

WellGate 2608

8-Line FXS SIP IP Gateway



WellGate 2608 front view



WellGate 2608 rear view

SIP Proxy Redundancy – Support Primary and Secondary Proxy

SIP Trunk busy forwarding

Auto HTTP and FTP Provision

Flexible digit manipulation and Dial Plan

Rich FXS analog signal to adapt variety interface

Redundant Firmware Image avoid from boot code crashing

WellGate 2608 is an 8-Line FXS gateway with SIP protocol IP device which allows to connect 8 sets of analog telephone to make or receive VoIP call over Internet or VPN network through Internet Telephony service provider. This device is suitable for office user through ITSP service provider to install at office or branch office to call between different offices. It also can install at trunk line in front of digital PBX to migrate digital PBX to IP Telephony call without changing PBX's dial rule and cable.

Rich Telephony Features

WellGate 2608 has 8-Line FXS ports. Each Line can be configured to meet different countries Telephony requirements. For Instance, AC Impedance, Ring Frequency, Ring Voltage, Distinctive Ring, Ring Cadence, different Tone (Level, Frequency, Cadence), Hook Flash detection time, DTMF/FSK Caller ID generation, Polarity Reversal Billing signal and Generate Current Drop Time (Open Loop Disconnect). FXS interface has highly compatibility with different countries Telephony interface, but also support existing digital PBX analog interface. You don't need to worry the interoperability with existing PBX or Telco equipment.

Rich Digit Manipulation Features

Flexible digit manipulation processes Matched Prefix code, Minimum digit length, replace digits at start and stop digit position. This digit manipulation feature applies to FXS phone dial out or IP incoming call or pre-program up to 4 groups of digit manipulation processors. Each group can define up to 50 indexes to meet your variety dial purpose.

Flexible Dial plan

WellGate 2608 provides flexible Dial Plan from FXS to IP Trunk (SIP Softswitch). Dial Plan is to configure in what condition the digits can be sent out to IP network during dialing. The dial inter digit time before dialing is configurable to meet busy users or home user. Dial Rule is able to detect the prefix code and maximum digits reached and then dial automatically.

Call Routes Plan

Route Plan is to configure receiver IP address at peer to peer (P2P) mode when dialing from FXS phone. When dialing prefix

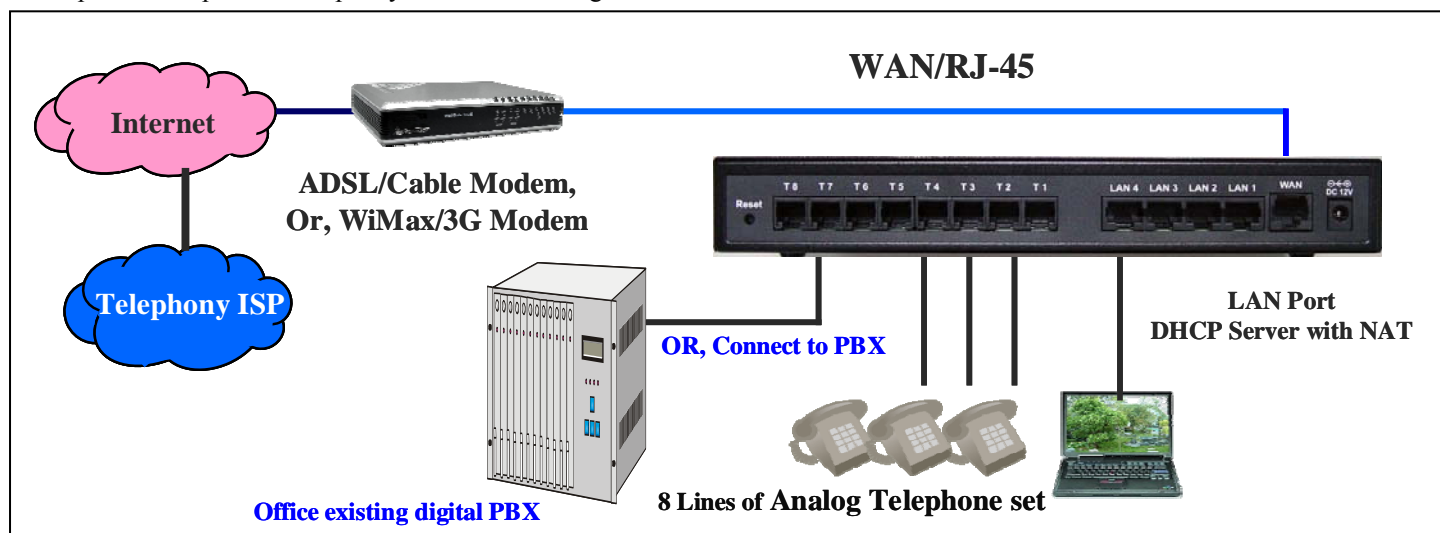
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code and Minimum length was matched at this plan, the IP address was sent to receiver site directly. Besides, there are four groups of digit manipulation can be applied at Call Routes plan before sending as well. Each Routes plan has an Backup Routes P2P IP address in case of original one was failure. Up to 50 entries of Call Routes List are supported to meet your application.

