

# **GXW4216/GXW4224/GXW4232/GXW4248**

## **Firmware Release Notes**

### **IMPORTANT UPGRADING NOTE**

- **GXW4224/GXW4232 hardware V2.4C and GXW4248 hardware V1.2C cannot be downgraded to firmware 1.0.5.43 or lower version.**
- **GXW4216/GXW4224/GXW4232 hardware V2.5A and GXW4248 hardware V1.3A cannot be downgraded to firmware lower than version 1.0.15.2.**
- **GXW4216/GXW4224/GXW4232 hardware V3.0B cannot be downgraded to firmware 1.0.19.4 or lower version.**
- **GXW4248 hardware V1.4A and V1.6A cannot be downgraded to firmware 1.0.23.1 or lower version.**

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## FIRMWARE VERSION 1.0.23.9

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4248

### DATE

10/22/2024

### FIRMWARE FILE INFORMATION

- GXW4216 firmware file name: gxw4216fw.bin  
MD5: acbe1cbeedd617e434957ea5d475d24f
- GXW4224 firmware file name: gxw4224fw.bin  
MD5: dda3865605800203ab3638db2bf9965c
- GXW4232 firmware file name: gxw4232fw.bin  
MD5: f4e840d684fc3cab96c68b03d4fd533b
- GXV4248 firmware file name: gxw4248fw.bin  
MD5: c2ff52b296cbc6866bc05aff7a453e78

### BUG FIX

- Fixed device stops working after power outage.

## FIRMWARE VERSION 1.0.23.8

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4248

### DATE

04/26/2024

### FIRMWARE FILE INFORMATION

- GXW4216 firmware file name: gwx4216fw.bin  
MD5: e21c29b4319fbd998a5d4dcbc13c5025
- GXW4224 firmware file name: gwx4224fw.bin  
MD5: 643e3210c99c8abdb088c3549f3d4c1e
- GXW4232 firmware file name: gwx4232fw.bin  
MD5: a1f1c41481d6cfea996cd236f6fdaf4b
- GXV4248 firmware file name: gwx4248fw.bin  
MD5: 221e172242d654abe152f13078b014c9

### ENHANCEMENT

- Set the “Disable User Level Web Access” (P28158) to “Yes” by default.
- Set the “Disable Viewer Level Web Access” (P28159) to “Yes” by default.
- Force user to change the password upon first login using the default password to the Admin/User/Viewer Account.

## FIRMWARE VERSION 1.0.23.7

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4248

### DATE

01/26/2024

### FIRMWARE FILE INFORMATION

- GXW4216 firmware file name: gxw4216fw.bin  
MD5: 07ab7d1e99dd9d0c0005270a03a50013
- GXW4224 firmware file name: gxw4224fw.bin  
MD5: 403d0d73fd8a5b41bf2936b7c291129d
- GXW4232 firmware file name: gxw4232fw.bin  
MD5: 781186b563d64606e50bb2674c1d3146
- GXV4248 firmware file name: gxw4248fw.bin  
MD5: f0f4755652c06888eb1a73ac49f1701d

### BUG FIX

- Added memory leak fix.

## FIRMWARE VERSION 1.0.23.6

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4248

### DATE

02/23/2023

### FIRMWARE FILE INFORMATION

- GXW4216 firmware file name: gxw4216fw.bin  
MD5: 714a923db031a639d820fbc0a2bdec4f
- GXW4224 firmware file name: gxw4224fw.bin  
MD5: f4c476d54449aab60aba7c2aa0689045
- GXW4232 firmware file name: gxw4232fw.bin  
MD5: 18f5275cbf2ad78ef7fd455fdaa7792a
- GXV4248 firmware file name: gxw4248fw.bin  
MD5: f6bf9c0dcb2ff36201004bfe70a1b628

### ENHANCEMENT

- Support to download system information via WebUI. (WebUI->Status-> System Info)

### BUG FIX

- Fixed device units have registration issue, slow loading, and generate core dump after the upgrade.
- Fixed the software stops when using "Replace Beginning '+' with 00 in Caller ID" feature.
- Fixed the issue of the "Early Dial" not working.

## FIRMWARE VERSION 1.0.23.5

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4248

### DATE

09/23/2022

### FIRMWARE FILE INFORMATION

- GXW4216 firmware file name: gxw4216fw.bin  
MD5: 7279fbf83fd97c4ea95fb65900fd90be
- GXW4224 firmware file name: gxw4224fw.bin  
MD5: 700977a3391802492565cad639d0c6e
- GXW4232 firmware file name: gxw4232fw.bin  
MD5: d91141b6fb57169c8d37ede91bbec317
- GXV4248 firmware file name: gxw4248fw.bin  
MD5: 0bec48b8c4c08a8c20464230f362d276

### ENHANCEMENT

- Add the ability to send SNMP traffic through Management Interface. [Enable SNMP Through Management Interface]

### BUG FIX

- Fixed device does not turn off LCD screen Led after minutes.
- Fixed device units lose registration randomly.
- Fixed device will not send a registration request after re-acquiring the network after disconnecting from the network.
- Fixed the Dial Plan is not matched after switching to None(default) from China ITSP.
- Fixed a bug causes "Callee Flash to 3WC" function failed after device reboot.

### NEW FEATURES OVERVIEW

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

#### Enable SNMP Through Management Interface

- **Web Configuration**

User can find the configuration in Web UI -> Maintenance-> Network Settings

## Network Settings for Management Interface

**Enable management interface**     Enabled  Disabled

**Management access**    Management interface only

**Enable SNMP Through Management Interface**     Enabled  Disabled

**IP Address Mode for Management Interface**     DHCP  Static IP

- Functionality**

This feature allows users to choose whether to route the SNMP packets through management interface.

- New P Values**

Pvalue	Description	Value range	Default
P28209	Enable SNMP Through Management Interface	1 – Enabled 0 – Disabled	0 – Disabled

## FIRMWARE VERSION 1.0.23.2

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4248

### DATE

12/09/2021

### FIRMWARE FILE INFORMATION

- GXW4216 firmware file name: gxw4216fw.bin  
MD5: 3bfeefda3b68e682991896978060635b
- GXW4224 firmware file name: gxw4224fw.bin  
MD5: decfad5bbb5fd0449d36d74665f367ea
- GXW4232 firmware file name: gxw4232fw.bin  
MD5: f8b0f6fe1edb8a1adf1c4aba60097128
- GXV4248 firmware file name: gxw4248fw.bin  
MD5: 82f759fe803f6e76431e28ae402404ea

### BUG FIX

- Fixed device will reboot when PCB board unconnected to LED Lightboard on FXS test.
- Fixed the issue that user fill in the ACS server address in the wrong format, system still prompts a message which notices successful saved.
- Fixed fax failed issue between two V34 high-speed fax machines while "Fax Tone Detection Mode" sets to "Callee"
- Fixed the issue that the user cannot use SSH to upgrade after enable the management interface.
- Fixed the issue that too many network captures cause the device out of memory.
- Fixed device does not provision from HTTP server with digest authentication.
- Modified character "登陆" to "登录" when user access to login page in Chinese.
- Fixed device the Ringing Power configuration prompt error in Chinese.
- Fixed the "Callee Flash to 3WC" function failed after device reboot.

## FIRMWARE VERSION 1.0.21.1

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4248

### DATE

09/07/2021

### FIRMWARE FILE INFORMATION

- GXW4216 firmware file name: gxw4216fw.bin  
MD5: 156fce6068f7d95c8214ee48828f8c1a
- GXW4224 firmware file name: gxw4224fw.bin  
MD5 ccc965ba3282109668749a08cf088f41
- GXW4232 firmware file name: gxw4232fw.bin  
MD5: 4e46e5941fe2f3439a69e15bcc2714d3
- GXV4248 firmware file name: gxw4248fw.bin  
MD5: c2800d8201621e104cde873a8f4ad174

### BUG FIX

- Fixed device may not get registered when remote enable certificate verification.



## FIRMWARE VERSION 1.0.19.4

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4248

### DATE

08/04/2021

### FIRMWARE FILE INFORMATION

- GXW4216 firmware file name: gxw4216fw.bin  
MD5: 902ebefabfdb70a0b66c48fd431f71fa
- GXW4224 firmware file name: gxw4224fw.bin  
MD5: 3ff8151d8e549888e88ca24309395489
- GXW4232 firmware file name: gxw4232fw.bin  
MD5: 2d4d7c41180f8af372552be87a9507cc
- GXV4248 firmware file name: gxw4248fw.bin  
MD5: a5a7e752254e68d95b0925041715664d

### ENHANCEMENT

- Added support for Play Port Number. [Play Port Number Feature]
- Added support for provisioning cfgModelName.xml file
- Added support for UPnP for NAT Traversal method
- Added support for 802.1X CA Certificate (P8439) and Client Certificate (P8440) configuration using config file. Max length is 8192.
- Added support for OpenVPN CA (P9902), OpenVPN Certificate (P9903), and OpenVPN Client Key (P9904) configuration using config file.
- Added Sectigo CA to trusted CA list.

### BUG FIX

- Fixed call being terminated when it is transferred after 1-2 minutes.
- Fixed device did not get caller name or caller number from Remote Party ID when handling SIP Re-Invite and Update.
- Fixed device may prompt UBIFS error.
- Fixed device freezes randomly.

### NEW FEATURES OVERVIEW

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

### Play Port Number Feature

- Web Configuration**

User can find the configuration in Web UI -> Profiles -> Call Features Settings.

**Play port number Feature**       No  Yes  
**Enable playing port number**     

- Functionality**

This feature allows users to use the star code to check the port number the analog phone is connected.

- New P Values**

Pvalue	Description	Value range	Default
P24088	Play port number feature (Profile 1)	0 – No 1 – Yes	1 – Yes
P24039	Enable playing port number (Profile 1)	Max/Min Length: 2	97
P24288	Play port number feature (Profile 2)	0 – No 1 – Yes	1 – Yes
P24239	Enable playing port number (Profile 2)	Max/Min Length: 2	97
P24488	Play port number feature (Profile 3)	0 – No 1 – Yes	1 – Yes
P24439	Enable playing port number (Profile 3)	Max/Min Length: 2	97
P24688	Play port number feature (Profile 4)	0 – No 1 – Yes	1 – Yes
P24639	Enable playing port number (Profile 4)	Max/Min Length: 2	97

## FIRMWARE VERSION 1.0.17.4

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4248

### DATE

04/09/2021

### FIRMWARE FILE INFORMATION

- GXW4216 firmware file name: gxw4216fw.bin  
MD5: 4b3633d533d65356787c780de41d8e7f
- GXW4224 firmware file name: gxw4224fw.bin  
MD5: c469df5b8fa8ab9481b8bbd678eaf9a3
- GXW4232 firmware file name: gxw4232fw.bin  
MD5: 28dd70601388ca0636f28e6bb401c375
- GXV4248 firmware file name: gxw4248fw.bin  
MD5: 131d148b46ac8a9057ee45e848e203f9

### ENHANCEMENT

- Added support for OpenVPN. [OpenVPN]
- Added support for DDNS. [DDNS].
- Added support for 802.1x. [802.1x]
- Expanded the supported Trusted CA Certificate length to 8192 for P2386/P2486/P2586/P2686.
- Increased dial plan maximum supported character length.

### NEW FEATURES OVERVIEW

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

#### OpenVPN

- **Web Configuration**

User can find the configuration in Web UI -> Maintenance -> VPN.

- **Functionality**

This feature allows users to configure OpenVPN.

