



WellGate 2808 8-FXS Gateway User Guide

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WellGate 2808

CH1 Introduction

WellGate 2808 Telephony Gateway

Wellgate 2808 is a 8 ports FXS (WellGate 2808) VoIP gateway which includes 1-WAN/1-LAN (management port) with 10/100 base-T network environment. Field-proven quality of Voice communication and Fax transmission over IP broadband access network to makes Wellgate 2808 to be an excellent solution for various VoIP applications.

The core firmware and webpage configuration is consistent with both 4-port FXS gateway (WellGate 2504) and 24-port FXS gateway (WellGate 2424S). So, there is not any difficulty to use WellGate 2808 if you are already using WellGate 2504 or WellGate 2424S. Besides, if you have established HTTP provision to manage Wellgate 2504, It should be able to manage this device as well.

1-1 Physical Interface

- Ethernet port (RJ-45, 10/100 base-T)
 - 1-WAN port, for connect to router, ADSL modem (ATU-R), or switch hub directly.
 - 1-LAN port, for PC, management or other network devices connecting.
- Telephony port (RJ-11)
- 8-FXS ports to connect to analog phone
- Reset button (Factory Default)
- DC power Jack (+12V/3A)
- Status indicated LED
 - Indicates Power, Ethernet, Line, SIP and system status
- AC to DC Power Adaptor:
 - INPUT: AC100V-240V, 50/60Hz
 - OUTPUT: DC 12V, 3A

1-2 IP Network connection

IPv4 (RFC 791)/IPv6 (RFC 2460)



- IPv6 Auto Configuration (RFC 4862)
- MAC Address (IEEE 802.3)
- Static IP
- DHCP Client (RFC 2131)
- PPPoE
- DNS Client
- TCP/UDP (RFC 793/768)
- RTP/RTCP (RFC 1889/1890)
- IPV4 ICMP (RFC 792)/IPV6 ICMP (RFC 4443)
- TFTP Client
- VOIP VLAN Support (802.1q/802.1p)
- HTTP/HTTPS Server
- QoS Support
- Support IPV4 only, IPV6 only or dual stack mode

1-3 Front Panel: LED Indicators

WellGate 2808, 8 ports FXS gateway



Figure 1-3-1 front panel

LED	Description
Power	When the power adapter is connected, the LED will light up green.
Proxy	When the gateway is registered successfully to a Proxy, this LED will light up green.
WAN	This will light up green when the gateway's WAN port is physically connected to the public internet. When data is transmitted through this port, it will flash green. The default IP of WAN port is 10.1.1.3.
LAN	This will light up green when the gateway's LAN port is physically connected to a local network (Refer to Rear Panel section in page number for location of LAN port). When data is transmitted through this port, it will flash green. The default IP of LAN port is 192.168.123.123.
1 to 8	The status LED for FXS port 1-8, this will light up amber orange when the connected phone's handset is lifted, or when the connected phone is engaged in a conversation. It will flash amber orange when there is an incoming call.

1-4 Rear Panel: LED Indicators

WellGate 2808



Figure 1-4 rear panel for FXS

Item	Description
1 – 8	The color of RJ-11 connector is Black while this port is FXS gateway.
LAN	10/100 Base-T RJ-45 socket for LAN port, connects to PC for management purpose.
WAN	10/100 Base-T RJ-45 socket for WAN port, connects to wide area network.
DC 12V	The power socket, input AC 100V~240V; output DC12V, 3A

1-5 QUICK SETUP

Note:

Please use Windows IE 8.0 web browser or above version to configure FXS gateway webpage setting. Welltech products don't support other Web Browser such as FireFox or Google Chrome to configure. Otherwise, the configuration from webpage can't be saved successfully.

