OpenScape Office V3

Tutorial

SIP Endpoint Configuration – Grandstream-Phones

Version 1.0

1 Grandstream phones

1.1 Grandstream GXP280

For information see the Grandstream homepage:
http://www.grandstream.com/products/gxp_series/gxp280/gxp280.html
Used Endpoint:

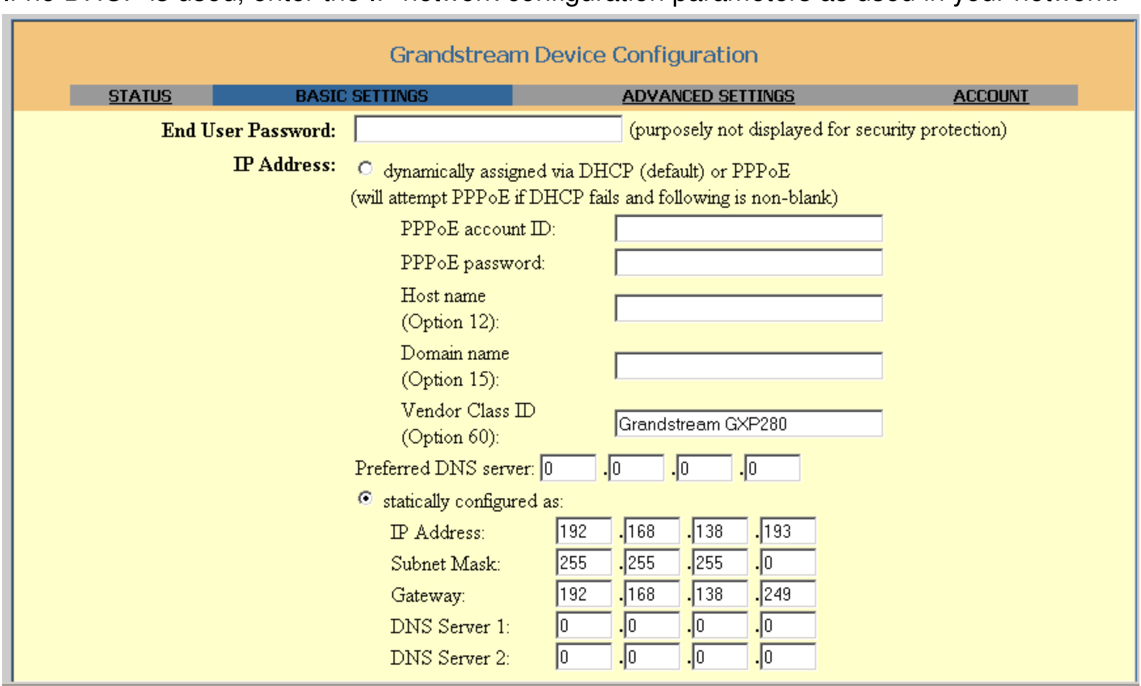
Produkt-Modell: GXP280 (HW0.3B)
Software Version: Programm-- 1.2.3.5 Bootloader-- 1.1.6.8

1.1.1 Basic Configuration

Default Administrator password: “admin”

Basic Settings

If no DHCP is used, enter the IP network configuration parameters as used in your network:



To get the correct time display set

- Daylight Saving Time
- Time Display Format
- Date Display Format
- Display Clock instead of Date

according to your needs:

Time Zone:	GMT+1:00 (Paris, Amsterdam, Berlin, Rome, Vienna, Madrid, Warsaw, Brussels) Allow DHCP Option 2 to override Time Zone setting: ◉ No ○ Yes
Daylight Savings Time:	○ No ◉ Yes
	Optional Rule: 3,2,7,2,0;11,1,7,2,0;60
Time Display Format:	○ 12 HOUR ◉ 24 HOUR
Date Display Format:	○ Year-Month-Day ○ Month-Day-Year ◉ Day-Month-Year
Display Clock instead of Date:	○ No ◉ Yes

Advanced settings:

Enter the IP-Address of your OpenScape Office as NTP server here:

NTP Server:	192.168.138.72 (URI or IP address) Allow DHCP Option 42 to override NTP server: ◉ No ○ Yes

Advanced settings:

