

## **GXP2130/2135/2140/2160/2170 Firmware Release Note**

### **IMPORTANT UPGRADING NOTE**

- **For GXP2130/2140/2160, once upgraded to 1.0.7.15 or above, downgrading to 1.0.5.x firmware version or lower is not supported.**
- **For GXP2170/2135, once upgraded to 1.0.7.15 or above, downgrading to 1.0.6.9 firmware version or lower is not supported.**
- **This release adds Predictive Dialing feature which included a required internal change. If you downgrade from 1.0.7.81 to 1.0.7.25 you will lose the call history.**

## Table of Content

<b>IMPORTANT UPGRADING NOTE .....</b>	<b>1</b>
<b>FIRMWARE VERSION 1.0.7.81 .....</b>	<b>7</b>
PRODUCT NAME.....	7
DATE .....	7
IMPORTANT UPGRADING NOTE .....	7
ENHANCEMENT .....	7
BUG FIX .....	8
NEW FEATURES OVERVIEW .....	9
<i>FIRMWARE LOCAL UPGRADE.....</i>	<i>9</i>
<i>OPUS CODEC.....</i>	<i>9</i>
<i>TARGET SOFTKEY.....</i>	<i>10</i>
<i>SHOW INTERNET DOWN MESSAGE .....</i>	<i>12</i>
<i>TARGET SELECTION .....</i>	<i>14</i>
<i>TRANSFER FROM INFORMATION .....</i>	<i>18</i>
<i>PVALUE FOR VPK MODE IN STRING FORMAT SUPPORT .....</i>	<i>18</i>
<i>PREDICTIVE DIALING.....</i>	<i>19</i>
<i>MULTIPLE NUMBERS AND OTHER INFO FOR ONE CONTACT SUPPORT IN PHONEBOOK .....</i>	<i>19</i>
<i>PREDICTIVE DIALING SEARCH SUPPORT .....</i>	<i>21</i>
<i>SEARCH FROM BROADSOFT DIRECTORIES SUPPORT.....</i>	<i>23</i>
<b>FIRMWARE VERSION 1.0.7.25 .....</b>	<b>25</b>
PRODUCT NAME.....	25
DATE .....	25
IMPORTANT UPGRADING NOTE .....	25
ENHANCEMENT .....	25
BUG FIX .....	26
NEW FEATURES OVERVIEW .....	27
<i>BROADSOFT XSI AUTHENTICATION TYPE SUPPORT .....</i>	<i>27</i>
<i>CONFIGURE BROADSOFT XSI SIP AUTHENTICATION METHOD .....</i>	<i>28</i>
<i>ENABLE/DISABLE AUTO LOCATION SERVICE FROM IpVideoTalk SERVER .....</i>	<i>31</i>
<i>SECONDARY NTP SERVER .....</i>	<i>32</i>
<i>EVENTLIST BLF LISTENING TRANSPORT PROTOCOL .....</i>	<i>33</i>
<i>SOUND NOTIFICATION.....</i>	<i>35</i>
<i>USER-AGENT PREFIX .....</i>	<i>36</i>
<i>REQUEST MODEL-SPECIFIC CONFIGURATION FILE.....</i>	<i>38</i>

<i>HIDE VOCODER</i> .....	38
<i>CALL PICKUP BARGE-IN OPTION</i> .....	40
<i>SPEAKERPHONE RX GAIN CONTROL</i> .....	44
<i>STATUS DETAIL DISPLAY</i> .....	44
<i>PARTIAL MATCH IN BRAODSOFT XSI SEARCH</i> .....	46
<i>FILTERING OUT INVALID SYMBOLS</i> .....	46
<i>SUPPORT FOR IEEE-48-ADDR AND IEEE-EUI-64 IN PEI HEADER</i> .....	47
<i>SUPPORT FOR POPULATING THE WAN ACCESS NODE IN SIP</i> .....	47
<i>DIAL FROM LDAP RESULTS</i> .....	47
<i>DNS SRV FAIL-OVER MODE</i> .....	47
<i>SEPARATE SUBSCRIPTION EXPIRATION TIMER</i> .....	49
<i>LCD POPUP WINDOW</i> .....	51
<i>DIAL PLAN { x+   +x+   *x+   *xx*x+ }</i> .....	51

## **FIRMWARE VERSION 1.0.7.15 ..... 53**

PRODUCT NAME.....	53
DATE .....	53
IMPORTANT UPGRADING NOTE .....	53
ENHANCEMENT .....	53
BUG FIX .....	54
NEW FEATURES OVERVIEW .....	55
<i>NO TOUCH PROVISIONING</i> .....	55
<i>OUTBOUND NOTIFICATION SUPPORT</i> .....	55
<i>VIRTUAL MULTI-PURPOSE KEYS SUPPORT</i> .....	66
<i>PROGRAMMABLE KEYS STATUS ON WEB UI</i> .....	74
<i>AUTO PROVISION LIST STARTING POINT</i> .....	75
<i>ADDITIONAL OVERRIDE DHCP OPTION</i> .....	75
<i>ILBC AND G.723.1 SUPPORT</i> .....	76
<i>ENABLE SESSION TIMER</i> .....	77
<i>RING SPEAKER FOR CALL WAITING</i> .....	77
<i>CONFIGURABLE BACKLIGHT TIMER</i> .....	77
<i>COLOR BACKGROUND WALLPAPER SELECTION</i> .....	78
<i>BLF LED PATTERN EXPLANATION IN WEB UI</i> .....	79
<i>DISABLE SCREENSAVER WHEN VPK IS ACTIVE</i> .....	80
<i>FULL BLACK SUPPORT FOR IDLE LCD BRIGHTNESS</i> .....	80
<i>BLIND TRANSFER AND ATTENDED TRANSFER SOFTKEY</i> .....	81
<i>DISPLAY SIP MESSAGE TEXT ON LCD</i> .....	81

## **FIRMWARE VERSION 1.0.6.9 ..... 82**

PRODUCT NAME.....	82
DATE .....	82

CHANGES SINCE 1.0.6.5.....	82
<i>ENHANCEMENT</i> .....	82
<i>BUG FIX</i> .....	82
<b>FIRMWARE VERSION 1.0.6.5 .....</b>	<b>83</b>
PRODUCT NAME.....	83
DATE .....	83
CHANGES SINCE 1.0.6.2.....	83
<i>ENHANCEMENT</i> .....	83
<i>BUG FIX</i> .....	83
<b>FIRMWARE VERSION 1.0.5.33 .....</b>	<b>85</b>
PRODUCT NAME.....	85
DATE .....	85
CHANGES SINCE 1.0.5.29.....	85
<i>BUG FIX</i> .....	85
<b>FIRMWARE VERSION 1.0.5.29 .....</b>	<b>86</b>
PRODUCT NAME.....	86
DATE .....	86
CHANGES SINCE 1.0.5.28.....	86
<i>BUG FIX</i> .....	86
<b>FIRMWARE VERSION 1.0.5.28 .....</b>	<b>87</b>
PRODUCT NAME.....	87
DATE .....	87
IMPORTANT UPGRADING NOTE.....	87
CHANGES SINCE 1.0.5.23.....	87
<i>ENHANCEMENT</i> .....	87
<i>BUG FIX</i> .....	87
<b>FIRMWARE VERSION 1.0.5.23 .....</b>	<b>88</b>
PRODUCT NAME.....	88
DATE .....	88
CHANGES SINCE 1.0.5.18.....	88
<i>ENHANCEMENT</i> .....	88
<i>BUG FIX</i> .....	88
<b>FIRMWARE VERSION 1.0.5.18 .....</b>	<b>89</b>
PRODUCT NAME.....	89
DATE .....	89

IMPORTANT UPGRADING NOTE .....	89
CHANGES SINCE 1.0.4.23 .....	89
<i>ENHANCEMENT</i> .....	89
<i>BUG FIX</i> .....	90
<b>FIRMWARE VERSION 1.0.4.23 .....</b>	<b>92</b>
PRODUCT NAME .....	92
DATE .....	92
CHANGES SINCE 1.0.4.17 .....	92
<i>ENHANCEMENT</i> .....	92
<i>BUG FIX</i> .....	92
<b>FIRMWARE VERSION 1.0.4.17 .....</b>	<b>94</b>
PRODUCT NAME .....	94
DATE .....	94
IMPORTANT UPGRADING NOTE .....	94
CHANGES SINCE 1.0.4.16 .....	94
<i>BUG FIX</i> .....	94
<b>FIRMWARE VERSION 1.0.4.16 .....</b>	<b>95</b>
PRODUCT NAME .....	95
DATE .....	95
CHANGES SINCE 1.0.4.15 .....	95
<i>ENHANCEMENT</i> .....	95
<i>BUG FIX</i> .....	95
<b>FIRMWARE VERSION 1.0.4.15 .....</b>	<b>96</b>
PRODUCT NAME .....	96
DATE .....	96
CHANGES SINCE 1.0.4.10 .....	96
<i>ENHANCEMENT</i> .....	96
<i>BUG FIX</i> .....	96
<b>FIRMWARE VERSION 1.0.4.10 .....</b>	<b>98</b>
PRODUCT NAME .....	98
DATE .....	98
CHANGES SINCE 1.0.4.6 .....	98
<i>BUG FIX</i> .....	98
<b>FIRMWARE VERSION 1.0.4.6 .....</b>	<b>99</b>
PRODUCT NAME .....	99

DATE .....	99
CHANGES SINCE 1.0.4.5.....	99
<i>BUG FIX</i> .....	99
<b>FIRMWARE VERSION 1.0.4.5 .....</b>	<b>100</b>
PRODUCT NAME.....	100
DATE .....	100
CHANGES SINCE 1.0.3.9.....	100
<i>ENHANCEMENT</i> .....	100
<i>BUG FIX</i> .....	100
<b>FIRMWARE VERSION 1.0.3.9 .....</b>	<b>103</b>
PRODUCT NAME.....	103
DATE .....	103
CHANGES SINCE 1.0.2.9.....	103
<i>ENHANCEMENT</i> .....	103
<i>BUG FIX</i> .....	103
<b>FIRMWARE VERSION 1.0.2.9 .....</b>	<b>106</b>
PRODUCT NAME.....	106
DATE .....	106
CHANGES SINCE 1.0.1.14.....	106
<i>ENHANCEMENT</i> .....	106
<i>BUG FIX</i> .....	106
<b>FIRMWARE VERSION 1.0.1.14 .....</b>	<b>108</b>
PRODUCT NAME.....	108
DATE .....	108
CHANGES SINCE 1.0.1.6.....	108
<i>BUG FIX</i> .....	108
<b>FIRMWARE VERSION 1.0.1.6 .....</b>	<b>109</b>
PRODUCT NAME.....	109
DATE .....	109
CHANGES SINCE 1.0.0.17.....	109
<i>ENHANCEMENT</i> .....	109
<i>BUG FIX</i> .....	109

## FIRMWARE VERSION 1.0.7.81

### PRODUCT NAME

GXP2130, GXP2140, GXP2160, GXP2170 and GXP2135

### DATE

09/06/2016

### IMPORTANT UPGRADING NOTE

- For GXP2130/2140/2160, once upgraded to 1.0.7.15 or above, downgrading to 1.0.5.x firmware version or lower is not supported.
- For GXP2170/2135, once upgraded to 1.0.7.15 or above, downgrading to 1.0.6.9 firmware version or lower is not supported.
- This release restored the Weather service. Part of the change requires users who are using “Self-Defined City Code” to change their setting. The upstream content provider has changed the API to yield a free-style search based on this argument instead of mapping to a specific code being used before. Hence the city being displayed would have been incorrect. These users should change this option to the name of the city, for instance: “Dallas”; “Dallas, NC”; “Dallas, Scotland”; “Liverpool”; “Liverpool, NY”; “Liverpool, England”.  
**Note: If you enter only the name of the city it’s going to go the best match. In the case of Dallas it would be Dallas, TX; and in the case of the Liverpool it would be Liverpool, England.**
- This release adds Predictive Dialing feature which included a required internal change. If you downgrade from 1.0.7.81 to 1.0.7.25 you will lose the call history.

### ENHANCEMENT

- Added Support for local firmware upgrade [FIRMWARE LOCAL UPGRADE]
- Added a web option to let user chose whether or not to display internet down warning window [SHOW INTERNET DOWN MESSAGE]
- Added OPUS codec support [OPUS CODEC]
- Added target softkey for dialing status [TARGET SOFTKEY]
- Added Capability to allow DIAL softkey to dial the selected predictive dialing number under dialing state
- Added target selection for transfer and conference in call screen [TARGET SELECTION]
- Added Transfer destination should display who the call was referred by [TRANSFER FROM INFORMATION]
- Added support to accept Pvalue in string format for VPK mode configuration xml [PVALUE FOR VPK MODE IN STRING FORMAT SUPPORT]
- Added predictive dialing using call history entries [PREDICTIVE DIALING]

- Added more numbers per contact and “Company” ”Title” ”Job” Field on the Phonebook [MULTIPLE NUMBERS AND OTHER INFO FOR ONE CONTACT SUPPORT IN PHONEBOOK]
- Added pre-Dialing search to include Broadsoft directories [PREDICTIVE DIALING SEARCH SUPPORT]
- Added search feature on Broadsoft directories [SEARCH FROM BROADSOFT DIRECTORIES SUPPORT]

## BUG FIX

- Fixed Time Zone on status page does not show correctly sometimes
- Fixed LCD brightness set as active issue when DHCP renew and other network connection
- Fixed BLF lights remain RED/GREEN after hung up issue when using LED Pattern reserved RED/GREEN
- Fixed Adding path / to server prefix will cause phone get stuck issue when downloading ringtone
- Fixed Phone does not keep assigned VLAN via LLDP issue
- Fixed Phone couldn't obtain IP after switching from LLDP to common network circumstance issue
- Fixed Phone gets stuck in Downloading firmware file page issue after uploading firmware then unplug net cable
- Fixed Accounts disappeared after connect/disconnect extension board
- Fixed MUTE LED turned off sometimes when switching to home screen (during a call when mute is on)
- Fixed Device TFTP upgraded abnormally in LLDP network environment
- Fixed LCD couldn't enter into screensaver status after timeout
- Fixed In BLF auto-provision, even if we choose the startpoint to be ext, it also shows on LCD on bootup sometimes
- Fixed GXP2140 cannot transfer using BLF issue
- Fixed Set "sort Results" option of LDAP web page to "yes" does not take effect
- Fixed Issues with call park with Freeswitch on 1.0.7.X (While on active call only)
- Fixed device generated core dump for gs\_gui on web page
- Fixed SIP log sent through syslog got truncated
- Fixed loud sound/noise is played when there is audio packets loss using G 729 audio codec
- Fixed when call Initiated within XML APP, suppress change to default phone screen
- Fixed phone stucked at base download when using LLDP-MED.
- Fixed Broadsoft phone book contact details string and formatting issue
- Fixed Broadsoft XMPP: contact list display "Unknown Contact"
- Fixed phone loss of register every 32 minutes due to failing to resolve DNS
- Fixed incoming multicast paging drops the actual ringing call
- Fixed all MPK values disappear from web GUI when one of them containing a double quote
- Enabled weather support using new yahoo API
- Fixed status of auto provision Eventlist BLF VPK/MPK showed wrongly when monitored Eventlist has parking lot extension



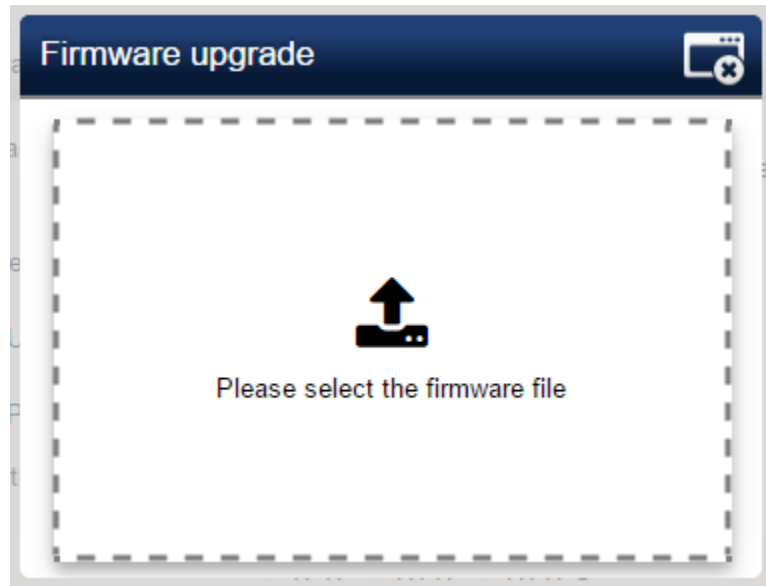
## NEW FEATURES OVERVIEW

This section lists major new features and describes how to use it from the user's point of view.

### FIRMWARE LOCAL UPGRADE

- **Functionality**

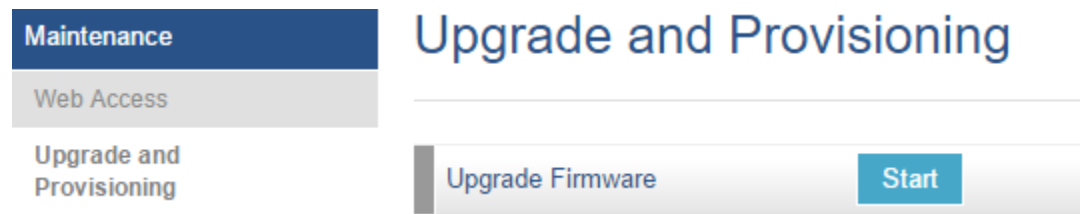
User could upload the new firmware by pressing Start, then a new pop-up windows will show like following.



After selected the correct firmware file from local storage, the phone will start the firmware upgrade automatically.

- **Web Configuration**

The users could find this new feature under phone's web UI-> Maintenance->Upgrade and Provisioning.



### OPUS CODEC

- **Web Configuration**

The users could find OPUS codec available under phone's web UI->Account->Audio Settings.

**Accounts**

Account 1 +

Account 2 +

Account 3 -

General Settings

Network Settings

SIP Settings +

**Audio Settings**

Call Settings

Feature Codes

Account 4 +

Account 5 +

Account 6 +

## Audio Settings

---

Preferred Vocoder - choice 1	PCMU ▼
Preferred Vocoder - choice 2	PCMA ▼
Preferred Vocoder - choice 3	G.723.1 ▼
Preferred Vocoder - choice 4	G.729A/B ▼
Preferred Vocoder - choice 5	G.722(wide band) ▼
Preferred Vocoder - choice 6	iLBC ▼
Preferred Vocoder - choice 7	G.726-32 ▼
Preferred Vocoder - choice 8	<div style="background-color: #1a3d54; color: white; padding: 2px;">OPUS ▼</div> <div style="padding: 2px;">G.723.1</div> <div style="padding: 2px;">G.729A/B</div> <div style="padding: 2px;">PCMU</div> <div style="padding: 2px;">PCMA</div> <div style="padding: 2px;">G.726-32</div> <div style="padding: 2px;">G.722(wide band)</div> <div style="padding: 2px;">iLBC</div> <div style="background-color: #1a3d54; color: white; padding: 2px;">OPUS</div>

Use First Matching Vocoder in 200OK SDP

Hide Vocoder

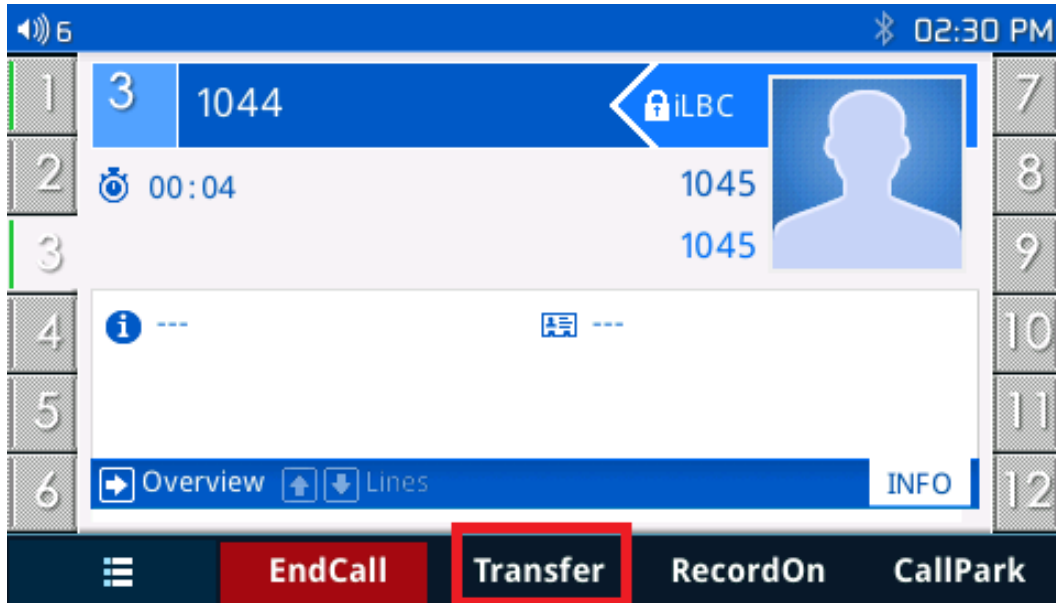
Disable Multiple m line in SDP

When provisioning the phone with vocoder P value, the value to set codec as OPUS is 125.

### TARGET SOFTKEY

- Functionality**

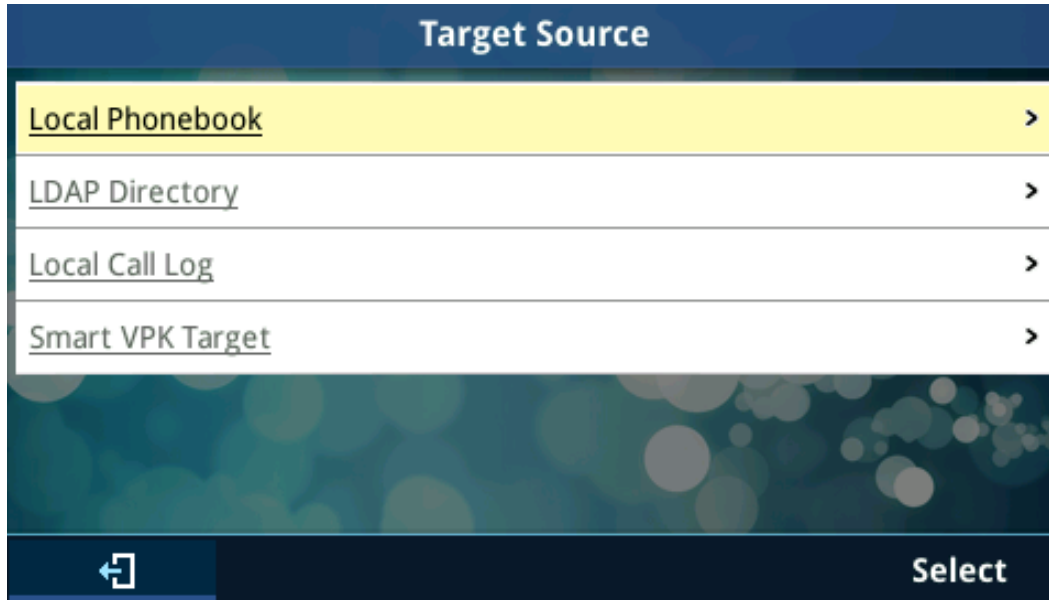
User can find the new target softkey for transfer status. When user pressed transfer softkey during a call.



User could press the Target Softkey:



The LCD will lead to a page showing “Local Phonebook”, “LDAP Directory”, “Local Call Log” and “Smart VPK Target” that the user could select and proceed the call transfer.



### SHOW INTERNET DOWN MESSAGE

- **Functionality**

This document provides a solution for customers who mainly use the intranet without connecting to the internet. Originally, if the internet is down, there will be a warning window displaying “Internet Down” message, user cannot operate the phone with the warning window display.

This design will provide following functionality.

- ➔ User can choose whether or not to display the “Internet Down” message based on their environment settings.
- ➔ Phone can still be operated even when the internet is not connected.

- **Web Configuration**

The users could find “Show Internet Down Message” available under phone’s web UI→Maintenance→Syslog→Show Internet Down Message.


**Maintenance**

Web Access

Upgrade and Provisioning

**Syslog**

Language

TR-069

Security Settings

Security

Trusted CA Certificates

Packet Capture

## Syslog

 Syslog Server 

 Syslog Level 

 Send SIP Log  No  Yes

 Show Internet Down Message  No  Yes

 Auto Recover from Abnormal  No  Yes

Save

Save and Apply

Reset

- Examples**

→ Under Idle Screen:

A warning window will display if “Show Internet Down Message” is enabled



A warning window will not display if “Show Internet Down Message” is disabled.



→ Under Call Screen:

None

## TARGET SELECTION

- **Functionality**

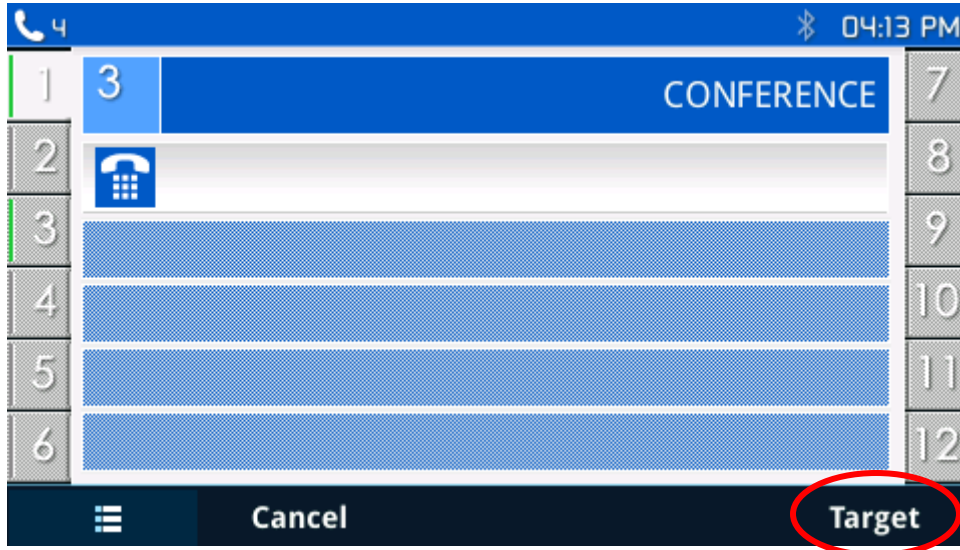
With this new feature, users can realize the following function:

- 1) Add a new softkey "Target" under transfer/conference action page.
- 2) When click on the softkey, it will take user to a target selection page in which user can choose other possible transfer/conference targets (e.g. Local/BS Phonebook, Local/BS Call History, LDAP, Smart VPK List, or connected lines)
- 3) When accessing Local/BS Phonebook and Local/BS Call History page, the softkey will show limited options (e.g. Dial) when phone is under busy state to make it easier for user to perform the dialing task.
- 4) When accessing Smart VPK List, we will display the list of the VPK targets which are allowed to be used as the transfer/conference target based on the current account.
- 5) When accessing Line, we will list the lines which are available to be used for transfer/conference.

