

Grandstream Networks, Inc.

3CX PhoneSystem Configuration Guide

GXP21xx/GXP14xx IP Phone



GXP-1450



GXP-2100



GXP-2110



GXP-2120

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INTRODUCTION

This guide introduces two methods to set up a Grandstream phone for use with 3CX Phone System. It is applicable to the following Grandstream phone models: GXP1400, GXP1405, GXP1450, GXP2100, GXP2110 and GXP2120. Firmware version 1.0.1.83 has been tested against 3CX PhoneSystem v10 (beta). Different firmware revisions may have different web interface formats and functionalities.

MANUAL CONFIGURATION

CONFIGURE YOUR SIP ACCOUNT VIA THE WEB INTERFACE OF THE PHONE

1. Ensure that you have created the extension that you wish to use with the phone in 3CX Phone System. Take note of the ID and the password fields that you have entered for the extension.
2. Connect the Grandstream GXP-1450 or GXP21xx phone to the network and power supply. The phone will boot up, and providing you have DHCP installed on your network, it will obtain an IP and display it at the bottom of the phone's LCD screen.
3. Use your browser to access the web interface of the phone by entering <http://<ip-address>> where <ip-address> is the IP address shown on the phone.
4. Enter the password of the phone and click login to access the phone's configuration. The default password is "admin".
5. Click on Accounts → ACCOUNT 1 tab at the top of the page.
6. Now you can configure the "ACCOUNT 1" settings. First of all make sure that "Account Active" is set to "Yes". Enter an account name for the phone in the "Account Name" box. This setting is not used by 3CX Phone System. It will be displayed when making calls to other phones directly.

ACCOUNT 1

Account Active:	<input type="radio"/> No <input checked="" type="radio"/> Yes
Account Name:	<input type="text" value="MyCompany"/> (e.g., MyCompany)
SIP Server:	<input type="text" value="192.168.1.10"/> (e.g., sip.mycompany.com, or IP address)
Secondary SIP Server:	<input type="text"/> (e.g., sip.mycompany.com, or IP address)
Outbound Proxy:	<input type="text"/> (e.g., proxy.myprovider.com, or IP address)
SIP User ID:	<input type="text" value="123"/> the user part of an SIP address
Authenticate ID:	<input type="text" value="123"/> can be same or different from SIP UserID
Authenticate Password:	<input type="text" value="..."/> (not displayed for security protection)
Name:	<input type="text" value="John Doe"/> (optional, e.g., John Doe)

7. In the "SIP Server" field, enter the IP address or DNS name of the 3CX Phone System server.
8. Repeat the same setting for the Outbound Proxy option.
9. Enter the extension number you want to associate with this account in the "SIP User ID" field.
10. Enter an "Authenticate ID" and "Authenticate Password" in the corresponding fields.

Note: These fields must match the ID & password configured in the "ID" and "Password" fields in the Authentication section of the "Add Extension" page in the 3CX Management Console.

11. Scroll to the bottom of the page and press "Update" to save these settings and the phone should register with 3CX Phone System.

12. Now switch to the 3CX Phone System Management console, and click on Phone System → Extension Status (This is the default page). The extension should be listed, and the status should show “Registered (idle)”.

CONFIGURE BLF KEYS (FOR GXP-2100, GXP-2110 AND GXP-2120 ONLY)

BLF keys indicate the status of the monitored extensions on the phone. The three possible states are idle (green), busy (red), ringing (blinking red). To setup the BLF keys please follow the steps below:

1. Log into the phone’s web configuration UI.
2. Click on Settings → BASIC SETTINGS tab at the top of the page.
3. Scroll down the page to “Multi Purpose Keys” section.

