Analog IP Gateway GXW40xx Quick Installation Guide

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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:

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.
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.
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.
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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)

[X] Telekommunikations(Tk-)-endeinrichtung [ ] Funkanlage
Telecommunications terminal equipment Radio equipment

Telecommunication via Voice over IP (VoIP) ..................................................
Verwendungszweck äteklasse
Intended purpose ipment 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...
inhalte der grundlegenden Anforderungen auf andere Art und Weise (hierzu verwendete Standards/Spezifikationen)...


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

Non-applicable

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Ort, Datum Name und Unterschrift
Place & date of issue Name and signature

Brookline, MA, USA August 20, 2007 Bruce G. MacAloney, Vice President
Konformitätserklärung gemäß dem Gesetz über Funkanlagen und Telekommunikationsendeinrichtungen (FTEG) und der Richtlinie 1999/5/EG (R&TTE)

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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

Telecommunication via Voice over IP (VoIP) ............................................
Verwendungszweck Gerätekasse
Intended purpose 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.

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angewendete harmonisierte Normen ... Einhaltung der grundlegenden Anforderungen auf
Harmonised standards applied...  andere Art und Weise (hierzu verwendete Standards/Specifikationen)...
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...

EN 55022: 2006 Class B
EN 61000-3-2 : 2006

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

EN 55022: 2006 Class B
EN 61000-3-2 : 2006

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Ort, Datum
Place & date of issue
Brookline, MA, USA February 15, 2008

Name und Unterschrift
Name and signature
Bruce G. MacAloney, Vice President