p>	
<p>Luftschmittelle bei § 3 Funkanlagen gemäß (2) (Artikel 3(2)) Air interface of the radio systems pursuant to § 3(2) (Article 3(2))</p>	
<p>angewendete harmonisierte Normen Harmonised standards applied</p>	<p>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)...</p>
<p><b>Non-applicable</b></p>	
<p>Anschrift/Address ..... Grandstream Networks, Inc. 1297 Beacon St 2<sup>nd</sup> Flr Brookline, MA 02446 USA</p>	
<p>Ort, Datum ..... Place &amp; date of issue</p>	
<p>Name und Unterschrift Name and signature  <i>Bruce G. MacAloney</i></p>	
<p>Brookline, MA, USA August 20, 2007</p>	
<p>Bruce G. MacAloney, Vice President</p>	

### Declaration of Conformity for GXW4024:

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**Konformitätserklärung gemäß dem Gesetz über Funkanlagen und Telekommunikations-einrichtungen (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

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Responsible Laboratory: Bay Area Compliance Lab Corp. ShenZhen  
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erklärt, dass das Produkt/ declares that the product:

Series: VoIP Gateway  
Model: GXW 4024  
Attestation Number: RSZ08012901-1, RSZ08012901-2  
Date of Issue: February 15, 2008  
Type (ggf. Anlagenkonfiguration mit Angabe der Module):  
Type (if applicable, configuration including the modules)

Telekommunikations(Tx-)ausrüstung  
Telecommunications terminal equipment

Funkanlage  
Radio equipment

Telecommunication via Voice over IP (VoIP)

Verwendungszweck  
Intended purpose

Geräteklasse  
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 ...  
Harmonised standards applied...

Einhaltung der grundlegenden Anforderungen auf andere Art und Weise (hierzu verwendete Standards/Spezifikationen) ...  
Standards/Specifications used) ...



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))

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

*Bruce G. MacAlovey*

Brookline, MA, USA February 15, 2008 Bruce G. MacAlovey, Vice President