- **Examples**

- a) Under Transfer/Conference screen

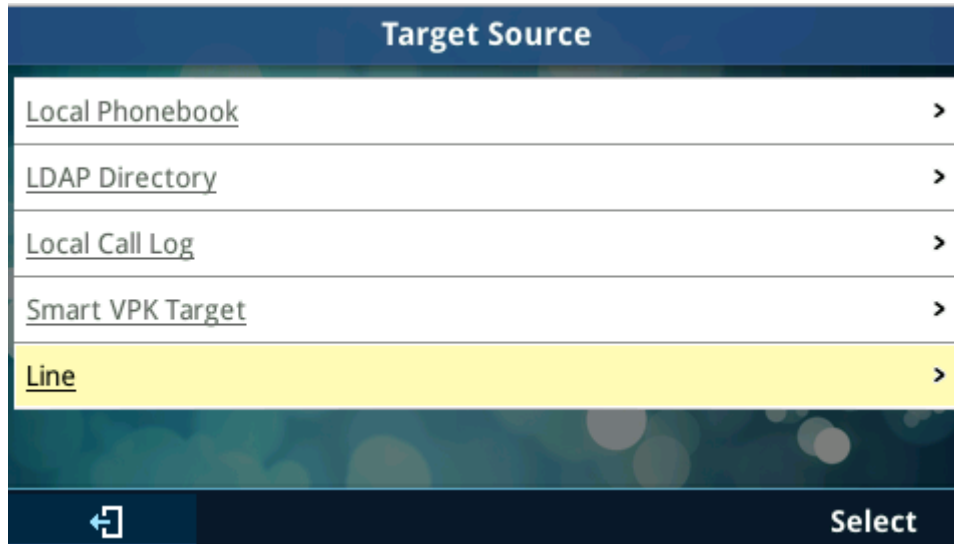
A new softkey "Target" is added under transfer/conference action page.



When click on the softkey, it will take user to a target selection page in which user can choose other possible transfer/conference targets.

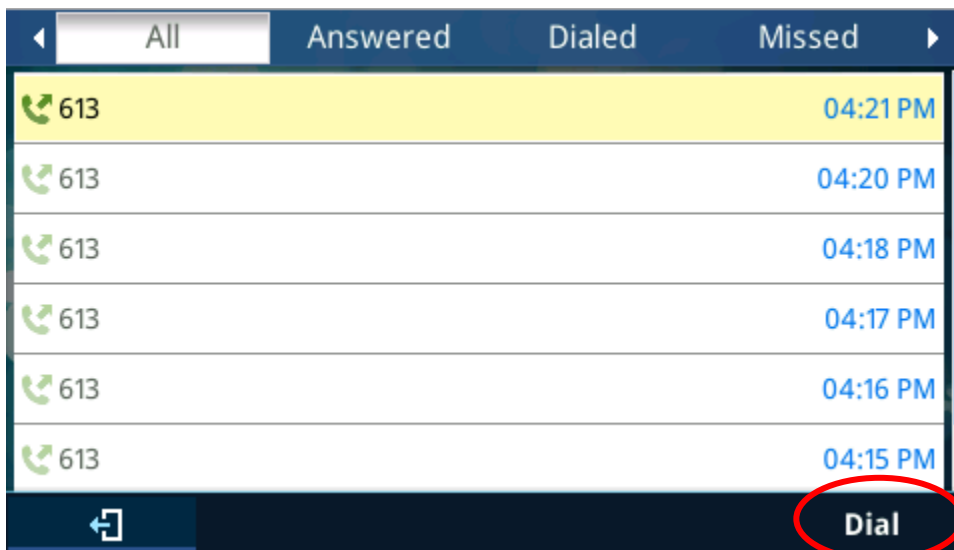
b) Under target selection page screen

Target selection page provides a list of possible transfer/conference targets.



User can use UP/DOWN key to select target from list and use MENU key or “Select” softkey to choose the target.

By selecting Local/Broadsoft Phonebook, Local/Broadsoft Call Log and LDAP Directory, LCD will display according menu page. Also, in these pages, softkey will show limited options (e.g. Dial) to make it easier for user to perform the dialing task.



By selecting “Smart VPK Target”, a list of available VPK for transfer/conference will be shown as below. User can use UP/DOWN key or “select” softkey to choose item to use.

Available VPK contains VPK with mode as below:

- Speed Dial (current account)
- Speed Dial via Active Account (any account)
- BLF or Eventlist BLF (current account)

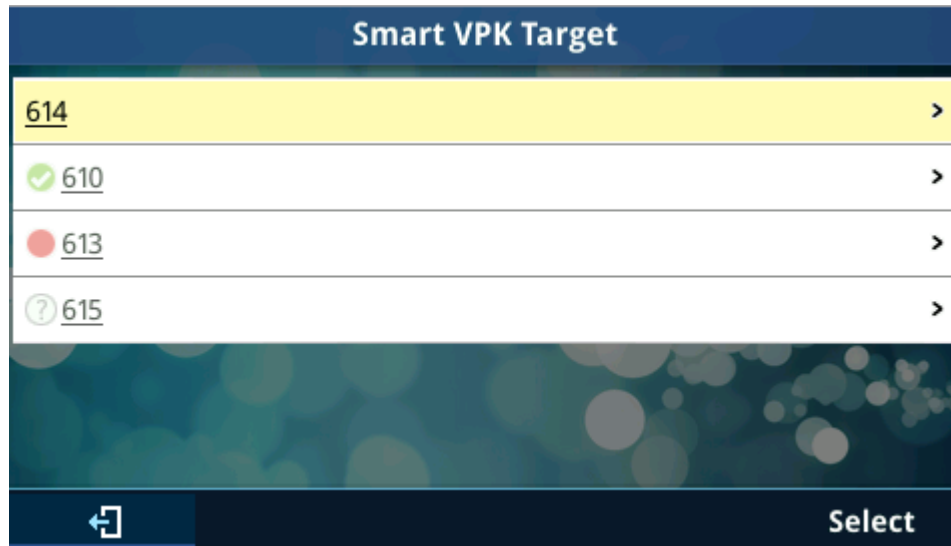


- Presence (current account)

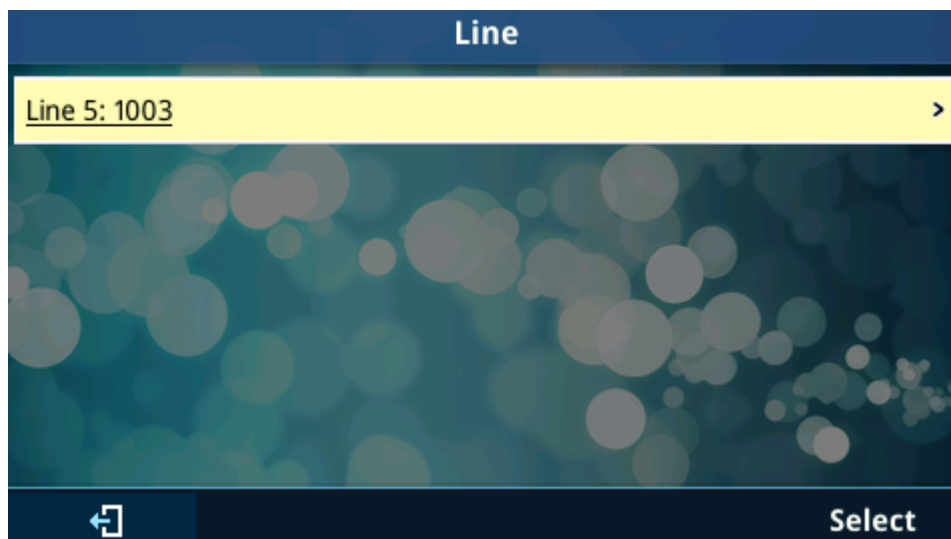
Specially, for BLF/Eventlist BLF/Presence, an icon with status will be shown on the left side of the item.

Icon here contains 3 types based on monitoring state:

- Unknown : Question Mark
- Busy : RED
- Available : GREEN



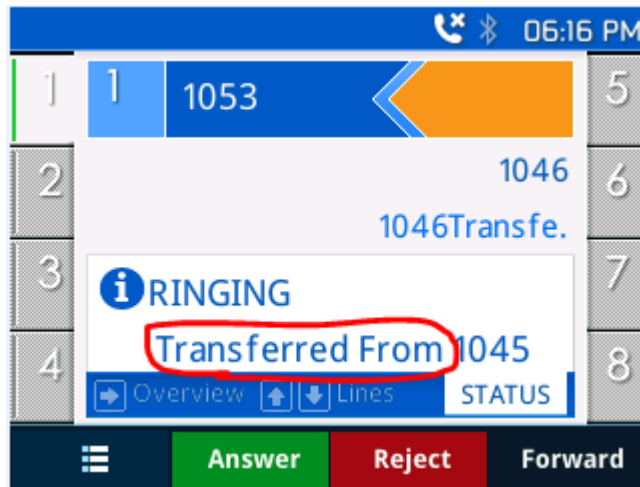
By selecting "line", a list of available line for transfer/conference will be shown as bellow. User can use UP/DOWN key or "select" softkey to choose item to use.



## TRANSFER FROM INFORMATION

- **Functionality**

With this new feature, users can see who transferred the call to them. Example shows below:



## PVALUE FOR VPK MODE IN STRING FORMAT SUPPORT

- **Functionality**

User can use the actual Virtual Multi-Purpose Key Mode in configuration xml or the Pvalue. The current mode string and Pvalue are as follows:

Mode Name	Mode String	Mode Pvalue
None	none	-1
LINE	line	0
Busy Lamp Field (BLF)	blf	1
Presence Watcher	presencewatcher	2
Eventlist BLF	eventlistblf	3
Speed Dial via Active Account	speedialaa	4
Dial DTMF	dialdtmf	5
Voice Mail	voicemail	6
Call Return	callreturn	7
Transfer	transfer	8
Call Park	callpark	9
Monitored Call Park	moniteredcp	16
Intercom	intercom	10
LDAP Search	ldapsearch	11
Multicast Paging	multicastpaging	13
Record	record	14

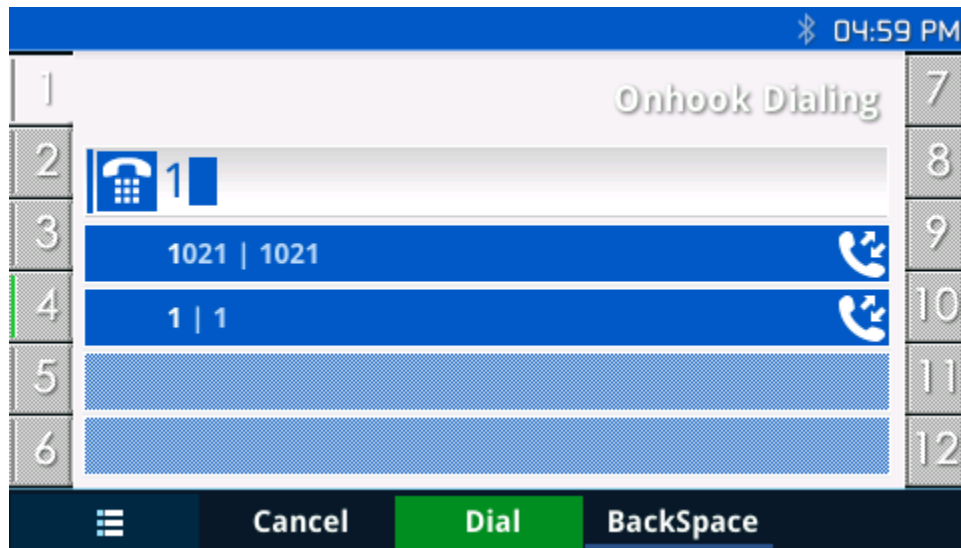
Call Log	calllog	15
Menu	menu	17

The string could be capital or lower case letters, but there must no “space” in between. For example in the cfg.xml, “<P1367>Line</P1367>” or “<P1367>line</P1367>” is the same as “<P1367>0</P1367>”, it will configure Virtual Multi-Purpose Key 3 as Line mode.

### PREDICTIVE DIALING

- **Functionality**

Phone can look into call history entries and if entered digits match some call history entries, list of entries should be displayed with corresponding names.



### MULTIPLE NUMBERS AND OTHER INFO FOR ONE CONTACT SUPPORT IN PHONEBOOK

- **Functionality**

User can add Phone type in phonebook.xml to add other phone type besides existing “Work”, “Home” and “Cell”. Here is an example for the phonebook.xml:

```

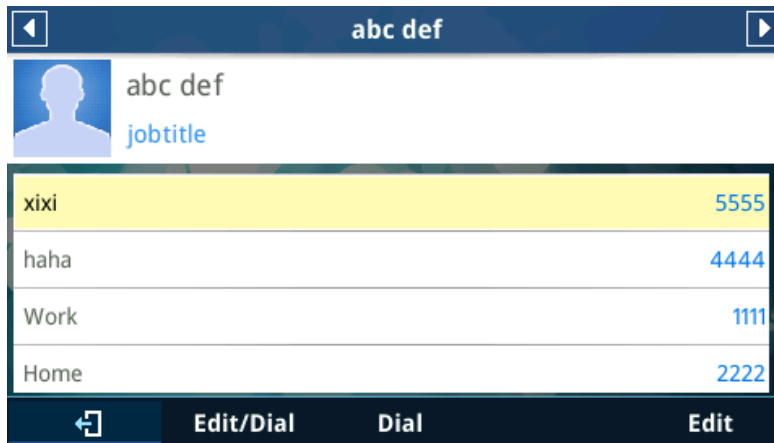
<AddressBook>
<Contact>
<id>1</id>
<FirstName>abc</FirstName>
<LastName>def</LastName>
<JobTitle>jobtitle</JobTitle>
<Frequent>0</Frequent>
<Phone type="haha">

```

```

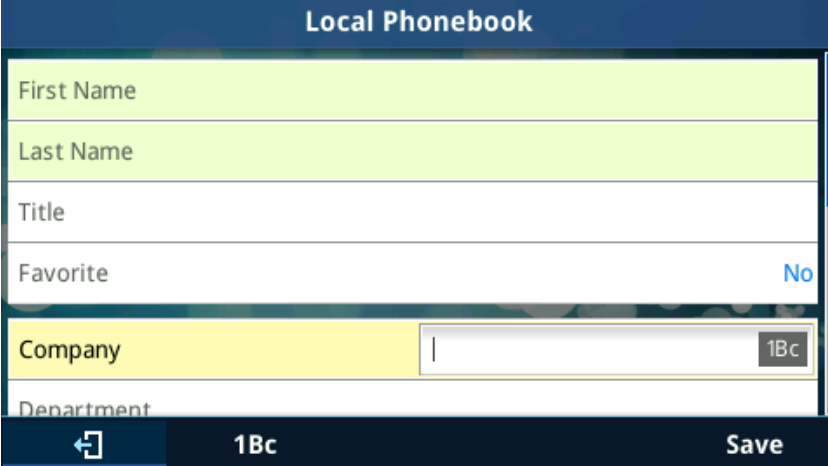
<phonenumber>4444</phonenumber>
<accountindex>0</accountindex>
</Phone>
<Phone type="xixi">
<phonenumber>5555</phonenumber>
<accountindex>0</accountindex>
</Phone>
<Phone type="Work">
<phonenumber>1111</phonenumber>
<accountindex>0</accountindex>
</Phone>
<Phone type="Home">
<phonenumber>2222</phonenumber>
<accountindex>0</accountindex>
</Phone>
<Phone type="Cell">
<phonenumber>3333</phonenumber>
<accountindex>0</accountindex>
</Phone>
<Primary>1</Primary>
<Department>department</Department>
<Job>job</Job>
<Title>title</Title>
<Company>company</Company>
</Contact>
</AddressBook>
  
```

On the display of the contact on LCD of the phone will shows as follows:



User can also input the “Company” “Title” “Job” filed through the phonebook.xml in the previous example

or on the LCD of the phone like following example:



Local Phonebook	
First Name	
Last Name	
Title	
Favorite	No
Company	<input type="text"/> 1Bc
Department	

← 1Bc Save

#### **PREDICTIVE DIALING SEARCH SUPPORT**

- **Web configuration**

A user has to configure Broadsoft XSI directories correctly from Web. The Web configuration path is as follows: Settings → Broadsoft → Broadsoft Directories.

**Settings**

- General Settings
- Call Features
- Multicast Paging
- Ring Tone
- Audio Control
- LCD Display
- LED Control
- Date and Time
- Web Service
- XML Applications
- Programmable Keys +
- Extension Boards +
- Broadsoft -**
- Broadsoft Directories -**
- Broadsoft IM
- Outbound Notification +

## Broadsoft Directories

### XSI

Server	xsp1.iop1.broadworks.n
Port	80
Broadsoft Contact Download Interval	0
XSI Authentication Type	Login Credentials ▾

### Login Credentials

Login Username	1017@as.iop1.broadwoi
Login Password	

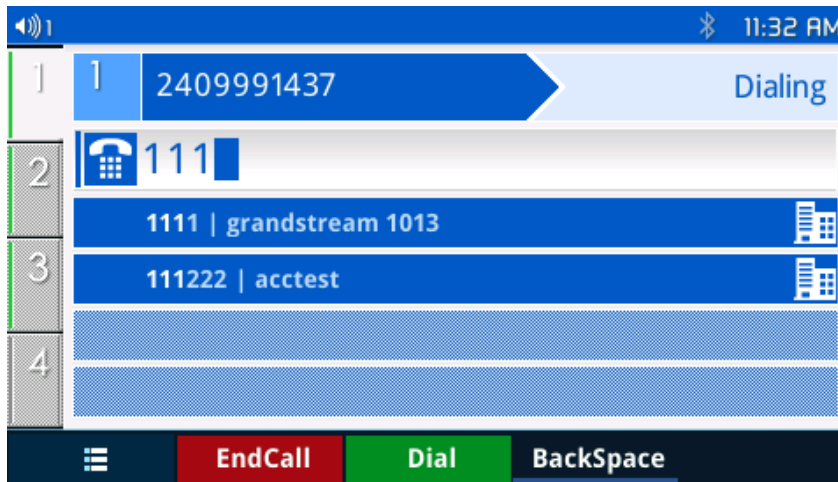
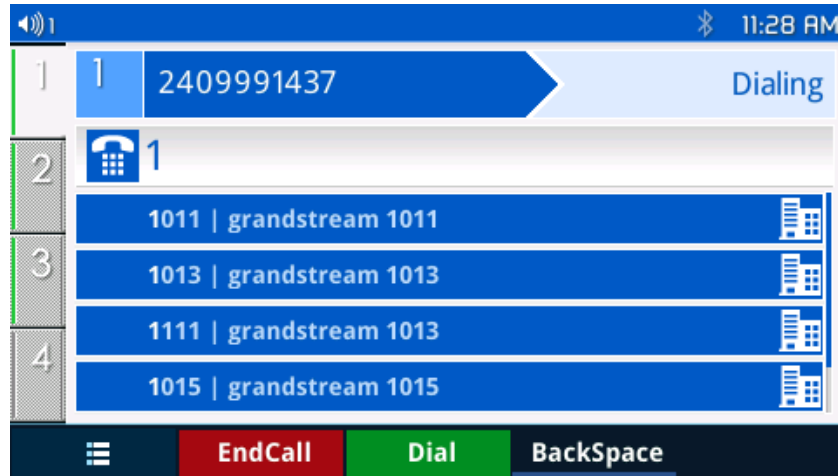
### Network Directories

Type		Name
Group Directory	Enabled ▾	
Enterprise Directory	Enabled ▾	
Group Common	Enabled ▾	
Enterprise Common	Enabled ▾	
Personal Directory	Enabled ▾	

- **Functionality**

Phone can predict possible contact information from Broadsoft XSI directories when a user dials number. User can select the predictive dialing number to dial out even when user doesn't key in the complete number.

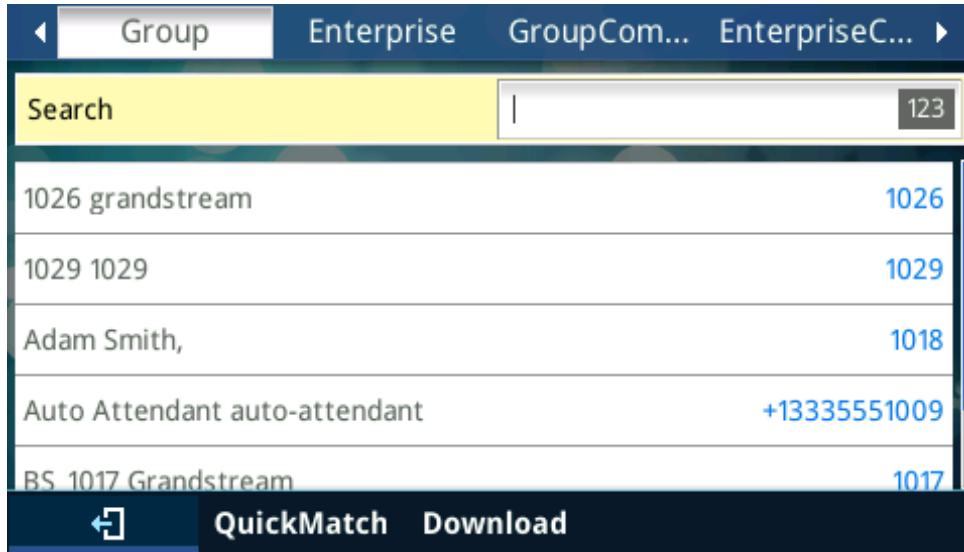
Predictive numbers will be shown if Broadsoft XSI directory information is loaded after pressing the related number.



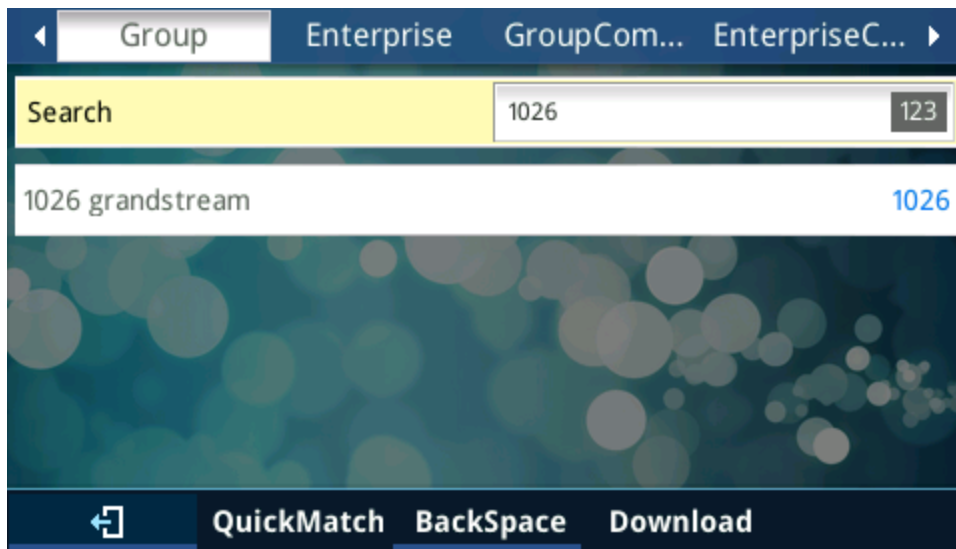
**SEARCH FROM BROADSOFT DIRECTORIES SUPPORT**

- **Functionality**

User can search from the Broadsoft directories when the user input the search content in the search form.



The matching list will show as follows:





## FIRMWARE VERSION 1.0.7.25

### PRODUCT NAME

GXP2130, GXP2140, GXP2160, GXP2170 and GXP2135

### DATE

05/10/2016

### IMPORTANT UPGRADING NOTE

- For GXP2130/2140/2160, once upgraded to 1.0.7.15 or above, downgrading to 1.0.5.x firmware version or lower is not supported.
- For GXP2170/2135, once upgraded to 1.0.7.15 or above, downgrading to 1.0.6.9 firmware version or lower is not supported.