Suit to IP Telephony Service Provider

WellGate 2608 is a SIP IP device to connect with existing analog telephone set to make IP call. Its Simple, Slim and Compact design and easy installation allow office users or SOHO users to make or receive call just like an legend telephone call but less cost. It is compatible with broadband internet service devices such as ADSL/Cable Modem and WiMax/3G Modem. It helps ISP provider to provide Telephony service to existing customers without additional cable.



SPECIFICATION

Interface:

Ethernet port (RJ-45, 10/100 base-T)

1-WAN port, connect to IP Network

4-LAN port connect to PC with NAT

Support Bridge and NAT mode

Telephony port (RJ-11 x 8 pcs)

DC +12V power input Jack

Reset key to return Factory setting

LED Indicator for System, SIP and FXS status

IP Network connection

IPv4 (RFC 791)

Configurable WAN HTTP port, 80, 1024 to 65535

Configurable WAN HTTPS port, 443, 1024 to 65535

IP/ICMP/ARP/RARP/SNTP

Static IP

DHCP Client (RFC 2131), WAN port

DHCP Server, LAN port

Specify maximum DHCP Lease Time

NAT Server (RFC 1631)

PPPoE Client

DNS Client

Auto or Manual configure DNS Server IP address

Behind NAT, use DMZ for NAT traversal

Use STUN for NAT Type 1 and 2 for NAT Traversal

SNTP with time zone setting

TCP/UDP (RFC 793/768)

RTP/RTCP (RFC 1889/1890)

IPV4 ICMP (RFC 792),

TFTP Client

QoS : DiffServ (DSCP RFC 2475), ToS (RFC791, 1394)

Configure DSCP on RTP and SIP signal separately

Configure ToS on RTP and SIP signal separately

SIP Protocol :

RFC3261 compliance

Support local SIP and RTP port configure from 1 to 65535 at each line and SIP trunk.

SIP UDP Protocol

Support RFC 3325 to send "anonymous" or not at caller ID

SIP Session keep mode : Disable, Empty packet, SIP options, SIP register and SIP Ping (Nortel).

Support SIP HOLD Type

SIP Session Timer (RFC 4028)

MD5 Digest Authentication (RFC2069/RFC2617)

Reliability of provisional response PRACK (RFC3262)

Early/Delay Media support

Offer/Answer (RFC3265)

Message Waiting Indication (RFC3842)

Generate Ring Back tone or Custom Tone after received SIP message 100 trying

Event Notification (RFC3265)

REFER (RFC3515)

Support Outbound Proxy



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Support Primary and Backup SIP Server
Support STUN NAT Traversal
Support "rport" parameter (RFC 3581)

Audio Codec :

G.711 A-law/ μ -law, G.729, G.723.1 (6.3K, 5.3K), G.726-32
Display IP Bandwidth with selected codec and payload
Select Voice Codec Order : Local or Remote
Silence Suppression
VAD/CNG selection
LEC : Line Echo Canceller
Packet Loss Compensation
Configure INPUT, OUTPUT and DTMF Gain
In-band/out of band DTMF (RFC4733, RFC2833 / SIP INFO)
Adaptive/Configurable Jitter Buffer range: 0 to 200ms
G.168 Acoustic Echo Cancellation
Dialing Plan with drop, replace, Insert dialing digits
Select First digit and Inter digit timeout duration (Sec)
Selectable Call Progress Tone
Support Specified Line Calling

Call Features :