## OpenVPN Settings

**OpenVPN Enable**  Yes  No  
**OpenVPN Server Address**   
**OpenVPN Port**   
**Interface type**  TAP  TUN  
**OpenVPN Transport**  UDP  TCP  
**Enable LZO Compression**  Yes  No  
**OpenVPN Encryption**   
**OpenVPN Digest**   
**OpenVPN CA**    
**OpenVPN Certificate**    
**OpenVPN Client Key**    
**OpenVPN Client Key Passowrd**

- New P Values**

Pvalue	Description	Value range	Default
P7050	OpenVPN Enable	0 – No 1 – Yes	0 – No
P7051	OpenVPN Server Address	Maxlength: 64	NULL
P7052	OpenVPN Port	Maxlength: 64	1194
P20714	Interface type	tap – TAP tun – TUN	tun – TUN
P2912	OpenVPN Transport	udp – UDP tcp – TCP	udp – UDP
P20716	Enable LZO Compression	0 – No 1 – Yes	1 - Yes
P20717	OpenVPN Encryption	BF-CBC - BF-CBC 128 bit default key (variable) Default DES-CBC - DES-CBC 64 bit default key (fixed) RC2-CBC - RC2-CBC 128 bit default key (variable) DES-EDE-CBC - DES-EDE-CBC 128 bit	BF-CBC - BF-CBC 128 bit default key (variable) Default

		default key (fixed) DES-EDE3-CBC - DES-EDE3-CBC 192 bit default key (fixed) DESX-CBC - DESX-CBC 192 bit default key (fixed) RC2-40-CBC - RC2-40-CBC 40 bit default key (variable) CAST5-CBC - CAST5-CBC 128 bit default key (variable) RC2-64-CBC - RC2-64-CBC 64 bit default key (variable) AES-128-CBC - AES-128-CBC 128 bit default key (fixed) AES-192-CBC - AES-192-CBC 192 bit default key (fixed) AES-256-CBC - AES-256-CBC 256 bit default key (fixed)	
P20725	OpenVPN Digest	SHA1 - SHA1 Default MD5 - MD5 RSA-MD5 - RSA-MD5 RSA-SHA1 - RSA-SHA1 DSA-SHA1-old - DSA-SHA1-old DSA-SHA1 - DSA-SHA1 RSA-SHA1-2 - RSA-SHA1-2 DSA – DSA RIPEMD160 - RIPEMD160 RSA-RIPEMD160 - RSA-RIPEMD160 MD4 - MD4 RSA-MD4 - RSA-MD4 ecdsa-with-SHA1 - ecdsa-with-SHA1 RSA-SHA256 - RSA-SHA256 RSA-SHA384 - RSA-SHA384 RSA-SHA512 - RSA-SHA512 RSA-SHA224 - RSA-SHA224 SHA256 - SHA256 SHA384 - SHA384 SHA512 - SHA512 SHA224 - SHA244 Whirlpool - whirlpool	SHA1 - SHA1 Default
P9902	OpenVPN CA	8192– Max Character Number	NULL

P9903	OpenVPN Certificate	8192– Max Character Number	NULL
P9904	OpenVPN Client Key	8192– Max Character Number	NULL
P20715	OpenVPN Client Key Password	Maxlength: 64	NULL

## DDNS

- Web Configuration**

User can find the configuration in Web UI -> Maintenance -> DDNS.

### DDNS

Enable DDNS  No  Yes  
 DDNS Server  ▼  
 DDNS Username   
 DDNS Password   
 DDNS Hostname   
 DDNS Hash

- Functionality**

Allow users to use DDNS.

- New P Values**

Pvalue	Description	Value range	Default
P28121	Enable DDNS	0 - No 1 - Yes	0 - No
P28122	DDNS Server	0 - dyndns.org 1 - freedns.afraid.org 2 - zoneedit.com 3 - no-ip.com 4 - oray.net	0 – dyndns.org
P28123	DDNS Username	64 – Max String Length	Null
P28124	DDNS Password	64 – Max String Length	Null
P28125	DDNS Hostname	64 – Max String Length	Null
P28126	DDNS Hash	64 – Max String Length	Null

## 802.1x

- Web Configuration**

User can find the configuration in Web UI -> Maintenance -> 802.1x.

## 802.1x

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**802.1X Mode**

**802.1X Identity**

**MD5 Password**

**802.1X CA Certificate**

**802.1X Client Certificate**

- **Functionality**

This feature allows using 802.1x secure network authentication.

- **New P Values**

Pvalue	Description	Value range	Default
P7901	802.1X Mode	0 - Disable 1 – EAP_MD5 2 – EAP_TLS 3 – EAP-PEAPv0/MSCHAPv2	0 - Disable
P7902	802.1X Identity	64 – Max String Length	Null
P7903	MD5 Password	64 – Max String Length	Null
P8439	802.1X CA Certificate	4096 – Max String Length	Null
P8440	802.1X Client Certificate	4096 – Max String Length	Null

## FIRMWARE VERSION 1.0.15.2

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4248

### DATE

2/26/2021

### FIRMWARE FILE INFORMATION

- GXW4216 firmware file name: gxw4216fw.bin  
MD5: 8e6e46957debc85d3a180406e71dd0d3
- GXW4224 firmware file name: gxw4224fw.bin  
MD5: 7ac693be0daf208e0ad3f5a399095f9e
- GXW4232 firmware file name: gxw4232fw.bin  
MD5: 2b5e13f2d193314ef35fff9e8d4fcd4
- GXV4248 firmware file name: gxw4248fw.bin  
MD5: eca8846cd6c0781f7759527f4da0888a

### BUG FIX

- Changed the MAC address filed on the syslog message to lower case.
- Fixed Management VLAN routing used the wrong gateway.
- Fixed could not login the Web UI without refresh webpage.
- Fixed CPE SSL Certificate (P2386) will be cleared after factory reset via ACS causing ACS connection failure.
- Fixed device freezes randomly.



## FIRMWARE VERSION 1.0.14.2

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4248

### DATE

1/13/2021

### FIRMWARE FILE INFORMATION

- GXW4216 firmware file name: gxw4216fw.bin  
MD5: 45635d78923d934027080bf7a776a763
- GXW4224 firmware file name: gxw4224fw.bin  
MD5: 9cac8daac1baa9dcbd661a119ee5d805
- GXW4232 firmware file name: gxw4232fw.bin  
MD5: 7ee3d22ace42a0ad23bf3c8990b1e287
- GXV4248 firmware file name: gxw4248fw.bin  
MD5: e655213877539e98bdb3d37eb6951170

### BUG FIX

- Fixed when login device Web UI, login username and password could be found in the data package.
- Fixed device may fail to respond web or SSH request under 10/100M network environment.

## FIRMWARE VERSION 1.0.13.3

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4248

### DATE

12/16/2020

### FIRMWARE FILE INFORMATION

- GXW4216 firmware file name: gxw4216fw.bin  
MD5: 9c8ee9c9e10e1d8c5eb5e0e16ffa083c
- GXW4224 firmware file name: gxw4224fw.bin  
MD5: 4d05202ba42d24660929186bc5255ffa
- GXW4232 firmware file name: gxw4232fw.bin  
MD5: c01c3009be2de9009f13a901b7a1fa9a
- GXV4248 firmware file name: gxw4248fw.bin  
MD5: bcff4ab7d64bce5da3f37703fdfebe2e

### ENHANCEMENT

- Added support for 3-layer certification chain loading. Expanded maximum allowable length of P8472 from 4096 to 8192.
- Added support for Send Hook Flash Event Method. [Send Hook Flash Event Method]

### BUG FIX

- Fixed when “Disable User Level Web Access” and “Disable Viewer Level Web Access” set to Yes, Web GUI still switches to Viewer level when press F5 refresh.

### NEW FEATURES OVERVIEW

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

#### Send Hook Flash Event Method

- **Web Configuration**

User can find the configuration in Web UI -> Profile -> Call Settings

**Send Hook Flash Event**     No    Yes

**Send Hook Flash Event Method**     Default    SIP INFO

- **Functionality**

When Send Hook Flash Event Method is set to SIP INFO, hook flash event will be sent via “SIP INFO”, if

set to Default, hook flash event will be sent as DTMF event.

- **New P Values**

Pvalue	Description	Value range	Default
P28184	Send Hook Flash Event Method (Profile 1)	0 – Default 1 – SIP INFO	0 – Default
P28185	Send Hook Flash Event Method (Profile 2)	0 – Default 1 – SIP INFO	0 – Default
P28186	Send Hook Flash Event Method (Profile 3)	0 – Default 1 – SIP INFO	0 – Default
P28187	Send Hook Flash Event Method (Profile 4)	0 – Default 1 – SIP INFO	0 – Default

## FIRMWARE VERSION 1.0.11.3

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4248

### DATE

09/17/2020

### FIRMWARE FILE INFORMATION

- GXW4216 firmware file name: gxw4216fw.bin  
MD5: edf6498867a43ca1afded171886cac6b
- GXW4224 firmware file name: gxw4224fw.bin  
MD5: 8d529b8edc6da71897f7f53d732813de
- GXW4232 firmware file name: gxw4232fw.bin  
MD5: a2e15cc62998d9cf2427f18d9b490bd4
- GXV4248 firmware file name: gxw4248fw.bin  
MD5: 967bec12ed6d2a14ca70f48cada47454

### ENHANCEMENT

- Increased RX Gain by adding “Force + x dB” options. But note, when using the Force options, may introduce echo issue.
- Added support for Israel DST time zone.
- Added support for validating subject alternative name when P8463 is set to 1.
- Added support for SIP User-Agent Header. [SIP User-Agent Header]

### BUG FIX

- Fixed when DNS SRV is used, device will send sip Register to wrong SIP destination port.
- Set the TR-069 ACS URL to blank.
- Fixed the Web language could not set to French.
- Fixed a security vulnerability that device will crash if an attacker sends a TCP message that does not contain a ‘r’.
- Fixed a security vulnerability that device will crash due to a null pointer dereference when an authentication header is present in the HTTP Get request, but the header is not a well-formed digest message.
- Fixed a security vulnerability that the TR-069 interface hardcodes the nonce and opaque values that the HTTP digest authentication values could be reused.
- Fixed the security vulnerability related to provisioning XML password bypass and command injection.
- Removed gssu commend from SSH.
- Fixed GXW42xx does not take port from SRV results when SIP Transport is set to TLS/TCP.

## NEW FEATURES OVERVIEW

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

### SIP User-Agent Header

- **Web Configuration**

User can find the configuration in Web UI -> Profile -> SIP Settings -> Basic Settings

**SIP User-Agent**   
**SIP User-Agent Postfix**

- **Functionality**

Allow users to configure SIP User-Agent and SIP User-Agent Postfix. The User-Agent header is constructed from these two, if not configured, the User-Agent header will use the default one.