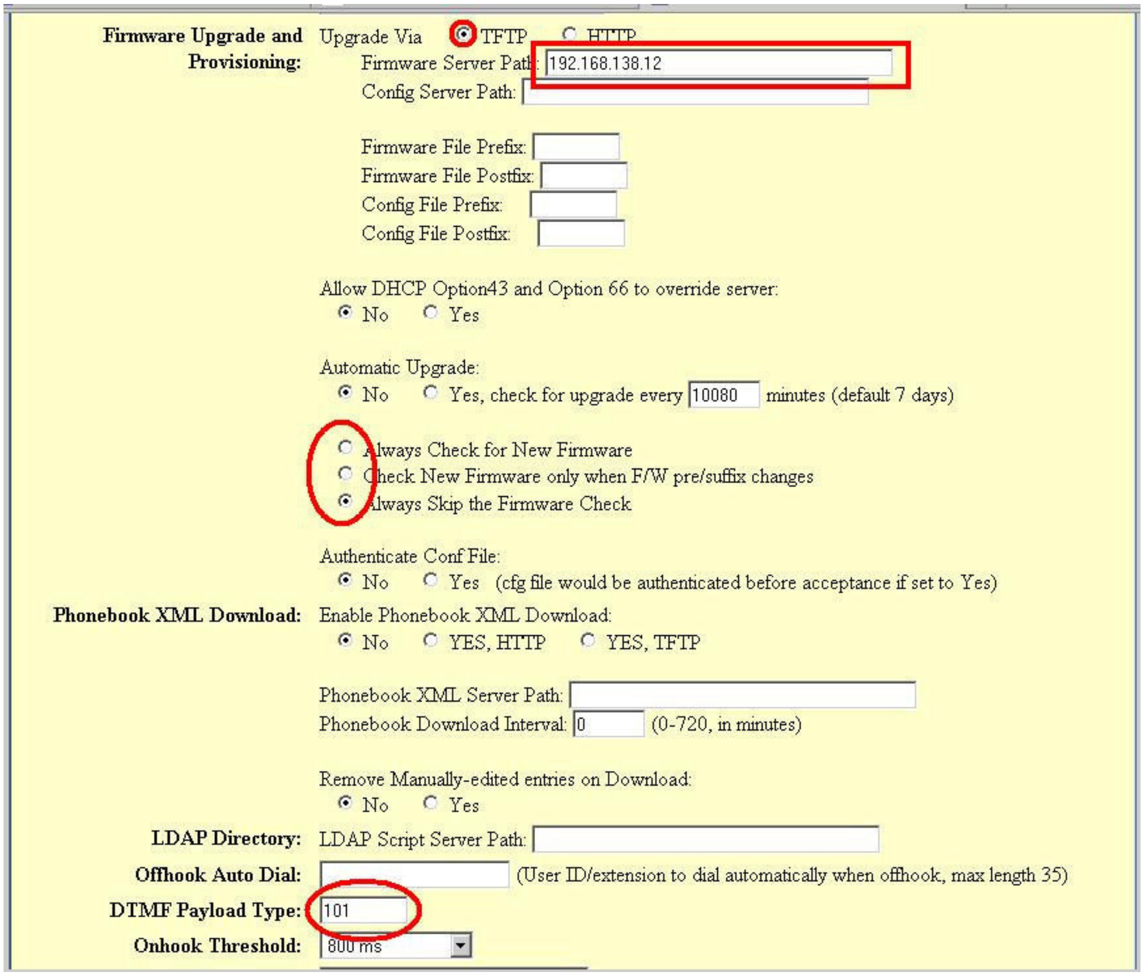
The following settings should be left in default

