

## Grandstream Device Configuration

**STATUS** **BASIC SETTINGS** **ADVANCED SETTINGS** **PROFILE 1** **PROFILE 2** **FXS PORTS**

**Profile Active:**  No  Yes

**Primary SIP Server:**  (e.g., sip.mycompany.com, or IP address)

**Failover SIP Server:**  (Optional, used when primary server no response)

**Prefer Primary SIP Server:**  No  Yes (yes - will register to Primary Server if Failover registration expires)

**Outbound Proxy:**  (e.g., proxy.myprovider.com, or IP address, if any)

**Backup Outbound Proxy:**  (e.g., proxy.myprovider.com, or IP address, if any)

**Prefer Primary Outbound Proxy:**  No  Yes (yes - will reregister via Primary Outbound Proxy if registration expires)

**Allow DHCP Option 120 (override SIP server):**  No  Yes

**SIP Transport:**  UDP  TCP  TLS (default is UDP)

**SIP URI Scheme When Using TLS:**  sip  sips

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

**NAT Traversal:**  No  Keep-Alive  STUN  UPnP  VPN

**DNS Mode:**  A Record  SRV  NAPTR/SRV  Use Configured IP

**DNS SRV use Registered IP:**  No  Yes

**DNS SRV Failover Mode:**

**Failback Timer:**  (in minutes. default 60 minutes, max 45 days)

**Register Before DNS SRV Failover:**  No  Yes

**Primary IP:**

**Backup IP1:**

**Backup IP2:**

**Tel URI:**

**Use Request Routing ID in SIP INVITE Header:**  No  Yes

**SIP Registration:**  No  Yes

**Unregister On Reboot:**  No  Yes

**Outgoing Call without Registration:**  No  Yes

**Register Expiration:**  (in minutes. default 1 hour, max 45 days)

**Reregister before Expiration:**  (0-64800. Default 0 second)

**SIP Registration Failure Retry Wait Time:**  (in seconds. Between 1-3600, default is 20)

**SIP Registration Failure Retry Wait Time upon 403 Forbidden:**  (in seconds. Between 0-3600, default is 1200. 0 means stop retry registration upon 403 response.)

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

**SIP OPTIONS/NOTIFY Keep Alive Interval:**  (in seconds. Between 1-64800, default is 30)

**SIP OPTIONS/NOTIFY Keep Alive Max Lost:**  (Number of max lost packets for SIP OPTIONS/NOTIFY Keep Alive before re-registration. Between 3-10, default is 3)

**Layer 3 QoS:**  SIP DSCP (Diff-Serv value in decimal, 0-63, default 26)

RTP DSCP (Diff-Serv value in decimal, 0-63, default 46)

**Local SIP Port:**  (default is 5060 for UDP; 5061 for TLS)

*Local RTP Port:*  (even number between 1024-65535, default 5004)

*Use Random SIP Port:*  No  Yes

*Use Random RTP Port:*  No  Yes

*Enable RTCP:*  No  Yes

*Hold Target Before Refer:*  No  Yes

*Refer-To Use Target Contact:*  No  Yes

*Transfer on Conference Hangup:*  No  Yes

*Remove OBP from Route Header:*  No  Yes

*Support SIP Instance ID:*  No  Yes

*Validate Incoming SIP Message:*  No  Yes

*Check SIP User ID for incoming INVITE:*  No  Yes (no direct IP calling if Yes)

*Authenticate incoming INVITE:*  No  Yes

*Authenticate server certificate domain:*  No  Yes

*Authenticate server certificate chain:*  No  Yes

*Allow Incoming SIP Messages from SIP Proxy Only:*  No  Yes (no direct IP calling if Yes)

*Use Privacy Header:*  Default  No  Yes

*Use P-Preferred-Identity Header:*  Default  No  Yes

*Use P-Access-Network-Info Header:*  No  Yes

*Use P-Emergency-Info Header:*  No  Yes

*Use P-Asserted-Identity Header:*  No  Yes

*SIP REGISTER Contact Header Uses:*  LAN Address  WAN Address

*Caller ID Fetch Order:*  Auto  Disabled  From Header

*Allow SIP Factory Reset:*  No  Yes

*Maximum Number of SIP Request Retries:*  (between 1 and 10, default is 4.)