- **New P Values**

Pvalue	Description	Value range	Default
P29071	SIP User-Agent (Profile 1)	1024 – Max String Length	Null
P29171	SIP User-Agent (Profile 2)	1024 – Max String Length	Null
P29271	SIP User-Agent (Profile 3)	1024 – Max String Length	Null
P29371	SIP User-Agent (Profile 4)	1024 – Max String Length	Null
P4834	SIP User-Agent Postfix (Profile 1)	1024 – Max String Length	Null
P4835	SIP User-Agent Postfix (Profile 2)	1024 – Max String Length	Null
P4836	SIP User-Agent Postfix (Profile 3)	1024 – Max String Length	Null
P4837	SIP User-Agent Postfix (Profile 4)	1024 – Max String Length	Null

## FIRMWARE VERSION 1.0.9.4

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4248

### DATE

05/08/2020

### FIRMWARE FILE INFORMATION

- GXW4216 firmware file name: gxw4216fw.bin  
MD5: cab59e152303552c0b8aa1c0557099c5
- GXW4224 firmware file name: gxw4224fw.bin  
MD5: 6f60b805a1d44ea08674a8d9ef01e11a
- GXW4232 firmware file name: gxw4232fw.bin  
MD5: 65e7e8c6953095e32e53b875bdc71d33
- GXV4248 firmware file name: gxw4248fw.bin  
MD5: d6c66b7227e73a5d2bfc66d4a8498097

### ENHANCEMENT

- Added support for DHCP Option 67.
- Updated Automatic Upgrade Pvalue from P194 to P22296.
- Updated mini\_httpd version to 1.30
- Updated Dropbear SSH server version to 2019.78
- Added support to configure Minimum/Maximum TLS version. [TLS Version]
- Added feature RFC2543 Hold. [RFC2543 HoldLoad CA Certificates]
- Added feature Syslog Protocol. [Syslog Protocol]
- Added feature to configure distinctive call waiting tones. [Call Waiting TonesDisable Viewer Level Web Access]
- Added feature "SIP Log Option". [SIP Log Option]
- Added support to keep CDR record. [CDR record Option]
- Added support to disable weak TLS Cipher suites. [Disable Weak TLS Cipher Suites]
- Added feature "Disable Reminder Ring for DND". [Disable Reminder Ring for DND]
- Added feature "Callee Flash to 3WC". [Callee Flash to 3WC]
- Added feature "Connection Request Port" for TR-069. [Connection Request Port]
- Added support for DHCP Option 82. [DHCP Option 82]
- Added feature "Local DNS Setting". [Local DNS Setting]
- Added support to validate syntax of ACL entry.
- Added support to send SNMP trap to 3 different servers. The trap servers should be separated with comma.

- When IP Address Mode set to Static IP, added support to verify if the configured Gateway is on the same subnet as the configured IP Address.
- Added Russian language support on Web UI and IVR.
- Updated Brazil, Sao Paulo time zone to UTC-3, without Daylight Time Savings.
- Updated “DNS Cache Duration” (P28160) default value to 0.

## BUG FIX

- Fixed after factory reset via TR-069, Call Record file and Syslog file are still saved on the device.
- Fixed device will use wrong SIP destination port when DNS Mode is set to SRV.
- Fixed device with new MAC (C074ADxxxxxx) cannot factory reset via IVR.
- Fixed device is sending MAC address under DHCP option 125 during the DHCP discover and DHCP request instead of device serial number.
- Fixed device could not configure HTTP/HTTPS User Name via TR-069.
- Fixed when device sends the INFORM to the ACS server, the manufacturer filed is empty.
- Fixed device could not make a call when use \*19 to disable SRTP per call.

## NEW FEATURES OVERVIEW

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

### TLS Version

- **Web Configuration**

User can find the configuration in Web UI -> Maintenance -> Security Settings -> Security.

<b>Minimum TLS version</b>	Unlimited ▼
<b>Maximum TLS version</b>	Unlimited ▼

- **Functionality**

Configure the minimum or maximum TLS version supported by the phone. Default is Unlimited.

- **New P Values**

Pvalue	Description	Value range	Default
P22293	Minimum TLS version	99 – Unlimited 10 – TLS 1.0 11 – TLS 1.1 12 – TLS 1.2	99 - Unlimited
P22294	Maximum TLS version	99 – Unlimited 10 – TLS 1.0 11 – TLS 1.1	99 - Unlimited

		12 – TLS 1.2	
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### RFC2543 Hold

- Web Configuration**

User can find the configuration in Web UI -> Profile -> Call Settings.

**RFC2543 Hold**     No     Yes

**Disable Call Waiting**     No     Yes

- Functionality**

Allows users to toggle between RFC2543 hold and RFC3261 hold. RFC2543 hold (0.0.0.0) allows user to disable the hold music sent to the other side. RFC3261 (a line) will play the hold music to the other side.

- New P Values**

Pvalue	Description	Value range	Default
P26062	RFC2543 Hold (Profile 1)	0 – No 1 – Yes	1 – Yes
P26162	RFC2543 Hold (Profile 2)	0 – No 1 – Yes	1 – Yes
P26262	RFC2543 Hold (Profile 3)	0 – No 1 – Yes	1 – Yes
P26362	RFC2543 Hold (Profile 4)	0 – No 1 – Yes	1 – Yes

### Syslog Protocol

- Web Configuration**

User can find the configuration in Web UI -> Maintenance -> Syslog.

**Syslog Protocol**    UDP ▼

- Functionality**

This feature allows users to configure the protocol used to send syslog.

- New P Values**

Pvalue	Description	Value range	Default
P8402	Syslog Protocol	0 – UDP 1 – SSL/TLS	0 – UDP



## Call Waiting Tones

- Web Configuration**

User can find the configuration in Web UI -> Profile -> Call Waiting Tones.

### Call Waiting Tones

#### Distinctive Call Waiting Tones

Distinctive Call Waiting Tone 1	Call Waiting Tone 1	<input type="text"/>
Distinctive Call Waiting Tone 2	Call Waiting Tone 1	<input type="text"/>
Distinctive Call Waiting Tone 3	Call Waiting Tone 1	<input type="text"/>

#### Call Waiting Tone Cadences

Syntax: f1=val, f2=val[, c=on1/ off1[- on2/ off2[- on3/ off3]]];  
 (Frequencies are in Hz and cadence on and off are in 1 ms units)

Call Waiting Tone 1	<input type="text" value="f1=440@-13,c=300/10000-300/10000-0/0;"/>
Call Waiting Tone 2	<input type="text" value="f1=440@-13,c=300/10000-300/10000-0/0;"/>
Call Waiting Tone 3	<input type="text" value="f1=440@-13,c=300/10000-300/10000-0/0;"/>
Call Waiting Tone 4	<input type="text" value="f1=440@-13,c=300/10000-300/10000-0/0;"/>
Call Waiting Tone 5	<input type="text" value="f1=440@-13,c=300/10000-300/10000-0/0;"/>
Call Waiting Tone 6	<input type="text" value="f1=440@-13,c=300/10000-300/10000-0/0;"/>
Call Waiting Tone 7	<input type="text" value="f1=440@-13,c=300/10000-300/10000-0/0;"/>
Call Waiting Tone 8	<input type="text" value="f1=440@-13,c=300/10000-300/10000-0/0;"/>
Call Waiting Tone 9	<input type="text" value="f1=440@-13,c=300/10000-300/10000-0/0;"/>
Call Waiting Tone 10	<input type="text" value="f1=440@-13,c=300/10000-300/10000-0/0;"/>

- Functionality**

Allow users to configure distinctive call waiting tone.

- New P Values**

Pvalue	Description	Value range	Default
P29074	Distinctive Call Waiting Tone 1 (Profile 1)	0 – Call Waiting Tone 1 1 – Call Waiting Tone 2 2 – Call Waiting Tone 3 3 – Call Waiting Tone 4 4 – Call Waiting Tone 5 5 – Call Waiting Tone 6 6 – Call Waiting Tone 7 7 – Call Waiting Tone 8	0 - Call Waiting Tone 1

		8 – Call Waiting Tone 9 9 – Call Waiting Tone 10	
P29174	Distinctive Call Waiting Tone 1 (Profile 2)	0 – Call Waiting Tone 1 1 – Call Waiting Tone 2 2 – Call Waiting Tone 3 3 – Call Waiting Tone 4 4 – Call Waiting Tone 5 5 – Call Waiting Tone 6 6 – Call Waiting Tone 7 7 – Call Waiting Tone 8 8 – Call Waiting Tone 9 9 – Call Waiting Tone 10	0 - Call Waiting Tone 1
P29274	Distinctive Call Waiting Tone 1 (Profile 3)	0 – Call Waiting Tone 1 1 – Call Waiting Tone 2 2 – Call Waiting Tone 3 3 – Call Waiting Tone 4 4 – Call Waiting Tone 5 5 – Call Waiting Tone 6 6 – Call Waiting Tone 7 7 – Call Waiting Tone 8 8 – Call Waiting Tone 9 9 – Call Waiting Tone 10	0 - Call Waiting Tone 1
P29374	Distinctive Call Waiting Tone 1 (Profile 4)	0 – Call Waiting Tone 1 1 – Call Waiting Tone 2 2 – Call Waiting Tone 3 3 – Call Waiting Tone 4 4 – Call Waiting Tone 5	0 - Call Waiting Tone 1

		5 – Call Waiting Tone 6 6 – Call Waiting Tone 7 7 – Call Waiting Tone 8 8 – Call Waiting Tone 9 9 – Call Waiting Tone 10	
P29075	Distinctive Call Waiting Tone 2 (Profile 1)	0 – Call Waiting Tone 1 1 – Call Waiting Tone 2 2 – Call Waiting Tone 3 3 – Call Waiting Tone 4 4 – Call Waiting Tone 5 5 – Call Waiting Tone 6 6 – Call Waiting Tone 7 7 – Call Waiting Tone 8 8 – Call Waiting Tone 9 9 – Call Waiting Tone 10	0 - Call Waiting Tone 1
P29175	Distinctive Call Waiting Tone 2 (Profile 2)	0 – Call Waiting Tone 1 1 – Call Waiting Tone 2 2 – Call Waiting Tone 3 3 – Call Waiting Tone 4 4 – Call Waiting Tone 5 5 – Call Waiting Tone 6 6 – Call Waiting Tone 7 7 – Call Waiting Tone 8 8 – Call Waiting Tone 9 9 – Call Waiting Tone 10	0 - Call Waiting Tone 1
P29275	Distinctive Call Waiting Tone 2 (Profile 3)	0 – Call Waiting Tone 1 1 – Call Waiting Tone 2	0 - Call Waiting Tone 1

		2 – Call Waiting Tone 3 3 – Call Waiting Tone 4 4 – Call Waiting Tone 5 5 – Call Waiting Tone 6 6 – Call Waiting Tone 7 7 – Call Waiting Tone 8 8 – Call Waiting Tone 9 9 – Call Waiting Tone 10	
P29375	Distinctive Call Waiting Tone 1 (Profile 4)	0 – Call Waiting Tone 1 1 – Call Waiting Tone 2 2 – Call Waiting Tone 3 3 – Call Waiting Tone 4 4 – Call Waiting Tone 5 5 – Call Waiting Tone 6 6 – Call Waiting Tone 7 7 – Call Waiting Tone 8 8 – Call Waiting Tone 9 9 – Call Waiting Tone 10	0 - Call Waiting Tone 1
P29076	Distinctive Call Waiting Tone 3 (Profile 1)	0 – Call Waiting Tone 1 1 – Call Waiting Tone 2 2 – Call Waiting Tone 3 3 – Call Waiting Tone 4 4 – Call Waiting Tone 5 5 – Call Waiting Tone 6 6 – Call Waiting Tone 7 7 – Call Waiting Tone 8 8 – Call Waiting Tone 9	0 - Call Waiting Tone 1

		9 – Call Waiting Tone 10	
P29176	Distinctive Call Waiting Tone 3 (Profile 2)	0 – Call Waiting Tone 1 1 – Call Waiting Tone 2 2 – Call Waiting Tone 3 3 – Call Waiting Tone 4 4 – Call Waiting Tone 5 5 – Call Waiting Tone 6 6 – Call Waiting Tone 7 7 – Call Waiting Tone 8 8 – Call Waiting Tone 9 9 – Call Waiting Tone 10	0 - Call Waiting Tone 1
P29276	Distinctive Call Waiting Tone 3 (Profile 3)	0 – Call Waiting Tone 1 1 – Call Waiting Tone 2 2 – Call Waiting Tone 3 3 – Call Waiting Tone 4 4 – Call Waiting Tone 5 5 – Call Waiting Tone 6 6 – Call Waiting Tone 7 7 – Call Waiting Tone 8 8 – Call Waiting Tone 9 9 – Call Waiting Tone 10	0 - Call Waiting Tone 1
P29376	Distinctive Call Waiting Tone 3 (Profile 4)	0 – Call Waiting Tone 1 1 – Call Waiting Tone 2 2 – Call Waiting Tone 3 3 – Call Waiting Tone 4 4 – Call Waiting Tone 5 5 – Call Waiting Tone 6	0 - Call Waiting Tone 1