Login :

Step1: Setup the administrative PC's IP address to be the same as WellGate 2808 and connect the Ethernet cable into WAN or LAN port. Start IE9.0 (or later version) to navigate Wellgate 2808 web management system by typing the default URL which is <http://192.168.123.123> (through LAN port) or <http://10.1.1.3> (through WAN port). The screen will display User Name and Password (the default user id is **root** and user password is **root**). (See figure 1-5-1 web access)



Figure 1-5-1 web access

Step 2: After login, the screen shows the Home page of WellGate 2808. (See figure 1-5-2 Network configure-1)

Network	Time	Advance	User Login	Debug	Event Notice	Provisioning	SNMP	
Setting :								
IP Support :	IPv4 Only							
WAN Setting :								
Network Type :	Fixed IP							
IP Address :	10.1.1.3							
Netmask :	255.255.255.0							
Default Gateway :	10.1.1.254							
DNS Server1 :	168.95.1.1							
DNS Server2 :	168.192.1.12							
VOIP VLAN :	<input type="radio"/> Enable <input checked="" type="radio"/> Disable							
VOIP VLAN ID(2-4094) :								
VOIP VLAN Priority :								
LAN Setting :								
Mode :	<input type="radio"/> Management <input checked="" type="radio"/> NAT <input type="radio"/> Bridge							
IP Address :	192.168.123.123							
Netmask :	255.255.255.0							
DDNS (DynDNS) Setting :								
DDNS (DynDNS) :	<input type="radio"/> Enable <input checked="" type="radio"/> Disable							
							Apply	Cancel

Figure 1-5-2 Network configure-1

Change Default IP Network:

Step 3: After successfully login to the system, you need to change the network configuration. Click **Device Setting > Network** to setup the service network interface (WAN) parameters. Enter the deserved IP address, subnet mask and default gateway or selected to "DHCP" or "PPPoE". Apply the change by clicking **Apply** button as figure (See Figure 1-5-3 Network configure-2).

Note: If Gateway WAN port is setting in the 10.x.x.x segment, please make sure that you also change the LAN port to other segment such as 192.168.x.x

in order not to conflict IP between them.

Network	Time	Advance	User Login	Debug	Event Notice	Provisioning	SNMP	
Setting :								
IP Support :	IPV4 Only							
WAN Setting :								
Network Type :	Fixed IP							
IP Address :	DHCP PPPoE							
Netmask :	255.255.255.0							
Default Gateway :	10.1.1.254							
DNS Server1 :	168.95.1.1							
DNS Server2 :	168.192.1.12							
VOIP VLAN :	<input type="radio"/> Enable <input checked="" type="radio"/> Disable							
VOIP VLAN ID(2-4094) :								
VOIP VLAN Priority :								
LAN Setting :								
Mode :	<input type="radio"/> Management <input checked="" type="radio"/> NAT <input type="radio"/> Bridge							
IP Address :	192.168.123.123							
Netmask :	255.255.255.0							
DDNS (DynDNS) Setting :								
DDNS (DynDNS) :	<input type="radio"/> Enable <input checked="" type="radio"/> Disable							
							Apply	Cancel

Figure 1-5-3 Network configure-2

Change Default Time setting:

Step 4: When re-logout to the new IP address, next step is to setup the system time zone. Click **Device Setting > Time** to setup the system. Enter the current SNTP server, time zone and daylight saving parameters. Apply the change by clicking **Apply** button. (See figure 1-5-4 Time setting)

Network	Time	Advance	User Login	Debug	Event Notice	Provisioning	SNMP	
Current Time:	2000/01/01 00:24:37							
NTP Time Server:	168.95.195.12							
NTP Refresh Interval(sec):	43200							
Time Zone:	GMT							
Daylight Saving :	<input type="radio"/> Yes <input checked="" type="radio"/> No							
							Apply	Cancel

Figure 1-5-4 Time setting

Modify SIP Account Parameter:

Step 5: The next step is to add a SIP trunk for VOIP calling. Click (**SIP trunk and new to**) to create the required sip trunk. Enter the trunk ID to 1 and input those SIP parameters. Apply the change by clicking **Apply** button. (See Figure 1-5-5 SIP Trunk).

Note: Please don't delete sip trunk, even it is not used. Because Route Plan

feature needs to use SIP Trunk.