Grandstream Device Configuration

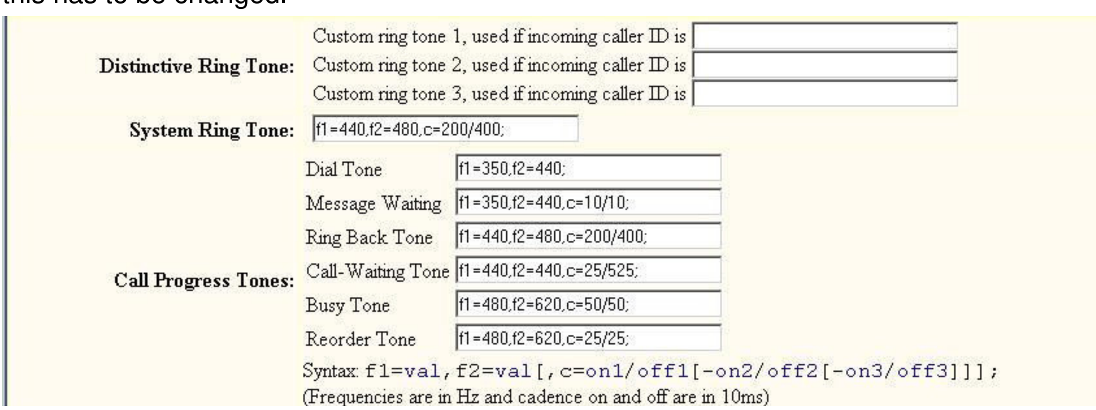
STATUS | BASIC SETTINGS | ADVANCED SETTINGS | ACCOUNT

Admin Password:	(purposely not displayed for security protection)
G723 rate:	◉ 6.3kbps encoding rate ○ 5.3kbps encoding rate
iLBC frame size:	◉ 20ms ○ 30ms
iLBC payload type:	97 (between 96 and 127, default is 97)
Silence Suppression:	◉ No ○ Yes
Voice Frames per TX:	2 (up to 10/20/32/64 for G711/G726/G723/other codecs respectively)
Layer 3 QoS:	48 (Diff-Serv or Precedence value)
Layer 2 QoS:	802.1Q/VLAN Tag 0 802.1p priority value 0 (0-7)
Data VLAN Tag:	1: 0 2: 0 3: 0 (can't use the same non-zero value as 802.1Q tag)
No Key Entry Timeout:	4 (in seconds, default is 4 seconds)
Use # as Dial Key:	○ No ◉ Yes
local RTP port:	5004 (1024-65400, default 5004, must be even)
Use random port:	◉ No ○ Yes
keep-alive interval:	20 (in seconds, default 20 seconds)
Use NAT IP:	(if specified, this will be used in SIP/SDP message)
STUN server:	(URI or IP:port)

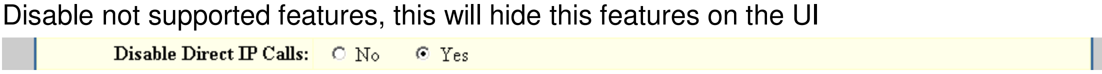
If you have to update the phone SW, provide the address of your TFTP server here. In case you want to have automatic updates enabled e.g. during reboot, set the flags accordingly.



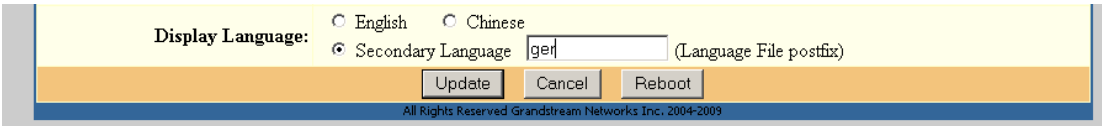
The following entries can be left in default (North American tones). If local tones are required this has to be changed.



Disable not supported features, this will hide this features on the UI



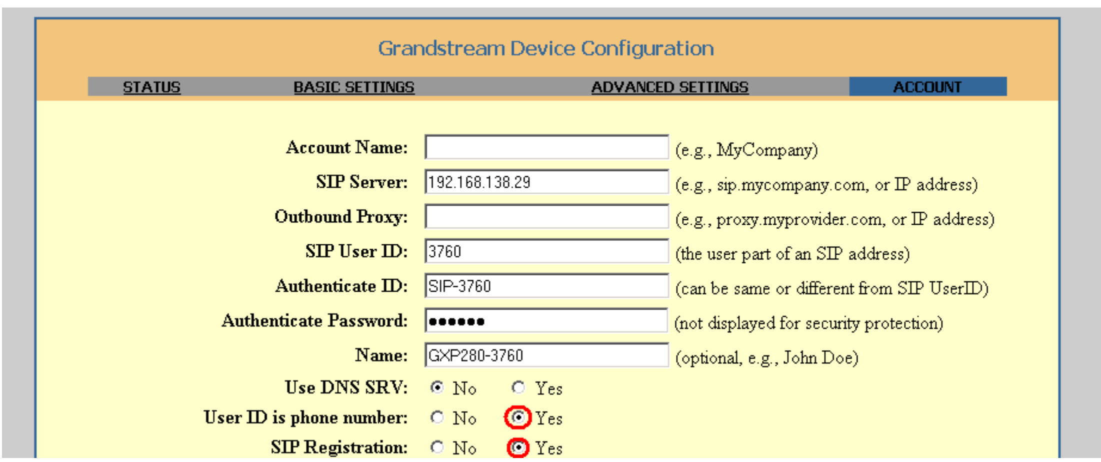
If you want to use a different language, you have to select “secondary Language” and provide the corresponding language file via TFTP. See downloadchapter