		6 – Call Waiting Tone 7 7 – Call Waiting Tone 8 8 – Call Waiting Tone 9 9 – Call Waiting Tone 10	
P29077	Distinctive Call Waiting Tone CID matching plan for Tone 1 (Profile 1)	Max Length - 64	Null
P29177	Distinctive Call Waiting Tone CID matching plan for Tone 1 (Profile 2)	Max Length - 64	Null
P29277	Distinctive Call Waiting Tone CID matching plan for Tone 1 (Profile 3)	Max Length - 64	Null
P29377	Distinctive Call Waiting Tone CID matching plan for Tone 1 (Profile 4)	Max Length - 64	Null
P29078	Distinctive Call Waiting Tone CID matching plan for Tone 2 (Profile 1)	Max Length - 64	Null
P29178	Distinctive Call Waiting Tone CID matching plan for Tone 2 (Profile 2)	Max Length - 64	Null
P29278	Distinctive Call Waiting Tone CID matching plan for Tone 2 (Profile 3)	Max Length - 64	Null
P29378	Distinctive Call Waiting Tone CID matching plan for Tone 2 (Profile 4)	Max Length - 64	Null
P29079	Distinctive Call Waiting Tone CID matching plan for Tone 3 (Profile 1)	Max Length - 64	Null

P29179	Distinctive Call Waiting Tone CID matching plan for Tone 3 (Profile 2)	Max Length - 64	Null
P29279	Distinctive Call Waiting Tone CID matching plan for Tone 3 (Profile 3)	Max Length - 64	Null
P29379	Distinctive Call Waiting Tone CID matching plan for Tone 3 (Profile 4)	Max Length - 64	Null
P29080	Call Waiting Tone 1 (Profile 1)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29081	Call Waiting Tone 2 (Profile 1)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29082	Call Waiting Tone 3 (Profile 1)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29083	Call Waiting Tone 4 (Profile 1)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29084	Call Waiting Tone 5 (Profile 1)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29085	Call Waiting Tone 6 (Profile 1)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29086	Call Waiting Tone 7 (Profile 1)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29087	Call Waiting Tone 8 (Profile 1)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29088	Call Waiting Tone 9 (Profile 1)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29089	Call Waiting Tone 10 (Profile 1)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29180	Call Waiting Tone 1 (Profile 1)	256 – String Max Length	f1=440@-13,c=300/1000

			0-300/10000-0/0;
P29181	Call Waiting Tone 2 (Profile 2)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29182	Call Waiting Tone 3 (Profile 2)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29183	Call Waiting Tone 4 (Profile 2)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29184	Call Waiting Tone 5 (Profile 2)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29185	Call Waiting Tone 6 (Profile 2)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29186	Call Waiting Tone 7 (Profile 2)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29187	Call Waiting Tone 8 (Profile 2)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29188	Call Waiting Tone 9 (Profile 2)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29189	Call Waiting Tone 10 (Profile 2)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29280	Call Waiting Tone 1 (Profile 3)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29281	Call Waiting Tone 2 (Profile 3)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29282	Call Waiting Tone 3 (Profile 3)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29283	Call Waiting Tone 4 (Profile 3)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29284	Call Waiting Tone 5 (Profile 3)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;



P29285	Call Waiting Tone 6 (Profile 3)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29286	Call Waiting Tone 7 (Profile 3)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29287	Call Waiting Tone 8 (Profile 3)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29288	Call Waiting Tone 9 (Profile 3)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29289	Call Waiting Tone 10 (Profile 3)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29380	Call Waiting Tone 1 (Profile 4)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29381	Call Waiting Tone 2 (Profile 4)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29382	Call Waiting Tone 3 (Profile 4)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29383	Call Waiting Tone 4 (Profile 4)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29384	Call Waiting Tone 5 (Profile 4)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29385	Call Waiting Tone 6 (Profile 4)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29386	Call Waiting Tone 7 (Profile 4)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29387	Call Waiting Tone 8 (Profile 4)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29388	Call Waiting Tone 9 (Profile 4)	256 – String Max Length	f1=440@-13,c=300/1000 0-300/10000-0/0;
P29389	Call Waiting Tone 10 (Profile 4)	256 – String Max Length	f1=440@-13,c=300/1000

			0-300/10000-0/0;
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### SIP Log Option

- Web Configuration**

User can find the configuration in Web UI -> Maintenance -> Syslog.

**SIP Log Option**     Keep    Override

- Functionality**

By default, the device will split the allowed memory for SIP file into 2 parts. Device will create the first SIP file which is half of the allowed size, when it is full, device will create the second file. When “SIP File Option” is set to Keep, device will keep the call records when both files are full, no more new record will be stored. When this feature is set to Override, device will clear the first SIP file and start storing again.

- New P Values**

Pvalue	Description	Value range	Default
P8535	SIP Log Option	0 – Keep 1 – Override	0 – Keep

### CDR record Option

- Web Configuration**

User can find the configuration in Web UI -> Maintenance -> Call Record.

**CDR record Option**     Keep    Override

**Call Record**

NONE

- Functionality**

By default, the device will split the allowed memory for CDR file into 2 parts. Device will create the first CDR file which is half of the allowed size, when it is full, device will create the second file. When “CDR File Option” is set to Keep, device will keep the call records when both files are full, no more new record will be stored. When this feature is set to Override, device will clear the first CDR file and start storing again.

- New P Values**

Pvalue	Description	Value range	Default
P8534	CDR record Option	0 – Keep 1 – Override	0 – Keep

### Disable Weak TLS Cipher Suites

- Web Configuration**

User can find the configuration in Web UI -> Maintenance -> Security Settings -> Security.

**Disable Weak TLS Cipher Suites**

- **Functionality**

This feature allows users to disable weak ciphers.

- **New P Values**

Pvalue	Description	Value range	Default
P8536	Disable Weak TLS Cipher Suites	0 – Enable Weak TLS Ciphers Suites 1 – Disable Symmetric Encryption RC4/DES/3DES 2 - Disable Symmetric Encryption SEED 3 - Disable All Of The Above Weak Symmetric Encryption 4 - Disable Symmetric Authentication MD5 5 - Disable All Of The Above Weak Symmetric Authentication 6 - Disable Protocol Version SSLv2/SSLv3 7 - Disable All Of The Above Weak Protocol Version 8 - Disable All Of The Above Weak TLS Ciphers Suites	0 – Enable Weak TLS Ciphers Suites

**Disable Reminder Ring for DND**

- **Web Configuration**

User can find the configuration in Web UI -> Profiles -> Call Settings.

**Disable Reminder Ring for DND**

 No  Yes

- **Functionality**

This feature allows user to disable reminder ring when FXS port is on DND mode.

- **New P Values**

Pvalue	Description	Value range	Default
P29072	Disable Reminder Ring for DND (Profile 1)	0 – No	0 – No

		1 – Yes	
P29172	Disable Reminder Ring for DND (Profile 2)	0 – No 1 – Yes	0 – No
P29272	Disable Reminder Ring for DND (Profile 3)	0 – No 1 – Yes	0 – No
P29372	Disable Reminder Ring for DND (Profile 4)	0 – No 1 – Yes	0 – No

### Callee Flash to 3WC

- Web Configuration**

User can find the configuration in Web UI -> Profiles -> Call Settings.

**Callee Flash to 3WC**  No  Yes

- Functionality**

When this feature is set to Yes, device would be able to set up the 3-way conference call even when device is the callee in the second call.

- New P Values**

Pvalue	Description	Value range	Default
P28169	Callee Flash to 3WC (Profile 1)	0 – No 1 – Yes	0 – No
P28170	Callee Flash to 3WC (Profile 2)	0 – No 1 – Yes	0 – No
P28171	Callee Flash to 3WC (Profile 3)	0 – No 1 – Yes	0 – No
P28172	Callee Flash to 3WC (Profile 4)	0 – No 1 – Yes	0 – No

### Connection Request Port

- Web Configuration**

User can find the configuration in Web UI -> Maintenance -> TR-069.

**Connection Request Port**

- Functionality**

This feature allows user to configure the TR-069 connection request port.

- New P Values**

Pvalue	Description	Value range	Default
P4518	Connection Request Port	0 – 65535	7547

## DHCP Option 82

- Web Configuration**

User can find the configuration in Web UI -> Maintenance -> Network Settings.

**Client Circuit ID (Option 82)**

**Remote Agent ID (Option 82)**

- Functionality**

Added support for DHCP Option 82. Need to reboot to take effect.

- New P Values**

Pvalue	Description	Value range	Default
P8560	Client Circuit ID (Option 82)	Max length: 32	Null
P8561	Remote Agent ID (Option 82)	Max length: 32	Null

## Local DNS Setting

- Web Configuration**

User can find the configuration in Web UI -> Maintenance -> Network Settings.

**Local DNS Setting**

**Local DNS**

- Functionality**

This feature allows user to configure the table to map an FQDN with its IP address. Format is: FQDN0/IP0; FQDN1/IP1; FQDN2/IP2; FQDN3/IP3

- New P Values**

Pvalue	Description	Value range	Default
P8562	Local DNS	256 – String Max Length	Null

## FIRMWARE VERSION 1.0.7.10

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4248

### DATE

12/10/2019

### FIRMWARE FILE INFORMATION

- GXW4216 firmware file name: gxw4216fw.bin  
MD5: 9f1227de2eb23574b488fca9430b65b0
- GXW4224 firmware file name: gxw4224fw.bin  
MD5: 5f89c71f8fa4eeb9dfe015b7cd21edaa
- GXW4232 firmware file name: gxw4232fw.bin  
MD5: d580188421e20217828d894525e3a1cf
- GXV4248 firmware file name: gxw4248fw.bin  
MD5: d624d78ecc72bc30aa46ffe0006d3c8b

### ENHANCEMENT

- Added feature “Use Actual Ephemeral Port in Contact with TCP/TLS”. [Use Actual Ephemeral Port in Contact with TCP/TLS]
- Added feature “Reset Call Features”. [Reset Call Features]
- Added feature “Replace Beginning ‘+’ with 00 in Caller ID. [Replace Beginning ‘+’ with 00 in Caller ID]
- Added support to display call feature status on Web UI.
- Increased TX Gain and RX Gain range from -6dB-6dB to -12dB-12dB.
- Added support to allow “Name” configured under “FXS Ports” for ports that are part of the active hunting group to take effect.

### BUG FIX

- Fixed when MWI enabled, analog phones may not ring on incoming calls.
- Fixed when device Caller ID Scheme configured to DTMF instead of FSK, device will show ringback status on Web UI without dial any number.
- Fixed device will crash when the username of URL of To header is Null.

### NEW FEATURES OVERVIEW

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

#### Use Actual Ephemeral Port in Contact with TCP/TLS

- **Web Configuration**

User can find the configuration in Web UI -> Profiles -> SIP Settings -> Basic Settings

**Use Actual Ephemeral Port in Contact with TCP/TLS**     No     Yes

**Save**    **Save and Apply**    **Reset**

- **Functionality**

This option is used to control the port information in the Via header and Contact header. If set to No, these port numbers will use the permanent listening port on the device. Otherwise, they will use the ephemeral port for the connection.