Multi-Purpose Keys:

Multi Purpose Key 1

Key Mode: Busy Lamp Field (BLF) ▼

Account: Account 1 ▼

Name: Hicham

UserID: 120

Multi Purpose Key 2

Key Mode: Busy Lamp Field (BLF) ▼

Account: Account 1 ▼

Name: Mohamed

UserID: 121

Multi Purpose Key 3

Key Mode: Busy Lamp Field (BLF) ▼

Account: Account 1 ▼

Name: Abdel

UserID: 122

Figure 2: Multi Purpose Keys Configuration on the GXP phone

Under “Multi Purpose Key X” sub-section : (where X is in the Multi Purpose Key number)

- a. In “Key Mode” field, select “Busy Lamp Field (BLF)” from the list.
 - b. In “Account” field, select the appropriate account (Account 1 in our example).
 - c. In “Name” field, enter a name for the extension to monitor.
 - d. In “UserID” field, enter the extension SIP user ID to monitor.
4. Scroll to the bottom of the page and click “Update” to save these settings and the configured BLF keys should light up on the phone.

Note: *GXP-2100 and GXP-2120 have 7 programmable BLF extension keys, whereas GXP-2110 has 18 programmable BLF extension keys.*

PNP (PLUG AND PLAY)

Another method to set up a phone for use with 3CX Phone System is to use the built-in PnP auto-provisioning functionality inside 3CX PhoneSystem. This will allow the phone to configure itself by retrieving a 3cx-generated phone configuration file with zero configuration on the phone.

Please follow these steps to provision your phone using PnP.

1. Power on your Grandstream phone and connect it to the same LAN as 3CX PhoneSystem.
2. Log into your 3CX server by typing `http://<IP_adress>:5000` (example: <http://192.168.1.250:5000>) or open 3CX Management Console directly.
3. Click on “Phones” on the left panel.

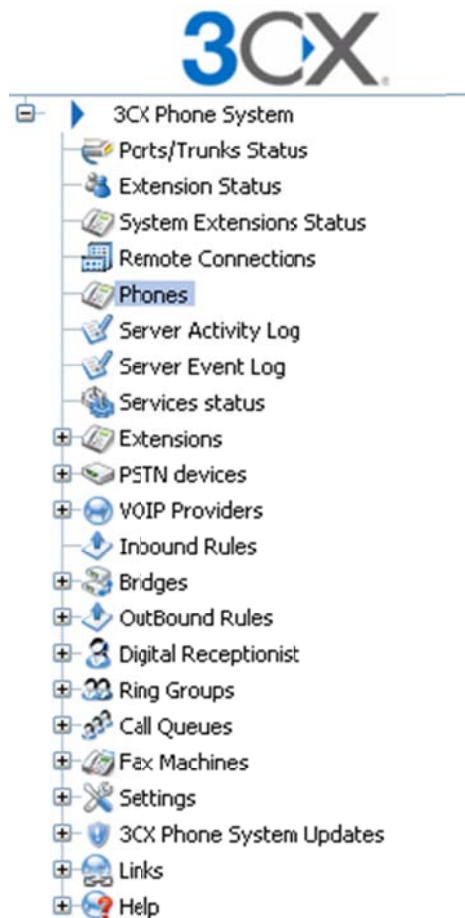


Figure 3: 3CX PhoneSystem left panel

4. Your GXP21xx information will be displayed including its MAC address.

Phones							
Phone Model	Name	User ID	User Password	PIN	IP of Phone	MAC Address	Firmware Version
Grandstream GXP2100	1.0.1.83 new	new	new	new	192.168.50.156	000B822A7AA5	1.0.1.83

Figure 4: Phones output on 3CX PhoneSystem

5. Right-click on your GXP phone, as shown in the following screenshot



Figure 5: Extension assignment on 3CX PhoneSystem

6. You can add a new extension to be used on this phone or “Assign to existing extension”. If you choose “Assign to existing extension”, a list of available extensions will appear, then you need to select an extension and click OK.

