



Configuring the Grandstream GXP2130 for SIP Registration

This guide shows you the steps to configure a SIP phone to register with Twilio. If you have any feedback on the following guide please email us at:

sip.interconnectionguides@twilio.com

General Notes

- Please see separate instructions on creating Programmable Voice - SIP domains. This guide assumes these steps have already been done.
- User-credentials are required to register phones. IP ACLs alone are not sufficient. Your AuthorizationName should match the username on the SIP endpoint and both of those should match a user credential that you entered on Twilio's console.
- A SIP URI is: sip:username@SIPDomain or sip:phonenumber@SIPDomain
- When this document refers to **TwilioSIPDomain** it represents: **yourdomain.sip.region.twilio.com** where you have selected **yourdomain** on Twilio's console (globally unique) and **region** which is initially US1 (North-Virginia) only and other regions later.

Grandstream GXP2130

1. Connect the phone to a LAN port. The phone should obtain a valid IP Address (DHCP enabled by default). You can find the IP Address by navigating the phone menu and note it down.

Menu -> Status -> Network Status -> IPv4 Address

2. Enter the IP address in a browser and log into the web console of the Grandstream VoIP phone. The username and passwords are:

Username: admin

Password: admin

3. Navigate to the Grandstream Accounts webpage. There are three accounts that you can configure on a Grandstream phone.

4. On the screen below enter the following details:
 - a. **Account Name:** Your friendly name that gets displayed on the phone's screen.
 - b. **SIP Server:** The TwilioSIPDomain that you wish to register your phone with. Note: regionalized domain by including *us1*.
 - c. **Outbound Proxy:** Enter the TwilioSIPDomain
 - d. **SIP User ID:** This is the **username** or equivalently the username component of your SIP URI. Same as Authenticate ID.
 - e. **Authenticate ID:** This is the **username** of the credentialList that you configured for your Twilio SIP domain. Same as SIP User ID.
 - f. **Authenticate Password:** This is the **password** corresponding to the username in the credentialList that you configured for your TwilioSIPDomain.
 - g. **Save and Apply**

The screenshot shows the Grandstream GXP2130 Admin Webpage. The top navigation bar includes 'Status', 'Accounts', 'Settings', 'Network', 'Maintenance', and 'Phonebook'. The 'Accounts' section is active, showing 'Account 1' selected. The 'General Settings' tab is open, displaying the following configuration fields:

- Account Active:** Radio buttons for 'No' and 'Yes' (selected).
- Account Name:** Text input field containing 'My Registration'.
- SIP Server:** Text input field containing 'reg.sip.us1.twilio.com'.
- Secondary SIP Server:** Empty text input field.
- Outbound Proxy:** Text input field containing 'reg.sip.us1.twilio.com'.
- BLF Server:** Empty text input field.
- SIP User ID:** Text input field containing 'twiliouser'.
- Authenticate ID:** Text input field containing 'twiliouser'.
- Authenticate Password:** Password input field with masked characters '.....'.
- Name:** Empty text input field.
- Voice Mail UserID:** Empty text input field.
- Show Account Name Only:** Radio buttons for 'No' and 'Yes' (selected).

At the bottom of the settings form are three buttons: 'Save', 'Save and Apply', and 'Reset'.

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5. You can configure the SIP settings by Navigating to

Account# -> SIP Settings -> Basic/Advanced...

The page looks like:

The screenshot displays the Grandstream GXP2130 web interface. At the top, there is a header with the Grandstream logo, navigation tabs (Status, Accounts, Settings, Network, Maintenance, Phonebook), and user options (Admin Logout, Reboot, English). The main content area is titled "Basic Settings" and is divided into a left sidebar and a main configuration area. The sidebar lists "Accounts" with "Account 1" selected, and sub-menus for "General Settings", "Network Settings", "SIP Settings", "Basic Settings", "Advanced Features", "Session Timer", "Security Settings", "Audio Settings", and "Call Settings". The main configuration area contains the following settings:

- TEL URI**: Disabled User-phone Enabled
- SIP Registration**: No Yes
- Unregister on Reboot**: No All Instance
- Register Expiration**:
- Reregister before Expiration**:
- Local SIP Port**:
- SIP Registration Failure Retry Wait Time**:
- SIP T1 Timeout**:
- SIP T2 Timeout**:
- SIP Transport**: UDP TCP TLS/TCP
- SIP URI Scheme When Using TLS**: sip sips
- Use Actual Ephemeral Port in Contact with TCP/TLS**: No Yes
- Remove OBP from Route**: No Yes
- Support SIP Instance ID**: No Yes
- SUBSCRIBE for MWI**: No Yes
- SUBSCRIBE for Registration**: No Yes
- Enable 100rel**: No Yes
- Caller ID Display**: Auto Disabled From Header
- Use Privacy Header**: Default No Yes
- Use P-Preferred-Identity Header**: Default No Yes
- Add Auth Header On Initial REGISTER**: No Yes