- **New P Values**

Pvalue	Description	Value range	Default
P2331	Use Actual Ephemeral Port in Contact with TCP/TLS (Profile 1)	0 – No 1 – Yes	0 - No
P2431	Use Actual Ephemeral Port in Contact with TCP/TLS (Profile 2)	0 – No 1 – Yes	0 - No
P2531	Use Actual Ephemeral Port in Contact with TCP/TLS (Profile 3)	0 – No 1 – Yes	0 - No
P2631	Use Actual Ephemeral Port in Contact with TCP/TLS (Profile 4)	0 – No 1 – Yes	0 - No

### Reset Call Features

- **Web Configuration**

User can find the configuration in Web UI -> Profiles -> Call Features Settings

**Enable Call Features**     No     Yes     Enable All

**Reset Call Features**     No     Yes

- **Functionality**

This feature allows users to reset call features via Web UI.

- **New P Values**

Pvalue	Description	Value range	Default
P24199	Reset Call Features (Profile 1)	0 – No 1 – Yes	0 - No
P24399	Reset Call Features (Profile 2)	0 – No	0 - No

		1 – Yes	
P24599	Reset Call Features (Profile 3)	0 – No 1 – Yes	0 - No
P24799	Reset Call Features (Profile 4)	0 – No 1 – Yes	0 - No

### Replace Beginning '+' with 00 in Caller ID

- Web Configuration**

User can find the configuration in Web UI -> Profiles -> Call Settings

**Replace Beginning '+' with 00  
in Caller ID**       No    Yes

- Functionality**

When this option set to Yes, device will detect if the FROM header including the + sign at the beginning of a number and replace it by 00 before delivering the caller ID to the attached analog phone. If set to No, the + sign will not be displayed on the analog phone.

- New P Values**

Pvalue	Description	Value range	Default
P29073	Replace Beginning '+' with 00 in Caller ID (Profile 1)	0 – No 1 – Yes	0 - No
P29173	Replace Beginning '+' with 00 in Caller ID (Profile 2)	0 – No 1 – Yes	0 - No
P29273	Replace Beginning '+' with 00 in Caller ID (Profile 3)	0 – No 1 – Yes	0 - No
P29373	Replace Beginning '+' with 00 in Caller ID (Profile 4)	0 – No 1 – Yes	0 - No



## FIRMWARE VERSION 1.0.7.8

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4248

### DATE

09/12/2019

### FIRMWARE FILE INFORMATION

- GXW4216 firmware file name: gxw4216fw.bin  
MD5: 102a698f5e8216789ac229870131eb13
- GXW4224 firmware file name: gxw4224fw.bin  
MD5: dfc8973cff3ad59f4ca20a770350a520
- GXW4232 firmware file name: gxw4232fw.bin  
MD5: 944d2dae7d547d7d75489cdaac738f0c
- GXV4248 firmware file name: gxw4248fw.bin  
MD5: e013fd131a3ac485cc81d0d2f5a22db0

### BUG FIX

- Fixed device could not unhold the callee properly for outbound call when working on MetaSwitch Server.
- Fixed device not working properly for MetaSwitch Unconditional Call Forwarding in variable mode.

## FIRMWARE VERSION 1.0.7.7

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4248

### DATE

07/08/2019

### FIRMWARE FILE INFORMATION

- GXW4216 firmware file name: gxw4216fw.bin  
MD5: 651552d652e662aec0da193ea8075b1
- GXW4224 firmware file name: gxw4224fw.bin  
MD5: 0c3e7836b82a7961391da550c55ffdb3
- GXW4232 firmware file name: gxw4232fw.bin  
MD5: e683e6f4c80ad8e0c15d848a71bb6ea0
- GXV4248 firmware file name: gxw4248fw.bin  
MD5: c37c6ff868be0e7820e3f4038df5539a

### ENHANCEMENT

- Change feature "Validate Server Certificates" default value to No (P8463=0).

## FIRMWARE VERSION 1.0.7.3

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4248

### DATE

04/24/2019

### FIRMWARE FILE INFORMATION

- GXW4216 firmware file name: gxw4216fw.bin  
MD5: fbb3136958a3b34630b23c0479553efe
- GXW4224 firmware file name: gxw4224fw.bin  
MD5: 6ddaad731850c0d730370d214b3ede5a
- GXW4232 firmware file name: gxw4232fw.bin  
MD5: 3b52b734a6f6eff1372c8c4359bf7270
- GXV4248 firmware file name: gxw4248fw.bin  
MD5: 591d03eafda2f1472f13f989cce0abefex

### ENHANCEMENT

- Added feature “Enable SIP OPTIONS/NOTIFY Keep Alive”. [Enable SIP OPTIONS/NOTIFY Keep Alive]
- Increased the current loop of GXW4248, GXW4232 to 20mA, GXW4224, GXW4232 to 30mA.
- Added feature “Call Record” to download call history in CSV format from web UI. [Call Record]
- Added support to disable Ring Timeout by setting Ring Timeout to “0”.

### BUG FIX

- Fixed GXW4248 crash after concurrent outbound call.
- Fixed device does not play hangup reminder tone after off-hook timeout.
- Fixed Caller ID does not show on the analog phone attached with device.
- Fixed GXW4248 crash during the upgrade process.
- Fixed device abnormal when enable LLDP.
- Fixed device could not send fax successfully when working in Pass Through mode with fax machine SF-761.
- Fixed security vulnerability issue that DHCP Options allow users to set all device Pvalues.

### NEW FEATURES OVERVIEW

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

#### Enable SIP OPTIONS/NOTIFY Keep Alive

- **Web Configuration**

User can find the configuration in Web UI -> Profiles -> SIP Settings -> Basic Settings

**Enable SIP OPTIONS/NOTIFY Keep Alive**     No    OPTIONS    NOTIFY

**SIP OPTIONS/NOTIFY Keep Alive Interval**   

**SIP OPTIONS/NOTIFY Keep Alive Max Lost**   

- **Functionality**

This feature allows the user to choose between SIP OPTIONS and SIP NOTIFY for keep-alive. If there is no 200 OK response for OPTIONS/NOTIFY, after reaching the configured SIP OPTIONS/NOTIFY Keep Alive Max Lost packages, device will be set to unregistered status to trigger re-reregister.

- **New P Values**

Pvalue	Description	Value range	Default
P2397	Enable SIP OPTIONS/NOTIFY Keep Alive	0 – No 1 – OPTIONS 2 – NOTIFY	0 - No
P2497	Enable SIP OPTIONS/NOTIFY Keep Alive	0 – No 1 – OPTIONS 2 – NOTIFY	0 - No
P2597	Enable SIP OPTIONS/NOTIFY Keep Alive	0 – No 1 – OPTIONS 2 – NOTIFY	0 - No
P2697	Enable SIP OPTIONS/NOTIFY Keep Alive	0 – No 1 – OPTIONS 2 – NOTIFY	0 - No
P2398	SIP OPTIONS/NOTIFY Keep Alive Interval	Min – 1 Max – 64800	30
P2498	SIP OPTIONS/NOTIFY Keep Alive Interval	Min – 1 Max – 64800	30
P2598	SIP OPTIONS/NOTIFY Keep Alive Interval	Min – 1 Max – 64800	30
P2698	SIP OPTIONS/NOTIFY Keep	Min – 1	30

	Alive Interval	Max – 64800	
P2399	SIP OPTIONS/NOTIFY Keep Alive Max Lost	Min – 3 Max – 10	3
P2499	SIP OPTIONS/NOTIFY Keep Alive Max Lost	Min – 3 Max – 10	3
P2599	SIP OPTIONS/NOTIFY Keep Alive Max Lost	Min – 3 Max – 10	3
P2699	SIP OPTIONS/NOTIFY Keep Alive Max Lost	Min – 3 Max – 10	3

### Call Record

- Web Configuration**

User can find the configuration in Web UI -> Maintenance -> Call Record.

### Call Record

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Call Record

- Functionality**

Allow user to download call history from the web GUI in CSV format. The file size limitation is 5MB. No more record will be stored if it reaches 5MB.

## FIRMWARE VERSION 1.0.5.43

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4248

### DATE

12/03/2018

### FIRMWARE FILE INFORMATION

- GXW4216 firmware file name: gxw4216fw.bin  
MD5: 44c81d606238be4de48d18af4268991c
- GXW4224 firmware file name: gxw4224fw.bin  
MD5: 2281a1929be41933ce68c29e1e2191cc
- GXW4232 firmware file name: gxw4232fw.bin  
MD5: d337d03db044fe26a0872a9305fd52f6
- GXV4248 firmware file name: gxw4248fw.bin  
MD5: 75d794473999ea90a267ffd71808c3c3

### ENHANCEMENT

- Added feature Conference Party Hangup Tone. [Conference Party Hangup Tone]
- Added feature Inter-port Calling. [Inter-port Calling]
- Added feature LED Pattern. [LED Pattern]
- Added feature Reply to ICMP. [Reply to ICMP]
- Added feature Validate Server Certificates. [Validate Server Certificates]
- Added feature Load CA Certificates. [Load CA Certificates]
- Added feature Disable User Level Web Access. [Disable User Level Web Access]
- Added feature Disable Viewer Level Web Access. [Disable Viewer Level Web Access]
- Added feature Randomized Automatic Upgrade. [Randomized Automatic Upgrade]
- Added feature Virtual Network Interface. [Virtual Network Interface]
- Added feature Disable Voicemail Reminder Tone. [Disable Voicemail Reminder Tone]
- Added feature Disable # as Redial Key. [Disable # as Redial Key]
- Added feature Ringing Frequency. [Ringing Frequency]
- Added support for call waiting tone to be repeated while the caller is still calling.
- Added support to play stutter tone when call feature under Profiles -> Call Features Settings is enabled.

### BUG FIX

- Fixed the default value of 3 Preferred DTMF Method are all In-audio. Update the default order to RFC2833, SIP INFO, In-audio.
- Fixed device failed in analyzing SIP status code when enable Failover to FXO Gateway.

- Fixed device will send Register request after DHCP lease expiration ignoring Register Expiration settings.
- Fixed Syslog page does not show the syslog files saved on device.
- Fixed GXW4248 loses dial tone randomly.
- Fixed when enable LLDP with LLDP network, device failed in sending Register message and IVR was not working.
- Fixed hunting group circular mode will drop the call once device reached the last member of the hunting group.
- Fixed device HTTP security vulnerabilities.

## NEW FEATURES OVERVIEW

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

### Conference Party Hangup Tone

- **Web Configuration**

User can find the configuration in Web UI -> Advanced Settings -> Ring Tones.

<b>Prompt Dial Tone</b>	<input type="text" value="f1=350@-13,f2=440@-13,c=0/0;"/>
<b>Conference Party Hangup Tone</b>	<input type="text" value="f1=425@-15,c=600/600;"/>
<input type="button" value="Save"/> <input type="button" value="Save and Apply"/> <input type="button" value="Reset"/>	

- **Functionality**

Allow device to play a custom tone when a party leave the established 3-way conference. Users need to set Profiles -> Call Settings -> Special Feature to MTS for this functionality.

- **New P Values**

Pvalue	Description	Value range	Default
P28133	Conference Party Hangup Tone	256 – String Max Length	f1=425@-15,c=600/600;

### Inter-port Calling

- **Web Configuration**

User can find the configuration in Web UI -> Advanced Settings -> System Features.

<b>Disable Direct IP Call</b>	<input checked="" type="radio"/> No <input type="radio"/> Yes
<b>Inter-port Calling</b>	<input checked="" type="radio"/> Disabled <input type="radio"/> Enabled

- **Functionality**

With this feature enabled, when the FXS port is unregistered, users can use the same extensions of the FXS port for inter-port dialing instead of dialing \*\*\*7xx.

- **New P Values**

Pvalue	Description	Value range	Default
P28146	Inter-port Calling	0 - Disabled 1 - Enabled	0 - Disabled

### LED Pattern

- **Web Configuration**

User can find the configuration in Web UI -> Advanced Settings -> System Features.