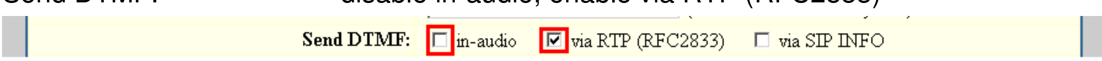
Registration and Basic Telephony

Account settings:

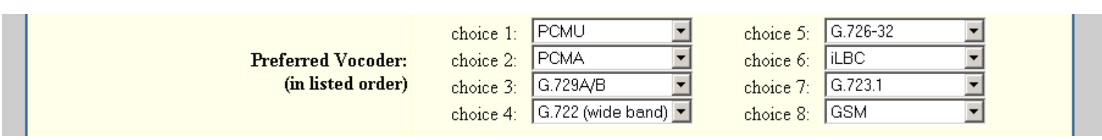
Phone Value	**configured in OpenScape Office:**
SIP-Server:	IP-Address of OpenScape Office
	configured in OpenScape Office: **Telephones / Subscribers-> IP Telephones -> Edit**
SIP User ID:	Call number
Authenticate Password:	Password
Authenticate ID :	Client-SIP User ID
Name	Optional, Phone name can only be seen in the network traces, OpenScape Office uses the name configured in system



Send DTMF: disable in-audio, enable via RTP (RFC2833)



Adjust the codec settings if needed:



Special deployment

Change Language:

The GXP280 comes with two different languages (English,Chinese)

If you want to have a different language it has to be downloaded via TFTP.

A language pack (GXP_Language_Pack.zip) is available at the Grandstream download site.

http://www.grandstream.com/firmware.html#note8

This language pack has the compiled file which is read to be used for GXP series. Each zip file has only one particular language in it.

How to use:

1. Open the zip file
2. Open the desired language zip file
3. Copy the gxp.lpf to the TFTP server path and rename it with a postfix e.g. gxp_ger.lpf
4. Check that your TFTP Server is running.
5. Access the advance setting of the Web UI, select Secondary Language and enter postfix e.g. “ger” without the “_”
6. Save and reboot the phone

1.1.2 Hold/Retrieve/Alternate

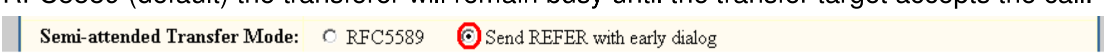
Pressing the “Flash” key will put a call on HOLD or retrieved it from HOLD. A consultation call can be established when a call is held. Toggle/alternate can be invoked by pressing the flash key during consultation.

!	HOLD and all features based on HOLD will be disabled when “Send Flash Event” is set to Yes.

1.1.3 Transfer

Attended -, Semi-Attended- and Blind Transfer is supported.

Semi Attended Transfer Mode MUST be set to “Send REFER with early dialog”. If set to RFC5589 (default) the transferor will remain busy until the transfer target accepts the call.



Transfer can be disabled:.

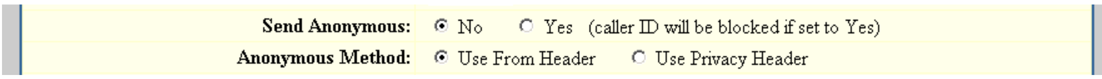
1.1.4 CLIP/CLIR/CNIP - Name and Number presentation

The phone can display names (default) or the call number

Enable CLIR if required, by setting

Send Anonymous Yes

Anonymous Method Use Privacy Header



1.1.5 Call Waiting / Call offer

Call waiting is enabled by default in GXP280 but has to be enabled in OpenScape Office WBM. As this is a station oriented parameter there is no need to configure it in the phone. Nevertheless two parameters are provided:

1.1.6 Call Forwarding

The endpoint offers

- CFU Always Call Forwarding unconditional

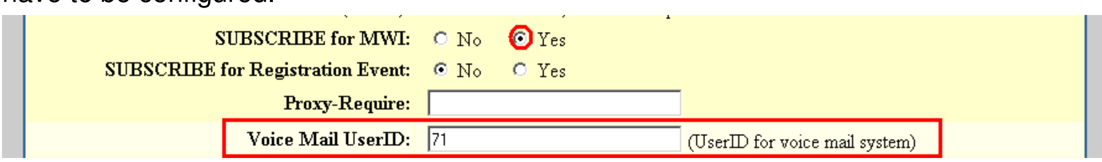
CF has to be activated/deactivated on the phone via a predefined soft key

1.1.7 Message Waiting

For this feature the "Account Settings"

- Subscribe for MWI
- Voice Mail UserID: Access number of VM

have to be configured.