### ENHANCEMENT

- Added support for Broadsoft XSI authentication type [BROADSOFT XSI AUTHENTICATION TYPE SUPPORT]
- Added support to configure Broadsoft XSI SIP authentication method by selecting the account [CONFIGURE BROADSOFT XSI SIP AUTHENTICATION METHOD]
- Added support to stop Screensaver when VPK is active
- Improve Auto-provision for Vonage server
- Added option to disable Auto Location Service from IpVideoTalk server [ENABLE/DISABLE AUTO LOCATION SERVICE FROM IpVideoTalk SERVER]
- Added supports for secondary NTP server [SECONDARY NTP SERVER]
- Added the ability to specify Eventlist BLF listening transport protocol which will allow the phone to listen on the incoming notify for the Eventlist through different transport protocol than the one used by SIP [EVENTLIST BLF LISTENING TRANSPORT PROTOCOL]
- Added support to play sound notification when one or more monitored BLF is ringing [SOUND NOTIFICATION]
- Added support to populate configurable User Agent field [USER-AGENT PREFIX]
- Added support to request model-specific configuration file during the provisioning process [REQUEST MODEL-SPECIFIC CONFIGURATION FILE]
- Added support to remove audio codec information on call screen [HIDE VOCODER]
- Added support of BLF call pickup with Barge-In option [CALL PICKUP BARGE-IN OPTION]
- Added option to control Speakerphone RX gain [SPEAKERPHONE RX GAIN CONTROL]
- Added support to display status detail when Ethernet not connected, account not register or configured [STATUS DETAIL DISPLAY]

- Added support of IEEE-48-addr and IEEE-EUI-64 in PEI header [SUPPORT FOR IEEE-48-ADDR AND IEEE-EUI-64 IN PEI HEADER]
- Added support to allow partial match using STAR code In Broadsoft XSI search [PARTIAL MATCH IN BROADSOFT XSI SEARCH]
- Added support to filter out invalid symbols (ex. brackets, hyphen) from dialed numbers [FILTERING OUT INVALID SYMBOLS]
- Added support to populate the WAN access node in SIP PANI head [SUPPORT FOR POPULATING THE WAN ACCESS NODE IN SIP]
- Added ability to allow user to specify which number to dial from LDAP results [DIAL FROM LDAP RESULTS]
- Added DNS SRV Fail-over Mode option support [DNS SRV FAIL-OVER MODE]
- Added Conference CEI to support UCM conference change
- Added separate subscription expire options for each account [SEPARATE SUBSCRIPTION EXPIRATION TIMER]
- Added more information on info popup window [LCD POPUP WINDOW]
- Added support for default Dial Plan { x+ | \+x+ | \*x+ | \*xx\*x+ } [DIAL PLAN { x+ | \+x+ | \*x+ | \*xx\*x+ }]

## BUG FIX

- Fixed Phone cannot hang up after performing Blind Transfer in speaker mode
- Fixed that GUI crashed after kicking UCM conference participant
- Fixed that if the proxy does NOT respond with Proxy DNS SRV it will jump back after 1 registration
- Fixed that during SIP fail over due to no response from the server the device does not do a DNS lookup for the SIP proxy domain
- Fixed that if the proxy responds with 503 it will not fail over to the next IP in the DNS SRV
- Fixed VONAGE-GUI crashed after manually configure Eventlist BLF
- Fixed that call will be drop automatically by the phone after 45 sec when phone accomplishes an attended transfer and receive a call after that
- Fixed that Broadsoft XSI app can't establish secure connection
- Fixed that blind transfer ignores the pattern destinations specified in the dial plan
- Fixed that device does not displaying Name field in missed calls if Call waiting is disabled
- Fixed that phone keeps sending SIP instance ID after changing its value to NO unless phone is rebooted.
- Fixed that NAPTR/SRV mode in DNS does not work
- Fixed phone rejects messages from known proxy when proxy is cleared from DNS cache
- Fixed phone rejects OPTIONS/UPDATE from known server when the option Accept Incoming SIP from Proxy only is enabled
- Fixed that CallPark Softkey works intermittently
- Fixed web GUI Edit/Delete operations fail issue when performing on contacts which appear on search results
- Fixed that Auto provision Eventlist BLF does not work with Broadsoft servers
- Fixed that Auto Provision Eventlist BLF must be filled with EXT field from XML

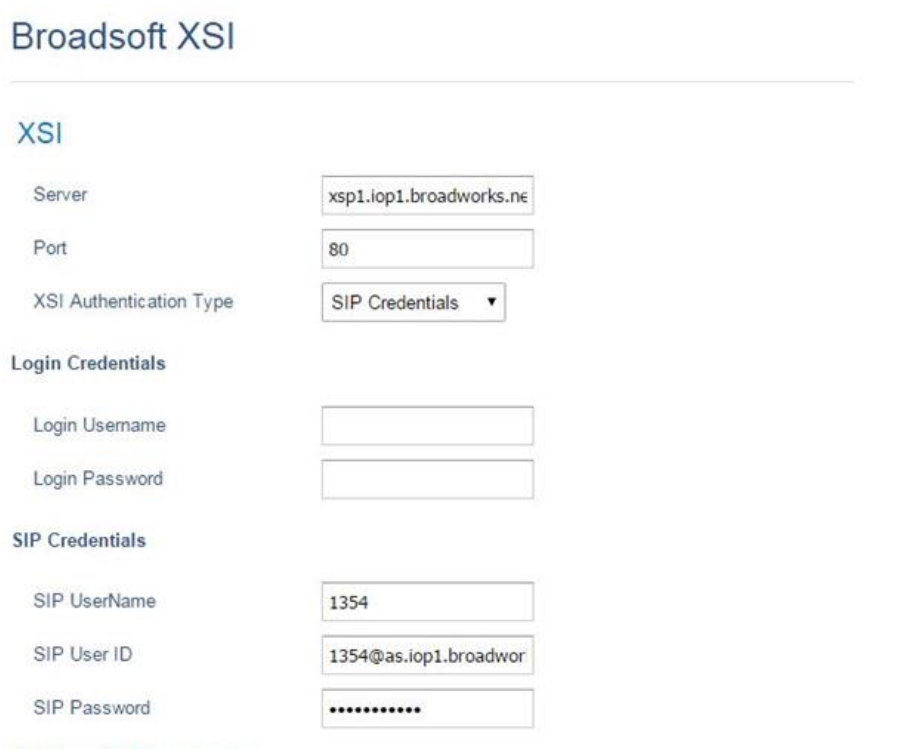
## NEW FEATURES OVERVIEW

This section lists major new features and describes how to use it from the user's point of view.

### BROADSOFT XSI AUTHENTICATION TYPE SUPPORT

- **Web Configuration**

This option can be found under device web UI->Settings->Broadsoft->Broadsoft XSI.



The screenshot shows the 'Broadsoft XSI' configuration page. It includes the following fields:

- XSI**
  - Server: xsp1.iop1.broadworks.ne
  - Port: 80
  - XSI Authentication Type: SIP Credentials (dropdown menu)
- Login Credentials**
  - Login Username: [empty text box]
  - Login Password: [empty text box]
- SIP Credentials**
  - SIP UserName: 1354
  - SIP User ID: 1354@as.iop1.broadwor
  - SIP Password: [masked with dots]

- **Functionality**

This option is used to provide SIP Authentication option for Broadsoft XSI. Configure the SIP Credentials and select SIP Credentials as XSI Authentication Type. Phone will offer SIP Credentials when connecting to Broadsoft XSI.

- **New P Values**

Pvalue	Description	Value range	Default
P6772	<New Pvalue> Pvalue to set SIP UserName for Broadsoft XSI	String	None
P22034	<New Pvalue> Pvalue to set SIP User ID for Broadsoft XSI	String	None

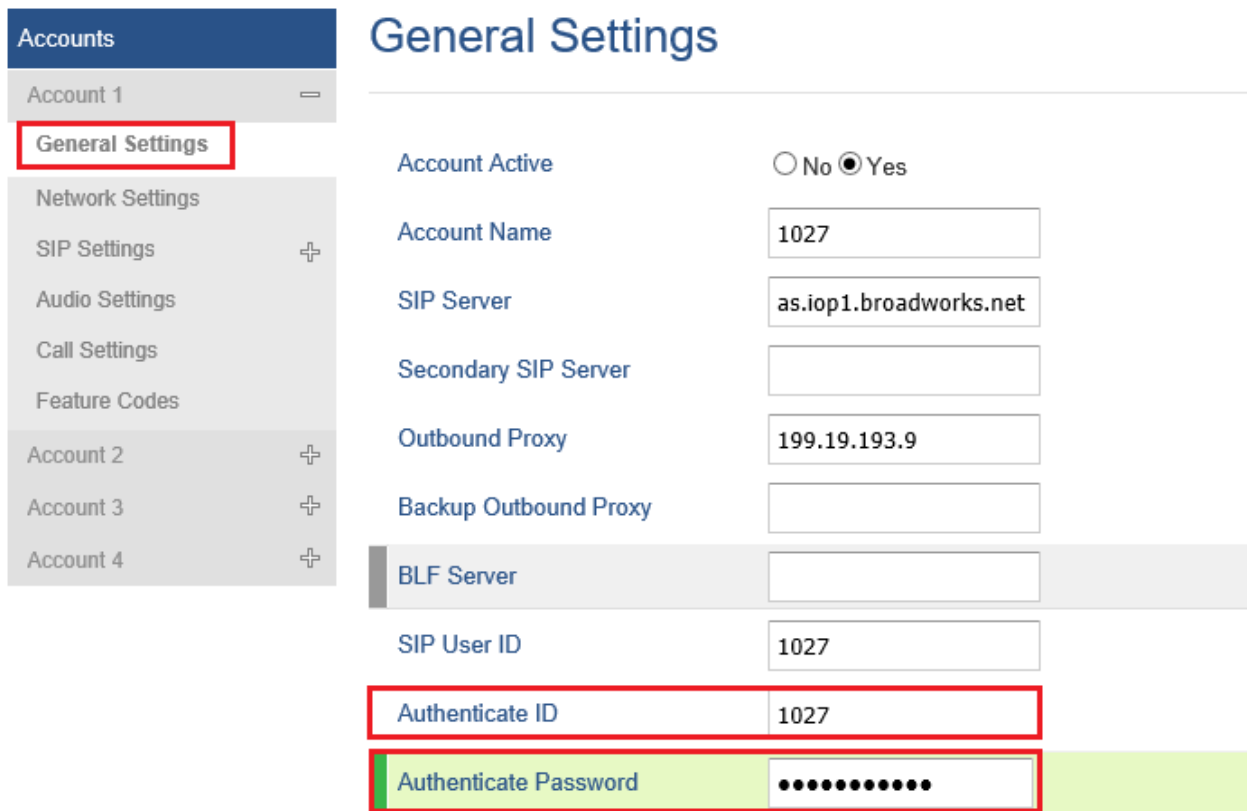
P6773	<New Pvalue> Pvalue to set SIP Password for Broadsoft XSI	String	None
P22054	<New Pvalue> Pvalue to set XSI Authentication Type for Broadsoft XSI	0 for Login Credentials 1 for SIP Credentials	0

## CONFIGURE BROADSOFT XSI SIP AUTHENTICATION METHOD

- **Web Configuration**

User can use Authenticate ID and Authenticate Password as SIP Username and SIP Password respectively account this feature from Web configuration

In Accounts Tab -> Account # -> General Settings:



The screenshot shows the 'Accounts' tab with 'Account 1' selected. The 'General Settings' section is expanded, showing various configuration options. The 'Authenticate ID' and 'Authenticate Password' fields are highlighted with red boxes. The 'Authenticate Password' field is currently masked with dots.

Field	Value
Account Active	<input type="radio"/> No <input checked="" type="radio"/> Yes
Account Name	1027
SIP Server	as.iop1.broadworks.net
Secondary SIP Server	
Outbound Proxy	199.19.193.9
Backup Outbound Proxy	
BLF Server	
SIP User ID	1027
Authenticate ID	1027
Authenticate Password	••••••••••

Authenticate ID and Authenticate Password must be configured if a user select that account for accessing Broadsoft XSI Directory and Call Log.

In Settings Tab -> Broadsoft -> Broadsoft XSI Settings, Users need to configure Server Path, Port, account

number, SIP User ID and enable the XSI directories they would like to access.

**Settings**

- General Settings
- Call Features
- Multicast Paging
- Ring Tone
- Audio Control
- LCD Display
- LED Control
- Date and Time
- Web Service
- XML Applications
- Programmable Keys +
- Extension Boards +
- Broadsoft =
- Broadsoft XSI**
- Broadsoft IM&P
- Outbound Notification +

## Broadsoft XSI

---

### XSI

Server

Port

XSI Authentication Type

Login Credentials

SIP Credentials

Account 1

Account 2

Account 3

Account 4

### Login Credentials

Login Username

Login Password

### SIP Credentials

SIP UserName

SIP User ID

SIP Password

### Network Directories

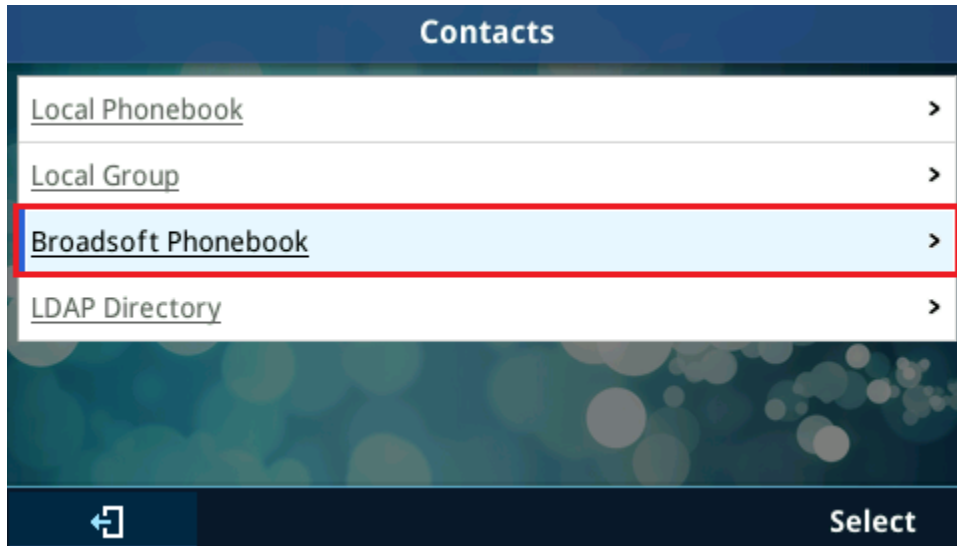
Type	Enabled	Name
Group Directory	Enabled	<input style="width: 80%;" type="text"/>
Enterprise Directory	Enabled	<input style="width: 80%;" type="text"/>
Group Common	Enabled	<input style="width: 80%;" type="text"/>
Enterprise Common	Enabled	<input style="width: 80%;" type="text"/>
Personal Directory	Enabled	<input style="width: 80%;" type="text"/>

- **Functionality**

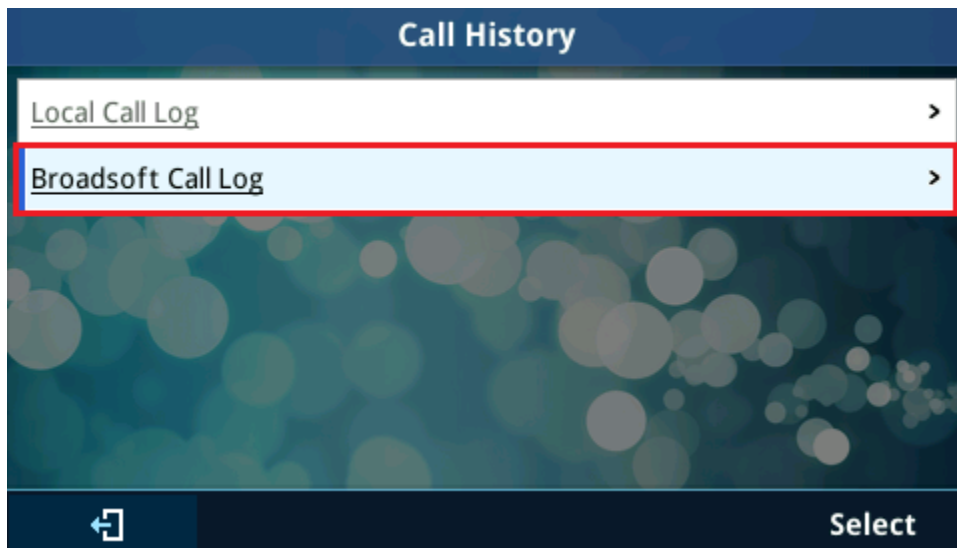
This new method for Broadsoft XSI authentication is selecting SIP account instead of manually input SIP Username and SIP Password. By this way, users can save time on configuration.

Phone can retrieve Authenticate ID and Authenticate password information from the selected account and use them as SIP credential for accessing Broadsoft XSI Directory and Call Log information.

Check functionality under Menu Screen: when all required information are set, Broadsoft Phonebook option will appear in Contacts tab.



Broadsoft Call Log option will appear in Call History tab.



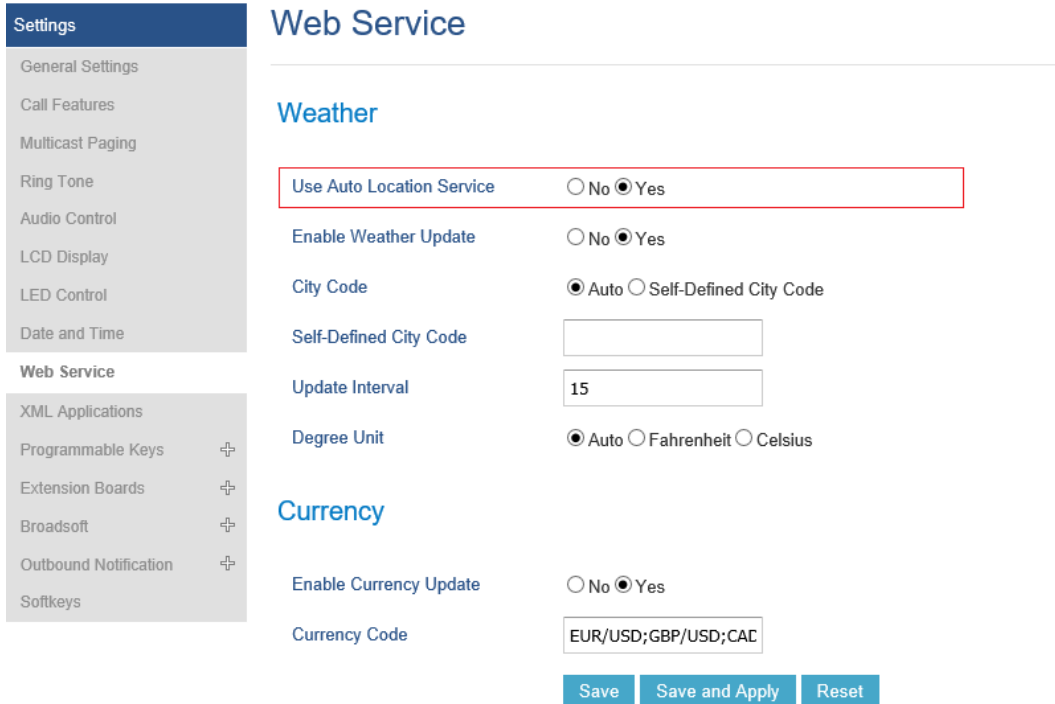
- **Changed P Values**

P value	Description	Value range	Default
P22054	<Changed Pvalue> Pvalue to set XSI Authentication Type for Broadsoft XSI	2 to 7 for SIP Credentials of account 1 to 6.	0

## ENABLE/DISABLE AUTO LOCATION SERVICE FROM IpVideoTalk SERVER

- **Web Configuration**

This option can be found under device web UI->Settings->Web service:



The screenshot shows the 'Web Service' configuration page. On the left is a settings menu with categories: 'Settings' (General Settings, Call Features, Multicast Paging, Ring Tone, Audio Control, LCD Display, LED Control, Date and Time) and 'Web Service' (XML Applications, Programmable Keys, Extension Boards, Broadsoft, Outbound Notification, Softkeys). The main content area is titled 'Web Service' and contains two sections: 'Weather' and 'Currency'. In the 'Weather' section, the 'Use Auto Location Service' option is selected with a radio button and is highlighted with a red box. Other options include 'Enable Weather Update' (Yes), 'City Code' (Auto), 'Self-Defined City Code' (empty field), 'Update Interval' (15), and 'Degree Unit' (Auto). The 'Currency' section includes 'Enable Currency Update' (Yes) and 'Currency Code' (EUR/USD;GBP/USD;CAC). At the bottom are 'Save', 'Save and Apply', and 'Reset' buttons.

- **Functionality**

User could enable or disable auto location services on the phone to decide whether phone could get the location information from IPVideoTalk service server. Reboot required to take effect.

In the original design, the phone will automatically send DNS request to IPVideoTalk server for location information at phone booting.

The option give users a choice to disable auto location feature. If users disable the service, the phone will stop sending DNS request for location information. It can reduce network traffic and speed up the provisioning process as well.

To check the functionality, we use Wireshark to trace DNS packets.

When Use Auto Location Service option is set as Yes, user can find DNS request send to service.ipvideotalk.com.

No.	Time	Source	Destination	Protocol	Length	Info
109	25.6898281	172.18.172.18	192.168.4	DNS	83	Standard query 0x2786 A service.ipvideotalk.com
110	25.7072361	192.168.172.18	172.18.23	DNS	543	Standard query response 0x2786 A service.ipvideotalk.com CNAME
111	25.7109871	172.18.192.168	172.18.23	DNS	83	Standard query 0x7d8d AAAA service.ipvideotalk.com
112	25.7117541	192.168.172.18	172.18.23	DNS	181	Standard query response 0x7d8d AAAA service.ipvideotalk.com CNAME
113	25.7205361	172.18.192.168	172.18.23	DNS	83	Standard query 0xfc36 A service.ipvideotalk.com
114	25.7213631	192.168.172.18	172.18.23	DNS	543	Standard query response 0xfc36 A service.ipvideotalk.com CNAME
964	37.8236541	172.18.192.168	172.18.23	DNS	78	Standard query 0xbc49 A fm.grandstream.com
965	37.8244451	192.168.172.18	172.18.23	DNS	190	Standard query response 0xbc49 A fm.grandstream.com A 54.169.67.
984	40.1766251	172.18.192.168	172.18.23	DNS	78	Standard query 0x181d A fm.grandstream.com
985	40.1773851	192.168.172.18	172.18.23	DNS	190	Standard query response 0x181d A fm.grandstream.com A 54.169.67.
1006	42.4732221	172.18.192.168	172.18.23	DNS	78	Standard query 0x69b4 A fm.grandstream.com
1007	42.4739991	192.168.172.18	172.18.23	DNS	190	Standard query response 0x69b4 A fm.grandstream.com A 54.169.67.
1048	44.4053131	172.18.192.168	172.18.23	DNS	78	Standard query 0xbb9c A fm.grandstream.com

When Use Auto Location Service option is set as No, after rebooting the phone, user can find out there is no DNS request send to service.ipvideotalk.com in the Wireshark trace.

No.	Time	Source	Destination	Protocol	Length	Info
1086	53.8192711	172.18.192.168	172.18.23	DNS	78	Standard query 0xae39 A fm.grandstream.com
1087	53.8200391	192.168.172.18	172.18.23	DNS	190	Standard query response 0xae39 A fm.grandstream.com A 54.169.67.73
1128	56.2745901	172.18.192.168	172.18.23	DNS	78	Standard query 0xb2c8 A fm.grandstream.com
1129	56.2753891	192.168.172.18	172.18.23	DNS	190	Standard query response 0xb2c8 A fm.grandstream.com A 54.169.67.73
1150	58.2580021	172.18.192.168	172.18.23	DNS	78	Standard query 0xa48a A fm.grandstream.com
1151	58.2587791	192.168.172.18	172.18.23	DNS	190	Standard query response 0xa48a A fm.grandstream.com A 54.169.67.73
1168	60.1847331	172.18.192.168	172.18.23	DNS	78	Standard query 0x9f6e A fm.grandstream.com

- **New P Values**

Pvalue	Description	Value range	Default
P8338	<New Pvalue> Pvalue to disable or enable Auto Location Service	0: No 1: Yes	1

## SECONDARY NTP SERVER

- **Web Configuration**

User can find the new option at Web configuration Settings → Date and Time.



**Settings**

General Settings

Call Features

Multicast Paging

Ring Tone

Audio Control

LCD Display

LED Control

**Date and Time**

Web Service

XML Applications

Programmable Keys +

Extension Boards +

Broadsoft +

Outbound Notification +

## Date and Time

---

NTP Server

**Secondary NTP Server**

NTP Update Interval

Allow DHCP Option 42 to override NTP server  No  Yes

Time Zone

Allow DHCP Option 2 to Override Time Zone Setting

Self-Defined Time Zone

Date Display Format

Time Display Format  12 Hour  24 Hour

- **Functionality**

New design will improve current NTP server's behavior in two ways bellow.

GXP should try all of the IP address that DNS server provided. Previously, GXP doesn't try next IP in DNS resolution if there is no response from current IP.

Allow user to configure 2 NTP server domain names. GXP will loop through all of the IP addresses resolved from them.

### EVENTLIST BLF LISTENING TRANSPORT PROTOCOL

- **Web Configuration**

User can find the new option at Web configuration Settings→Accounts→Account Number→SIP Settings→Basic Settings.

**Accounts**

Account 1 -

General Settings

Network Settings

SIP Settings -

**Basic Settings**

Advanced Features

Session Timer

Security Settings

Audio Settings

Call Settings

Feature Codes

Account 2 +

Account 3 +

Account 4 +

Account 5 +

Account 6 +

## Basic 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 Listening Mode  Transport Only  Dual  Dual (Secured)  
 Dual (BLF Enforced)

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

- **Functionality**

Based on option “SIP Transport” and new option “SIP Listening Mode”, GXP will decide which transport protocol it should listening to from the incoming request.

	SIP Transport Mode	UDP	TCP	TLS/TCP
SIP Listening Mode				
<b>Transport Only</b>		Accept incoming request using UDP. All outgoing request will go out using UDP.	Accept incoming request using TCP. All outgoing request will go out using TCP.	Accept incoming request using TLS/TCP. All outgoing request will go out using TLS/TCP.

<b>Dual</b>	Accept incoming request using both TCP and UDP. All outgoing request will go out using UDP.	Accept incoming request using both TCP and UDP. All outgoing request will go out using TCP.	-
<b>Dual (Secured)</b>	Accept incoming request using both TLS/TCP and UDP. All outgoing request will go out using UDP.	-	Accept incoming request using both TLS/TCP and UDP. All outgoing request will go out using TLS/TCP.
<b>Dual (BLF Enforced)</b>	Accept incoming request using both TCP and UDP. All outgoing request will go out using UDP except for the BLF/Eventlist subscription the phone will add Transport=TCP into the contact header.	Accept incoming request using both TCP and UDP. All outgoing request will go out using TCP except for the BLF/Eventlist subscription the phone will add Transport=TCP into the contact header.	-

- **New P values**

Pvalue	Description	Value range	Default
P26024	<New Pvalue>	0: Transport Only	0
P26124	Pvalue to set SIP Listening mode for each account Pvalue to disable or enable Auto Location Service	1: Dual	
P26224		2: Dual (Secured)	
P26324		3: Dual (BLF Enforced)	
P26424			
P26524			

## SOUND NOTIFICATION

- **Web Configuration**

User can find the new option at Web configuration Settings→Call Features.