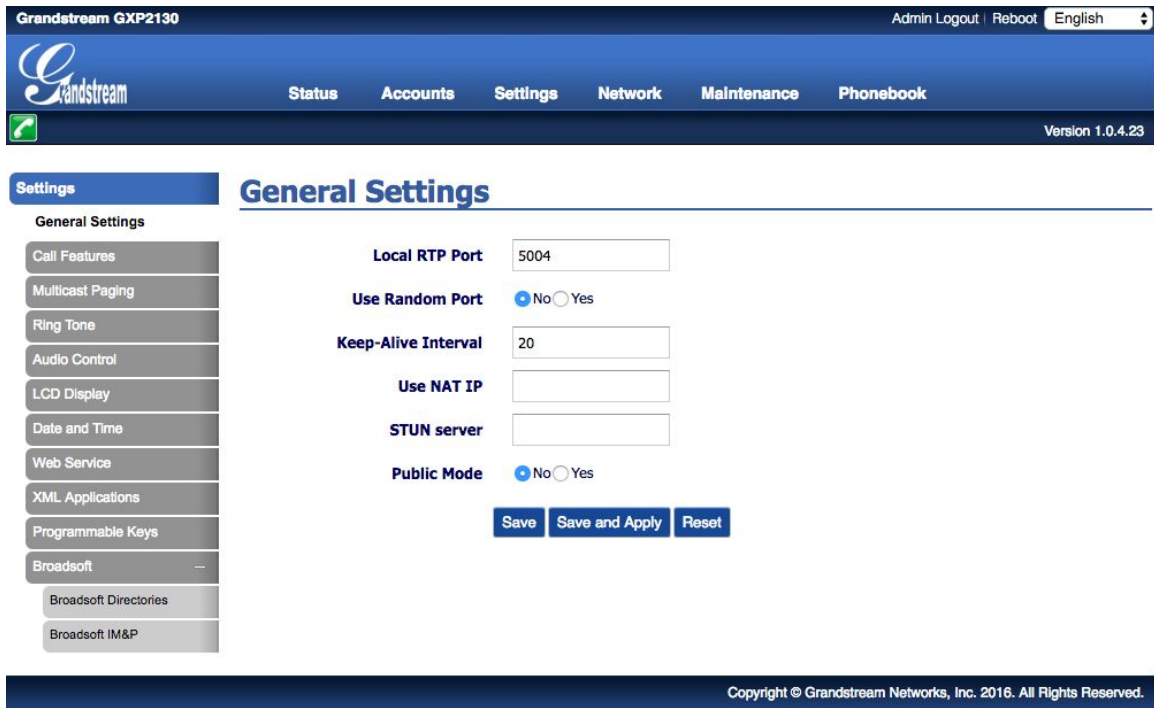
At the bottom of the configuration area, there are three buttons: "Save", "Save and Apply", and "Reset". The footer of the page contains the text: "Copyright © Grandstream Networks, Inc. 2016. All Rights Reserved."

- For increased security SIP Transport can be changed to TLS/TCP. A corresponding change on Twilio is needed.

- Registration Expires can be changed to a large value such as 3600s / 60min
6. If you wish to change the session refresh or keep alive interval then navigate to:

Settings -> General Settings

The page looks like:



The screenshot shows the Grandstream GXP2130 web interface. At the top, there is a header with the Grandstream logo, navigation tabs for Status, Accounts, Settings, Network, Maintenance, and Phonebook, and a language dropdown set to English. Below the header, the 'Settings' section is active, and the 'General Settings' page is displayed. The page contains several configuration fields: 'Local RTP Port' is set to 5004; 'Use Random Port' is set to No; 'Keep-Alive Interval' is set to 20; 'Use NAT IP' is an empty field; 'STUN server' is an empty field; and 'Public Mode' is set to No. At the bottom of the settings area, there are three buttons: 'Save', 'Save and Apply', and 'Reset'. A footer at the bottom of the page reads 'Copyright © Grandstream Networks, Inc. 2016. All Rights Reserved.'

7. That's it! Congrats! You should be good to go. To verify that the phone is registered successfully go to the home page and you should see the account status showing GREEN for successful registration. If unsuccessful, then you will see RED.



Status

Account Status

Account Status

Network Status

System Info

Account	SIP User ID	SIP Server	SIP Registration
Account 1	1000	1000@registrar.sip.us1.twilio.com	YES
Account 2	1000	1000@registrar.sip.us1.twilio.com	YES
Account 3	1000	1000@registrar.sip.us1.twilio.com	YES