A waiting message is signaled by a red light on top of the phone.

1.1.8 Distinctive Ringing

Not supported by GXP280

1.1.9 Local phone features

- DND – Do Not Disturb

The MUTE key can be used to invoke DND.

The feature can be deactivated by administration

Disable DND Button: ⦿ No ○ Yes (MUTE/DEL button pressing will have no effect if set to Yes)

- Conference

GXP280 offers a local 3 party conference. Active and held call can be connected to a 3 way conference by pressing the CONF key.

The feature can be deactivated by administration

Disable Conference: ⦿ No ○ Yes

1.1.10 Known limitations and restrictions

1.2 Grandstream GXV3140

For information see the Grandstream homepage:
http://www.grandstream.com/products/gxv_series_phone/gxv3140/gxv3140.html
Used Endpoint:

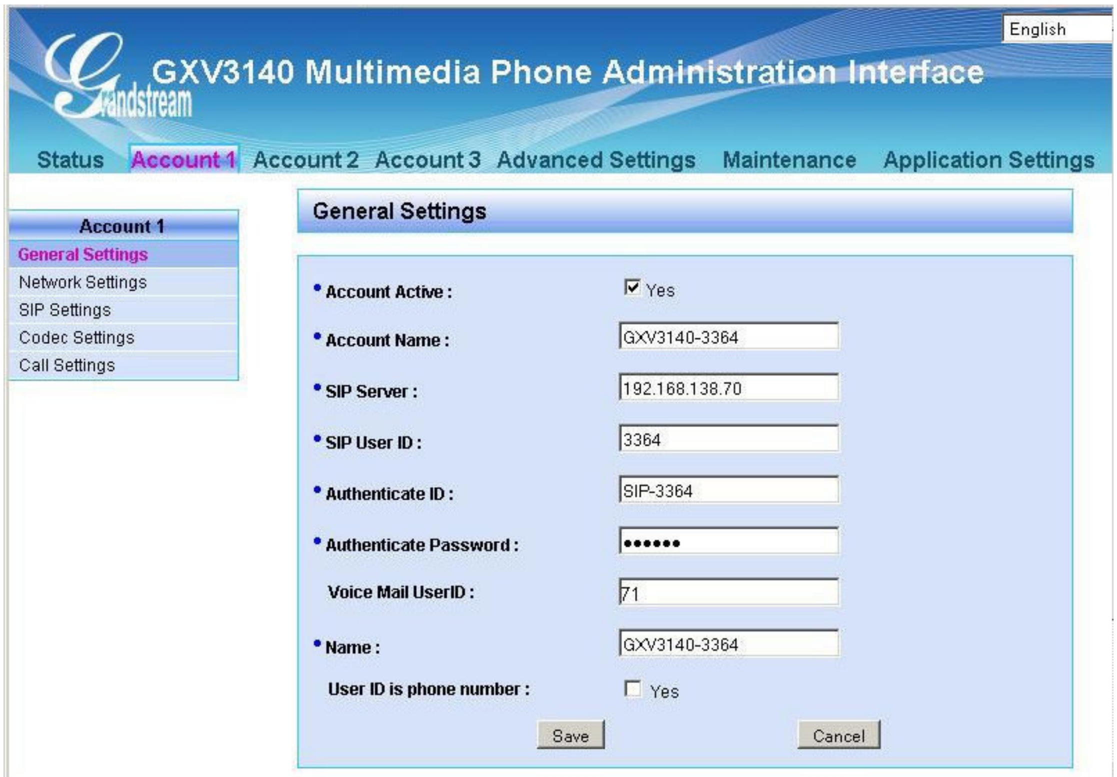
Product highlights:
3 line multimedia phone with integrated video, multimedia player, Internet radio, IM client …