SIP Trunk							
Trunk ID	Register Type	TEL No	Proxy Server	Proxy Server Port	Outbound Proxy	Outbound Server Port	
1	Register	1000	10.1.1.2	5060		5060	

Total Record: 1 Total Page: 1 Page 1

Figure 1-5-5 SIP Trunk

Modify FXS SIP Settings: (WellGate 2808 only)

Step 6: Set up the SIP proxy server for FXS calling. For WellGate 2808, all FXS ports are using the same SIP proxy setting. If you need to use different SIP proxy server, please use SIP trunk instead. Click **TEL Settings > SIP Proxy** to set up the dedicate FXS SIP proxy server. (See Figure 1-5-6 SIP Proxy)

FXS Line	SIP Proxy	Caller ID	Others
Domain :		<input type="text"/>	
Primary Proxy Server:		<input type="text" value="10.1.1.2"/>	
Primary Proxy Server Port:		<input type="text" value="5060"/>	
Outbound Proxy Server:		<input type="text"/>	
Outbound Proxy Server Port:		<input type="text" value="5060"/>	
Primary Proxy Server Keep Alive:		<input type="radio"/> Enable <input checked="" type="radio"/> Disable	
Keep Alive Time (sec):			
Secondary Proxy:		<input type="radio"/> Enable <input checked="" type="radio"/> Disable	
Secondary Proxy Server:			
Secondary Proxy Server Port:			
Secondary Outbound Proxy Server:			
Secondary Outbound Proxy Server Port:			
Register Expires:		<input type="text" value="120"/>	
Secondary Proxy Server Keep Alive:		Enable Disable	
Keep Alive Time (sec):			

Figure 1-5-6 SIP Proxy

Step 7: Setup each FXS line's parameters by clicking the Line ID from **TEL Settings > FXS Line**. Modify the SIP register information and apply it. (See Figure 1-5-7 FXS Setting and Figure 1-5-8 Line setting)

FXS Line	SIP Proxy	Caller ID	Others
	Line ID	State	TEL No
	1	Active	1001
	2	Active	1002
	3	Active	1003
	4	Active	1004
	5	Active	1005
	6	Active	1006
	7	Active	1007
	8	Active	1008

Figure 1-5-7 FXS Setting

Modify Line Setting	
Line ID :	1
Line Type :	FXS
Line State :	<input checked="" type="radio"/> Active <input type="radio"/> Inactive
Forward Reason :	<input type="checkbox"/> Unconditional <input type="checkbox"/> Busy <input type="checkbox"/> No Answer
Forward TEL :	<input type="text"/>
No Answer Timeout(sec):	<input type="text" value="120"/>
Call Waiting :	<input type="text" value="Disable"/>
Reject Anonymous Call:	<input type="radio"/> Yes <input checked="" type="radio"/> No
Hot Line:	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Hot Line TEL :	<input type="text"/>
Polarity Reversal Generation :	<input type="radio"/> Yes <input checked="" type="radio"/> No
Current Drop Generation :	<input type="radio"/> Yes <input checked="" type="radio"/> No
Input(Encode) Gain:	<input type="text" value="0db"/>
Output(Decode) Gain:	<input type="text" value="0db"/>
FAX Relay :	<input type="text" value="T.38"/>
Voice Mail Subscriptions:	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Caller ID Mode :	<input type="text" value="Transparent"/>
SIP Caller ID Mode :	<input type="text" value="Transparent"/>
Register Type :	<input type="text" value="Register"/>
TEL No:	<input type="text" value="1001"/>
User ID:	<input type="text" value="1001"/>
User Password:	<input type="text" value="****"/>
Display Name:	<input type="text" value="1001"/>
<input type="button" value="Apply"/> <input type="button" value="Cancel"/> <input type="button" value="Back"/>	

Figure 1-5-8 Line Setting

Soft Reset Wellgate 2808:

Step 8: After modify basic setting. It is required to reset Wellgate 2808. Click **Maintenance > Maintenance > Quick-Reset or Reboot** to take effect. Save the changes by clicking **Apply** button. (See Figure 1-5-9 Quick-Reset)

Maintenance	Firmware Update
<input type="radio"/> Backup	
<input type="radio"/> Restore (*.ini)	
<input type="radio"/> Restore (*.cfg)	
<input type="radio"/> Reset to Default	
<input checked="" type="radio"/> Quick-Reset	
<input type="radio"/> Reboot	
<input type="button" value="Apply"/>	