Default call log type Default ▼

Enable BLF Pickup Screen  No  Yes

Enable BLF Pickup Sound  No  Yes

Local Call Recording Feature  Disabled  Enabled

- **Functionality**

New options added to allow user to enable sound and LCD notification when one or more monitored BLF is ringing.

By Enable BLF Pickup Screen, when monitored BLF is ringing, GXP should pop up a BLF information window.

By Enable BLF Pickup Sound, when monitored BLF is ringing, GXP should play a sound to inform user.

- **New P Values**

P value	Description	Value range	Default
P9905	<New P value> Pvalue to enable BLF pickup screen	0 or 1 0: No 1: Yes	0
P9906	<New P value> P value to enable BLF pickup Sound	0 or 1 0: No 1: Yes	0

## USER-AGENT PREFIX

- **Web Configuration**

User can find the new option at Web configuration Settings → Call Features. A new option “User-Agent Prefix” is added

Local Call Recording Feature  Disabled  Enabled

Saved Local Call Recording Location Internal Storage ▼

Download Local Call Recordings [Download](#)

User-Agent Prefix

Auto Provision List Starting Point  Extension Boards  VPK

[Save](#) [Save and Apply](#) [Reset](#)

**User-Agent Prefix**

Configure the prefix in the User-Agent header.

---

[Reset to Default](#)

[Undo](#)

Copyright © Grandstream

- **Functionality**

Add a new option for input the user agent field with operator configurable value or value that identifies the device. The option should be configurable to give the end point device specific identification. Ex. The value could be Mobile, Fixed, Desktop, and etc. The configured User Agent should be prepend to vendor's default User

The new design can be briefly summarized as bellow.

A new P value will be assigned to set User-Agent Prefix. User will be able to configure this option through web, or configuration file. The Prefix User-Agent configured will be prepend to default user Agent.

For example, default User-Agent field: Grandstream GXP2170 1.0.7.25

User-Agent Prefix: Work-Phone

New User-Agent field: User-Agent: Work-Phone Grandstream GXP2170 1.0.7.25

To check the functionality, we make a phone call from DUT and check the SIP INVITE message sent out.

Before setting User-Agent Prefix

```
INVITE sip:741@172.18.32.58 SIP/2.0
Via: SIP/2.0/UDP 172.18.21.34:5060;branch=z9hG4bK669509149;rport
From: "742" <sip:742@172.18.32.58>;tag=1287565619
To: sip:741@172.18.32.58
Call-ID: 448810970-5060-3@BHC.BI.CB.DE
CSeq: 20 INVITE
Contact: "742" sip:742@172.18.21.34:5060
Max-Forwards: 70
User-Agent: Grandstream GXP2170 1.0.7.25
Supported: replaces, path, timer
Allow: INVITE, ACK, OPTIONS, CANCEL, BYE, SUBSCRIBE, NOTIFY, INFO, REFER, UPDATE, MESSAGE
Content-Type: application/sdp
Accept: application/sdp, application/dtmf-relay
Content-Length: 210
```

After setting User-Agent Prefix to Work-Phone

```

INVITE sip:741@172.18.32.58 SIP/2.0
Via: SIP/2.0/UDP 172.18.21.34:5060;branch=z9hG4bK252838042;rport
From: "742" <sip:742@172.18.32.58>;tag=85821971
To: sip:741@172.18.32.58
Call-ID: 1513280525-5060-4@BHC.BI.CB.DE
CSeq: 31 INVITE
Contact: "742" sip:742@172.18.21.34:5060
Max-Forwards: 70
User-Agent: Work-Phone Grandstream GXP2170 1.0.7.25
Supported: replaces, path, timer
Allow: INVITE, ACK, OPTIONS, CANCEL, BYE, SUBSCRIBE, NOTIFY, INFO, REFER, UPDATE, MESSAGE
Content-Type: application/sdp
Accept: application/sdp, application/dtmf-relay
Content-Length: 210
  
```

- New P Values**

P value	Description	Value range	Default
P8358	<New P value> P value to set User-Agent Prefix	String	NONE

## REQUEST MODEL-SPECIFIC CONFIGURATION FILE

- Functionality**

Add model specific configuration file to be requested during the provisioning process.

For example: When GXP2170 request the provisioning files it needS to also request the following file: cfggxp2170.xml.

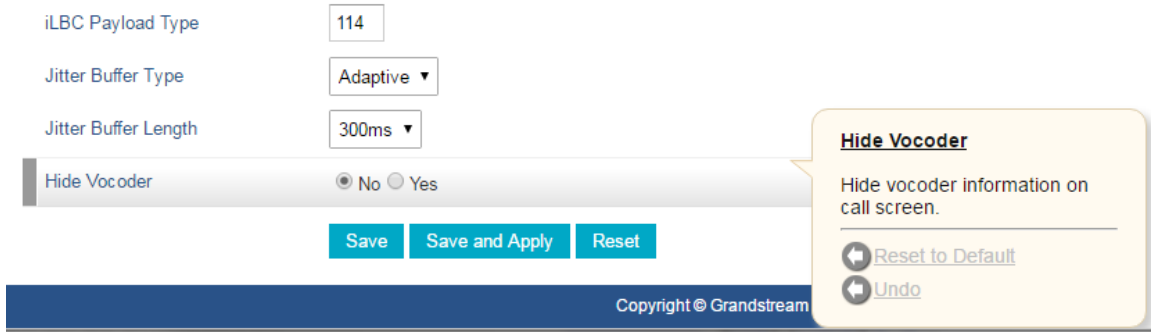
```

548 2016/127 17:10:57.542685000 172.18.21.5 54.169.67.73 HTTP 237 GET /gs/cfggxp2170.xml HTTP/1.0
<
[Frame 2548: 237 bytes on wire (1896 bits), 237 bytes captured (1896 bits) on interface 0]
[Ethernet II, Src: Grandstr_87:a3:b3 (00:0b:82:87:a3:b3), Dst: All-HSRP-routers_02 (00:00:0c:07:ac:02)]
[Internet Protocol Version 4, Src: 172.18.21.5 (172.18.21.5), Dst: 54.169.67.73 (54.169.67.73)]
[Transmission Control Protocol, Src Port: 52605 (52605), Dst Port: 80 (80), Seq: 1, Ack: 1, Len: 171]
[Hypertext Transfer Protocol]
[GET /gs/cfggxp2170.xml HTTP/1.0\r\n
User-Agent: Grandstream Model HW GXP2170 SW 1.0.7.25 DevId 000b8287a3b3\r\n
Accept: */*\r\n
Host: fm.grandstream.com\r\n
Connection: Keep-Alive\r\n
\r\n
[Full request URI: http://fm.grandstream.com/gs/cfggxp2170.xml]
[HTTP request 1/1]
[Response in frame: 2555]
  
```

## HIDE VOCODER

- Web Configuration**

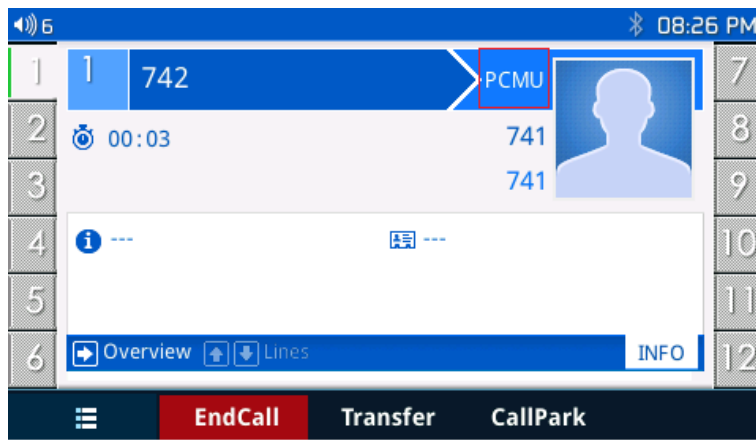
User can find the new item at Web configuration Accounts →Account Number →Audio Settings. A new option “Hide Vocoder” is added.



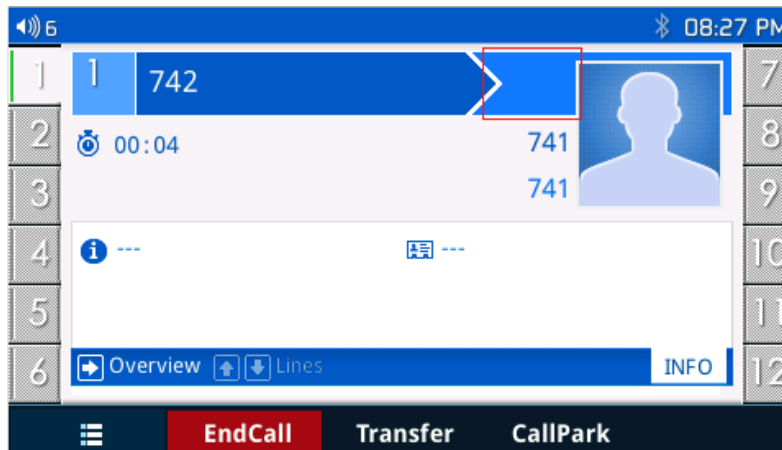
• **Functionality**

To check the functionality, we establish a phone call from DUT and check the call screen.

When option Hide Vocoder is set as No, user can check the codec on the call screen as bellow.



When option Hide Vocoder is set as Yes, the coded will be hidden from call screen as bellow.



- **New P Values**

P value	Description	Value range	Default
P26047	<New Pvalue>	Number, 0 or 1	0
P26147	Pvalue to set Hide Vocoder for account	No:0	
P26247	1-6	Yes:1	
P26347			
P26447			
P26547			

### CALL PICKUP BARGE-IN OPTION

- **Web configuration**

We take Broadsoft service server configuration for example:

Enable BLF Eventlist function: Configuration Path: Group → Users → Client Applications → Busy Lamp Field

The screenshot shows the 'Busy Lamp Field' configuration page. The breadcrumb path is Group → Users : 2409991438 → Client Applications → Busy Lamp Field. The 'List URI' is set to sip: test1438@as.iop1.broadworks.net. The 'Monitored Users' list contains three entries: Nami,1436 (2409991436), Nami,1437 (2409991437), and Nami,1439 (2409991439). The 'Available Users' list is currently empty.

The information List URI sip and Monitored Users field will be configured in Grandstream Phone.

Check Call Pickup with Barge-in code: Configuration Path: Group → User → Utilities → Feature Access Codes



Group: **Users : 2409991438** Welcome [Logout](#)

**Options:**

- [Profile](#)
- [Incoming Calls](#)
- [Outgoing Calls](#)
- [Call Control](#)
- [Client Applications](#)
- [Messaging](#)
- [Service Scripts](#)
- [Collaborate](#)
- [Utilities](#)

### Feature Access Codes

Feature Access Codes list the star codes for services that you have. To activate a service, hit the \* key and the number followed by the # key. Some require additional information such as a phone number, but you are prompted for that information. You cannot change your feature access codes.

OK Apply Cancel

Enable	Feature Access Code Name	Main (Required)	Alternate (Optional)
<input checked="" type="checkbox"/>	Advice Of Charge Activation	*34	*A*A*
<input checked="" type="checkbox"/>	Anonymous Call Rejection Activation	*77	
<input checked="" type="checkbox"/>	Anonymous Call Rejection Deactivation	*87	
<input checked="" type="checkbox"/>	Anonymous Call Rejection Interrogation	*52*	
<input checked="" type="checkbox"/>	BroadWorks Anywhere E.164 Dialing	*14	
<input checked="" type="checkbox"/>	Call Bridge	*15	
<input checked="" type="checkbox"/>	Cancel Call Waiting	*70	
<input checked="" type="checkbox"/>	Clear Voice Message Waiting Indicator	*99	
<input checked="" type="checkbox"/>	Connected Line Identification Restriction Interrogation	*56*	
<input checked="" type="checkbox"/>	Customer Originated Trace	*57	
<input checked="" type="checkbox"/>	Directed Call Pickup	*97	
<input checked="" type="checkbox"/>	Directed Call Pickup with Barge-in	*33	
<input checked="" type="checkbox"/>	Direct Voice Mail Transfer	*55	

Based on Broadsoft Service server, the default Feature Access Code for Directed Call Pickup With Barge-in is \*33. This information will be configured in Grandstream Web Setting → Accounts → Account # → SIP Settings → Advanced Features

**Accounts**

- Account 1
- General Settings
- Network Settings
- SIP Settings
- Basic Settings
- Advanced Features
- Session Timer
- Security Settings
- Audio Settings
- Call Settings
- Feature Codes
- Account 2

## Advanced Features

Line-seize Timeout

Eventlist BLF URI

Auto Provision Eventlist BLFs  Disabled  Enabled

Conference URI

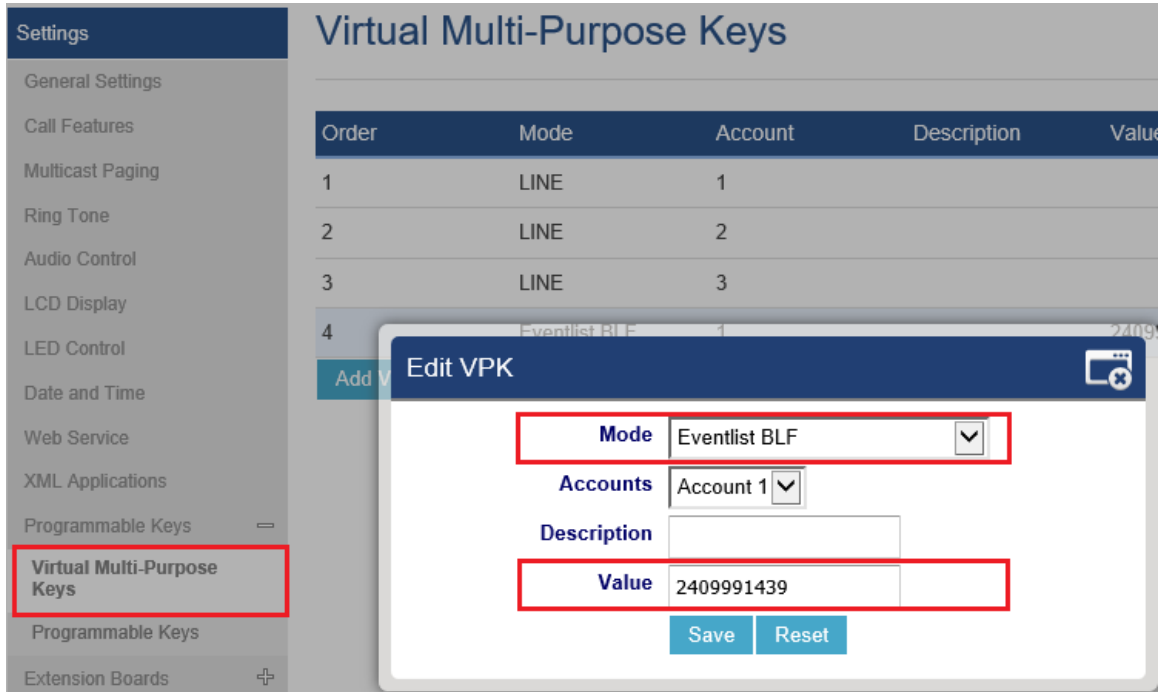
Music On Hold URI

Force BLF Call-pickup by prefix  Disabled  Enabled

BLF Call-pickup Prefix

Call Pickup Barge-In Code

Configure Eventlist BLF for one of monitored extension in Visual MPK



- **Functionality**

This new feature will provide the following functionality:

Allow users to dial a feature access code (FAC) followed by an extension number to pick up or barge-in a call to the monitored extension.

If the monitored extension is ringing state (LED indicator is flashing red), a user can pick up that call before the call is answered by monitored side.

If the monitored extension is in talk (LED indicator is solid red), a user can barge-in that existing call. That is, monitored side will release the call, the barge-in user become the controller of this call. When a barge-in occurs and the user's warning tone is enabled on server side, a user would hear barge-in warning tone.

Monitored Extension 2409991429 is Call Ringing State

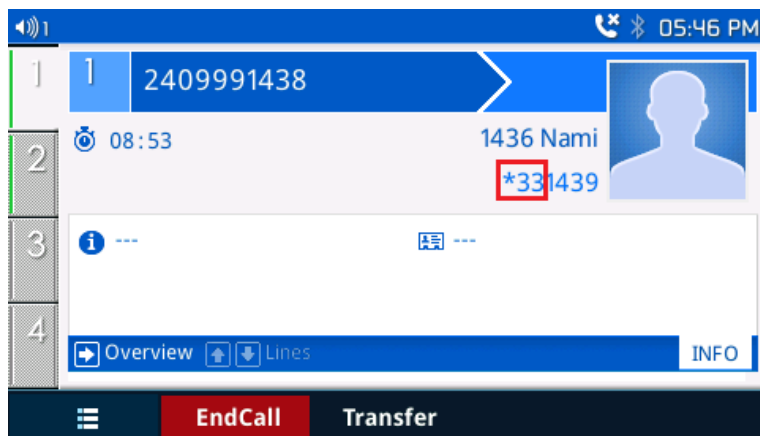


Monitored extension 2409991429 is busy, which is on talk state



In the above two states, User can use Call Pickup with Barge-in by pressing the key, which is configured as Eventlist BLF function key.

When the phone performs Call Pickup with Barge-in, the call screen would be likes as the follow image and the user might hear the warning tone if the function is enabled.



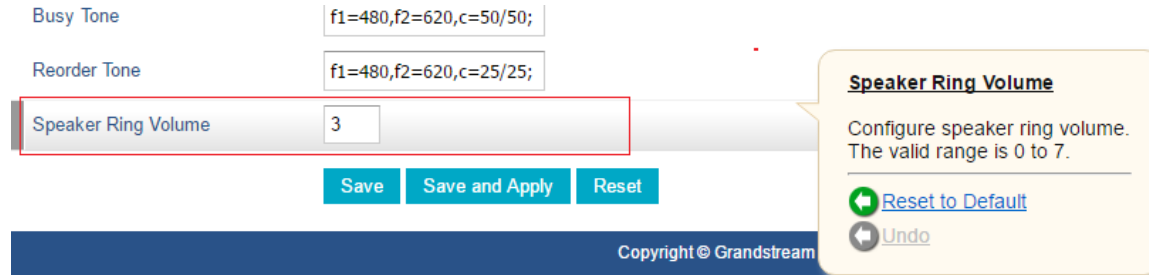
- New P Values**

Pvalue	Description	Value range	Default
P26046	Call Pick up with Barge-In Code	String	NONE
P26146			
P26246			
P26346			
P26446			
P26546			

## SPEAKERPHONE RX GAIN CONTROL

- Web Configuration**

User can find the new item at Web configuration Settings → Ring Tones Speaker, Ring Volume option is added.



- Functionality**

User can configure speaker ring volume. The valid range is 0 to 7. The speaker ring volume will change after applying the changes.

- New P Values**

P value	Description	Value range	Default
P8352	<New P value> P value to set speaker ring volume	0 to 7.	5

## STATUS DETAIL DISPLAY

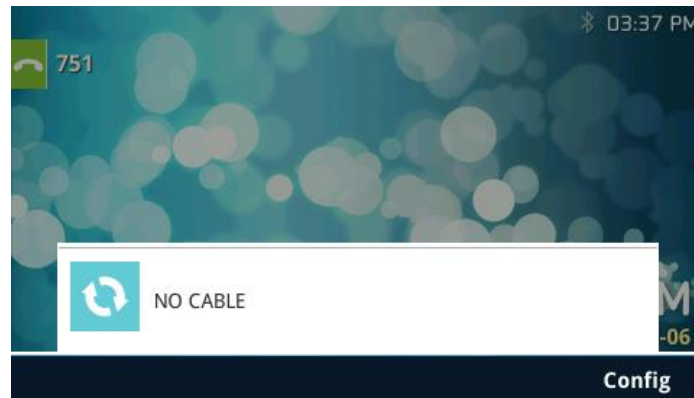
- Functionality**

User can see more accurate display on LCD when Ethernet is not connected, account is not registered or configured.

1) Network Down:



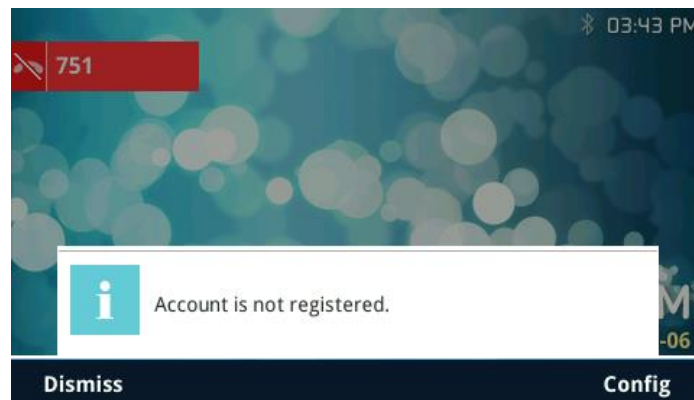
2) No Cable:



3) Internet Down:



4) Account is not registered:



Detailed warning window display condition can be summarized as below.

**No Bluetooth Handsfree connected:**

--Network Down or Cable not connected

Loading popup window will be displayed indicates "Network Down" or "No LAN Cable".

Config Softkey: Visible when Keypad Menu mode is not "basic settings only".

-- Internet Down and no account registered (Incorrect configuration of DNS will lead to Internet Down)

Loading popup window will be displayed indicates "Internet Down".

Config Softkey: Visible when Keypad Menu mode is not "basic settings only".

DirectIP Softkey: Visible when direct IP call is not disabled.

Network Softkey: Always visible to check network status.

-- Internet Down and has account registered

Popup window will be closed.

#### **With Bluetooth Handsfree connected:**

No network related warning window will be displayed.

For Hard key handling during network warning window shown:

-- Menu key: User can access menu module.

-- Phonebook key: User can access Phonebook module.

-- Other keys are blocked.

#### **PARTIAL MATCH IN BROADSOFT XSI SEARCH**

- **Functionality**

Added supports for searching partial match for the phonebook entry by adding STAR code in Broadsoft XSI search.

Type a string contained for a search field, for example "TE" in First Name field of Broadsoft XSI search.

Phone will send the following:

```
1355@as.iop1.broadworks.net/directories/group?lastName=&firstName=*TE*&number=
```

This will help to displayed all the entry with first name including "TE".

#### **FILTERING OUT INVALID SYMBOLS**

- **Functionality**

When dialing contact number either from local Phonebook or LDAP book which contains some characters like '(' or ')' or spaces and dashes, the call will be established and these characters will be removed before sending digits.

For example:

When creating phonebook or use LDAP contact with a number in the following form "(234) 567-8901".

Make a call from phonebook or LDAP book contact, 2345678901 will be sent out.

## SUPPORT FOR IEEE-48-ADDR AND IEEE-EUI-64 IN PEI HEADER

- **Functionality**

Add support of IEEE-48-addr and IEEE-EUI-64 in SIP header for emergency calls. Phone will populate the IEEE-48-addr, IEEE-EUI-64 (Example: IEEE-EUI-48; eui-48-addr=00-02-3F-1F-B2-42) in the PEI (P-emergency info) SIP header.

From Wireshark, we could find this info in PEI Invite SIP

```
header  P-Emergency-Info: IEEE-EUI-48; eui-48-addr=00-0B-82-84-92-B7
Supported: replaces, path, timer
Allow: INVITE, ACK, OPTIONS, CANCEL, BYE, SUBSCRIBE, NOTIFY, INFO, REFER, UPDATE, MESSAGE
Content-Type: application/sdp
Accept: application/sdp, application/dtmf-relay
Content-Length: 307
```

## SUPPORT FOR POPULATING THE WAN ACCESS NODE IN SIP

- **Functionality**

Phone will include the MAC of Access Point in P-Access-Network-Info header. From Wireshark, we could find this info in P-Access-Network-Info header.

```
P-Preferred-Identity: <sip:3003@192.168.92.200>
SIP PPI Address: sip:3003@192.168.92.200
SIP PPI User Part: 3003
SIP PPI Host Part: 192.168.92.200
P-Access-Network-Info: IEEE-EUI-48; eui-48-addr=9C-37-F4-84-05-56
```

## DIAL FROM LDAP RESULTS

- **Functionality**

Add the support let the user could dial the selected number from the LDAP results.

Configure the phone with correct LDAP info, then fill Name attribute with a value, such as CallerID Name, and Number attribute with Account Number, Mobile Number, Home Number etc. Make an LDAP search on the phone. Select an Entry, then press Dial Soft Key. Phone will show a screen to let user select the number to call from LDAP entry attributes.

## DNS SRV FAIL-OVER MODE

- **Web Configuration**

User can find the new option at Web configuration ACCOUNTS ->Account 1(1-6) ->Network Settings

Grandstream GXP2140 Admin Logout | Reboot | Provision | Factory Reset | English ▾

---

**GRANDSTREAM** STATUS ACCOUNTS SETTINGS NETWORK MAINTENANCE PHONEBOOK

Version 1.0.7.25

**Accounts**

Account 1 ▾

General Settings

**Network Settings**

SIP Settings +

Audio Settings

Call Settings

Feature Codes

Account 2 +

Account 3 +

Account 4 +

## Network Settings

DNS Mode A Record ▾

**DNS SRV Fail-over Mode** Default ▾

Primary IP

Backup IP 1

Backup IP 2

NAT Traversal No ▾

Proxy-Require

Save
Save and Apply
Reset

**DNS SRV Fail-over Mode**

Configure the preferred IP mode for DNS SRV. If selected "default", first IP from query result will be applied; If selected "Saved one until DNS TTL", previous IP will be applied before reaches dns timeout; If selected "Saved one until no response", previous IP will be applied even after dns time out until it cannot response

[Reset to Default](#)  
[Undo](#)

Copyright © Grandstream

- **Functionality**

The option will decide which IP is going to be used in sending SIP packets after IPs for SIP server host are resolved with DNS SRV. When a phone sends register sip requests, the phone will resolve the configured SIP server via DNS SRV. Normally, this will result in multiple IP address.