1.2.1 Basic Configuration

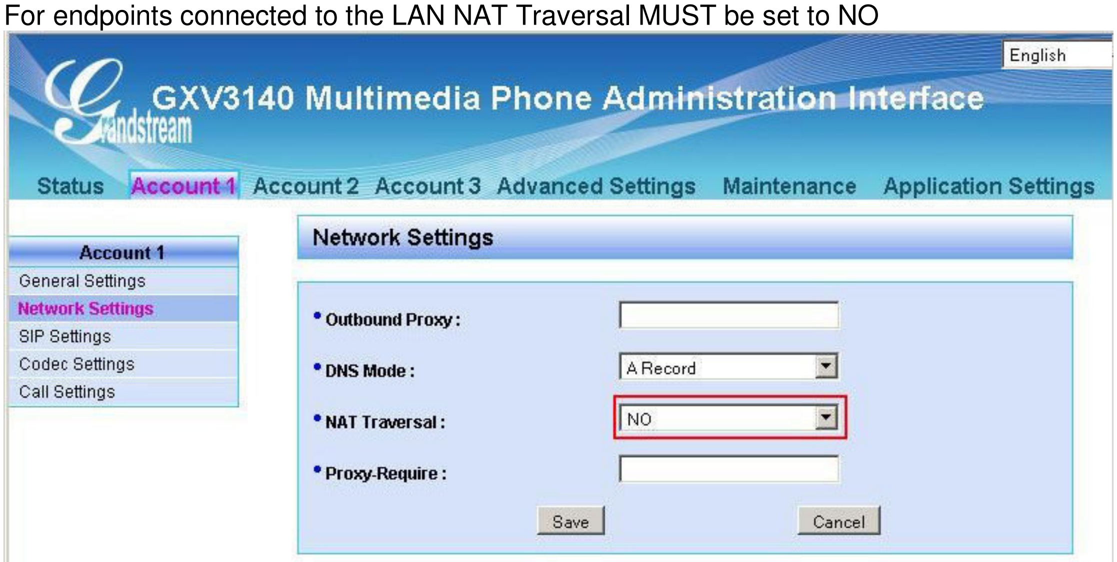
Default Administrator login “admin”, password: “admin”

The phone supports up to 3 lines to make establish calls.

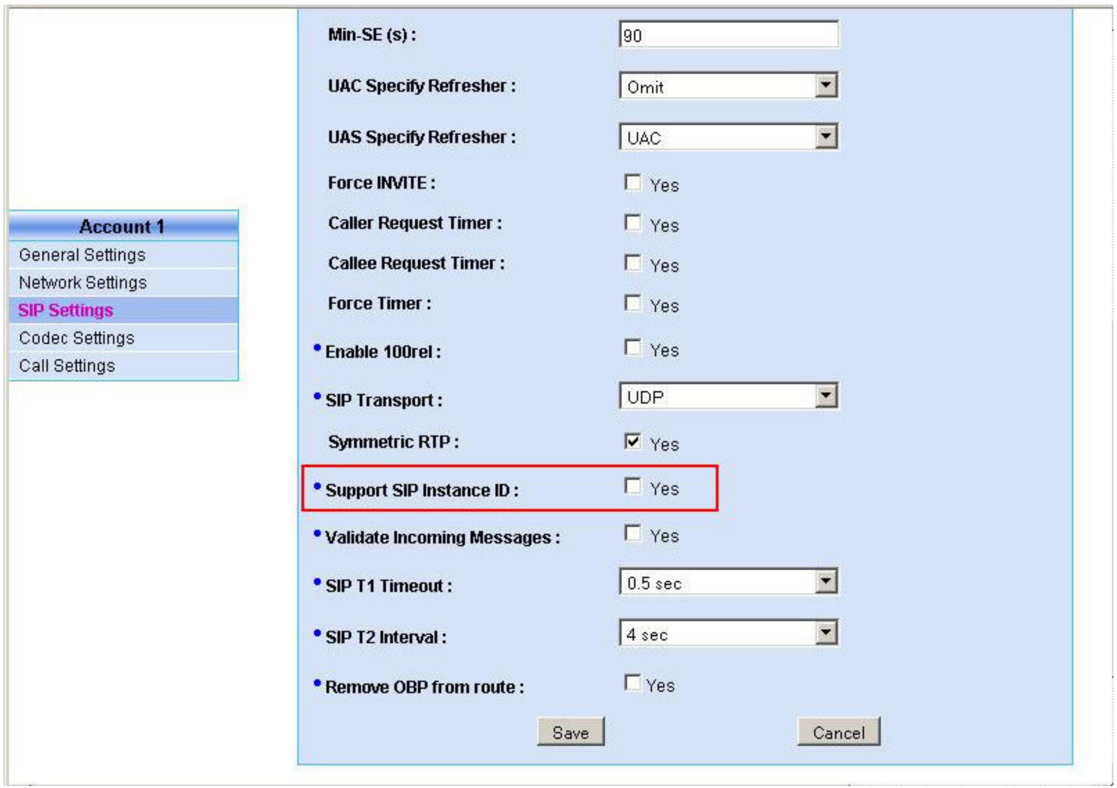
!	To allow features like consultation or conference at least two accounts have to be configured in the phone with identical configuration parameters. EXCEPTION: Only for account 1 the flag SIP registration=yes is activated.