Day of the Week (0-6)

LED Pattern

- **Functionality**

This feature allows users to customize LED patterns. There are three patterns to choose from:

Pattern A: Onhook: OFF; Offhook: On; Voicemail: Blink

Pattern B: Onhook: On; Offhook: Off; Voicemail: Blink if phone onhook

Pattern C: Onhook and Registered: On; Offhook: Blink; Voicemail: Blink 1sec ON/1sec OFF

- **New P Values**

Pvalue	Description	Value range	Default
P4049	LED Pattern	0 – Pattern A 1 – Pattern B 2 – Pattern C	0 – Pattern A

### Reply to ICMP

- **Web Configuration**

User can find the configuration in Web UI -> Maintenance -> Network Settings.

Firewall Setting

Black List for WAN Side Port

Reply to ICMP  No  Yes

- **Functionality**

This feature allows users to disable ICMP response.

- **New P Values**

Pvalue	Description	Value range	Default
P189	Reply to ICMP	0 - No 1 - Yes	0 - No



### Validate Server Certificates

- Web Configuration**

User can find the configuration in Web UI -> Maintenance -> Security Settings -> Security.

**Validate Server Certificates**     No  Yes

- Functionality**

This feature allows users to validate server certificate with our trusted list of TLS connections. Default is enabled. The device needs to reboot after changing the setting.

- New P Values**

Pvalue	Description	Value range	Default
P8463	Validate Server Certificates	0 - No 1 - Yes	1 - Yes

### Load CA Certificates

- Web Configuration**

User can find the configuration in Web UI -> Maintenance -> Security Settings -> Trusted CA.

**Load CA Certificates**    Built-in trusted certificates ▾

- Functionality**

This feature specifies with CA Certificate the device need to trust.

- New P Values**

Pvalue	Description	Value range	Default
P8502	Load CA Certificates	0 – Built-in trusted certificates 1 – Custom trusted certificates 2 – All trusted certificates	0 – Built-in trusted certificates

### Disable User Level Web Access

- Web Configuration**

User can find the configuration in Web UI -> Maintenance -> Web/SSH Access.

**Disable User Level Web Access**     No  Yes

- Functionality**

This feature allows users to disable User Level Web Access.

- New P Values**

Pvalue	Description	Value range	Default
P28158	Disable User Level Web Access	0 - No 1 - Yes	0 - No

### Disable Viewer Level Web Access

- Web Configuration**

User can find the configuration in Web UI -> Maintenance -> Web/SSH Access.

**Disable Viewer Level Web Access**     No     Yes

- Functionality**

This feature allows users to disable User Level Web Access.

- New P Values**

Pvalue	Description	Value range	Default
P28159	Disable Viewer Level Web Access	0 - No 1 - Yes	0 - No

### Randomized Automatic Upgrade

- Web Configuration**

User can find the configuration in Web UI -> Maintenance -> Upgrade and Provisioning.

**Randomized Automatic Upgrade**     No     Yes

**Hour of the Day(0-23)**    Start  End

- Functionality**

With this feature enabled, device will specify a random time to upgrade the device.

- New P Values**

Pvalue	Description	Value range	Default
P8458	Randomized Automatic Upgrade	0 - No 1 - Yes	0 - No
P8459	Hour of the Day (0-23) End	Min: 0 Max: 23	22

### Virtual Network Interface

- Web Configuration**

User can find the configuration in Web UI -> Maintenance -> Network Settings.

**Network Settings for Management Interface**

**Enable management interface**     Enabled  Disabled

**Management access**   

**IP Address Mode for Management Interface**     DHCP  Static IP

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**Static IP Settings**

**IP Address**   

**Subnet Mask**   

**Gateway**   

**DNS Server 1**   

**DNS Server 2**   

---

**LLDP Settings**

**Enable LLDP**     Enabled  Disabled

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**Layer 2 QoS Settings**

**Layer 2 QoS 802.1Q/VLAN Tag for Service Interface**   

**Layer 2 QoS 802.1Q/VLAN Tag for Management Interface**

**Layer 2 QoS 802.1p Priority Value for SIP signaling**   

**Layer 2 QoS 802.1p Priority Value for RTP media**   

**Layer 2 QoS 802.1p Priority Value for Management Interface**

- **Functionality**

Allow administrator to setup a Virtual Network Interface on top of the physical interface for device management. Web Access and SSH are classified as Management Interface, all other services are classified as Service Interface.

- **New P Values**

Pvalue	Description	Value range	Default
P28161	Enable management interface	0 – Disabled 1 - Enabled	0 - Disabled
P28162	Management access	0 – Management interface	0 – Management interface

		only 1 – Both on services and management interfaces	only
P22105	IP Address Mode for Management Interface	0 – DHCP 1 – Static IP	0 - DHCP
P22106	IP Address	IP Format	192.168.100.100
P22107	Subnet Mask	IP Format	255.255.255.0
P22108	Gateway	IP Format	192.168.100.1
P22109	DNS Server 1	IP Format	0.0.0.0
P22110	DNS Server 2	IP Format	0.0.0.0
P22111	Layer 2 QoS 802.1Q/VLAN Tag for Management Interface	Number	0
P22112	Layer 2 QoS 802.1p Priority Value for Management Interface	Number	0

### Disable Voicemail Reminder Tone

- Web Configuration**

User can find the configuration section at Web -> Profiles -> Call Settings.

**Disable Reminder Ring for On-Hold Call**     No     Yes

**Disable Voicemail Reminder Tone**     No     Yes

- Functionality**

This feature allows user to disable the Voicemail Reminder Tone.

- New P Values**

Pvalue	Description	Value range	Default
P28151	Disable Voicemail Reminder Tone (Profile 1)	0 - No 1 - Yes	0 - No
P28143	Disable Voicemail Reminder Tone (Profile 2)	0 - No 1 - Yes	0 - No

P28144	Disable Voicemail Reminder Tone (Profile 3)	0 - No 1 - Yes	0 - No
P28145	Disable Voicemail Reminder Tone (Profile 4)	0 - No 1 - Yes	0 - No

### Disable # as Redial Key

- Web Configuration**

User can find the configuration section at Web -> Profiles -> Call Settings.

Use # as Dial Key     No     Yes

Disable # as Redial Key     No     Yes

- Functionality**

With this feature and feature 'Use # as Dial Key' set to Yes, the # key will act as dial key but not as redial key.

- New P Values**

Pvalue	Description	Value range	Default
P28147	Disable # as Redial Key (Profile 1)	0 - No 1 - Yes	0 - No
P28148	Disable # as Redial Key (Profile 2)	0 - No 1 - Yes	0 - No
P28149	Disable # as Redial Key (Profile 3)	0 - No 1 - Yes	0 - No
P28150	Disable # as Redial Key (Profile 4)	0 - No 1 - Yes	0 - No

### Ringling Frequency

- Web Configuration**

User can find the configuration section at Web -> Profiles -> Audio Settings.

SLIC Setting

**Ringling Frequency**

- **Functionality**

This feature allows user to customize ringing frequency.

- **New P Values**

Pvalue	Description	Value range	Default
P4429	Ringling Frequency (Profile 1)	0 – Default 1 – 20Hz 2 – 25Hz	0 – Default
P4430	Ringling Frequency (Profile 2)	0 – Default 1 – 20Hz 2 – 25Hz	0 – Default
P4431	Ringling Frequency (Profile 3)	0 – Default 1 – 20Hz 2 – 25Hz	0 – Default
P4432	Ringling Frequency (Profile 4)	0 – Default 1 – 20Hz 2 – 25Hz	0 – Default

## FIRMWARE VERSION 1.0.5.36

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4248

### DATE

05/29/2018

### FIRMWARE FILE INFORMATION

- GXW4216 firmware file name: gxw4216fw.bin  
MD5: 9edb061fb15549005b17f58b289cce57
- GXW4224 firmware file name: gxw4224fw.bin  
MD5: b979f01517503fc58f54639e219bbac1
- GXW4232 firmware file name: gxw4232fw.bin  
MD5: 2005d474b16171ed019a2b7556019866
- GXV4248 firmware file name: gxw4248fw.bin  
MD5: fa5ad47bf45b1d3f21aef9bf4cefeeb7

### ENHANCEMENT

- Added feature Allow Auto-Dial Config Per Port. [Allow Auto-Dial Config Per Port]
- Added feature RTCP. [RTCP]
- Added feature Custom Certificate. [Custom Certificate]
- Add support for HTTPS server based on TLSv1.2.

### BUG FIX

- Fixed when hunting group is enabled, incoming call/outgoing call failed when user ETSI-DTMF prior to ringing with RP.
- Fixed when enable hunting group, even number ports of group were not ringing.
- Fixed when enable hunting group, device will keep ringing even device have sent 408 Request Timeout to remote.
- Fixed web could not be accessed when set device to ATE mode.
- Fixed device crashed when there are a lot of calls.
- Fixed when Proxy-Require took effect, device will crash when change another random setting.
- Fixed device would introduce up to 2~3 seconds delay to start the RTP session.
- Fixed device did not send registration message after remove binding request.
- Fixed device will lose connection with ACS server after a period.
- Fixed TR-069 did not take effect.
- Fixed device crashed when ACS got device parameter values.
- Fixed device would crash when make a call with 60004 RTP port and there is no tone with port 60002 and port 60003.

## NEW FEATURES OVERVIEW

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

### Allow Auto-Dial Config Per Port

- Web Configuration**

User can find the configuration in Web UI -> Profiles -> Call Settings.

**Off-Hook Auto-Dial Delay**

**Allow Auto-Dial Config Per Port**  Enabled  Disabled

**Disable Call Waiting**  No  Yes

- Functionality**

Allow users to configure Auto-Dial feature per port when hunting group is enabled. This feature is disabled by default.

- New P Values**

Pvalue	Description	Value range	Default
P28129	Allow Auto-Dial Config Per Port (Profile 1)	0 – Disabled 1 – Enabled	0 – Disabled
P28130	Allow Auto-Dial Config Per Port (Profile 2)	0 – Disabled 1 – Enabled	0 – Disabled
P28131	Allow Auto-Dial Config Per Port (Profile 3)	0 – Disabled 1 – Enabled	0 – Disabled
P28132	Allow Auto-Dial Config Per Port (Profile 4)	0 – Disabled 1 – Enabled	0 – Disabled

### RTCP

- Web Configuration**

User can find the configuration in Web UI -> Profiles -> Audio Settings.

**Jitter Buffer Length**

**RTCP**  Enabled  Disabled

- Functionality**

With this feature enabled, device will send RTCP Sender Report during the conversation until it's ended.

- New P Values**



Pvalue	Description	Value range	Default
P2392	RTCP (Profile 1)	0 - No 1 - Yes	1 - Yes
P2492	RTCP (Profile 2)	0 - No 1 - Yes	1 - Yes
P2592	RTCP (Profile 3)	0 - No 1 - Yes	1 - Yes
P2692	RTCP (Profile 4)	0 - No 1 - Yes	1 - Yes

### Custom Certificate

- Web Configuration**

User can find the configuration section at Web -> Maintenance -> Security Settings.

**SIP TLS Private Key Password**

**Custom Certificate**

- Functionality**

This feature allows user to update to the device their own certificate signed by custom CA certificate to manage client authentication.