*SIP T1 Timeout:*  ▼

*SIP T2 Interval:*  ▼

*SIP Timer D:*  (0 - 64 seconds. Default 0)

*DTMF Payload Type:*

*Preferred DTMF method (in listed order):* Priority 1:  ▼  
Priority 2:  ▼  
Priority 3:  ▼

*Inband DTMF Duration:* In 40-2000 milliseconds range, duration:  inter-duration:

*Disable DTMF Negotiation:*  No (negotiate with peer)  Yes (use above DTMF order without negotiation)

*Generate Continuous RFC2833 Events:*  No  Yes (RFC2833 events are generated until key is released)

*Send Hook Flash Event:*  No  Yes (Hook Flash will be sent as a DTMF event if set to Yes)

*Flash Digit Control:*  No  Yes (Overrides the default settings for call control when both channels are in use.)

*Callee Flash to 3WC:*  No  Yes

*Offhook Auto-Dial Delay:*  (0-60 seconds, default is 0)

*Proxy-Require:*

*Use NAT IP:*  (used in SIP/SDP message if specified)

SIP User-Agent:

SIP User-Agent Postfix:

RFC2543 Hold:  No  Yes

Disable Call-Waiting:  No  Yes

Disable Call-Waiting Caller ID:  No  Yes

Disable Call-Waiting Tone:  No  Yes

Disable Connected Line ID:  No  Yes

Disable Receiver Offhook Tone:  No  Yes (ROH tone will not be played after offhook for 60 seconds)

Disable Reminder Ring for On-Hold Call:  No  Yes

Disable Reminder Ring for DND:  No  Yes

Disable Visual MWI:  No  Yes

Visual MWI Type:  FSK  NEON

Do Not Escape '#' as %23 in SIP URI:  No  Yes

Disable Multiple m line in SDP:  No  Yes

Ring Timeout:  (0-300, default is 60 seconds, 0 means no timeout)

Hunting Group Ring Timeout:  (5-300, default is 20 seconds)

Hunting Group Type:  Circular  Linear

Delayed Call Forward Wait Time:  (Allowed range 1-120, in seconds.)

No Key Entry Timeout:  (1-15, default is 4 seconds)

Early Dial:  No  Yes (use "Yes" only if proxy supports 484 response)

Dial Plan Prefix:  (this prefix string is added to each dialed number)

Use # as Dial Key:  No  Yes (if set to Yes, "#" will function as the "(Re-)Dial" key)

Disable # as Redial Key:  No  Yes (if set to Yes, "#" will not function as ReDial key)

Dial Plan:

SUBSCRIBE for MWI:  No, do not send SUBSCRIBE for Message Waiting Indication  
 Yes, send periodical SUBSCRIBE for Message Waiting Indication

Send Anonymous:  No  Yes (caller ID will be blocked if set to Yes)

Anonymous Call Rejection:  No  Yes

Special Feature:  ▼

Enable Session Timer:  No  Yes

Session Expiration:  (90-64800, default 180 seconds)

Min-SE:  (90-64800, default 90 seconds)

Caller Request Timer:  No  Yes (Request for timer when making outbound calls)

Callee Request Timer:  No  Yes (When caller supports timer but did not request one)

Force Timer:  No  Yes (Use timer even when remote party does not support)

UAC Specify Refresher:  UAC  UAS  Omit (Recommended)

UAS Specify Refresher:  UAC  UAS (When UAC did not specify refresher tag)

Force INVITE:  No  Yes (Always refresh with INVITE instead of UPDATE)

Enable 100rel:  No  Yes

Add Auth Header On Initial REGISTER:  No  Yes

Conference URI:

Use First Matching Vocoder in 200OK SDP:  No  Yes

Preferred Vocoder (in listed order): choice 1:  ▼  
choice 2:  ▼

choice 3:    
choice 4:    
choice 5:    
choice 6:    
choice 7:    
choice 8:

Voice Frames per TX:

G723 Rate:  6.3kbps encoding rate  5.3kbps encoding rate

iLBC Frame Size:  20ms  30ms

Disable OPUS Stereo in SDP:  No  Yes (removes "/2" from offer)

iLBC Payload Type:  (between 96 and 127, default is 97)

OPUS Payload Type:  (between 96 and 127, default is 123)

VAD:  No  Yes

Symmetric RTP:  No  Yes

Fax Mode:  T.38  Pass-Through

Re-INVITE After Fax Tone Detected:  Enabled  Disabled

Jitter Buffer Type:  Fixed  Adaptive

Jitter Buffer Length:  Low  Medium  High

SRTP Mode:  Disabled  Enabled but not forced  Enabled and forced

Crypto Life Time:  Disabled  Enabled

SLIC Setting:

Caller ID Scheme:

DTMF Caller ID: Start Tone   Stop Tone

Disable Unknown Caller ID:  No  Yes

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

Number of Beginning Digits to Strip from Caller ID:  (between 0 and 10, default is 0.)