Figure 1-5-9 Quick-Reset

Check Wellgate 2808 Registered Status:

Step 9: After Quick-Reset or reboot.
 >Click **Status > SIP Trunk Status** to check whether registered or not. (See Figure 1-5-10 SIP Trunk Status)

Device Status	Line Status	SIP Trunk Status
Account	Registered	Concurrent Call
1000	Not Register	0
Refresh Interval (second): 5		

Figure 1-5-10 SIP Trunk Status

>Click **Line status** to check whether registered or not. (Figure 1-5-11 Line Status)

Device Status	Line Status	SIP Trunk Status	
Line	Account	Registered	Call State
1	1001	Not Register	Idle
2	1002	Not Register	Idle
3	1003	Not Register	Idle
4	1004	Not Register	Idle
5	1005	Not Register	Idle
6	1006	Not Register	Idle
7	1007	Not Register	Idle
8	1008	Not Register	Idle
Refresh Interval (second): 5			

Figure 1-5-11 Line Status

Through the above settings, the Wellgate 2808 should be able to do the following feature:

1. The user can pick up the handset and hear dial tone. Call out and talk.
2. For VoIP incoming call to a dedicated FXS number, the called phone will ring and can answer this call to talk.

CH2 Device Settings

From this setting category, all devices related parameters can be found here.

2-1 Network Configuration

> Network

Network	Time	Advance	User Login	Debug	Event Notice	Provisioning	SNMP	
Setting :								
IP Support :	IPv4 Only							
WAN Setting :								
Network Type :	Fixed IP							
IP Address :	DHCP PPPoE							
Netmask :	255.255.255.0							
Default Gateway :	10.1.1.254							
DNS Server1 :	168.95.1.1							
DNS Server2 :	168.192.1.12							
VOIP VLAN :	<input type="radio"/> Enable <input checked="" type="radio"/> Disable							
VOIP VLAN ID(2-4094) :								
VOIP VLAN Priority :								
LAN Setting :								
Mode :	<input type="radio"/> Management <input checked="" type="radio"/> NAT <input type="radio"/> Bridge							
IP Address :	192.168.123.123							
Netmask :	255.255.255.0							
DDNS (DynDNS) Setting :								
DDNS (DynDNS) :	<input type="radio"/> Enable <input checked="" type="radio"/> Disable							
							Apply	Cancel

Figure 2-1 network setting

Parameter Description:

WAN Setting:

- **Network Type:** support "Fixed IP"; "DHCP"; "PPPoE"
- **IP Address:** IP address
- **Default Gateway:** Default gateway
- **DHCP Tag (option 60):** input Vendor class identifier or not.
- **DHCP Tag (option 61):** input Client identifier or not.
- **DNS Server1:** Primary DNS Server IP network
- **DNS Server2:** Secondary DNS Server IP network
- **VoIP VLAN:** Enable VoIP VLAN or not. When enable VoIP VLAN, the WAN port can be only accessed by VLAN. If it is required to manage the Wellgate 2808, Administrator can use LAN port instead.
- **VoIP VLAN ID(2-4096):** VLAN ID Used

Note: the default WAN IP address is 10.1.1.3.

LAN Setting:

- **Management mode:** This LAN port is used for management purpose, not used for register or routing.
- **NAT mode:** DHCP function on the LAN port. The LAN ports will function as a DHCP server, network devices connected to them will be issued with IP addresses. (On the list item will add a NAT setting. Please refer to NAT setting in details)
- **IP Address:** IP address (please set to 192.168.x.x if your WAN port is using 10.x.x.x IP segment).
- **Netmask:** IP network subnet mask
- **Bridge mode:** At this mode, both WAN and LAN ports are configured to Switch/Hub features. LAN port access to WAN port directly.
Note: default LAN port IP address is 192.168.123.123

DDNS (DynDNS) dynamic DNS Setting:

- **DDNS (DynDNS):** enable or disable dynamic DNS feature.
- **Domain Name:** input your Domain Name
- **User Name:** input your user name
- **Password:** input your password

2-2 Device Time Setting

Wellgate 2808 support SNTP with time zone and daylight saving.