- New P Values**

Pvalue	Description	Value range	Default
P8472	Custom Certificate	10 - Rows 64 - Columns	Null

## FIRMWARE VERSION 1.0.5.30

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4248

### DATE

02/05/2018

### FIRMWARE FILE INFORMATION

- GXW4216 firmware file name: gxw4216fw.bin  
MD5: aaadf43de5fabe4bc7dfe569d986ee78
- GXW4224 firmware file name: gxw4224fw.bin  
MD5: 6edee992e45ca238976aaac13e5ccfc4
- GXW4232 firmware file name: gxw4232fw.bin  
MD5: 0f5bd041bd02d267c98574071a156be5
- GXV4248 firmware file name: gxw4248fw.bin  
MD5: 646bf6143df33c0d5998391f569abb4b

### ENHANCEMENT

- Update default gs.pem due to old one expired.

## FIRMWARE VERSION 1.0.5.28

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4248

### DATE

11/03/2017

### ENHANCEMENT

- Added option “Caller ID Display” to specify the priority for caller ID display. [Caller ID Display]
- Added option to save syslog locally. [Save Syslog]
- Added option “Prefer Primary Outbound Proxy” to enable registration through primary outbound proxy if registration expires. [Prefer Primary Outbound Proxy]
- Added feature “White list for WAN side” and “Black list for WAN side” for remote management. [Access Control Lists]
- Added feature “Lockout time interval” to change banning time after too many failed login attempts. [Lockout time interval]
- Added option “Web Access Mode” to choose between “HTTPS” and “HTTP” to access device Web UI. [Web Access Mode]
- Added option “HTTPS Web Port” to set HTTPS web port instead of using default web port. [HTTPS Web Port]
- Added “Backup Outbound Proxy” to use backup outbound proxy if outbound proxy registration expires. [Backup Outbound Proxy]
- Added local firmware upgrade support. [Upload Device Firmware]
- Change “Disable Telnet” option to “Disable SSH” option for more security.

### BUG FIX

- Fixed device randomly cannot handle a second call made immediately after a completed one.
- Fixed when device initiates a call to a phone, and the phone forward the call to external number, the call is established and get disconnected after 30 seconds.
- Fixed device doesn't send out DTMF via RFC2833 during early media (183 session progress)
- Fixed when device enable hunting group, when made a second call to any extension for the hunting group, could not hear busy tone.
- Fixed crash issue with core dump.
- Patch from Lantiq to provide locking mechanism for CONNECTION module.
- Fixed device does not unregister from SIP server.
- Fixed when an outbound proxy is configured and enable FXO failover option, device sends the Invite message to outbound proxy IP address instead FXO failover IP address.
- Fixed FXO Failover after N Invites without response
- Fixed DUT failed make more than 11 calls with hunting group

- Fixed GXW 4248 crashed and generated a core dump
- Fixed GXW4224 crashes and generates a core dump and loses dial tone
- Fixed DUT sends DNS queries every 30 minutes to resolve SIP server name
- Fixed DUT failed to start fax when T38 SDP includes T38maxBitRate:0
- Fixed there is no sound in a call when IP Address Mode is PPPoE
- Fixed DUT would not send REGISTER even it receives DNS response
- Fixed DUT prompt wrong IP address in IVR when using static IP address
- Fixed DUT loses dial tone randomly

## NEW FEATURES OVERVIEW

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

### Caller ID Display

- **Web Configuration**

User can find the configuration in Web UI -> Profiles -> Basic Settings.

**Caller ID Display**   
  Auto  
  Disabled  
  From Header

- **Functionality**

When set to "Auto", the phone will look for the caller ID in the order of P-Asserted Identity Header, Remote-Party-ID Header and From Header in the incoming SIP INVITE. When set to "Disabled", all incoming calls are displayed with "Unavailable". When set to "From Header", the phone will display the caller ID based on the From Header in the incoming SIP INVITE. The default setting is "Auto".

- **New P Values**

Pvalue	Description	Value range	Default
P2324	Caller ID Display. (Profile 1)	0 – Auto 1 – Disabled 2 – From Header	0 – Auto
P2424	Caller ID Display. (Profile 2)	0 – Auto 1 – Disabled 2 – From Header	0 – Auto
P2524	Caller ID Display. (Profile 3)	0 – Auto 1 – Disabled 2 – From Header	0 – Auto
P2624	Caller ID Display. (Profile 4)	0 – Auto 1 – Disabled	0 – Auto

		2 – From Header	
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### Save Syslog

- Web Configuration**

User can find the configuration in Web UI -> Maintenance -> Syslog.

**Print SIP in Syslog**     No  Yes  

**Save Syslog**     No  Yes

- Functionality**

Allow users to save syslog locally.

- New P Values**

Pvalue	Description	Value range	Default
P28100	Save Syslog	0 - No 1 – Yes	0 – No

### Prefer Primary Outbound Proxy

- Web Configuration**

User can find the configuration section at Web -> Profiles -> General Settings.

**Prefer Primary Outbound Proxy**     No  Yes
   
Save
Save and Apply
Reset

- Functionality**

Allow users to enable “Prefer Primary Outbound Proxy” feature. If the user configures this option to “Yes”, when registration expires, the device will reregister via primary outbound proxy. By default, this option is disabled.

- New P Values**

Pvalue	Description	Value range	Default
P28096	Prefer Primary Outbound Proxy. (Profile 1)	0 - No 1 – Yes	0 – No
P28097	Prefer Primary Outbound Proxy. (Profile 2)	0 - No 1 – Yes	0 – No
P28098	Prefer Primary Outbound Proxy. (Profile 3)	0 - No 1 – Yes	0 – No

P28099	Prefer Primary Outbound Proxy. (Profile 4)	0 - No 1 - Yes	0 - No
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### Access Control Lists

- Web Configuration**

User can find the configuration section at Web -> Maintenance -> Web/SSH Access

**Access Control Lists**

White list for WAN side

Black list for WAN side

- Functionality**

“White list for WAN side” allows users to allow access specific IP address for WAN Side. “Black list for WAN side” allows users to block access for specific IP address.

#### New P Values

Pvalue	Description	Value range	Default
P20701	White list for WAN side	No specific requirement	Null
P20702	Black list for WAN side	No specific requirement	Null

### Lockout time interval

- Web Configuration**

User can find the configuration in Web UI -> Maintenance -> Web/SSH Access.

**Disable SSH**     No     Yes

**Lockout time interval**

- Functionality**

Allow users to change banning time interval after 5 attempts login with wrong password.

- New P Values**

Pvalue	Description	Value range	Default
P1683	Lockout time interval	1 - 15 minutes	15 minutes

### Web Access Mode

- Web Configuration**

User can find the configuration in Web UI -> Maintenance -> Web/SSH Access.

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**HTTPS Web Port**

**Web Access Mode**     HTTPS  HTTP

**Disable SSH**     No  Yes

- Functionality**

Allow users to choose between “HTTPS” and “HTTP” to access device Web UI. By default, “HTTP” is selected.

- New P Values**

Pvalue	Description	Value range	Default
P1650	Web Access Mode	0 – HTTPS 1 - HTTP	1 - HTTP

### HTTPS Web Port

- Web Configuration**

User can find the configuration in Web UI -> Maintenance -> Web/SSH Access.

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**HTTPS Web Port**

**Web Access Mode**     HTTPS  HTTP

**Disable SSH**     No  Yes

- Functionality**

Allow users to set HTTPS web port instead of using default HTTPS port.

- New P Values**

Pvalue	Description	Value range	Default
P27010	HTTPS Web Port	1 - 65535	443

### Backup Outbound Proxy

- Web Configuration**

User can find the configuration section at Web -> Profiles -> General Settings.

**Prefer Primary Outbound Proxy**  No  Yes

- **Functionality**

If the user has configured backup outbound proxy, when the “Primary Outbound Proxy” registration fails, device will use the backup outbound proxy. By default, this field is left empty.

- **New P Values**

Pvalue	Description	Value range	Default
P2333	Backup Outbound Proxy. (Profile 1)	No specific requirement	Null
P2433	Backup Outbound Proxy. (Profile 2)	No specific requirement	Null
P2533	Backup Outbound Proxy. (Profile 3)	No specific requirement	Null
P2633	Backup Outbound Proxy. (Profile 4)	No specific requirement	Null

### Upload Device Firmware

- **Web Configuration**

User can find the configuration section at Web -> Maintenance -> Upgrade and Provisioning.

**Upload Device Configuration**

**Upload Device Firmware**

- **Functionality**

Allow users to upload device firmware from local directory and update the device.



## FIRMWARE VERSION 1.0.5.16

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4248

### DATE

09/11/2015

### ENHANCEMENT

- Added support for Spanish, French, and Chinese on the web UI->Call Features Settings page under all 4 profiles
- Added support for deleting core files from web UI
- Added improvement for inter-port and far end echo issue
- Added ability to upload device configuration file directly from the web UI
- Added busy tone when using current disconnect
- Added Germany to "Country specific deployment" list
- Added option to disable PnP SUBSCRIBE feature
- Added security improvement: Hide passwords from command line
- Added reboot timer feature
- Added web UI option to configure local RTP port
- Added option to hide IP address from LCD
- Added DHCP option 42 and DHCP option 2 support
- Added option to enable/disable Crypto life time when using SRTP
- Added configurable option to enable/disable Broadsoft Connected Line ID
- Added ability to customize dial tone when user does not enter any digit

### BUG FIX

- Fixed TX/RX low gain
- Fixed reboot device by unplugging network cable causes incoming IP call fail to establish
- Fixed GXW4248 has low audio gain and echo introduction compared to other GXW42xx models
- Fixed Number is lost in outgoing call
- Fixed web UI displays XXXXX
- Fixed crash issue with core voltage
- Fixed can retrieve any configuration value without authentication
- Fixed make a call with DUT and then DUT hangs up, another gateway device would hear echo 1s before busy tone
- Fixed when the third party is HT802 and the Vocoder is PCMA, no voice can be heard
- Fixed no prompt can be heard when HTTPS is selected via IVR
- Fixed DUT should change the IP on the LED once it gets a new one
- Fixed the copyright time on telnet is not consistent with the one on web UI

- Fixed all ports suddenly stops working
- Fixed the port doesn't work after the phone holds many times
- Fixed DUT does not prompt that "Device not registered" via IVR in Chinese
- Fixed SIP Registration Failure Retry Wait Time is fixed in 20 minutes when receiving 403 Forbidden
- Fixed attended transfer failure
- Fixed SIP NOTIFY with "check-sync;reboot=false" event should not reboot the gateway
- Fixed device loses the ring tone cadence configuration after reboot
- Fixed NAPTR/SRV configuration is not applied on the fly unless reboot
- Fixed incoming call following attended transfer by Netsapiens Proxy is automatically terminated by the device
- Fixed gateway cannot be provisioned using zero config if the UCM binds different port from 5060
- Fixed timezone selection does not include DST definition
- Fixed cannot perform a second call after making transfer between two ports registered with the same extension
- Fixed devices fail to re-register if/when SIP realm is changed
- Fixed some P values cannot be blocked using P9999
- Fixed DUT will not send out SUBSCRIBE request after enable 3CX Auto Provision
- Fixed hunting group on fly change has logic flaw
- Fixed attended transfer sometimes fails

## FIRMWARE VERSION 1.0.5.8

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4228

### DATE

01/28/2015

### ENHANCEMENT

- Added support for NAT transfer feature
- Increased "Dial Plan" field length to 2048 digits

### BUG FIX

- Fixed crash issue with core dump
- Fixed missing P values when .txt or .xml configuration files are exported from the GXW
- Fixed device could get into a no dial tone state
- Fixed [TR-069] dateTime Type typo
- Fixed reset FXS port config from web GUI will disable FXS 1
- Fixed device rejected SIP reply from Outbound Proxy under some conditions
- Fixed Authenticate Conf File feature did not work
- Fixed could not set "Enable All" for "Enable Call Features" option in Profile2/3/4