Polarity Reversal:  No  Yes (reverse polarity upon call establishment and termination)

Loop Current Disconnect:  No  Yes (loop current disconnect upon call termination)

Play busy/reorder tone before Loop Current Disconnect:  No  Yes (play busy/reorder tone before loop current disconnect upon call fail)

Loop Current Disconnect Duration:  (100 - 10000 milliseconds. Default 200 milliseconds)

Enable Pulse Dialing:  No  Yes

Pulse Dialing Standard:

Enable Hook Flash:  No  Yes

Hook Flash Timing: In 40-2000 milliseconds range, minimum:  maximum:

On Hook Timing:  (In 40-2000 milliseconds range, default is 400)

Gain: TX   RX

Disable Line Echo Canceller (LEC):  No  Yes

Disable Network Echo Suppressor:  No  Yes

Outgoing Call Duration Limit:  (0-180 minutes, default is 0 (No Limit) )

Ring Frequency:

Enable High Ring Power:  No  Yes

RFC2833 Events Count:  (between 2 and 10, default is 8)

RFC2833 End Events Count:  (between 2 and 10, default is 3)

Distinctive Ring Tone:  used if incoming caller ID is   
 used if incoming caller ID is   
 used if incoming caller ID is

**Ring Tones** (Syntax: c=on1/off1-on2/off2-on3/off3;)

Ring Tone 1:   
 Ring Tone 2:   
 Ring Tone 3:   
 Ring Tone 4:   
 Ring Tone 5:   
 Ring Tone 6:   
 Ring Tone 7:   
 Ring Tone 8:   
 Ring Tone 9:   
 Ring Tone 10:

Distinctive Call Waiting Tone:  used if incoming caller ID is   
 used if incoming caller ID is   
 used if incoming caller ID is

**Call Waiting Tones** Syntax: f1=val[, f2=val[, c=on1/off1[-on2/off2[-on3/off3]]]]; (Frequencies are in (10, 4000) Hz and cadence on and off are in (0, 64000) ms)

Call Waiting Tone 1:   
 Call Waiting Tone 2:   
 Call Waiting Tone 3:   
 Call Waiting Tone 4:   
 Call Waiting Tone 5:   
 Call Waiting Tone 6:   
 Call Waiting Tone 7:   
 Call Waiting Tone 8:   
 Call Waiting Tone 9:   
 Call Waiting Tone 10:

**Call Features Settings**

Enable Call Features:  No  Yes  Enable All  
 (When enabled, Do No Disturb, Call Forward and other call features can be used via the local feature codes on the phone. Otherwise, the ITSP feature codes will be used. Enable All will override all individual features enable setting.)

Reset Call Features:  No  Yes

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 SRTP Feature:  No  Yes

Enable SRTP:

Disable SRTP:

-----  
 SRTP per call Feature:  No  Yes

Enable SRTP per call:

Disable SRTP per call:

-----  
 CID Feature:  No  Yes

Enable CID:

Disable CID:

-----  
 CID per call Feature:  No  Yes

Enable CID per call:

Disable CID per call:

Direct IP Calling Feature:  No  Yes

Direct IP Calling:

CW Feature:  No  Yes

Enable CW:

Disable CW:

CW per call Feature:  No  Yes

Enable CW per call:

Disable CW per call:

Call Return Feature:  No  Yes

Call Return:

Unconditional Forward Feature:  No  Yes

Enable Unconditional Forward:

Disable Unconditional Forward:

Busy Forward Feature:  No  Yes

Enable Busy Forward:

Disable Busy Forward:

Delayed Forward Feature:  No  Yes

Enable Delayed Forward:

Disable Delayed Forward:

Paging Feature:  No  Yes

Paging:

DND Feature:  No  Yes

Enable DND:

Disable DND:

Blind Transfer Feature:  No  Yes

Enable Blind Transfer:

Disable LEC per call Feature:  No  Yes

Disable LEC per call:

Disable Bellcore Style 3-Way Conference:  No  Yes

Star Code 3WC Feature:  No  Yes

Star Code 3WC:

Forced Codec Feature:  No  Yes

Forced Codec:

PCMU Codec Feature:  No  Yes

PCMU Codec:

PCMA Codec Feature:  No  Yes

PCMA Codec:

G723 Codec Feature:  No  Yes

G723 Codec:

G729 Codec Feature:  No  Yes

G729 Codec:

iLBC Codec Feature:  No  Yes

iLBC Codec:

G722 Codec Feature:  No  Yes

G722 Codec:

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