Device Setting > Time

Network	Time	Advance	User Login	Debug	Event Notice	Provisioning	SNMP
Current Time:	2000/01/01 00:41:35						
NTP Time Server:	<input type="text" value="168.95.195.12"/>						
NTP Refresh Interval(sec):	<input type="text" value="43200"/>						
Time Zone:	GMT <input type="button" value="v"/>						
Daylight Saving :	<input checked="" type="radio"/> Yes <input type="radio"/> No						
Daylight Bias:	+00:00 <input type="button" value="v"/>						
Daylight Start :	Month :	<input type="text" value="01"/>	<input type="button" value="v"/>	Week Day :	<input type="text" value="Sun"/>	<input type="button" value="v"/>	
	Apply Week :	<input type="text" value="1"/>	<input type="button" value="v"/>	Hour :	<input type="text" value="00"/>	<input type="button" value="v"/>	
Standard Start :	Month :	<input type="text" value="01"/>	<input type="button" value="v"/>	Week Day :	<input type="text" value="Sun"/>	<input type="button" value="v"/>	
	Apply Week :	<input type="text" value="1"/>	<input type="button" value="v"/>	Hour :	<input type="text" value="00"/>	<input type="button" value="v"/>	
							<input type="button" value="Apply"/> <input type="button" value="Cancel"/>

Figure 2-2 Time setting

Parameter Description:

- **Current Time:** To display current date and time.
- **NTP Time Server:** SNTP time server IP address.

- **NTP Refresh Interval (sec):** The frequency to synchronize NTP server in seconds.
- **Time Zone:** The time-zone (GMT) Wellgate 2808 is located.
 - ◆ Standard: Use a predefined standard time zone
 - ◆ Customize: Use a user defined time zone
- **Daylight Saving:** Auto adjusted daylight saving timer or not
- **Daylight Bias:** The offset added to the Bias when the time zone is in daylight saving time
- **Daylight Start:** The date that a time zone enters daylight time
 - ◆ Month: 01 to 12
 - ◆ Week Day: Sunday to Saturday
 - ◆ Apply Week (Day:01 to 05, Specifies the occurrence of day in the month; 01 = First occurrence of day, 02 = Second occurrence of day, ...and 05 = Last occurrence of day)
 - ◆ Hour: 00 to 23
- **Standard Start:** The date that a time zone enters daylight time
 - ◆ Month: 01 to 12
 - ◆ Week Day: Sunday to Saturday
 - ◆ Apply Week (Day:01 to 05, Specifies the occurrence of day in the month; 01 = First occurrence of day, 02 = Second occurrence of day, ...and 05 = Last occurrence of day)
 - ◆ Hour: 00 to 23

2-3 Device Advance Setting

> Advance

Network	Time	Advance	User Login	Debug	Event Notice	Provisioning	SNMP	
HTTP Service:		Port: <input type="text" value="80"/>						
HTTPS Service:		<input checked="" type="radio"/> Enable Port: <input type="text" value="443"/> <input type="radio"/> Disable						
Telnet Service:		<input checked="" type="radio"/> Enable Port: <input type="text" value="23"/> <input type="radio"/> Disable						
HTTP/HTTPS Service Access on WAN:		<input checked="" type="radio"/> Enable <input type="radio"/> Disable						
							Apply	Cancel

Figure 2-3 Advance setting

Parameter Description:

- **HTTP Service:** The Administrator Web service port (the default is 80)
- **HTTPS Service:** The https web service port (the default is 443)
- **Telnet Service:** The telnet service port (the default is 23)
- **HTTP/HTTPS Service access on WAN:** When click the disable option; The WEB service will be rejected on WAN port, so please be careful with this function. If you wanted to enable WAN port again, you need to access this device from its LAN port to connect to WEB pages and enable WAN port.

2-4 User Login Setting

Three levels of users can be used, administrator, supervisor, user. Each level of users will have different predefined access level.