Caller ID display DTMF (before 1st ring) and FSK (before 1st ring),
ETSI and Bellcore
DTMF Caller ID start and stop BIT (A,B,C,D,#) configurable
Polarity Reversal before Caller ID or not
Tone Generation: Ring Back, Dial, Busy, Call waiting, ROH and
Disconnect tone
Configure Tone Frequency, Cadence, Level and Cycle
CDR output Server IP address and port number
SYSLOG output Server IP address and port number
NAT Traversal support STUN and IP Sharing
Payload type setting : RFC2833, FAX Bypass and Modem Bypass
Out-Band DTMF : RFC2833 and SIP Info
DTMF detection Sensitivity setting : 1 (Lowest signal level) to 5
DTMF generate configurable Duration and Interval Time
Ring time limitation : 10 to 600 seconds
Remote user drop call indication : Polarity Reversal or Loop
Current Drop
Network Connection Detection
Network Unavailable announce Programmable Tone or Voice
Message Waiting Indication
Before dial first digit wait timeout configuration (1 to 60 sec)
Inter Digits Timeout configure : 1 to 5 seconds
Speed Dialing (50 sets)
Call Waiting/Switching between Calls
Call Forward (Busy, Unconditional, No Answer)
No answer forward time setting
Line service enable or disable
Sequential Ring or Simultaneously Ring to each line
Each line Ring Time setting at Sequential Ring
Display each Line registration status
Configure each line Ring priority at sequential ring
Block Anonymous Call
DND (Do Not Disturb)
Call Hold

Configurable Call HOLD Tone or Music
Call Transfer
Flexible Dial Plan
Dial Plan: Dial out immediately when matched leading digit and
total digits count (50 entries)
Digit Manipulation (Drop and Replace Rule) :
Apply Rule to FXS dialing out, IP incoming to FXS or
pre-program 4 different groups
Insert pause key (p) by 2 sec at DM group only
Matched Prefix Code
Matched minimum digit length
Replace start and stop digit position
Replace number

Call Routes :

Support Peer to Peer (P2P) Call only
Matched Called Prefix code
Matched Minimum Called digit length
Secondary Backup Routes
Support additional Digit Manipulation Group rule

Hot Line

Outgoing SIP Caller ID Selection

Flexible Routing Plan

Prefix Match and Length
Priority Ring
Cyclic Ring
Simultaneous Ring
Programmable Hunting Cycle
Backup Routing with Digit Manipulation
Default Routing

FAX Transmission mode : T.38, Bypass or Auto

FAX Bypass Keyword required from SIP Server

FAX Bypass Codec : G.711 u-Law or G.711A-Law

Support Peer to Peer Dialing

Flash Time Detection: range from 60 to 2000 ms

Flash Key definition: Disable, Transfer or SIP Message

ON-HOOK Voltage -48Vdc

Configure Ring Cadence, Frequency and Voltage

Distinctive Ring Pattern by incoming Caller ID digit length

Provide world wide country telephone line Impedance

Ring Frequency range setup : 15 to 100 HZ

Ring ON duration : 100 to 8000 ms

Ring OFF duration : 100 to 8000 ms

Ring AC RMS Level Voltage : 0 to 94 Vrms

Support Polarity reversal for Billing

Service Up to 1 Kilo-meter distance to analog telephone set

Generate Current Drop Time (Open Loop Disconnect time)

MANAGEMENT :

Administrative Telnet, HTTP, HTTPS

WAN IP address voice announcement from analog phone by dialing
#126#

LAN IP address voice announcement from analog phone by dialing
#120#

HTTP/FTP provision through MAC address

3 Levels of User Access Right with Password protection
(Administrator, Supervisor and User)

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HTTP/HTTPS Service Access limitation from WAN port
Provides System Status Logs
Status display: Network, Line, SIP Trunk status
Diagnostics (debug through Syslog Event Notice)
Debug in real time by Telnet
Configuration Backup/Restore
Upload user recorded voice announced file: Greeting, Hold Music,
and Network Failure
Dual Firmware Image Backup
Reset to factory Default
** Support Welltech proprietary encryption protocol at SIP Signal
and Voice codec during transmitting to IP network in order to
Anti-ISP block of VoIP call. This feature only be available with
Welltech SIP server or SIPPBX6200 IP-PBX

Environmental :

Actual Dimension: 24(W) × 3.4(H) × 16(D) CM
Weight: 1.5kg (One unit with packing)

Operating Temp. & Humidity
- Temp.: 0°C~45°C (32°F~113°F)
- Humidity: 10%~90% relative humidity, non-condensing
Power Adaptor:
- INPUT: AC100V~240V, 50/60Hz
- OUTPUT: DC 12V, 3.0A

Approvals:

CE, FCC (Part 15, Class B), LVD and RoHS

Country of origin:

Made in Taiwan

Packing Accessories

WellGate 2608	x 1 pcs
AC to DC+12V Power adaptor	x 1 pcs
CD User Manual	x 1 pcs

Warranty

One year