Regardless of which option set, it will try to send register messages to one IP at a time for each IP until it receives response. Then the phone is going to be registered with the server that received responses. However, its renewal registration will be sent to IP based on the configured option.

If the option is set with "default", it will again try to send register messages to one IP at a time, and the process repeats.

If the option is set with "Saved one until DNS TTL", it will send register messages to the previously registered IP first. If no response, it will try to send one at a time for each IP. This behavior lasts as long as DNS TTL (time-to-live) is up.

If the option is set with "Saved one until no responses", it will send register messages to the previously registered IP first, but this behavior will persist until the registered server does not respond.

- **New P Values**

P value	Description	Value range	Default
P26040	Account 1: P value to DNS SRV Fail-over Mode	0: Default	0



		1: Saved one until DNS TTL 2: Saved one until no response	
P26140	Account 2: P value to DNS SRV Fail-over Mode	0: Default 1: Saved one until DNS TTL 2: Saved one until no response	0
P26240	Account 3: P value to DNS SRV Fail-over Mode	0: Default 1: Saved one until DNS TTL 2: Saved one until no response	0
P26340	Account 4: P value to DNS SRV Fail-over Mode	0: Default 1: Saved one until DNS TTL 2: Saved one until no response	0
P26440	Account 5: P value to DNS SRV Fail-over Mode	0: Default 1: Saved one until DNS TTL 2: Saved one until no response	0
P26540	Account 6: P value to DNS SRV Fail-over Mode	0: Default 1: Saved one until DNS TTL 2: Saved one until no response	0

#### SEPARATE SUBSCRIPTION EXPIRATION TIMER

- **Web Configuration**

User can find the new option at Web configuration ACCOUNTS → Account 1(1-6) → SIP Settings → Basic Settings → Subscribe Expiration



**Accounts**

- Account 1 -
- General Settings
- Network Settings
- SIP Settings -
- Basic Settings**
- Advanced Features
- Session Timer
- Security Settings
- Audio Settings
- Call Settings
- Feature Codes
- Account 2 +
- Account 3 +
- Account 4 +
- Account 5 +
- Account 6 +

## Basic Settings

TEL URI  Disabled  User=phone  Enabled

SIP Registration  No  Yes

Unregister on Reboot  No  All  Instance

Register Expiration

**Subscribe 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 Listening Mode  Transport Only  Dual  Dual (Secured)  
 Dual (BLF Enforced)

SIP URI Scheme When Using TLS  sip  sips

- **Functionality**

New design separate expiration timer between registration and subscription. This will reduce unnecessary network traffic.

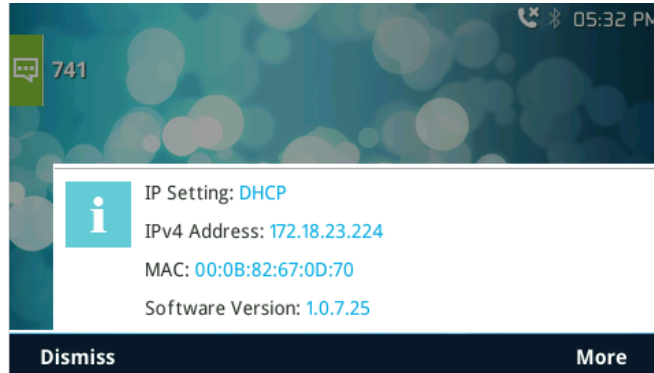
- **New P Values**

P value	Description	Value range	Default
P26051	Account 1: P value to set Subscribe Expiration	0-64800(minutes)	60
P26151	Account 2: P value to set Subscribe Expiration	0-64800(minutes)	60
P26251	Account 3: P value to set Subscribe Expiration	0-64800(minutes)	60
P26351	Account 4: P value to set Subscribe Expiration	0-64800(minutes)	60
P26451	Account 5: P value to set Subscribe Expiration	0-64800(minutes)	60
P26551	Account 6: P value to set Subscribe Expiration	0-64800(minutes)	60

## LCD POPUP WINDOW

- **LCD info popup window**

In addition to IP Setting and IP Address, more information including MAC address and Software Version were added into info popup window.



- **Functionality**

Same as original design, user can press “UP” key to show Info popup window and press Dismiss to close the window. A new softkey “More” is added to bring user to Status menu page directly.

### DIAL PLAN { x+ | \+x+ | \*x+ | \*xx\*x+ }

The original default dial plan value was { x+ | \*x+ | \*xx\*x+ }, even there was no “\+x+” included, the phone still allowed dialing any number with a leading +. We fixed this issue on this version, and added rule “\+x+” to represent “dialing any number with a leading +”. The new default dial plan value is changed to { x+ | \+x+ | \*x+ | \*xx\*x+ } accordingly, the explanation for this default dial plan are as follows:

Allow any number of digits, OR any number with a leading +, OR any number with a leading \*, OR any number with a leading \* followed by a 2 digits number and a \*.

- **Note:**

In this version, user need to reset to new default dial plan value or add “\+x+” to dial plan to allow “dialing any number with a leading +”, to dial + from keypad, press on 0 until + appears on LCD.

Reset to default on Web →Accounts → Account Number →Call Settings:

**Accounts**

Account 1

General Settings

Network Settings

SIP Settings

Audio Settings

**Call Settings**

Feature Codes

Account 2

Account 3

Account 4

## Call Settings

Early Dial  No  Yes

Dial Plan Prefix

**Dial Plan**

Call Log  Log All Calls  
 Log Incoming/Outgoing Only (missed calls NOT recorded)  
 Disable Call Log

Account Ring Tone

Match Incoming Caller ID

**Dial Plan**

Configures the dial plan rule. For syntax and examples, please refer to user manual for more details.

[Reset to Default](#)

[Undo](#)

- **Changed P Values**

P Value	Description	Value range	Default
P290	Account 1: Pvalue to set Dial Plan	String	{ x+   \+x+   *x+   *xx*x+ }
P459			
P559			
P659			
P1759			
P1859			

## FIRMWARE VERSION 1.0.7.15

### PRODUCT NAME

GXP2130, GXP2140, GXP2160, GXP2170 and GXP2135

### DATE

03/12/2016

### IMPORTANT UPGRADING NOTE

- **For GXP2130/2140/2160, once upgraded to 1.0.7.15, downgrading to 1.0.5.x firmware version or lower is not supported.**
- **For GXP2170/2135, once upgraded to 1.0.7.15, downgrading to 1.0.6.9 firmware version or lower is not supported.**

### ENHANCEMENT

- Added support for No Touch Provisioning to prompt for username and password for XML config file download for Broadsoft server [NO TOUCH PROVISIONING]
- Changed the default provisioning protocol to HTTPS. This option “Upgrade via” is under phone’s web UI->Maintenance->Upgrade and provisioning.
- Added support for outbound notification [OUTBOUND NOTIFICATION SUPPORT]
- Added support for Virtual Multi-Purpose Keys [VIRTUAL MULTI-PURPOSE KEYS SUPPORT]
- Added support to show programmable keys status on web UI [PROGRAMMABLE KEYS STATUS ON WEB UI]
- Added option “Auto Provision List Starting Point” on web UI [AUTO PROVISION LIST STARTING POINT]
- Added additional ability to customize DHCP option for provisioning server [ADDITIONAL OVERRIDE DHCP OPTION]
- Added support for iLBC and G723 [ILBC AND G.723.1 SUPPORT]
- Added options for G723 rate, iLBC frame size and payload type [ILBC AND G.723.1 SUPPORT]
- Added option to enable and disable session timer [ENABLE SESSION TIMER]
- Added option to ring speaker for call waiting [RING SPEAKER FOR CALL WAITING]
- Added configurable backlight timer [CONFIGURABLE BACKLIGHT TIMER]
- Added color background wallpaper selection [COLOR BACKGROUND WALLPAPER SELECTION]
- Added BLF LED Pattern Explanation Form on web UI [BLF LED PATTERN EXPLANATION IN WEB UI]
- Disable screen saver when VPK is active [DISABLE SCREENSAVER WHEN VPK IS ACTIVE]
- Added fully black support for the idle screen LCD brightness (i.e., allow idle brightness to be 0) [FULL BLACK SUPPORT FOR IDLE LCD BRIGHTNESS]

- Add Blind and Attended Transfer softkey options [BLIND TRANSFER AND ATTENDED TRANSFER SOFTKEY]
- Add ability to display SIP MESSAGE text on LCD [DISPLAY SIP MESSAGE TEXT ON LCD]

## BUG FIX

- Fixed Line keys' LED doesn't provide visual indications of Shared call appearances
- Fixed GXP2170 Call Center Guest Login box does not display the cursor
- Fixed VPK does not change status if manually configure Eventlist BLF
- Fixed Line LED doesn't light up in transferring page
- Fixed Line LED turns off after pressing Home softkey in NO RESPONSE call page
- Fixed Line LED turns off after switching to home screen then entering other screen during the call
- Fixed GXP2130/40/60's some VPK modes doesn't work or display in LCD
- Fixed LCD does not respond after off-hook at the broken network state
- Fixed Preferred vocoder could be reset after device factory reset
- Fixed Phone cannot auto answer by the call-info provided in certain scenarios
- Fixed "Alert-Info" for ring tone is ignored
- Fixed Phone doesn't update the CID when performing auto-attended transfer
- Fixed Phone keeps sending "SUBSCRIBE" after receiving "NOTIFY" with reason=noresource
- Fixed Dialing screen display mobile number instead of home number
- Fixed Transferred call logs do not display the name of the transferred number
- Fixed Device works abnormal after pressing EHS headset key at the on-hook dialing screen
- Fixed Bluetooth hands-free line flashes in red when there is no incoming call on the Bluetooth hands-free line
- Fixed Bluetooth hands-free call screen displays "PrivateHold" softkey which should be invalid
- Fixed Device uses Bluetooth hands-free line to call voicemail user ID
- Fixed Plantronics EHS compatibility issue
- Fixed "Confcall" softkey in Bluetooth hands-free line and SIP calls doesn't work
- Fixed Display language of softkeys on "Keypad Locking Password" box does not update
- Fixed Time zone string is incorrect for New Foundland, Canada
- Fixed Instant message is displayed abnormally
- Fixed Audio is cut off in the beginning of the outgoing RTP stream when receiving an incoming call
- Fixed Phone failed to retrieve the parked call through the call park feature
- Fixed Phone lost network access when enabling LLDP/LLDP-med
- Fixed Phone is not recognized by some TP-LINK switch using LLDP
- Fixed "Confirm" softkey is displayed abnormally when deleting phonebook entry through dialing page
- Fixed LCD does not jump to dialing screen after pressing "NewCall softkey" in the conference
- Fixed Broadsoft IM&P feature that the phone uses wrong DNS query type
- Fixed Extra route header on ACK request
- Fixed Adding "Save confirmation" message when saving settings on phone GUI
- Changed default dial plan to { x+ | \+x+ | \*x+ | \*xx\*x+ }

## NEW FEATURES OVERVIEW

This section lists major new features and describes how to use it from the user's point of view.

### NO TOUCH PROVISIONING

After the phone sends config file request to the Broadsoft provisioning server via HTTP/HTTPS, if the provisioning server responds 401 Unauthorized asking for authentication, the phone's LCD will prompt a window for user to enter username and password. Once correct username and password are entered, the phone will send config file request again with authentication. Then the phone will receive the config file to download and get provisioned automatically.

Besides manually entering the username and password in LCD prompt, users can save the login credentials for provisioning process as well. The username and password configuration is under phone's web UI->Maintenance->Upgrade and provisioning page: "HTTP/HTTPS Username" and "HTTP/HTTPS Password". If the saved username and password saved are correct, login window will be skipped. Otherwise, login window will be popped up to prompt users to enter correct username and password again.

### OUTBOUND NOTIFICATION SUPPORT

Outbound notification options can be found under device web UI->Settings->Outbound Notifications. In the web UI, there are three sections under Outbound Notifications: "Action URL", "Destination" and "Notification".

- **Action URL**

To use Outbound Notification->Action URL, users need to know the supported events and the dynamic variables for the supported events. The dynamic variables for the supported events will be replaced by the actual values on the phone in order to notify the event to SIP server.

Settings	Action URL	
General Settings	Setup Completed	<input type="text"/>
Call Features	Registered	<input type="text"/>
Multicast Paging	Unregistered	<input type="text"/>
Ring Tone	Off Hook	<input type="text"/>
Audio Control	On Hook	<input type="text"/>
LCD Display	Incoming Call	<input type="text"/>
LED Control	Outgoing Call	<input type="text"/>
Date and Time	Missed Call	<input type="text"/>
Web Service	Established Call	<input type="text"/>
XML Applications	Terminated Call	<input type="text"/>
Programmable Keys <span style="float: right;">+</span>	Open DND	<input type="text"/>
Extension Boards <span style="float: right;">+</span>	Close DND	<input type="text"/>
Broadsoft <span style="float: right;">+</span>	Open Forward	<input type="text"/>
Outbound Notification <span style="float: right;">-</span>	Close Forward	<input type="text"/>
<b>Action URL</b>	Blind Transfer	<input type="text"/>
Destination	Attended Transfer	<input type="text"/>
Notification	Hold Call	<input type="text"/>
	UnHold Call	<input type="text"/>
	<input type="button" value="Save"/> <input type="button" value="Save and Apply"/> <input type="button" value="Reset"/>	

Supported Events:
Setup Completed
Registered
Unregistered
Off Hook
On Hook
Incoming Call
Outgoing Call
Missed Call
Established Call
Terminated Call
Open DND
Close DND



Open Forward
Close Forward
Blind Transfer
Attended Transfer
Hold Call
UnHold Call

Supported Dynamic Variables	
Dynamic Variable	Description
\$phone_ip	The IP address of the phone
\$mac	The MAC address of the phone
\$product	The product name of the phone
\$program_version	The software version of the phone
\$hardware_version	The hardware version of the phone
\$language	The display language of the phone
\$local	The called number on the phone
\$display_local	The display name of the called number on the phone
\$remote	The call number on the remote phone
\$display_remote	The display name of the call number on the remote phone
\$active_user	The account number during a call on the phone

After the user finishes setting Action URL on phone's web UI, when the specific phone event occurs on the phone, phone will send the Action URL to the specified SIP server. The dynamic variables in the Action URL will be replaced by the actual values.

Here is an example:

Configure the following Action URL on the phone's web UI->Settings->Outbound Notification->Action URL:

*Incoming Call:*     172.18.24.103/mac=\$mac&local=\$local  
*Outgoing Call:*    172.18.24.103/remote=\$remote&phone\_ip=\$phone\_ip  
*On hold:*            172.18.24.103/program\_version=\$program\_version

During incoming call, outgoing call and call hold, capture the trace on the phone and examine the packets. We can see the phone send Action URL with actual values to SIP server to notify phone events. In the following screenshot, from top to bottom, the phone events for each HTTP message are: Outgoing Call, Incoming Call and On Hold in the format of the defined action URL with the parameters replaced with actual values.

Source	Destination	Protocol	Length	Info
000	172.18.23.173	172.18.24.103	HTTP	150 GET /mac=00:0B:82:67:0D:6E&local=2071 HTTP/1.1
7000	172.18.23.173	172.18.24.103	HTTP	152 GET /remote=2071&phone_ip=172.18.23.173 HTTP/1.1
8000	172.18.23.173	172.18.24.103	HTTP	144 GET /program_version=0.10.5.111 HTTP/1.1

```

<
[+] Frame 457: 150 bytes on wire (1200 bits), 150 bytes captured (1200 bits) on interface 0
[+] Ethernet II, Src: Grandstr_67:0d:6e (00:0b:82:67:0d:6e), Dst: Grandstr_64:e3:12 (00:0b:82:64:e3:12)
[+] Internet Protocol Version 4, Src: 172.18.23.173 (172.18.23.173), Dst: 172.18.24.103 (172.18.24.103)
[+] Transmission Control Protocol, Src Port: 50668 (50668), Dst Port: 80 (80), Seq: 1, Ack: 1, Len: 84
[+] Hypertext Transfer Protocol
  [GET /mac=00:0B:82:67:0D:6E&local=2071 HTTP/1.1\r\n
    [Expert Info (Chat/Sequence): GET /mac=00:0B:82:67:0D:6E&local=2071 HTTP/1.1\r\n]
    [GET /mac=00:0B:82:67:0D:6E&local=2071 HTTP/1.1\r\n]
    [Severity level: chat]
    [Group: Sequence]
    Request Method: GET
    Request URI: /mac=00:0B:82:67:0D:6E&local=2071
    Request Version: HTTP/1.1
    Host: 172.18.24.103\r\n
    Accept: */*\r\n
    \r\n
    [Full request URI: http://172.18.24.103/mac=00:0B:82:67:0D:6E&local=2071]
    [HTTP request 1/1]
    [Response in frame: 462]
  ]
  
```

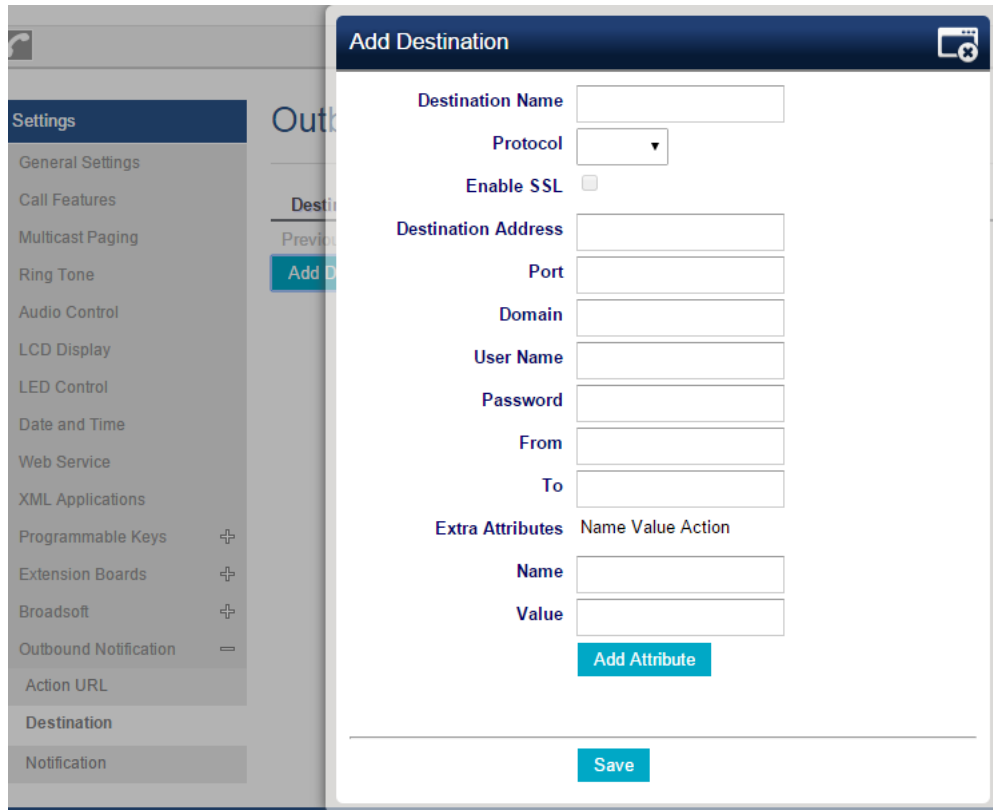
The P values listed in below table are for the options under phone web UI->Settings->Outbound Notification->Action URL.

P Value	Web UI Option	Value Format
P8304	Setup Completed	String
P8305	Registered	
P8306	Unregistered	
P8308	Off Hook	
P8309	On Hook	
P8310	Incoming Call	
P8311	Outgoing Call	
P8312	Missed Call	
P8313	Established Call	
P8314	Terminated Call	
P8316	Open DND	
P8317	Close DND	
P8318	Open Forward	
P8319	Close Forward	
P8320	Blind Transfer	
P8321	Attended Transfer	
P8324	Hold Call	
P8325	UnHold Call	

- **Destination**

The options under phone's web UI->Settings->Outbound Notification->Destination configures outbound

notification destination server information. Click on “Add Destination” and users will see following window to configure destination server information.



The screenshot shows a web interface with a sidebar on the left containing a 'Settings' menu. The 'Destination' section is highlighted. A modal window titled 'Add Destination' is open, displaying the following fields and controls:

- Destination Name: Text input field
- Protocol: Dropdown menu
- Enable SSL: Checkmark
- Destination Address: Text input field
- Port: Text input field
- Domain: Text input field
- User Name: Text input field
- Password: Text input field
- From: Text input field
- To: Text input field
- Extra Attributes: Section with sub-fields:
  - Name: Text input field
  - Value: Text input field
  - Action: Text input field

Buttons for 'Add Attribute' and 'Save' are located at the bottom of the modal window.

The following table describes each option in the above interface.

Destination Server Option	Description
Destination Name	Identify the destination name. It must be unique.
Protocol	Configure the protocol associated with the destination server. Currently XMPP and SMTP are supported.
Enable SSL	Configure whether to use SSL to encrypt for SMTP protocol. This option is not editable for XMPP.
Destination Address	Configure destination server address, e.g., talk.google.com.
Port	Configure destination server port, e.g., 5222.
Domain	Configure the destination server domain for XMPP protocol. This option is not editable for SMTP.
User Name	Configure the authorization user name of the destination server.
Password	Configure the authorization user password for the destination server.
From	Configure the sender name for SMTP protocol. This option is not editable for XMPP.
To	Configure the receiver's address.
Extra Attribute Name	Configure extra attribute's name reserved for protocol specific attributes such as "jid" for XMPP protocol. If "jid" is specified, user name and

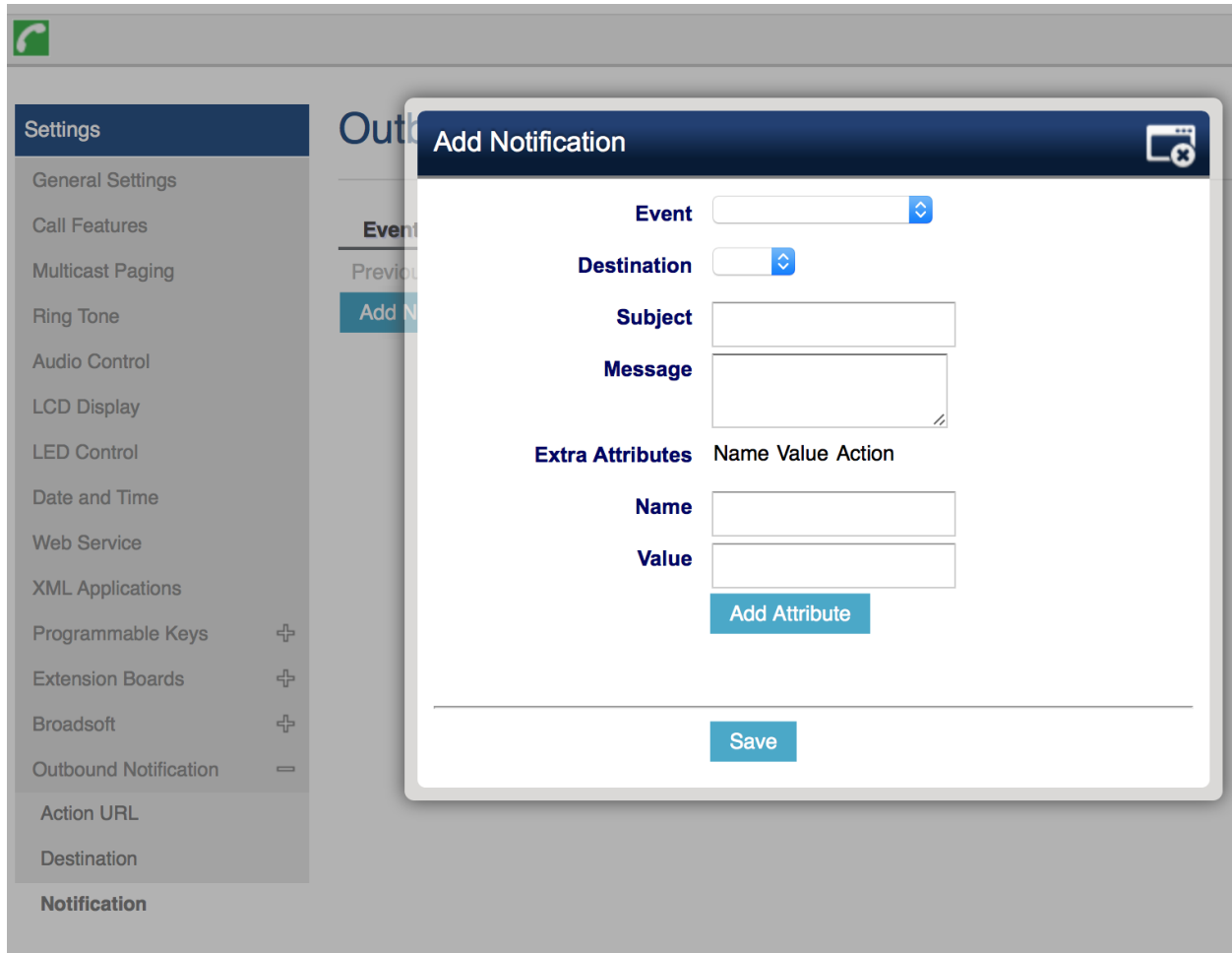
	domain will be overridden.
Extra Attribute Value	Configure extra attribute's value reserved for protocol specific attributes such as "abc@gmail.com" for "jid" of XMPP protocol. If it's specified, user name and domain will be overridden.

Up to 10 destinations can be configured here. The P values are listed in below table.