>User Login

Network	Time	Advance	User Login	Debug	Event Notice	Provisioning	SNMP	
Administrator								
User ID:	<input type="text" value="root"/>							
Password:	<input type="password" value="****"/>							
Confirm Password:	<input type="password" value="****"/>							
Language:	<input type="text" value="English"/> <input type="text" value="Traditional Chinese"/> <input type="text" value="Simple Chinese"/>							
Supervisor								
User ID:	<input type="text" value="admin"/>							
Password:	<input type="password" value="****"/>							
Confirm Password:	<input type="password" value="****"/>							
Language:	<input type="text" value="English"/>							
User								
User ID:	<input type="text" value="user"/>							
Password:	<input type="password" value="****"/>							
Confirm Password:	<input type="password" value="****"/>							
Language:	<input type="text" value="English"/>							
							<input type="button" value="Apply"/>	<input type="button" value="Cancel"/>

Figure 2-4 user login setting

Parameter Description:

- **Administrator:** The administrator level user which has full access of Wellgate 2808.
- **Supervisor:** The supervisor level user which has limited administrative access right.
- **User:** The user access right which only allows to setting some user related features.
- **User ID:** Login User ID
- **Password:** Login Password
- **Confirm Password:** Confirm new password again
- **Language:** The web page language used when the account login. To add a customized local language, please contact Welltech.

2-5 Debug Settings

WellGate 2808 provides the real time debug to syslog or through telnet interface. It generates the debug information based on debug level and modules. Since the generating debug will consume system resources, it is recommended to turn on only during debug period and under Welltech FAE's instruction.

Debug

Network	Time	Advance	User Login	Debug	Event Notice	Provisioning	SNMP	
phoneMgr:								
Debug Module:	<input type="checkbox"/> Device Control	<input type="checkbox"/> Call Control	<input type="checkbox"/> DB	<input type="checkbox"/> Verbose				
Debug Level:	Emergency							
SipMgr:								
Debug Module:	<input type="checkbox"/> Register	<input type="checkbox"/> Call	<input type="checkbox"/> Sip Message	<input type="checkbox"/> Other				
Debug Level:	Emergency							
SNTP:								
Debug Level:	Emergency							
DevMgr:								
Debug Level:	Emergency							
emscft:								
Debug Level:	Emergency							
SYSLOG:								
	<input checked="" type="radio"/> Enable	<input type="radio"/> Disable						
Check for start from Any Time:	<input checked="" type="checkbox"/> Start from Any Time							
Syslog Start(YYYY/MM/DD HH:MM):								
Syslog Stop(YYYY/MM/DD HH:MM):								
Syslog Server:								
Syslog Port:	514							
DSP Debug:								
	<input checked="" type="radio"/> Enable	<input type="radio"/> Disable						
DSP Capture Server:								
DSP Capture Port:	50000							
							Apply	Cancel

Figure 2-5 Debug setting

Parameter Description:

- **SYSLOG:** Enable or disable to send system information to SYSLOGD server or not.
- **Check for start from Any Time:** Always Send: Always send syslog or only during a specified time range.
- **Syslog Start (YYYY/MM/DD HH:MM):** Always Send: Always send syslog or only during a specified time range.
- **Syslog Stop (YYYY/MM/DD HH:MM):** The syslog stop sending time.
- **Syslog Server:** Syslog server IP address.
- **Syslog Port:** syslog server service port (default is 514)
- **DSP Debug:** Enable or disable to send DSP information to capture log.
- **DSP Capture server:** Syslog capture server IP address.
- **DSP Capture port:** syslog capture server service port (default is 50000).

2-6 Event Notice

WellGate 2808 can send Syslog Event Notice when it had the following cases:

1. Register failed or re-registered.
2. Ethernet reconnected.
3. System started.

Network	Time	Advance	User Login	Debug	Event Notice	Provisioning	SNMP	
Syslog Notice :		<input type="radio"/> Enable <input checked="" type="radio"/> Disable						
Syslog Server:								
Syslog Port:								
							Apply	Cancel

Figure 2-6 Event notice setting

- **SYSLOG:** Enable or disable to send system event to SYSLOG server or not
- **Syslog Server:** Syslog server IP address.
- **Syslog Port:** syslog server service port (default is 514).

2-7 Auto Provision

The Wellgate 2808 can be provisioned by Http Server for mass deployment.