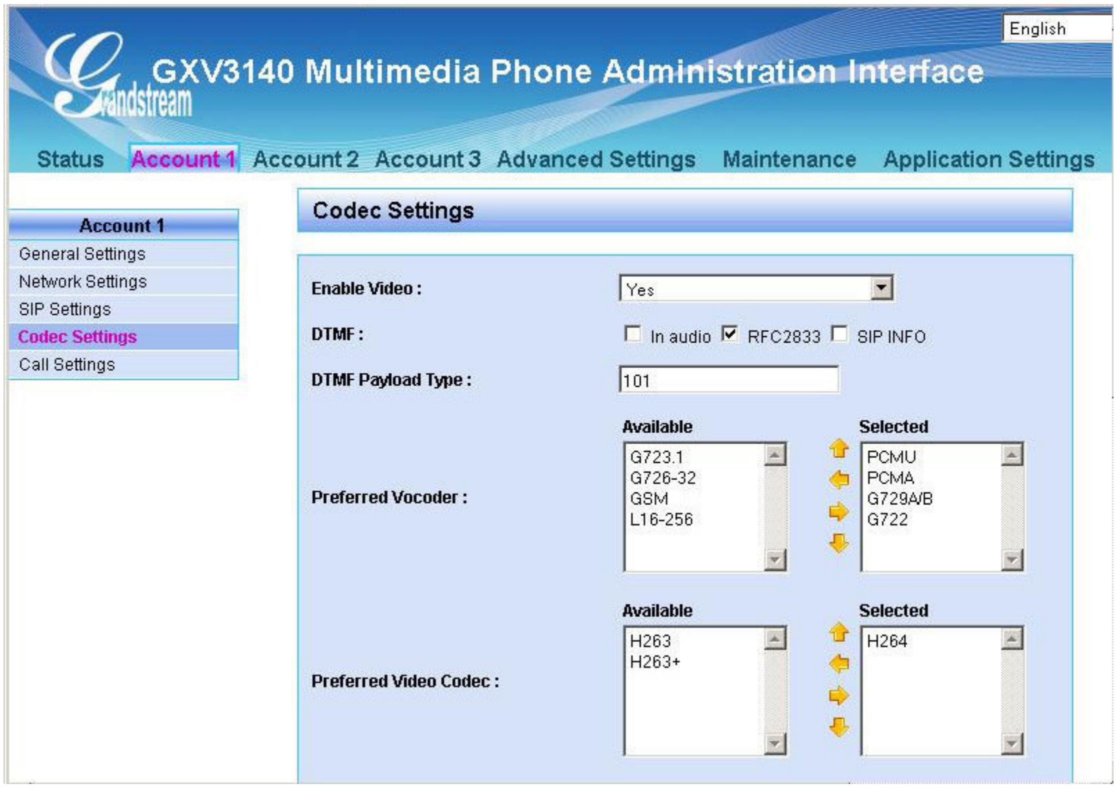


For endpoints connected to the LAN NAT Traversal MUST be set to NO



Configure the Account SIP settings, SIP registration and SUBSCRIBE for MWI MUST be set only for Account 1 (primary Account)





The dial plan has to be configured as {x+ | *x+} to allow dialling of all strings (default dial plan).

The Refer To Use Target Contact MUST be activated to allow transfer

1.2.2 Hold/Retrieve/Alternate

Hold / retrieve is controlled by a dedicated Key : 

1.2.3 Transfer

Blind - and Attended-Transfer is supported

In Account->Call Settings-> Refer To Use Target Contact MUST be activated to allow Blind transfer

Blind transfer is invoked by pressing  and entering the transfer target.

For invoking Attended-Transfer please refer to the description in the user manual.

Excerpt from manual:

Attended Transfer: Press the "LINE" button () to select an idle line to use for attended transfer; this will place the other party on hold immediately. Dial the number that you wish to transfer to and after confirmation from the party, press the "CALL TRANSFER" button. The phone will display the following message: "Dial Number (Blind) OR Select Line (Attended)". (See figure below). Press the "LINE" button and select the line on hold.