P Value	Destination	Value Format
P9910	Destination 1	String. Each P value consists of all the options configured for this destination.
P9911	Destination 2	Example 1 - Destination 1 with protocol XMPP and 2 extra Attributes configured: P9910=serverName= <i>destination1</i> &protocol= <i>XMPP</i> &serverAddress= <i>talk.google.com</i> &port= <i>5222</i> &user= <i>username1</i> &password= <i>password1</i> &from= <i>&amp;</i> &to= <i>t</i> <i>o1</i> &domain= <i>gmail.com</i> &extraAttrName1= <i>extraAttrValue1</i> &extraAttrName2= <i>extraAttrValue2</i>  Example 2 - Destination 2 with protocol SMTP and 3 extra Attributes configured: P9911=serverName= <i>destination2</i> &protocol= <i>SMTP</i> &serverAddress= <i>smtps://smtp.gmail.com</i> &port= <i>465</i> &user= <i>username2</i> &password= <i>password2</i> &from= <i>username2</i> &to= <i>to2</i> &domain= <i>&amp;</i> &extraAttrName1= <i>extraAttrValue1</i> &extraAttrName2= <i>extraAttrValue2</i> &extraAttrName3= <i>extraAttrValue3</i>  The <i>highlighted strings</i> in above examples are the actual values configured in each field for the destination.
P9912	Destination 3	
P9913	Destination 4	
P9914	Destination 5	
P9915	Destination 6	
P9916	Destination 7	
P9917	Destination 8	
P9918	Destination 9	
P9919	Destination 10	

- **Notification**

After configuring destination server, users can configure notification information under phone's web UI->Settings->Outbound Notification->Notification. Click on "Add Notification" and users will see following window to configure notification.



Notification Option	Description
Event	Configure the event which will trigger an outbound notification.
Destination	Configure the name of the destination where the outbound notification will be sent to.
Subject	Configure the subject of Email notification. This option is only applicable to SMTP protocol and it's not editable for other protocols.
Message	Configure the message body of the outbound notification.
Extra Attribute Name	Configure extra attribute's name reserved for specific attributes for a given notification in the future.
Extra Attribute Value	Configure extra attribute's value reserved for specific attributes for a given notification in the future.

The message body of the notification for each event can be customized with dynamic attributes embedded. The following table shows the mapping between event and dynamic attribute.

Event	Dynamic Attribute Name	Dynamic Attribute Description
Call_Missed	line	Line number associated with the call
	account	Account number associated with the call
	remoteNumber	The remote party number
	remoteName	The remote party name
	localNumber	The local party number
	localName	The local party name
	sipServer	The SIP server address of the account
	call-id	The SIP dialog call ID
	time	The time stamp when the missed call event occurs
DND	status	This is for DND status. The value can be "enabled" or "disabled"
Call_Forward	callType	This is for the type of the call. The value can be "incoming" or "outgoing"
	line	Line number associated with the call
	account	Account number associated with the call
	remoteNumber	The remote party number
	remoteName	The remote party name
	localNumber	The local party number
	localName	The local party name
	sipServer	The SIP server address of the account
	call-id	The SIP dialog call ID
	time	The timestamp when the call is forwarded
	fwNumber	Call Forward destination number
	fwReason	Call Forward reason
OAM_Login	OAMUser	OAM user name such as "admin"
	OAMLoginSource	OAM login source. The value can be "SSH" or "WebGUI"
	OAMLoginFromIP	OAM login From IP address. The value is the IP address of the PC who will log in phone's web UI or SSH
	OAMLoginCode	OAM login result code. The value can be "succeeded" or "failed"
	time	OAM login time stamp
OAM_Lockout	OAMUser	OAM user name such as "admin"
	OAMLoginSource	OAM login source. The value can be "SSH" or "WebGUI"
	OAMLoginFromIP	OAM login From IP address. The value is the IP address of the PC who will log in phone's web UI or SSH

	OAMLockoutCode	OAM lockout result code. The value can be “locked” or “unlocked”
	OAMLockoutTime	OAM lockout time stamp
Incoming_Call	callingNumber	Calling party number
	callType	Type of the call. The value can be “incoming” or “outgoing”
	line	Line number associated with the call
	account	Account number associated with the call
	remoteNumber	The remote party number
	remoteName	The remote party name
	localNumber	The local party number
	localName	The local party name
	sipServer	The SIP server address of the account
	call-id	The SIP dialog call ID
	time	The time stamp when the incoming call event occurs
Outgoing_Call	callType	Type of the call. The value can be “incoming” or “outgoing”
	line	Line number associated with the call
	account	Account number associated with the call
	remoteNumber	The remote party number
	remoteName	The remote party name
	localNumber	The local party number
	localName	The local party name
	sipServer	The SIP server address of the account
	time	The time stamp when the outgoing call event occurs
Call_Established	callType	Type of the call. The value can be “incoming” or “outgoing”
	line	Line number associated with the call
	account	Account number associated with the call
	remoteNumber	The remote party number
	remoteName	The remote party name
	localNumber	The local party number
	localName	The local party name
	sipServer	The SIP server address of the account
	call-id	The SIP dialog call ID
		startTime
Call_Terminated	callType	Type of the call. The value can be “incoming” or “outgoing”
	line	Line number associated with the call

	account	Account number associated with the call
	remoteNumber	The remote party number
	remoteName	The remote party name
	localNumber	The local party number
	localName	The local party name
	sipServer	The SIP server address of the account
	call-id	The SIP dialog call ID
	startTime	The time stamp when the call is established
Call_Forward_Status	duration	The call duration
	account	The account number associated with the call forward status change
	forwardNumberAll	The forward number for Call Forward All
	forwardNumberBusy	The forward number for Call Forward Busy
	forwardNumberNoAns	The forward number for Call Forward No Answer
Call Hold	callType	Type of the call. The value can be "incoming" or "outgoing"
	line	Line number associated with the call
	account	Account number associated with the call
	remoteNumber	The remote party number
	remoteName	The remote party name
	localNumber	The local party number
	localName	The local party name
	sipServer	The SIP server address of the account
	call-id	The SIP dialog call ID
	startTime	The time stamp when the call is on hold
Call_Resume	callType	Type of the call. The value can be "incoming" or "outgoing"
	line	Line number associated with the call
	account	Account number associated with the call
	remoteNumber	The remote party number
	remoteName	The remote party name
	localNumber	The local party number
	localName	The local party name
	sipServer	The SIP server address of the account
	call-id	The SIP dialog call ID
	startTime	The time stamp when the call is resumed
Blind_Transfer	line	Line number associated with the call
	account	Account number associated with the call
	remoteNumber	The remote party number
	remoteName	The remote party name



	localNumber	The local party number
	localName	The local party name
	sipServer	The SIP server address of the account
	call-id	The SIP dialog call ID
	time	The time stamp when the call is transferred
	transferName	Transferred party name
	transferNumber	Transferred party number
Attended_Transfer	Line	Line number associated with the call
	account	Account number associated with the call
	remoteNumber	The remote party number
	remoteName	The remote party name
	localNumber	The local party number
	localName	The local party name
	sipServer	The SIP server address of the account
	call-id	The SIP dialog call ID
	Time	The time stamp when the call is transferred
		transferName
	transferNumber	Transferred party number
Register_Status	registerStatus	Account register status. The value can be "registered" or "unregistered"
Bootup_Complete	N/A	N/A
The dynamic attributes in this row are common attributes that can be applied to all events	mac	MAC address of the phone
	phone_ip	IP address of the phone
	program_version	Software version of the phone
	hardware_version	Hardware version of the phone
	product	Product name of the phone
	language	Display language on the phone

All above dynamic attributes' value is generated by phone system and can be used as dynamic attributes with a pair of curved braces around them. For example, if the message body is specified as following:  
*Your call from {remoteName}:{remoteNumber} to {localName}:{localNumber} was forwarded to {fwdNumber} by reason {fwdReason}.*

Then the message received in the outbound notification will look like this:

*Your call from Daniel:2070 to Jasmine:2071 was forwarded to 777777 by reason unconditional.*

Only attributes in curved braces will be replaced by the run time value. Other content will remain the same as static text.

For each event, at most 3 notifications can be configured. In total, up to 75 notifications can be configured. The P value for each notification is listed in below table.

P Value	Notification	Value Format
P9920	Notification 1	String. Each P value consists of all the options configured for this notification.
P9921	Notification 2	
P9922	Notification 3	Example 1 – Notification 1 for event “Call_Missed” to destination 1, with 2 extra Attributes configured:
P9923	Notification 4	P9920=eventName= <i>Call_Missed</i> &destName= <i>destination1</i> &subject=&msg= <i>You have a missed call from {remoteName}:{remoteNumber} on Line {line}, account {account} at {time}.&amp;extraAttrName1=extraAttrValue1&amp;extraAttrName2=extraValue2</i>
P9924	Notification 5	
P9925	Notification 6	
P9926	Notification 7	Example 2 – Notification 2 for event “Incoming_Call” to destination 2, with 2 extra Attributes configured:
P9927	Notification 8	P9921= eventName= <i>Incoming_Call</i> &destName= <i>destination2</i> &subject= <i>Incoming Call Alert</i> &msg= <i>You have an {callType} call from {remoteName}:{remoteNumber} on Line {line}, account {account} at {time}.&amp;extraAttrName1=extraAttrValue1&amp;extraAttrName2=extraAttrValue2</i>
P9928	Notification 9	
P9929	Notification 10	
...	...	
P9993	Notification 73	
P9994	Notification 74	The <i>highlighted strings</i> in above examples are the actual values configured in each field for the notification.
P9995	Notification 75	

## VIRTUAL MULTI-PURPOSE KEYS SUPPORT

- **Web UI Configuration**

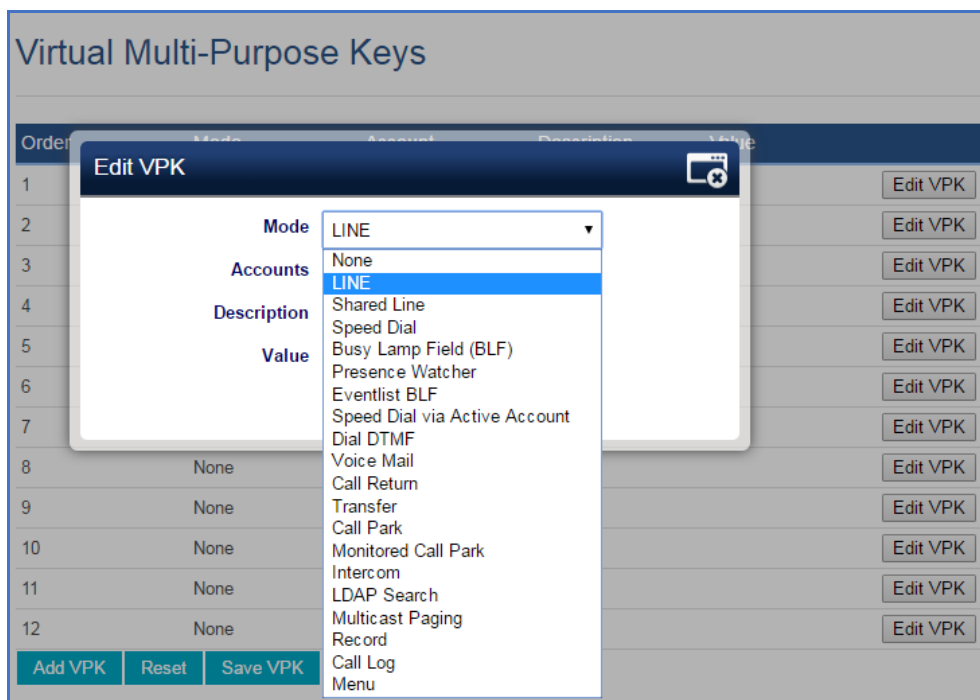
Users can find new Virtual Multi-Purpose Keys (VPK) configuration under phone's web UI->Settings->Programmable Keys->Virtual Multi-Purpose Keys tab. It is recommended to select “Reset” on this page before configuring VPK here. By default, all fixed VPKs are listed.

### Virtual Multi-Purpose Keys

Order	Mode	Account	Description	Value
1	LINE	1		<a href="#">Edit VPK</a>
2	LINE	2		<a href="#">Edit VPK</a>
3	LINE	3		<a href="#">Edit VPK</a>
4	LINE	4		<a href="#">Edit VPK</a>
5	LINE	5		<a href="#">Edit VPK</a>
6	LINE	6		<a href="#">Edit VPK</a>
7	None	1		<a href="#">Edit VPK</a>
8	None	1		<a href="#">Edit VPK</a>
9	None	1		<a href="#">Edit VPK</a>
10	None	1		<a href="#">Edit VPK</a>
11	None	1		<a href="#">Edit VPK</a>
12	None	1		<a href="#">Edit VPK</a>

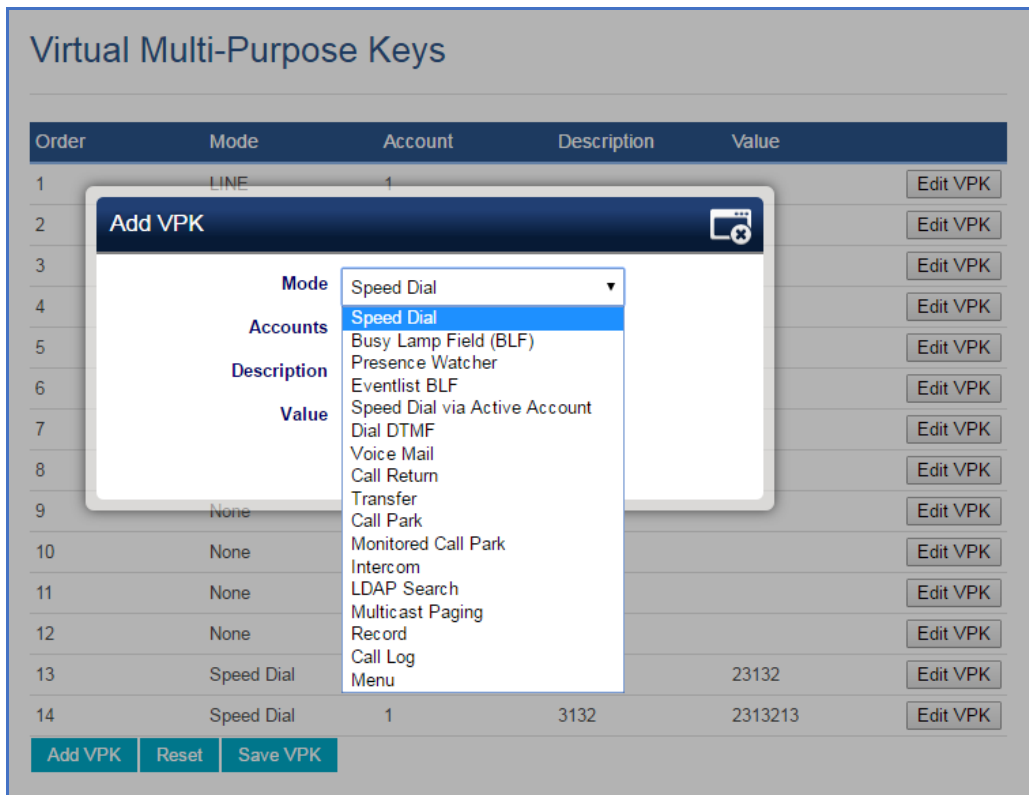
[Add VPK](#)
[Reset](#)
[Save VPK](#)

Click on “Edit VPK” for the line (fixed VPK) you would like to configure. A new window will pop up for VPK configuration. Users can configure Mode, Account, Description and Value for the VPK. Up TO 20 mode options can be selected for the VPK. Once done, press “Save” on this window and press “Save VPK” on the bottom of the Virtual Multi-Purpose Keys page again to apply the change.



If users would like to configure more VPKs than the ones displayed on the page, the users can click on

“Add VPK” to configure dynamic VPK. The dynamic VPK supports up to 17 mode options.



Please note:

1. Dynamic VPK doesn't support LINE and Shared LINE mode. These two mode options are only available for fixed VPKs.
2. Dynamic VPK doesn't support NONE mode. If users do not need this VPK, click on “Edit VPK” for it and select “Delete” to remove this VPK.
3. All settings require user to click on “Save” on the prompted window and also “Save VPK” button on the bottom of Virtual Multi-Purpose Keys page to take effect.

- **LCD Indication and Configuration**

The configured fixed VPKs are displayed next to the corresponding line. If dynamic VPKs are configured, the users can see a page number shown on the upper left corner on the LCD.








The following figures show page 1 and page 2 of the VPKs on LCD. Pressing “RIGHT” arrow key or “Next” softkey will switch to the next page; pressing “LEFT” arrow key will switch back to the previous page.

































The users could also edit and add VPK from LCD.

















1. To edit (fixed) VPK, press and hold the line key for about 4 seconds, a configuration window will pop up for the user to configure.
2. To add (dynamic) VPK, press and hold the RIGHT arrow key for about 4 seconds, a configuration window will pop up for the user to configure.

Up to 20 mode can be supported on fixed VPK and up to 17 mode can be supported on dynamic VPK. Each mode is indicated by a different icon on the LCD and the icon will be different when in different status. Please find the icon indications below for different mode of VPK.









VPK Mode	State	Icon	LED Status
LINE	Unregistered (No IM, Voice mail, No Call Forward)		OFF
	Registered + Idle (No IM, Voice mail, No Call Forward)		OFF
	Unregistered + IM + Voice mail		OFF
	Registered + IM + Voice mail		OFF
	Unregistered + IM (No Voice mail)		OFF
	Registered + IM (No Voice mail)		OFF
	Unregistered + Voice Mail (No IM)		OFF

	Registered + Voice Mail (No IM)		OFF
	Unregistered + Call Forward All (No IM, No Voice Mail)		OFF
	Registered + Call Forward All (No IM, No Voice Mail)		OFF
	Unregistered + Call Forward Delay + Call Forward Busy (No IM, No Voice Mail)		OFF
	Registered + Call Forward Delay + Call Forward Busy (No IM, No Voice Mail)		OFF
	Unregistered + Call Forward Delay (No IM, No Voice Mail, No Call Forward Busy)		OFF
	Registered + Call Forward Delay (No IM, No Voice Mail, No Call Forward Busy)		OFF
	Unregistered + Call Forward Busy (No IM, No Voice Mail, No Call Forward Delay)		OFF
	Registered + Call Forward Busy (No IM, No Voice Mail, No Call Forward Delay)		OFF
	Registered + Ringing		Flashing RED
	Registered + On Hold		Flashing GREEN
	Registered + Connected + Incoming Call		GREEN
	Registered + Connected + Outgoing Call		GREEN
Shared Line	Unregistered		OFF

	Registered + Not support SCA Call-info header		OFF
	Registered + Not support SCA or SCA Failed		OFF
	Registered + Idle		OFF
	Registered + Seized		RED
	Registered + Processing		Flashing GREEN
	Registered + Alert		Flashing RED
	Registered + Hold by user		Flashing GREEN
	Registered + Hold by the other party		Flashing RED
	Registered + Connected		GREEN
BLF/ Eventlist BLF	Offline, Unknown		OFF
	Terminated		GREEN
	Proceeding		RED
	Ringing (Early)		Flashing RED
	Trying		Flashing GREEN
	Confirmed		RED
Presence Watcher	Offline, Unknown		OFF


	Available		GREEN
Handsfree	Unpair		OFF
	Paired, but not connected		OFF
	Connected		OFF
Speed Dial	Account Unregistered		OFF
	Account Registered		OFF
Speed Dial Via Active Account			OFF
Dial DTMF			OFF
Call Return			OFF
Transfer	Account Unregistered		OFF
	Account Registered		OFF
Call Park	Account Unregistered		OFF
	Account Registered		OFF
Intercom	Account Unregistered		OFF
	Account Registered		OFF
LDAP Search			OFF

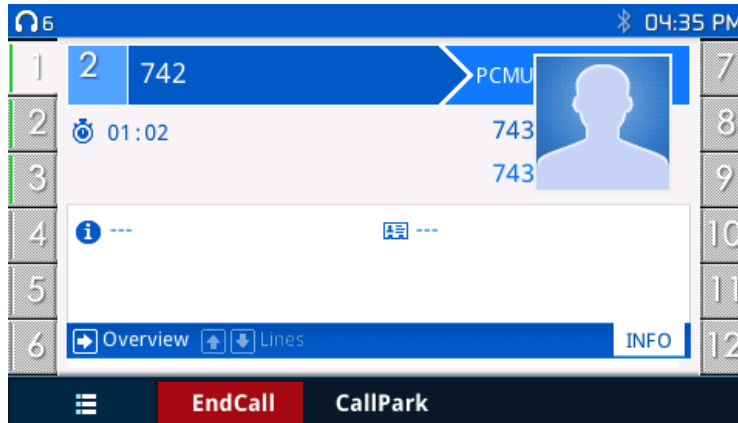



Multicast Paging			OFF
Record	Idle		OFF
	Recording		Flashing
Call Log			OFF
Menu	-		OFF
Voice Mail	Account not registered		OFF
	Account Registered (No new voice mail)		OFF
	Account Registered (Have new voice mail)		OFF

Please note no matter how each line is configured on the idle screen, all the lines in call screen will keep line or shared line displayed for the corresponding accounts. For example, even if the user has configured all lines as VPK (with non-LINE mode), he/she can still use the configured account to dial out by offhook or pressing SPEAKER, HEADSET or any other unconfigured LINE key to go to call screen.



When the user is in call screen (during a call), he/she can press softkey  to switch back to VPK screen.



When the user is in VPK screen during a call, he/she can press softkey  or corresponding line key to switch back to call screen.

#### PROGRAMMABLE KEYS STATUS ON WEB UI

Users could access programmable key status under phone's web UI->Status.

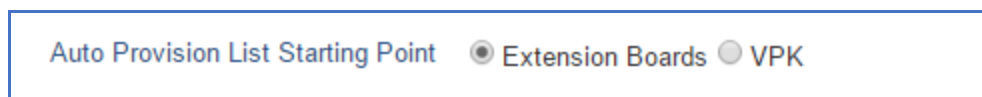
Web UI->Status->Programmable Keys Status	Virtual Multi-purpose Keys
	Multi-purpose Keys
Web UI->Status->Extension Boards Status	Extension 1 keys
	Extension 2 keys
	Extension 3 keys
	Extension 4 keys

Select the tab you would like to check the status, the status of the specific keys will display. The screenshot below shows virtual Multi-purpose keys status.

Virtual Multi-purpose keys Status				
	Mode	Account	Description	Value
VPK 1	LINE	Account 1	No Description	No Value
VPK 2	LINE	Account 2	No Description	No Value
VPK 3	LINE	Account 3	No Description	No Value
VPK 4	LINE	Account 4	No Description	No Value
VPK 5	Speed Dial	Account 1	No Description	No Value
VPK 6	Speed Dial	Account 1	No Description	No Value
VPK 7	None	Account 1	No Description	No Value
VPK 8	None	Account 1	No Description	No Value
VPK 9	None	Account 1	No Description	No Value
VPK 10	None	Account 1	No Description	No Value
VPK 11	None	Account 1	No Description	No Value
VPK 12	None	Account 1	No Description	No Value
VPK 13	None	Account 1	No Description	No Value
VPK 14	None	Account 1	No Description	No Value
VPK 15	None	Account 1	No Description	No Value
VPK 16	None	Account 1	No Description	No Value

### AUTO PROVISION LIST STARTING POINT

The users could find new option “Auto Provision List Starting Point” under phone’s web UI->Settings->Call Features. Users could select “Extension Boards” or “VPK” which will be used first when the phone is being automatically provisioned with eventlist BLF.



The P value for this option is P8349. 0 – Extension Borads, 1 – VPK. The default value is 0.

### ADDITIONAL OVERRIDE DHCP OPTION

The users could find new option “Additional override DHCP option” under phone’s web UI->Maintenance->Upgrade and Provisioning. When enabled, users could select Option 150 or Option 160 to override the firmware server instead of using the configured firmware server path or the server from option 43 and option 66 in the local network. Please note this option will be effective only when option “Allow DHCP Option 43 and Option 66 to Override Server” is enabled.

Allow DHCP Option 43 and Option 66 to Override Server	<input type="radio"/> No <input checked="" type="radio"/> Yes
Additional Override DHCP Option	None ▼
Allow DHCP Option 120 to Override SIP Server	None Option 150 Option 160

The P value for this option is P8337. 0 – None, 1 – Option 150, 2 – Option 160. The default value is 0.

### ILBC AND G.723.1 SUPPORT

The users could find iLBC and G.723.1 codecs available under phone's web UI->Account->Audio Settings.

## Audio Settings

---

Send DTMF  in-audio  via RTP (RFC2833)  via SIP INFO

DTMF Payload Type

Preferred Vocoder - choice 1

Preferred Vocoder - choice 2

**Preferred Vocoder - choice 3**

Preferred Vocoder - choice 4

Preferred Vocoder - choice 5

**Preferred Vocoder - choice 6**

Preferred Vocoder - choice 7

When provisioning the phone with vocoder P value, the value to set codec as iLBC is 98 and the value to set codec as G.723.1 is 4.

Under the same web page, the options “G723 rate”, “iLBC Frame Size” and “iLBC Payload Type” are also added for those two codecs.

G723 Rate	<input type="radio"/> 6.3kbps encoding rate	<input checked="" type="radio"/> 5.3kbps encoding rate
G.726-32 Packing Mode	<input checked="" type="radio"/> ITU	<input type="radio"/> IETF
iLBC Frame Size	<input type="radio"/> 20ms	<input checked="" type="radio"/> 30ms
iLBC Payload Type	<input type="text" value="97"/>	

For complete P value list, please refer to configuration template.

### ENABLE SESSION TIMER

Users could enable/disable session timer under phone's web UI->Account->SIP Settings->Session Timer. The new P value is P2395. 0 – No, 1 – Yes. By default it's enabled.

### Session Timer

---

Enable Session Timer  No  Yes

### RING SPEAKER FOR CALL WAITING

Users could find option “Ring For Call Waiting” under web UI->Settings->Call Features. When enabled, the phone will ring ringing tone instead of call-waiting tone when the audio is on handset or headset. The new P value is P22102. 0 – No, 1 – Yes. The default value is 0.