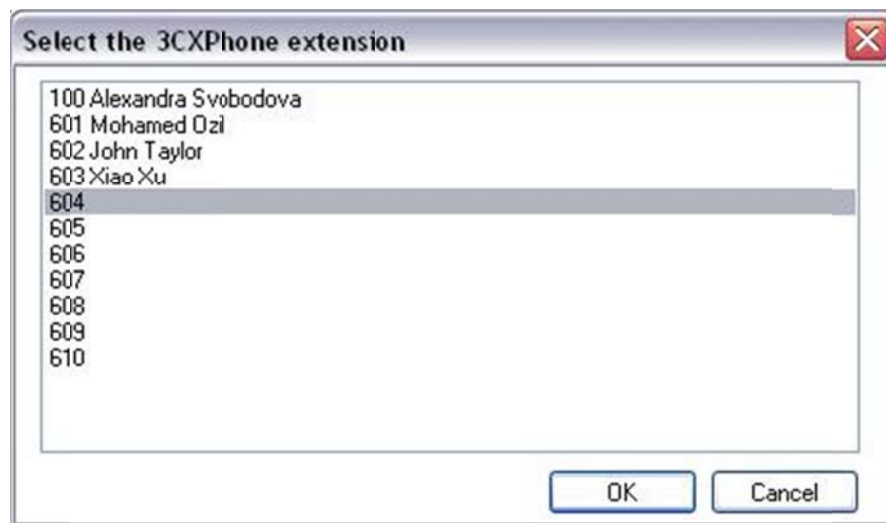
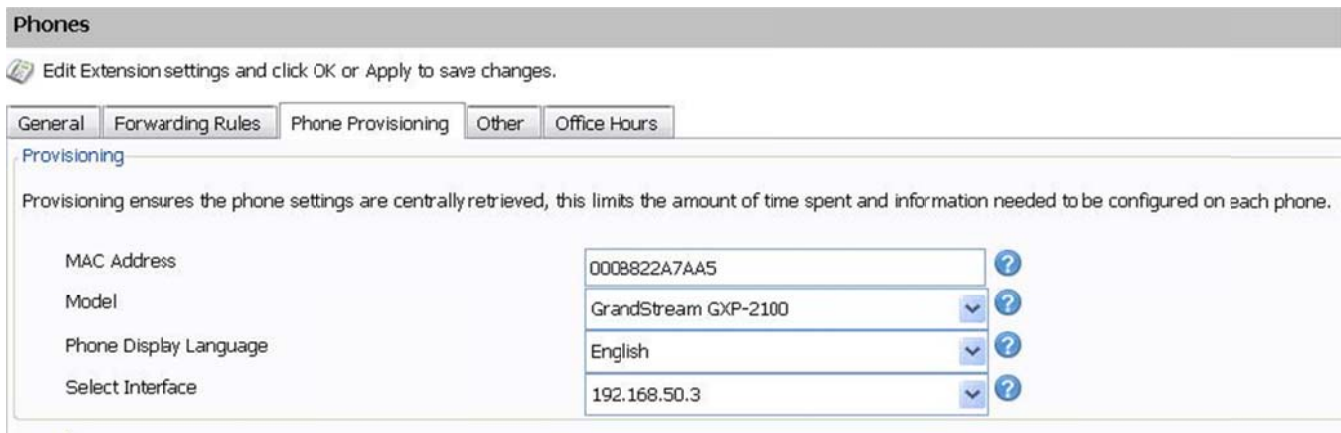


Figure 6: Available extensions

7. General extension information will be displayed, click on "Phone Provisioning" tab.



The screenshot shows the "Phones" configuration page in the 3CX PhoneSystem. The "Phone Provisioning" tab is selected. The page includes a header "Provisioning" and a sub-header "Provisioning ensures the phone settings are centrally retrieved, this limits the amount of time spent and information needed to be configured on each phone." Below this, there are four configuration fields:

MAC Address	000822A7AA5	?
Model	GrandStream GXP-2100	?
Phone Display Language	English	?
Select Interface	192.168.50.3	?

Figure 7: Phone Provisioning tab on 3CX PhoneSystem

8. In the provisioning tab, select your phone's model (in this case GXP2100). Your phone's MAC address will be already displayed.
9. To configure BLF keys (optionally), under "BLF" tab :

BLF keys indicate the status of the monitored extensions on the phone. The three possible states are idle (green), busy (red), ringing (blinking red).

- a. Select "BLF" in "Type" list
- b. Select the extension to be monitored in "Action" list
- c. Redo steps (a) and (b) for each BLF needed

Note: *GXP-2100 and GXP-2120 have 7 programmable BLF extension keys, whereas GXP-2110 has 18 programmable BLF extension keys.*

10. Click on "Apply" then "OK".
11. Your phone will reboot automatically.
12. Congratulations! Your phone is now provisioned successfully.