## FIRMWARE VERSION 1.0.5.5

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4228

### DATE

10/01/2014

### ENHANCEMENT

- Added passive SNMP support
- Added support for configurable star codes
- Added support for uploadable IVR packs
- Added support for XML configuration file download
- Added support for configurable TTL Value for Keep-Alive messages
- Added option "Enable Fast RFC2833" in web UI
- Added separate Tos/CoS settings for SIP and RTP
- Added support to announce registration number via feature code
- Added support for TTY/TDD
- Modified some options' value when display language on web UI is Chinese
- Added security table to factory sector to store certificate and private key
- Changed P-Asserted-Identity (PAI) header to P-Preferred-Identity (PPI) header in SIP INVITE
- Moved Download Configuration button under Upgrade and Provisioning web UI
- Added configurable RFC 3261 timer D length support
- Updated to latest data model + CPE 1.0.1.47

### BUG FIX

- Fixed device crashes under performance test
- Fixed if sending DTMF slightly faster via RFC2833, device does not send the end RTP event of DTMF
- Fixed device fails to handle multiple m lines in SDP correctly causing incoming call fail
- Fixed delay when registering to Failover Server
- Fixed if SRTP Mode set to Enabled and Forced, callee cannot hear anything right after off-hook
- Fixed even if P251 value is larger than P252, it can still be saved
- Fixed null dial plan can be saved and applied
- Fixed using inexpensive analog phones, sometimes there is ringing delay, or no ringing at all
- Fixed device port gets locked and has to be rebooted for the port to become operational again
- Fixed losing digits when sending out DTMF digits

- Fixed port 47 off-hook and on-hook constantly, after a while port 48 behaves the same under certain conditions
- Fixed SIP server and Outbound Proxy cannot be configured with host address like x.x.x.0
- Fixed sometimes couldn't make a call, but after a while device will work again
- Fixed one port cannot use, if off-hook can hear busy signal under certain conditions
- Fixed device registered to outside SIP server remotely, SIP server does not receive Register request
- Fixed network change while rebinding sockets will cause socket rebind infinite loop

## **FIRMWARE VERSION 1.0.4.24**

### **PRODUCT NAME**

GXW4216/GXW4224/GXW4232/GXW4228

### **DATE**

08/13/2014

### **ENHANCEMENT**

- Changed P-Asserted-Identity (PAI) header to P-Preferred-Identity (PPI) header in SIP INVITE
- Added support to play the registration number via \*98 feature code

### **BUG FIX**

- Fixed GXW4248 low audio gain/Echo compared to other GXW42xx models
- Modified some web UI option value when display language on web page is Chinese
- Fixed with certain analog phones sometimes there is delayed ringing, or no ringing at all
- Fixed losing digits when sending out DTMF digits
- Fixed device fails to handle multiple m lines in SDP correctly causing incoming call fail
- Fixed delay when register to failover server
- Fixed system memory exhaustion in early media calls

## FIRMWARE VERSION 1.0.4.22

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4228

### DATE

05/30/2014

### ENHANCEMENT

- Added option "Do Not Escape '#' as %23 in SIP URI" in web UI
- Added TR-069 ACS Discovery Support
- Added G722 WB support
- Added support to display CPE version in Web UI status page
- Added support to allow up to 256 characters in config server path
- Added support for Distinctive ringtones using Alert-info string
- New CPE version 1.0.1.44

### BUG FIX

- Fixed device fails to handle multiple m lines in SDP correctly causing incoming call fail
- Fixed HTTP GET provisioning request displays HTTP username/password in plain text. Added web UI option "Always Authenticate Before Challenge"
- Fixed TR-069: add Keep-alive Interval in Parameter tree
- Fixed TR-069: Firmware upgrade using HTTPS with authentication fail
- Fixed TR-069: Parameter Tree error
- Fixed GXW4248: (TR069) in parameter tree only have 32 lines
- Fixed STUN call has no RTP
- Fixed default IP configuration issue
- Fixed GXW4224/GXW4248 - Ports will "hang" after some time
- Fixed TR-069: Gain parameters not positioned correctly in data model
- Fixed device crashes randomly in all ports, no dial tone in any port
- Fixed if P143 is set to No with DHCP OPTION 2 device still accepts the time offset
- Fixed Caller ID Issue
- Fixed port stuck during T.38 fax
- Fixed device adds SUBSCRIBES messages to multicast address from AA product
- Fixed Metaswitch interop: Blind transfer fail, then reconnect
- Fixed device gets into reboot loop
- Fixed after downloading config file from customers server, device became dead after 2 days
- Fixed TR-069: Each account under Session the sub-tree lost data

- Fixed TR-069: Voice Profile node 2/3/4 Line tree node sub-tree missing data
- Fixed TR-069: A still send syslog information when Syslog Level is none
- Fixed device cannot handle SIP message with contact header whose contact-URI does not have angle brackets surrounding it



## **FIRMWARE VERSION 1.0.4.17**

### **PRODUCT NAME**

GXW4216/GXW4224/GXW4232/GXW4228

### **DATE**

12/19/2013

### **ENHANCEMENT**

- Added support for ping/traceroute tools for network connectivity
- Added support to send SUBSCRIBE messages to multicast address

### **BUG FIX**

- Fixed applying the Payload Type value will not take effect without reboot
- Fixed Call Waiting using PCMU while device is forced to use PCMA
- Fixed device sends REGISTER requests to Failover SIP Server even though it has successfully registered to Primary SIP Server
- Fixed crash issue caused by SUBSCRIBE for MWI

## FIRMWARE VERSION 1.0.4.15

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4228

### DATE

12/04/2013

### ENHANCEMENT

- Added support to use SIP request URI user ID for outgoing calls
- Added option when using DID to call, the From header is DID number
- Added new IVRs

### BUG FIX

- Fixed device sent re-register request every 20 seconds after server responded 403
- Fixed Dial Tone cadence did not change
- Fixed TR069 - after upgrade via ACS cannot upgrade via web UI
- Fixed when DNS server and gateway are unreachable, device on/off hook detection will be delayed by 20s during DNS request period
- Fixed cannot dial 0 when using pulse dialing
- Fixed when device is caller it didn't send Comfort Noise
- Fixed register expiration issue

## FIRMWARE VERSION 1.0.4.9

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4228

### DATE

12/06/2013

### BUG FIX

- Fixed in basic call, after hold and unhold, device repeats sending ReINVITE
- Fixed rebooting device fails to download bbd
- Fixed device crash issue related to STUN
- Fixed BroadSoft interop: device cannot switch between two lines after receiving NOTIFY
- Fixed the LED does not blink while downloading XML config file
- Fixed English and Chinese translation issue
- Fixed changing Hunting Group type does not take effect for the first call
- Fixed if unplugged network cable then reboot, device uses 192.168.254.2 as DNS server
- Fixed device crash issue associated with changing SIP transport during server failover DNS process
- Fixed IP mode mismatch issue as a result of changing IP mode via IVR then disconnect and reconnect network cable
- Fix a memory leak issue related to MWI and phone in offhook state
- Fixed GXW4232 FXS port becomes inactive after performance tests for 5 days
- Fixed BroadSoft interop: device fails to play local ring-back tone and fails to deliver CID when use # key as dial key
- Fixed "Copyright © Grandstream Networks, Inc. 2013. All Rights Reserved." was not translated into Spanish for Spanish language display
- Fixed device does not use Backup IP to register with SIP over TCP/TLS
- Fixed device creates extra call object leading to one channel stuck in CALL\_ENDING causing no more incoming phone call unless device off/on hook
- Fixed device does not reboot after upgrading if network cable was unplugged

## FIRMWARE VERSION 1.0.4.7

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4228

### DATE

08/09/2013

### ENHANCEMENT

- Added LLDP Support
- New P value for LLDP support P1684 - Enable LLDP
- Added support for receiving TCP/TLS "\r\n" keep-alive messages

### BUG FIX

- Fixed DUT ringing doesn't timeout
- Fixed Hook status show Not Registered
- Fixed Change the Enable Hook Flash value cannot come into effect without reboot
- Fixed Cannot change Use Configured IP without reboot
- Fixed Some settings cannot come into effect if not saving and applying with another values
- Fixed Preferred Vocoder 7/8 cannot take effect without reboot
- Fixed Device does not follow record route header route
- Fixed Change the vocoder via IVR cannot come into effect in new profile
- Fixed outgoing call with enable use configured IP cause crash
- Fixed oSIP bug that the port in a response is not set properly if not explicitly specified in the Via header for TLS transport
- Fixed TLS block read issue where the read may not return the complete message
- Fixed Display language not translate into Chinese/French/Spanish
- Fixed LLDP default value is different between factory reset and reset via web UI
- Fixed Enable Call Features error in Chinese translation
- Fixed Factory reset via telnet have no reboot info
- Fixed Enable provider lock via config file need to reboot to take effect
- Fixed Make an anonymous call under TLS mode can cause CPU usage high

## FIRMWARE VERSION 1.0.4.4

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4228

### DATE

06/28/2013

### ENHANCEMENT

- Added support for call routing based on SIP request URI user ID
- Added support to display Connected Line ID
- Added support for ASCII in DID field
- Added support to set LCD language from the web UI under system features
- Added support for compact session timer header
- Added support for LCD GUI
- Added option to disable SIP NOTIFY Authentication
- Added support for interrupt driven FAN failure control
- Added support to reset only Basic Settings values via
- Added LLDP support
- Added support for factory reset in recovery mode
- Added support for Chinese + Spanish + French Web UI
- Added VLAN support
- Added support to authenticate incoming INVITE
- Added support to reboot via SIP NOTIFY
- Added support for upgrading second bootloader via single image file

### BUG FIX

- Fixed Dial plan does not allow \$ and P signs
- Fixed Broadsoft Interop: Connected Line ID is not updated after Call Transfer or Call Forward
- Fixed Broadsoft Interop: device does not update "anonymous" with "Privacy:id"
- Fixed BroadSoft Interop: device fails to handle INVITE with Diversion Inhibitor
- Fixed BroadSoft Interop: REGISTER Failback is not send to the primary server
- Fixed BroadSoft Interop: fax pass-through fails with re-INVITE
- Fixed device does not parse the SDP included in the 181 message
- Fixed Offhook Autodial allows invalid input
- Fixed Dial Plan does not accept ABCD
- Fixed Time Zone via reset button does not reset to default value
- Fixed call between force enable SRTP and disable SRTP have one-way audio

- Fixed Spanish and French Web UI words display error
- Fixed device cannot boot up without network connection
- Fixed LCD back light does not work

## FIRMWARE VERSION 1.0.3.9

### PRODUCT NAME

GXW4216/GXW4224/GXW4232/GXW4228

### DATE

06/06/2013

### ENHANCEMENT

- Added VLAN support
- Added Spanish, French and Chinese language support
- Added support to display Connected Line ID
- Added support to authenticate incoming INVITE
- Added LCD GUI
- Added support to reboot device via SIP NOTIFY

### BUG FIX

- Fixed web browser compatible issues
- Fixed firmware/Config file Prefix/Suffix do not accept special characters
- Fixed unit cannot boot up without network connection
- Fixed TX/RX gain to indicate audio between the FXS and the network and remove ambiguity
- Fixed setting value to blank via xml file causes device crash
- Fixed fax returns to call issue
- Fixed noise on hold under special scenario
- Fixed Use Configured IP cannot set domain name and IP+port
- Fixed cfg file provisioning causes device reboots
- Fixed recovery mode issues
- Fixed BroadSoft special feature issues
- Fixed fax pass-through issue
- Fixed callee ringing timeout causes device crash
- Fixed iLBC payload type in 127 has no audio
- Fixed ringing does not timeout
- Fixed IP call causes device crash
- Fixed no IVR issue
- Fixed dial plan {[\*x#]+} causes call feature function fails
- Fixed Hunting Group setting issue
- Fixed in call flash causes device crash