### Call Features

---

Off-hook Auto Dial	<input type="text"/>
Off-hook Timeout	<input type="text" value="30"/>
Bypass Dial Plan Through Call History and Directories	<input checked="" type="radio"/> No <input type="radio"/> Yes
Disable Call Waiting	<input checked="" type="radio"/> No <input type="radio"/> Yes
Disable Call Waiting Tone	<input checked="" type="radio"/> No <input type="radio"/> Yes
Ring For Call Waiting	<input checked="" type="radio"/> No <input type="radio"/> Yes

### CONFIGURABLE BACKLIGHT TIMER

Users could find option “Active Backlight Timeout” under web UI->Settings->LCD display. This will configure the minute of active backlight timeout with valid range from 1 to 90.

### LCD Display

Backlight Brightness: Active	<input type="text" value="100"/>
Backlight Brightness: Idle	<input type="text" value="60"/>
Active Backlight Timeout	<input type="text" value="1"/>

### COLOR BACKGROUND WALLPAPER SELECTION

Users could find option “Color Background” under web UI->Settings->LCD Display: Wallpaper category. Enter any HEX color code based on your preference. The color codes could be found here: <http://htmlcolorcodes.com/>

If an invalid code is configured, the phone will use default value #000000 instead.

### Wallpaper

Wallpaper Source	Default
Wallpaper Server Path	<input type="text"/>
Upload Wallpaper	<input type="text"/>
Color Background	<input type="text" value="#000000"/>

Please note the user must select “Color Background” in “Wallpaper Source” option in order to use the configurable color background code.

### Wallpaper

Wallpaper Source	Default	<b>Wallpaper Source</b> Location where wallpapers are stored. <input type="button" value="Reset to Default"/> <input type="button" value="Undo"/>
Wallpaper Server Path	<input type="text"/>	
Upload Wallpaper	<input type="text"/>	
Color Background	<input type="text" value="#000000"/>	

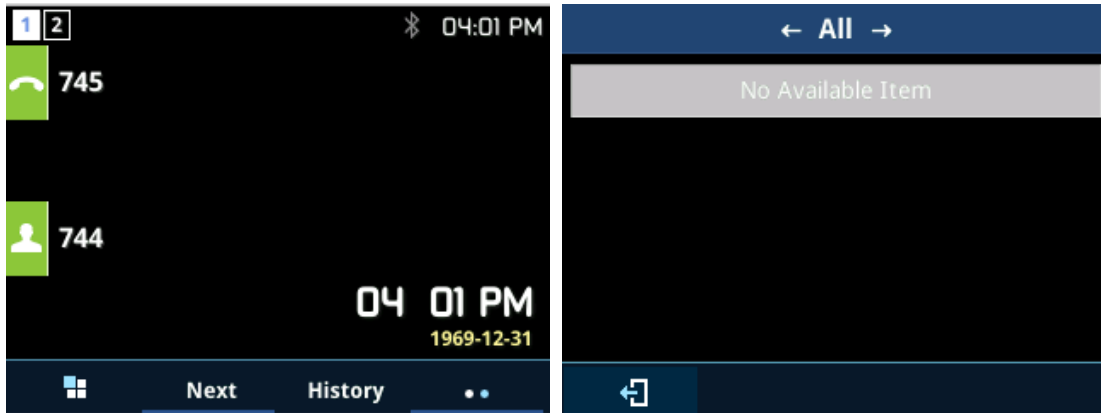
### Screensaver

Screensaver  No  Yes

Screensaver Timeout

- **Example:**

If the user users default color code #000000, the idle screen will load “black” as background. This color will also affect MENU configuration page.



- **New P value:**

P2916: Wallpaper Source. 0 – default, 1 – download, 2 – USB, 3 – uploaded, 4 – Color background.

Default value is 0.

P2921: Background color. This value can be a string with max length of 16 characters.

Default value is #000000.

### BLF LED PATTERN EXPLANATION IN WEB UI

Users could view and configure the color and pattern of the LED status based on the BLF status update.

This feature is under web UI->Settings->LED Control.

#### LED Control

---

#### Busy Lamp Field (BLF)

BLF LED Pattern Apply Reset

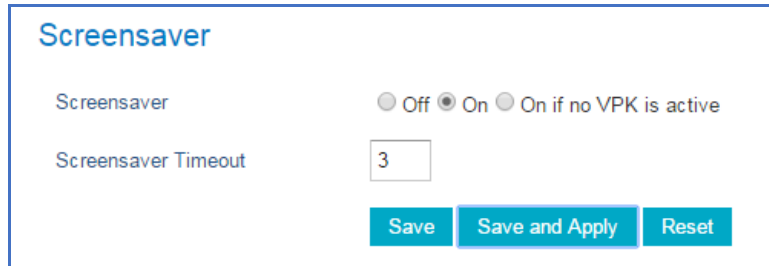
Default ▼  
 Default  
 Analog  
 Directional  
 Reserved (Red)  
 Reserved (Green)  
 Inverse

BLF LED Pattern Explanation Form

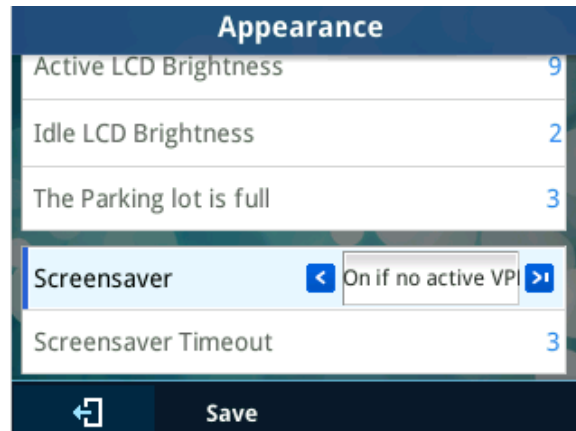
State	Default	Analog	Directional	Reserved (Red)	Reserved (Green)	Inverse
Offline	Off	Off	Off	Off(Ext Board Icon:Off)	Off(Ext Board Icon:Off)	Off
Terminated	Solid Green	Solid Green	Solid Green	Off(Ext Board Icon:Idle)	Off(Ext Board Icon:Idle)	Solid Red
Trying	Solid Red	Solid Red	Flashing Green	Solid Red	Solid Green	Solid Green
Early	Flashing Red	Flashing Red	Flashing Red	Flashing Red	Flashing Green	Flashing Green
Proceeding(Initiator)	Flashing Red	Solid Red	Flashing Green	Solid Red	Solid Green	Flashing Green
Proceeding(Receiver)	Flashing Red	Solid Red	Flashing Red	Solid Red	Solid Green	Flashing Green
Confirmed	Solid Red	Solid Red	Solid Red	Solid Red	Solid Green	Solid Green

### DISABLE SCREENSAVER WHEN VPK IS ACTIVE

This option is under web UI->Settings->LCD Display: Screensaver category. A new option “On if no VPK is active” is added there.



This option is also available under LCD->MENU->Preference->Appearance.



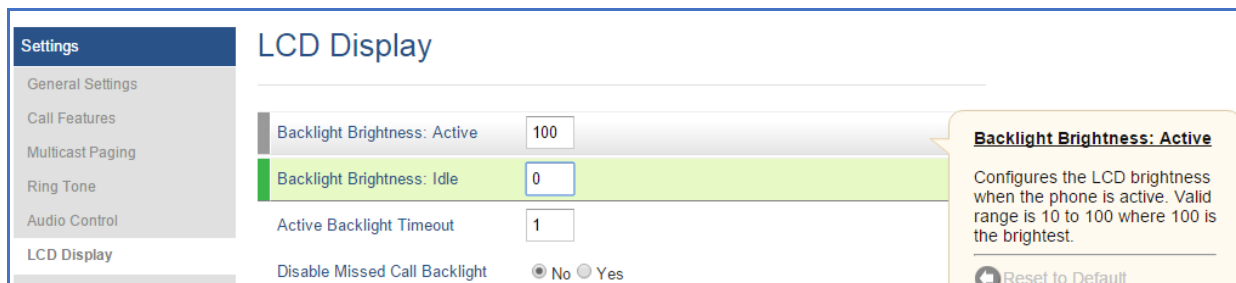
The phone will consider the page active if VPK is in Early (ringing), Trying (dialing) and Confirmed (talking) status when VPK is configured with mode “BLF”, “Eventlist BLF” or “Presence”.

The P value is P2918 (existing) and value 2 is added for “On if no VLK active”.

P2918: Screensaver. 0 – Off, 1 – On, 2 – On if no VPK active. The default value is 1.

### FULL BLACK SUPPORT FOR IDLE LCD BRIGHTNESS

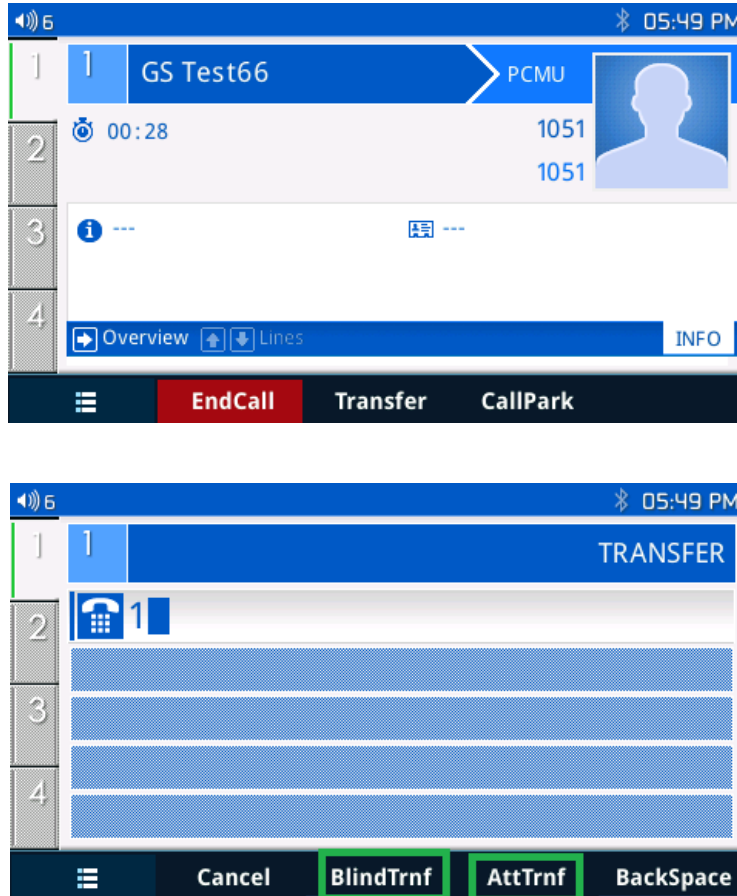
This option can be found under web UI->Settings->LCD display. Users will be able to configure the LCD brightness to 0 when the phone is idle. Valid range is 0 to 12 where 0 is off and 100 is the brightest.





### BLIND TRANSFER AND ATTENDED TRANSFER SOFTKEY

This feature works when option “Enabled Auto-Attended Transfer” under web UI->Call Features is set to “Yes”. When the user tries to transfer an ongoing call, after pressing “Transfer” softkey and entering the number to be transferred to, the user will be able to select softkey “BlindTrnf” for blind transfer or softkey “AttTrnf” attended transfer.



### DISPLAY SIP MESSAGE TEXT ON LCD

During an active call, if the phone receives SIP message REQUEST that has message body with line-based text data defined, the content will be displayed on the phone’s LCD. In the following example, the phone LCD will display “Total \$5” as defined in the SIP message text.

```

11021 2015-06-02 06:02:11.096212000 209.190.121.194 192.168.78.139 SIP 636 Request: BYE sip:10142020192.168.78.139:5064 |
10793 2015-06-02 06:02:13.096212000 209.190.121.194 192.168.78.139 SIP 636 Request: BYE sip:10142020192.168.78.139:5064 |
136 2015-06-02 06:00:52.348419000 192.168.78.139 209.190.121.194 SIP/SDF 1015 Request: INVITE sip:2418712216@209.190.121.194 |
165 2015-06-02 06:00:52.486721000 192.168.78.139 209.190.121.194 SIP/SDF 1192 Request: INVITE sip:2418712216@209.190.121.194 |
1110 2015-06-02 06:01:01.412646000 209.190.121.194 192.168.78.139 SIP 456 Request: MESSAGE sip:10142020192.168.78.139:5064 | (text/plain)
1746 2015-06-02 06:01:06.407798000 209.190.121.194 192.168.78.139 SIP 460 Request: MESSAGE sip:10142020192.168.78.139:5064 | (text/plain)
2386 2015-06-02 06:01:11.409775000 209.190.121.194 192.168.78.139 SIP 460 Request: MESSAGE sip:10142020192.168.78.139:5064 | (text/plain)
3035 2015-06-02 06:01:16.405856000 209.190.121.194 192.168.78.139 SIP 459 Request: MESSAGE sip:10142020192.168.78.139:5064 | (text/plain)
3704 2015-06-02 06:01:21.389838000 209.190.121.194 192.168.78.139 SIP 459 Request: MESSAGE sip:10142020192.168.78.139:5064 | (text/plain)
4375 2015-06-02 06:01:26.391732000 209.190.121.194 192.168.78.139 SIP 456 Request: MESSAGE sip:10142020192.168.78.139:5064 | (text/plain)
c
# Frame 1110: 456 bytes on wire (3648 bits), 456 bytes captured (3648 bits) on interface 0
# Ethernet II, Src: Dell_04:85:71 (00:11:43:04:85:71), Dst: Grandstr_5e:66:c3 (00:0b:82:5e:66:c3)
# Internet Protocol Version 4, Src: 209.190.121.194 (209.190.121.194), Dst: 192.168.78.139 (192.168.78.139)
# User Datagram Protocol, Src Port: 5060 (5060), Dst Port: 5064 (5064)
# Session Initiation Protocol (MESSAGE)
# Request-Line: MESSAGE sip:10142020192.168.78.139:5064 SIP/2.0
# Message Header
# Message Body
# Line-based text data: text/plain
Total: 55
  
```

## FIRMWARE VERSION 1.0.6.9

### PRODUCT NAME

GXP2170

### DATE

01/14/2016

### CHANGES SINCE 1.0.6.5

#### ENHANCEMENT

- Improved DND indication to cover transparent background
- Added support to display date time/weather when RIGHT VPK panel is empty
- Added support to configure whether to show label background on VPK
- Added support to show long label on VPK
- Added support to hide softkeys on main page
- Added secondary softkey FIRST to quickly return to VPK page one
- Added NewCall softkey on call screen for user to initiate new phone call
- Marked softkey EndCall to RED style

#### BUG FIX

- Fixed Device BLF is not updated correctly issue
- Fixed Phone randomly doesn't send voice when using Plantronics EHS CS540A headset with APV-63 EHS adapter
- Fixed Line key LEDs don't provide visual indications of Shared call appearances
- Fixed Device fails to displays BLF and Call park subscription status
- Fixed The mode of EXT is changed to Speed Dial after reset on web
- Fixed DND indication unfriendly issue
- Fixed Device work abnormal after press TRANSFER key then press NewCall softkey
- Fixed The Back softkey at the Bluetooth Scan screen cannot switch to Home softkey
- Fixed Device possible crash when drawing DND screen

## FIRMWARE VERSION 1.0.6.5

### PRODUCT NAME

GXP2170

### DATE

12/18/2015

### CHANGES SINCE 1.0.6.2

#### ENHANCEMENT

- Added VPK support for eventlist auto-provision. If there are more BLFs in the eventlist than idle VPK keys, extra BLFs will be auto-provisioned to EXT board
- Improved the display format of missed calls
- Added display of extension Forward All in idle screen
- Added German language input in all configuration fields where the user is required to enter alphanumeric input
- Added 12 lines support (with 6 accounts)
- Added "None" mode for VPK

#### BUG FIX

- Fixed LCD displays abnormal after changing language on the VPK editing screen
- Fixed Broadsoft Silent Alerting feature doesn't work
- Fixed GUI crashes after downloading a large XML application file
- Fixed The device calls the wrong number after entering number in onhook dialing screen then pressing MPK
- Fixed The device does not send DHCP DISCOVER after factory reset
- Fixed LCD doesn't have prompt when adding an invalid local group
- Fixed Obtaining the wallpaper from USB flash drive requires reboot to take effect
- Fixed Voicemail VPK is invalid after configuring its value
- Fixed The HOLD screen displays abnormal
- Fixed LCD does not display the RESUME softkey when the call is on hold
- Fixed LCD does no display MENU mode on editing screen of VPK
- Fixed Device fails to set LINE to Menu mode
- Fixed Device fails to download wallpaper after repeating downloading and uploading
- Fixed LCD does not display softkey-MPK in time when setting the MPK on the weather or currency screen
- Fixed The editing screen of VPK is displayed wrong after setting VPK on LCD
- Fixed The label of LINE 6 is displayed abnormal after disabling Bluetooth Hands-free mode
- Fixed Device speed dial with Bluetooth Hands-free account after setting VPK account to account 6

- Fixed The Save and Apply button on VPK web page does not work for other web pages
- Fixed LCD pops up prompt after pressing VPK which is not configured
- Fixed The Save and Apply button on VPK web page works abnormal
- Fixed LCD is displayed abnormally when adding the 47<sup>th</sup> and 48<sup>th</sup> VPK
- Fixed The device is displaying extra currency entries when less than 5 entries are queried
- Fixed Currently page does not update periodically

## **FIRMWARE VERSION 1.0.5.33**

### **PRODUCT NAME**

GXP2130/GXP2140/GXP2160

### **DATE**

02/09/2016

### **CHANGES SINCE 1.0.5.29**

#### **BUG FIX**

- Fixed Device crashing issue after cleaning up eventlist BLF when LED light is abnormal
- Fixed Device is losing network access when enabling LLDP/LLDP-MED
- Fixed Device is not recognized by TP-LINK switch using LLDP
- Fixed Device showing no IP issue

## **FIRMWARE VERSION 1.0.5.29**

### **PRODUCT NAME**

GXP2130/GXP2140/GXP2160

### **DATE**

01/08/2016

### **CHANGES SINCE 1.0.5.28**

#### **BUG FIX**

- Fixed Device BLF is not updated correctly
- Fixed Phone randomly doesn't send voice when using Plantronics EHS CS540A headset with APV-63 EHS adapter

## FIRMWARE VERSION 1.0.5.28

### PRODUCT NAME

GXP2130/GXP2140/GXP2160

### DATE

12/30/2015

### IMPORTANT UPGRADING NOTE

- **Once upgraded to 1.0.5.28, downgrading to any previous firmware version is not supported.**

### CHANGES SINCE 1.0.5.23

#### ENHANCEMENT

- Added Dual outbound SIP proxy support
- Added support to show SIP message text content on LCD screen
- Added option to ignore Alert-info header when used for distinctive ringtone
- Added support Broadsoft XSI authentication type
- Added option to filter characters from dialed numbers
- Added ability to customize DHCP option for provisioning server
- Added ability to prevent the phone from sending DNS then HTTPS requests to IPVideoTalk media server
- Added ability to search in Broadsoft XSI search by using part of the strings
- Added BLF Call pickup with Barge-In option
- Added Broadsoft XSI SIP Authentication method by selecting the account

#### BUG FIX

- Fixed BLF keys not showing correct status for monitored extension with multiple registrations
- Fixed Phone cannot auto answer by call info provided by PortaOne
- Fixed DUT sends SIP instance ID when set to No, unless DUT is rebooted
- Fixed DUT doesn't update the CID when performing auto-attended transfer
- Fixed DUT keeps sending SUBSCRIBE after receiving NOTIFY with reason=noresource

## **FIRMWARE VERSION 1.0.5.23**

### **PRODUCT NAME**

GXP2130/GXP2140/GXP2160

### **DATE**

09/25/2015

### **CHANGES SINCE 1.0.5.18**

#### **ENHANCEMENT**

- Added support to allow line labeling by setting Line Key to Account X
- Added support to have auto answer audio source configurable
- Added support for re-conference after split
- Added support for secondary preferred DNS
- Added fail-safe if server does not include "Expires" field in SUBSCRIBE response
- Updated logo for web UI

#### **BUG FIX**

- Fixed Phone GUI slow performance issue
- Fixed Audio mode is wrong after auto answer call in Toggle mode
- Fixed MPK light indicator doesn't work for call park
- Fixed Phone does not update BLF status when the version on the phone is greater than the version in the received NOTIFY message



# FIRMWARE VERSION 1.0.5.18

## PRODUCT NAME

GXP2130/GXP2140/GXP2160

## DATE

08/12/2015

## IMPORTANT UPGRADING NOTE

- **Once upgraded to 1.0.5.18, downgrading to any previous firmware version is not supported.**

## CHANGES SINCE 1.0.4.23

### ENHANCEMENT

- Added Auto provision the Multi-purpose keys based in the SIP NOTIFY messages from the Eventlist BLF feature
- Updated Time settings for Moscow, Russia
- Added SSL encryption key random generate feature
- Added Auto-scale feature to fit more characters in the LCD account label area
- Added Option to disable SIP NOTIFY Authentication
- Added Feature to display BLF status on LCD and Extension board
- Added Automatic UCM Call Features Integration
- Added Features as a softkey after configuring feature codes for phone
- Added Option to allow hands-free conference with SIP line
- Added Phonebook HTTP/HTTPS Authentication
- Added Configuration to enable/disable host verification
- Added Feature to enable bypass dial plan through call history and directories
- Added Option to unregister instance on reboot, which only clears the registration of the phone's own contact before the phone gets rebooted
- Added One-button (Redial) showing recent dialed list
- Added More obvious indication for DND display
- Re-grouped the status information from LCD to make it the same as status page on WEB UI
- Added Feature to display IP2Location information on both Web GUI and LCD
- Added Time setting into LCD menu
- Added Factory reset and provision now function to web
- Added Audio recording application
- Added On Hold Reminder tone
- Added Call Log as a new mode of programmable keys for users to access to the call history directly
- Added Feature to allow configuration of MPK or Line key to provide MWI for other extension

- Added Configurable option to change the status of BLF LED indicator
- Added Option to customize the On/Off code for DND/call forwarding
- Added Reset phone through SIP notify
- Added Option to enable priority to Intercom Call
- Added Support for Hebrew characters displayed on EXT board
- Added "Transfer to Voicemail" softkey support for FreePBX
- Added Broadsoft UC-One feature: Special handling for numbers ending with \*
- Added "Trusted CA Certificates" option to allow user to upload certificate
- Added Redirect HTTPS firmware/Config file upgrade request when receiving HTTP 302 response
- Hid returned values for passwords (eg. Admin password, SIP passwords) when P-value is received
- Added Option to set the default call log type to be used with the phone
- Modified Feature for auto-check language files update from server and added options to download
- Improved Forward All timeout behavior

### BUG FIX

- Fixed Phone fails to upgrade and gets stuck at booting screen due to firmware mask check fail after incomplete firmware upgrade
- Fixed When call is answered using handset, subsequent calls will not ring Bluetooth headset
- Fixed Ethernet link shows disconnected with no IP in mixed network environment with IPv4 and IPv6
- Fixed User can retrieve any configuration value without authentication
- Fixed Phone couldn't dial DTMF correctly via MPK buttons
- Fixed Bluetooth Name is always updated along with other variables, such as power and discoverable
- Fixed Device connected with UCM auto-provision server fails to be provisioned using HTTPS method
- Fixed Configure Eventlist BLF URL of other accounts will cause Eventlist BLF MPK key has no light
- Fixed LDAP Search failed when using Windows Active Directory/LDAP service
- Fixed Can hear clicking sound at the beginning of the call
- Fixed Click-to-Dial issue after enabling Hands-free mode
- Fixed Long pressing blank GXP2140EXT MPKs couldn't skip to edit page
- Fixed Call waiting tone disappears after far end cancels call
- Fixed Duplicate P-value in exporting config.txt file
- Fixed Device works abnormally when there is incoming call in call features page
- Fixed Audio mode works abnormally when using EHS headset for the call
- Fixed GXP2140 audio mode is changed to speaker after canceling Transfer
- Fixed Line LED doesn't light up during the call
- Fixed Off-hook auto dial works abnormally in FwdAll page
- Fixed Mute is not disabled after hands-free device ends the call
- Fixed Phone is muted after pressing Mute key in ringing status
- Fixed Call couldn't be retrieved when auto-attended transfer fails
- Fixed Displaying invalid Conf call softkey after 2nd party ending call
- Fixed Speaker key ending call abnormally in Toggle mode
- Fixed LCD display is abnormal after ending auto-answer call in FwdAll page

- Fixed Mute key and icon display issue after enabling Idle Mute
- Fixed Upgrade default method becomes TFTP after factory reset through TR069
- Fixed Phonebook softkey doesn't work
- Fixed There is no Hands-free line account display after connecting with hands-free device
- Fixed Device plays dial tip tone in idle status
- Fixed Issue of Hands-free line before logging in public mode
- Fixed Phone does not accept BLF NOTIFY if SUBSCRIBE is not yet accepted
- Fixed Issue when adding contacts in public mode
- Fixed Last account display issue after enabling Hands-free mode and configuring with MPK
- Fixed There is no "1Bc" softkey on number input box of new contact
- Fixed LCD displays abnormally after far end cancelling call in Keypad lock mode
- Fixed Star key Keypad/Restrict mode Lockout Duration doesn't work
- Fixed Some contents are displayed incompletely in public mode login page
- Fixed Hands-free call is not terminated when the cellphone is disconnected while dialing
- Fixed LCD doesn't skip to dialing page after pressing Headset key in Menu page
- Fixed Gs\_pcap crashes after removing USB when capturing the trace for the call
- Removed Broadsoft Phone book/Call Log from LCD when not in use
- Fixed SIP TLS Private key and certificate cannot be provisioned using XML
- Fixed Phone fallback to PCMU upon re-invite during the session
- Fixed Incompatibility issue with Plantronics M165 Bluetooth headset
- Fixed Device doesn't write in contacts after clearing then downloading the same phone book.xml file
- Fixed Audio codec choice 3 and choice 4 are both G.729 after reset those options
- Fixed Device upgrade abnormally after downloading files then powering off in HTTPS mode
- Fixed Call Forward indication
- Fixed Memory leak while parsing UCM Keep Alive Option
- Fixed HTTP request for currency does not return correct values
- Fixed Hebrew language missing strings

## FIRMWARE VERSION 1.0.4.23

### PRODUCT NAME

GXP2130/GXP2140/GXP2160

### DATE

08/02/2015

### CHANGES SINCE 1.0.4.17

#### ENHANCEMENT

- Added LDAPS support
- Hided LDAP config when constraint mode activated
- Added option to enable/disable Crypto life time when using SRTP
- Enabled MetaSwitch configuration file download authentication feature in general build
- Added support of DHCP OPTION 160 on Metaswitch FW
- Updated New Zealand time zone
- Added SW version and DevID to HTTP requests for phonebook.xml and language.txt
- Added support for x-gs-screen event from SIP NOTIFY message
- Added option to enable/disable the “Active MPK Info Page”
- Added display info from Diversion in received INVITE
- Added scaling the input on account description to fit in the LCD account description area
- Fixed Bad quality the multi-purpose keys from the Eventlist BLF
- Added ability to control NTP update interval
- Simplified the procedure to make N-Way conference under BroadSoft server
- Added Hebrew input
- Added support for BLF offline state
- Added Quick/Exact match search method on Handsfree mobile phonebook
- Added printing syslog level on syslog messages
- Added option 160 support
- Added option to enable/disable “Active MPK Info Page”

#### BUG FIX

- Fixed LDAP doesn't support display in Chinese
- Fixed LDAP Lookup for incoming call does not display Russian characters
- Fixed call park pick-up with replace header
- Fixed NOTIFY from call group pickup not applied
- Fixed phone not displaying contact with Polish characters in LDAP
- Fixed devices will call wrong number after DTMF in talk and then pressing Speed Dial MPK

- Fixed auto answer works abnormally when there are multiple calls
- Fixed dial DTMF with line keys works abnormally after pressing twice in idle
- Fixed GUI crashed after pressing Send key in Bluetooth phonebook page
- Fixed firmware upgrade issue with option 160
- Fixed Secondary dial tone dial plan with insert/replace
- Fixed G722 encoded audio prompt files are distorted during playback
- Fixed Early Conference and Ring-back Anomaly issue
- Fixed Headset cannot be put on mute when Bluetooth is enabled
- Separated QoS SIP and RTP options
- Fixed Onhook dialing with secondary dial tone causes "No dial plan rules matched"
- Fixed CONF+BLF use Broadsoft ID instead of Extension number
- Fixed Syslog output not including MAC address in all messages
- Fixed Syslog output not showing correct firmware version
- Fixed Bad quality audio using G.722
- Fixed Phone does not ask for configuration file, firmware and ring tones when LLDP is used to discover VLAN
- Fixed Mute doesn't work after holding the talk in Bluetooth audio mode
- Fixed Device worked abnormally after answering multicast paging call in transfer page
- Fixed Phonebook export/upload are accessible without authentication request
- Fixed Configuration value might be retrieved without authentication
- Fixed LDAP Search only by string beginning
- Fixed Phone crashed after multicast paging calling in account1 inactive status
- Fixed SSH root access doesn't work.