1.2.4 CLIP/CLIR/CNIP - Name and Number presentation

The phone can display names (default) or the call number

Privacy can be activated by feature code and/or Web-interface

Feature Code	Feature
*30	Block Caller ID (for all subsequent calls)
*31	Send Caller ID (for all subsequent calls)

1.2.5 Call Waiting / Call offer

Call waiting is enabled by default in GXV3140 but has to be enabled in OpenScape Office WBM too. As this is a station oriented parameter there is no need to configure it in the phone. Nevertheless two parameters are provided in Web Interface to disable call waiting:

Control of Call Waiting is possible by feature codes as well.

1.2.6 Call Forwarding

The endpoint offers

- CFU **Unconditional Call Forward**
- CFB **Busy Call Forward**
- CFNR **Delayed Call Forward**

Call forwarding is activated/deactivated by feature codes.

Feature Code	Feature
*72	**Unconditional Call Forward**: Dial *72 + Phone/Ext. Number followed by the # key. Wait for a dial-tone and then hang up (dial-tone means input is successful).
*73	**Cancel Unconditional Call Forward**: Dial *73 and wait for a dial-tone before hanging up.
*90	**Busy Call Forward**: Dial *90 + Phone/Ext. Number followed by the # key. Wait for a dial- tone and then hang up.
*91	**Cancel Busy Call Forward**: dial *91 and wait for a dial-tone before hanging up.
*92	**Delayed Call Forward**: Dial *92 + Phone/Ext. Number followed by the # key. Wait for a dial-tone and then hang up.
*93	**Cancel Delayed Call Forward**: Dial *93 and wait for a dial-tone before hanging up.

In addition a configuration via Web-Interface is possible. The timer for CFNR is configurable using the Web-interface only.

1.2.7 Message Waiting

For this feature the “Account Settings”

- Voice Mail UserID: Access number of VM
- Subscribe for MWI

have to be configured.

A waiting message is signaled by the blue LED on top of the phone.

Voicemail access is possible by dedicated key  if the Voice Mail UserID is configured correctly

1.2.8 Distinctive Ringing

Not supported by GXV3140.

The device can configure distinctive ringtones for 3 different caller IDs

1.2.9 Local phone features

GXV3140 offers a local 3 party conference. Active and held call can be connected to a 3 way conference by pressing the  key.

1.2.10 Known limitations and restrictions

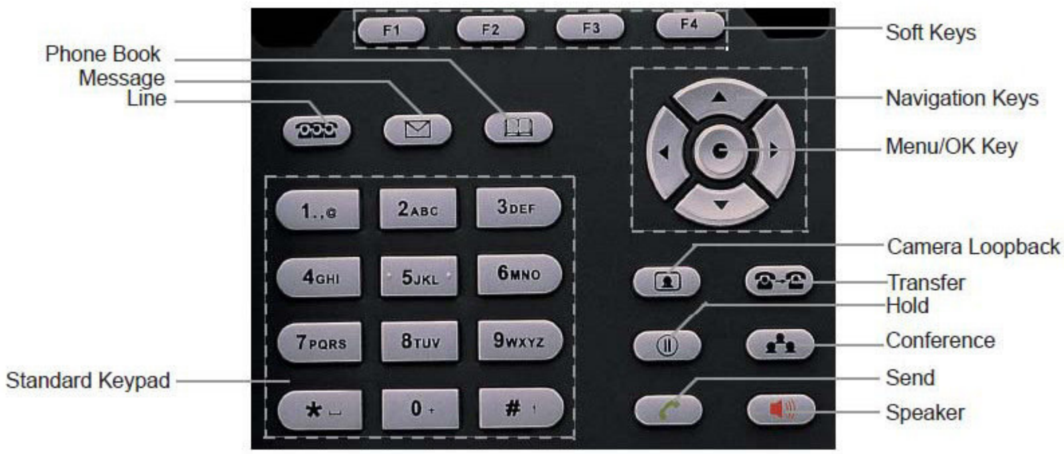
Even if the phone comes with a lot of multimedia features and Web application support, the current software has some deficiencies in terms of call and feature handling.

As the phone supports up to 3 lines, features like consultation and conference are implemented by using different lines. It is not possible to invoke such features with only one line.

Thus the user interface for handling such features is rather complex and needs a lot of key presses.

The phone has no easy option to configure the local tones for a specific country.

The phone needs a REBOOT for a lot of configuration changes. As it is not clear which change needs a reboot and which not it is recommended to REBOOT the phone after every configuration.



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