## **FIRMWARE VERSION 1.0.4.17**

### **PRODUCT NAME**

GXP2130/GXP2140/GXP2160

### **DATE**

02/19/2015

### **IMPORTANT UPGRADING NOTE**

- **Once upgraded to 1.0.4.17, downgrading to any previous firmware version is not supported.**

### **CHANGES SINCE 1.0.4.16**

#### **BUG FIX**

- Fixed potential security issue for unauthorized access to product configuration

## **FIRMWARE VERSION 1.0.4.16**

### **PRODUCT NAME**

GXP2130/GXP2140/GXP2160

### **DATE**

09/30/2014

### **CHANGES SINCE 1.0.4.15**

#### **ENHANCEMENT**

- Added support to configure phone's MPK from phone GUI

#### **BUG FIX**

- Fixed Disable call waiting also worked in ringing status
- Fixed Bluetooth enabled/disabled is not indicated properly on the phone screen
- Fixed Phone hangs while transferring calls
- Fixed Phone cannot initiate multicast paging call when the handset is offhook from idle state
- Fixed Bluetooth: Line toggling causes audio loses
- Fixed Preferred vocoder option default value error after resetting audio settings page
- Fixed Conference works abnormal when using MPK to transfer
- Fixed BYE request sent to the wrong proxy/IP based on the route set
- Fixed Device randomly crashed after removing network cable in talking status

## FIRMWARE VERSION 1.0.4.15

### PRODUCT NAME

GXP2130/GXP2140/GXP2160

### DATE

09/16/2014

### CHANGES SINCE 1.0.4.10

#### ENHANCEMENT

- Added support to play short reminder beep when performing auto answer
- Added HTTP CTI support
- Added HTTP/HTTPS authentication support for phonebook download
- Added ability to select call pickup mode
- Added support to apply dial plan when dialing from call history/phonebook
- Added support to unregister on URI based and clear only the contact header from the phone when using “Unregister on Reboot” option
- Added XML application support
- Added Direct IP Call support on MPK and Phonebook
- Added ability to dial the digits faster when using MPK as Dial DTMF
- Added ability to show text pop-up window via SIP MESSAGE
- Added option “Disable Busy Tone on Remote Disconnect” to disable playing busy tone upon receiving BYE
- Added option to enable/disable Broadsoft call park

#### BUG FIX

- Fixed 3CX call park retrieval for shared parking is not working
- Fixed MPK Call Park mode is not working correctly on 3CX platform
- Fixed HTTP GET provisioning request displays HTTP username/password in plain text
- Fixed Device plays ringback tone in talking and audio loopback mode
- Fixed Device doesn't apply configurations after enabling 3CX auto provision
- Fixed Feature code for “Busy Call Forward” cannot be enabled/disabled when handset is on hook
- Fixed Phone that initiates multicast paging cannot listen to the same multicast IP:Port
- Fixed After receiver ends the multicast paging call, the receiver can still listen when off hook to dial screen
- Fixed Paging barge of multicast paging doesn't work
- Fixed Multicast paging barge doesn't have audio



- Fixed there is no sound in talking and audio loopback mode after network is down->initiating multicast paging->reconnecting network
- Fixed SIP Server and outbound proxy cannot be configured with host address in format x.x.x.0
- Fixed IP call failed by using "Edit and Dial" option in call history
- Fixed phone crashes after clearing the listened multicast paging IP:Port
- Fixed phone doesn't answer the call when it's the first time to enable Auto Answer
- Fixed phone failed to connect to UCM6100 to pick extension for auto provisioning if using HTTPS method
- Fixed G.722 encoded audio prompt files are distorted during playback
- Fixed tooltip for option "Unregister on Reboot" is not correct
- Fixed phone frequently sends SUBSCRIBE for DND when using Broadsoft platform

## **FIRMWARE VERSION 1.0.4.10**

### **PRODUCT NAME**

GXP2130/GXP2140/GXP2160

### **DATE**

06/19/2014

### **CHANGES SINCE 1.0.4.6**

#### **BUG FIX**

- Fixed There is no dial tone, dialing DTMF tone, ring back tone, call waiting tone when using Bluetooth headset
- Fixed MPK mode "Call Park" is not working on 3CX platform
- Fixed DTMF digits are not transmitted "In audio" when using Bluetooth headset
- Fixed Device is using the next account when dialing through predictive dial list
- Fixed SPLIT softkey in auto-attended transfer is not working properly
- Fixed MPK does not send DTMF using "Enable Sending DTMF via Speed Dial" during a call when configured as BLF
- Fixed DTMF is not recognized
- Fixed Phone crashed after dialing conference extension on UCM61xx
- Fixed Last 2 accounts on the phone displays abnormal after setting Account Active to No
- Fixed MPK mode "Record" is not working

## **FIRMWARE VERSION 1.0.4.6**

### **PRODUCT NAME**

GXP2130/GXP2140/GXP2160

### **DATE**

06/05/2014

### **CHANGES SINCE 1.0.4.5**

#### **BUG FIX**

- Fixed Bluetooth hands-free: device ends call after pressing other line in HF line talk

## FIRMWARE VERSION 1.0.4.5

### PRODUCT NAME

GXP2130/GXP2140/GXP2160

### DATE

05/30/2014

### CHANGES SINCE 1.0.3.9

#### ENHANCEMENT

- Added Option to enable/disable widget display
- Added Support to insert pauses into speed dials and phonebook entries
- Added Web interface to capture trace. New P values added:  
P2999: capture location. 0 – internal storage, 1 – USB  
P6007: capture with RTP packets. 0 – No, 1 – Yes  
P6008: USB filename for the captured trace
- Added Multicast paging support
- Added Broadsoft IM&P feature: Dial Conference
- Added New P values for Broadsoft IM&P feature:  
P6005: Broadsoft IM&P port number  
P6006: Broadsoft IM&P host address
- Added Option to show account name only and not the User ID on the LCD screen
- Added Phone screen should display labels for line keys when configured as Call Park/BLF
- Changed display "Group ID" block name in Broadsoft call log
- Added "SpeedDial" as "Action" to softkeys
- Added "Forward" option in ringing screen to transfer incoming call without need to answer it

#### BUG FIX

- Fixed IP display abnormal under voice VLAN circumstance
- Fixed LCD display abnormal when switching line in Bluetooth Hands-free line calling out status
- Fixed End the first call then the audio mode icon would disappear
- Fixed IP address doesn't display when assigned VLAN via LLDP
- Fixed Phone shows wrong registration status when phone's IP is 0.0.0.0
- Fixed 2-way audio keeps open during a blind transfer
- Fixed Adjusting account index to begin from 1 for phonebook xml file
- Fixed Dial softkey displays even there is no entry in UC-One
- Fixed Device couldn't log in UC-One after pressing LogIn softkey repeatedly

- Fixed There is no cancel softkey in Transfer interface after Bluetooth Hands-free line ends the call
- Fixed Device works abnormal sometimes after downloading config file
- Fixed BTOff softkey doesn't work after switching line
- Fixed Device works abnormal after pressing BTOff softkey when there are 2 incoming calls
- Fixed Audio mode changed after the other party answers the call when using Bluetooth Hands-free line
- Fixed Distinctive ringtone only reads last line when multiple alert-info headers are sent
- Fixed UC-One softkey icon on LCD screen can't show up or hide automatically
- Fixed There is no Resume softkey after pressing UP key in HOLD screen
- Fixed Phone doesn't handle multiple m lines in SDP correctly
- Fixed Contacts disappeared in UC-One screen
- Fixed Public mode is abnormal
- Fixed Bluetooth: couldn't redial via Bluetooth headset
- Fixed Softkey displays incorrectly if switching to another line when ringing under Bluetooth Hands-free mode
- Fixed Bluetooth hands-free: call is established abnormally when the connected mobile phone is in a call with another phone
- Fixed Bluetooth hands-free: audio sound performs abnormally after pressing HF line key in Bluetooth headset talk
- Fixed Bluetooth hands-free: LCD displayed abnormally after ending Bluetooth hands-free account talk
- Fixed Bluetooth hands-free: Device performed abnormally after off/onhook in HF line calling out status
- Fixed Bluetooth displayed wrong in pair request window interface
- Fixed Bluetooth hands-free: pair with hands-free device abnormal after disconnecting in talk
- Fixed Bluetooth ring tone issue
- Fixed Bluetooth hands-free: LCD displayed wrong when there is incoming call of HF account line in IP display interface
- Fixed Star key lock has no password limit on LCD
- Fixed Softkey5 on the 1st entry in Bluetooth scanning screen displayed wrong
- Fixed LCD displayed no talk duration and swap softkey disappeared after answering second call
- Fixed Bluetooth hands-free: all softkeys in incoming call page didn't work
- Fixed Weather application language cannot be customized
- Fixed Star keypad lock failed in screensaver mode
- Fixed Broadsoft phonebook sends search inquiry to wrong URL
- Fixed Device connects to Bluetooth hands-free device automatically after disconnecting manually
- Fixed Device couldn't dial through Bluetooth phonebook when talking in Bluetooth hands-free mode
- Fixed GXP2130 Broadsoft executive assistant page displayed incomplete
- Fixed LCD displayed abnormally when there is incoming call in Bluetooth phonebook screen
- Fixed Bluetooth phonebook entry disappeared after clearing search filter
- Fixed Cursor moved abnormally when turning pages in Call history
- Fixed Last call wasn't held after dialing through Broadsoft Phonebook
- Fixed There is no audio icon displayed after dialing through Broadsoft phonebook

- Fixed Pressing line key couldn't answer incoming call in pickup call screen
- Fixed Broadsoft UC-One feature: fails to display all contact entries in Group Directory
- Fixed When switching line, instead of showing dial screen, it shows an overview screen
- Fixed Input Shiftable mode is not functioning correctly
- Fixed Bluetooth hands-free: first incoming call after connection will not play out ring tone when using iPhone
- Fixed Bluetooth hands-free: LCD displayed abnormally after HF line incoming call cancelling
- Fixed Bluetooth hands-free: LCD displayed abnormally after ending HF line talk
- Fixed Bluetooth hands-free: One-way audio when incoming call in HF line talking
- Fixed Bluetooth hands-free: No Answer or Reject softkey on incoming call after ending HF line talk

## FIRMWARE VERSION 1.0.3.9

### PRODUCT NAME

GXP2130/GXP2140/GXP2160

### DATE

05/05/2014

### CHANGES SINCE 1.0.2.9

#### ENHANCEMENT

- Updated OpenSSL library from 1.0.1e to 1.0.1g
- Added PhonePower special feature
- Added P value for HTTP Proxy. P1552 – HTTP Proxy Server
- Added Broadsoft IM&P features: Contact/Buddy List and Presence
- Added Screensaver options to LCD under "Preference"->"Appearance"
- Added Web UI option to select default search mode for phonebook
- Added Support to display extension number in searching result from Broadsoft Group Directory
- Added GUI interface for users to download language files
- Added Bluetooth softkey in Hands-Free dial screen
- Added Backspace softkey will change to clear when long pressing it in UCM Detect screen
- Added Second dial tone support
- Added Input character selection window
- Added BLF server support
- Added New P values:
  - P2375/P2475/P2575/P2675/P2775/P2875 - BLF Server option for Account 1/2/3/4/5/6
  - P2920 - Input Selection Mode
  - P2964 - Enable Broadsoft IM&P
  - P2965 - Broadsoft IM&P Account
  - P2966 - Broadsoft IM&P Username
  - P2967 - Broadsoft IM&P Password
  - P2968 - Broadsoft IM&P Autologin
  - P2969 - Broadsoft IM&P Display Non XMPP Contacts
  - P2970 - Default Phonebook Search Mode

#### BUG FIX

- Fixed Fetching data using cURL vulnerability
- Fixed HTTP/HTTPS proxy settings not respected
- Fixed DSP flow buffer index in TX path

- Fixed Part of the call history logs lost
- Fixed GXP2130 Home screen time display will shift when ticking
- Fix set date for 802.1X certification
- Fixed Bluetooth Hands-Free: no pairing request window pops up and Bluetooth crashes when using with certain mobile devices
- Fixed Bluetooth Hands-Free: device couldn't manually connect with hands-free device after disabling Hands-Free mode
- Fixed Bluetooth Hands-Free: SWAP softkey displays after ending one talk in hands-Free mode
- Fixed Bluetooth Hands-Free: device couldn't switch connection with different Hands-Free device directly
- Fixed Bluetooth Hands-Free: pressing Speaker key couldn't end call for Hands-Free account
- Fixed Bluetooth Hands-Free: device performs abnormally after reboot device in Hands-Free talking
- Fixed Bluetooth Hands-Free: device works abnormally after Hands-Free device switches audio source
- Fixed Bluetooth Hands-Free: audio mode is changed after redialing in Headset dialing mode
- Fixed Bluetooth status display is wrong in scanning screen
- Fixed GUI crashed after searching and pressing Down key twice in local phonebook
- Fixed GUI crashed after incoming call and then pressing Right and Left keys on local call log screen
- Fixed Cursor disappears after switching language in LCD
- Fixed Pressing digits when the phone is on hook doesn't go to dial screen if the screensaver is active
- Fixed TR-069: Removed TR-069 enable/disable option. TR-069 is enabled by default.
- Fixed TR-069: CPE replies with error code 9016 for firmware upgrade
- Fixed Reduced audio buzz when receiving high amplitude, distorted RTP
- Fixed Implemented Handset TX (MIC path) user gain
- Fixed LCD didn't skip to dialing screen after off hook in screensaver process
- Fixed No Connect softkey for paired devices in Bluetooth scanning screen
- Fixed "Custom Call-Info for Auto Answer" doesn't work
- Fixed Device couldn't be called in and one-way audio happens after calling out
- Fixed No SignIn softkey on LCD when account has been added to a call queue
- Fixed The call is dropped by the phone after 37 seconds
- Fixed Device couldn't download Bluetooth phonebook automatically after connecting with Galaxy series mobile devices
- Fixed Softkeys in idle screen is displayed incompletely for some languages
- Fixed LCD returns to wrong directory after checking detail info in call history
- Fixed Intercom MPK didn't work when the phone is in talking status
- Fixed LCD displays abnormally after pressing LDAP search MPK in screensaver
- Fixed Changed title "Last Name" to "Name" in Broadsoft call log
- Fixed LCD displays screensaver after pressing HOLD+DOWN keys in talking status
- Fixed Uploading wallpaper doesn't take effect unless the wallpaper source is uploaded
- Fixed Wallpaper doesn't scale to screen size
- Fixed Input selection window disappears too soon on ExactMatch phonebook search mode
- Fixed There is no "Pickup" and "Call Park" softkey



- Fixed It can only display 15 numbers in "Edit and Dial"
- Fixed Bluetooth headset key has to be pressed twice to answer incoming call in holding status
- Fixed Bluetooth headset and speaker mode are used at the same time after resuming the call on hold
- Fixed Two calls are initiated on redial after Account 1 is configured as SCA
- Fixed Phone couldn't release the call via Bluetooth headset after back from another audio mode
- Fixed Pressing Bluetooth headset key couldn't end call
- Fixed LCD doesn't skip to dialing screen after pressing Hands-Free line key in FwdAll screen
- Fixed There is no system ring tone when adjusting volume in ringing screen
- Fixed Must press Headset key twice to switch to Toggle mode
- Fixed Broadsoft Call Center status is displayed abnormally
- Fixed LCD is returned to idle screen before dialing out from call history
- Fixed Adjusting volume on screen dialing screen won't take effect after establishing call

## FIRMWARE VERSION 1.0.2.9

### PRODUCT NAME

GXP2130/GXP2140/GXP2160

### DATE

03/27/2014

### CHANGES SINCE 1.0.1.14

#### ENHANCEMENT

- Added Bluetooth handsfree profile support
- Added Bluetooth phonebook download support
- Added Predictive dial support for Bluetooth handsfree account
- Added Broadsoft Flexible Seating support
- Added Broadsoft Executive/Assistant support
- Added 3CXv12 CTI integration
- Added Provider lock support
- Added Configuration file upload support via web GUI
- Added Screen saver support
- Added Wallpaper support
- Added STAR key keypad lock feature
- Added Keypad shortcut to reboot (HOLD + LEFT) and provisioning (HOLD + RIGHT)
- Added Missed call softkey on HOME screen
- Added Phonebook search using characters by pressing number keys
- Added Option to disallow turn on DND function
- Added Bluetooth options "Device name" "Bluetooth MAC" and "Discoverable timeout"
- Added Special symbol input method
- Added Hide currency and weather screen if not enabled

#### BUG FIX

- Fixed Lack of side tone on the phone
- Fixed "Configuration via Keypad Menu" doesn't take effect
- Fixed Handset mode not working if SCA is enabled
- Fixed Pressing line key shouldn't take effect if SCA is enabled
- Fixed Bluetooth scan result still shows after Bluetooth is turned off
- Fixed Bluetooth has no ring back tone or DTMF tone
- Fixed Bluetooth has no sound in audio loopback
- Fixed Handset icon displays after answering call using Bluetooth headset

- Fixed Phone is automatically disconnected from Bluetooth headset
- Fixed Bluetooth headset has no ring tone after pressing BT ON/BT OFF softkey
- Fixed Phone doesn't play failure treatment after line seize on active line
- Fixed Bluetooth discoverable option abnormal
- Fixed Wrong audio channel after hold and unhold in headset toggle mode
- Fixed EHS headset has no dial tone when switching line
- Fixed The number entered after 0 changes to + in transfer or conference screen
- Fixed Bluetooth audio mode is still on after answering call from EHS headset
- Fixed No sound after pressing another line key in incoming call
- Fixed Increased ringer maximum loudness by 5dB
- Fixed Phone can't dial from Broadsoft phonebook if account 1 is not registered
- Fixed GUI crash using weather after configuring certain self-defined city code
- Fixed Idle mute is disabled after pressing MUTE in talking
- Fixed "Enable Idle Mute" option in web GUI doesn't take effect
- Fixed Transfer not working if BLF MPK has alphanumeric characters in user ID configured
- Fixed Pressing RIGHT key doesn't take effect in LCD menu->UCM Detect: "Account to Apply"
- Fixed LCD switches to wrong screen after accessing call history detail information
- Fixed LCD menu and keypad selection related issues

## **FIRMWARE VERSION 1.0.1.14**

### **PRODUCT NAME**

GXP2140/GXP2160

### **DATE**

03/13/2014

### **CHANGES SINCE 1.0.1.6**

#### **BUG FIX**

- Fixed Conference participant cannot hear the ring-back tone when the third-party is ringing
- Fixed Network connectivity lost when changing the Layer 2 QoS 802.1p Priority
- Fixed Phone doesn't send 200OK to reply NOTIFY for eventlist BLF in IPv6
- Fixed Self-defined ring tone plays when switching account in dialing page
- Fixed Hoteling status update in LCD idle screen not working properly
- Fixed Phone doesn't send out Unavailable code info in SUBSCRIBE for Broadsoft call center
- Fixed Phone crashes sometimes on parsing NOTIFY messages with Registration event
- Fixed NTP server path modification couldn't be saved
- Fixed GUI crash in UCM detect

## FIRMWARE VERSION 1.0.1.6

### PRODUCT NAME

GXP2140/GXP2160

### DATE

02/07/2014

### CHANGES SINCE 1.0.0.17

#### ENHANCEMENT

- Added Broadsoft call park notification support
- Added Broadsoft shared call appearance support
- Added Broadsoft call center support
- Added Eventlist BLF update support for Broadsoft
- Added Broadsoft network-based 3-way/N-way call support
- Added Local group and Broadsoft phonebook in phonebook support
- Added Instant message

#### BUG FIX

- Fixed Numbers typed in "LDAP" will disappear after pressing volume keys
- Fixed Auto location abnormally after factory reset
- Fixed No DTMF tone in Bluetooth headset
- Fixed No ring tone can be heard from headset under "Headset" mode
- Fixed Cursor skipped abnormally after LDAP searching
- Fixed Disabling "Always Ring Speaker" invalid and no headset icon on LCD when toggling on headset mode
- Fixed "Always Ring Speaker" abnormal in Toggle mode
- Fixed Noise exists in ring tone after receiving 486
- Fixed Invalid web UI options "Intercom" and "Disable DND"
- Fixed Extension board won't reboot with GXP2140
- Fixed Wrong language display after modifying in config file
- Fixed Phone can hear itself in Bluetooth headset mode after the far end puts the call on hold
- Fixed LCD won't switch to transferring interface after conference is ended
- Fixed There is no voicemail icon next to account bar when receiving voicemail
- Fixed Cannot adjust volume when there is an incoming 3rd party call
- Fixed LCD language doesn't update immediately
- Fixed "Disable Missed Call Backlight" doesn't take effect
- Fixed Audio mode is wrong or no sound in talking after disconnecting with Bluetooth headset

- Fixed Phone won't automatically connect to Bluetooth headset at bootup
- Fixed LCD displays wrong ID if returning from an unsuccessful transfer
- Fixed LDAP search result cannot be fully displayed if pressing UP key
- Fixed Device submitted wrong PPPoE service name
- Fixed Phone cannot establish second conference call
- Fixed Subscribe update doesn't synchronize with Registration
- Fixed Device ends call automatically when switching lines in EHS mode
- Fixed Search filter is not cleared after exit from LDAP directory
- Fixed Last name information is lost after saving LDAP searching result to local phonebook
- Fixed Audio mode won't switch to headset mode after off-hook on volume adjusting screen
- Fixed Pressing BT headset call button invalid on incoming call during an active call
- Fixed Pressing BT headset call button cannot end call
- Fixed Pressing line key can't switch to dialing interface in audio loopback mode
- Fixed LCD displays abnormal after pressing BT headset call button to end call
- Fixed Cannot end call after pressing Headset key in CONF interface
- Fixed No ring tone after far end hangs up in CONF or Transfer interface
- Fixed Device is abnormal after modifying LDAP settings in talking
- Fixed LCD displays + if pressing 0 for a long time as DTMF during talking
- Fixed Volume adjusting issues in audio loopback mode
- Fixed Extra softkey "Uncheck" displays after deleting phonebook group
- Fixed Input mode can be toggled when editing LDAP directory number
- Fixed MPK LED doesn't update status upon receiving BLF eventlist NOTIFY on extension board
- Fixed Forward icon displays after disabling account 1
- Fixed Phone ignores characters after # when sending DTMF during the call
- Fixed Incoming calls display elapsed time of the last call
- Fixed Phone won't return to active call if answering a new call during transfer operation
- Fixed Call-Info header is in INVITE after switching to second account
- Fixed Redial abnormal after configuring account active to No
- Fixed Feature code \*72 takes effect even if account 1 is not registered
- Fixed GUI crash after pressing Speed Dial MPK with no available lines
- Fixed Off-hook auto dial not working after configuring EHS headset
- Fixed Switching audio mode issues in off-hook auto dial
- Fixed Device cannot automatically switch audio mode after turning off Bluetooth headset
- Fixed Wrong audio codec is negotiated after resuming the conference on hold
- Fixed Wrong LCD display when pressing CONF key if conference is disabled
- Fixed Wrong audio mode after disabling toggle mode
- Fixed Device cannot dial or reboot after switching MPK mode from BLF to Presence Watch
- Fixed Provisioning doesn't work via HTTP after reboot