>Provisioning

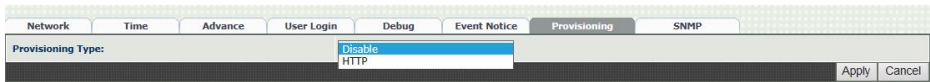


Figure 2-7-1 Provision

Select Http:

This feature is for feature usage only.

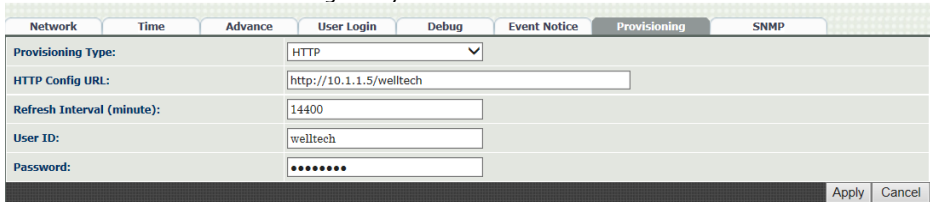


Figure 2-7-2 Provisioning type of Http

- **Http config URL:** internal used only.
- **Refresh interval(minute):** interval to check whether have a new configuration/firmware or not in minutes.
- **User ID:** specify the login ID for http authentication.
- **Password:** specify the password for http authentication.

2-8 SNMP

Network	Time	Advance	User Login	Debug	Event Notice	Provisioning	SNMP	
SNMP Agent :								
SNMP Agent :	<input checked="" type="radio"/> Enable <input type="radio"/> Disable							
Read Only Community Name :	<input type="text" value="public"/>							
Read Write Community Name :	<input type="text" value="private"/>							
SNMP Agent Access on WAN:	<input checked="" type="radio"/> Enable <input type="radio"/> Disable							
Trusted Peer :								
Type :	<input type="text" value="Any Address"/> Specify an IP Address Specify a Subnet							
IP Address :	<input type="text"/>							
Subnet Mask :	<input type="text"/>							
SNMP Trap :								
SNMP Trap :	<input checked="" type="radio"/> Enable <input type="radio"/> Disable							
Destination :	<input type="text" value="192.168.17.30"/>							
Community :	<input type="text" value="private"/>							
							Apply	Cancel

Figure 2-8 SNMP

SNMP Agent:

- **SNMP Agent:** Enable SNMP or not.
- **Read Only Community Name:** The community name to read through SNMP protocol.
- **Read Write Community Name:** The community name to read and write through SNMP protocol.
- **SNMP Agent Access on WAN:** Enable SNMP to be accessed through WAN port or not.

Trusted Peer:

- Type:
 - ◆ **Any Address:** Any address can retrieve the SNMP information.
 - ◆ **Specify an IP Address:** Only the IP address listed can retrieve the SNMP information. Normally, it will be the SNMP manager's IP address.
 - ◆ **Specify a Subnet:** Only the network specified can retrieve the SNMP information.
- **IP address:** The IP address for a trusted peer.
- **Subnet Mask:** The network mask for a trusted peer.

SNMP Trap:

- **SNMP Trap:** Enable SNMP trap or not.
- **Destination:** The IP address for SNMP manager to receive the SNMP trap.
- **Community:** The communicate name for sending the SNMP trap.

CH3 NAT Setting

The Wellgate 2808 can support NAT, two Ethernet ports (router mode) or Bridge mode. Here are the settings for NAT related services.

3-1 DHCP Ser. (DHCP server)

DHCP Srv.	UPnP	Bandwidth	URL Filter	IP Filter	MAC Filter	App Filter	Port Filter	Port Fwd.	
DHCP Server :		<input checked="" type="radio"/> Enable <input type="radio"/> Disable							
Client Range Start IP:		<input type="text" value="192.168.123.1"/>							
Client Range End IP:		<input type="text" value="192.168.123.100"/>							
Default Gateway:		<input type="text" value="192.168.123.123"/>							
Submask:		<input type="text" value="255.255.255.0"/>							
DNS Server 1:		<input type="text" value="168.95.1.1"/>							
DNS Server 2:		<input type="text" value="168.95.192.1"/>							
								Apply	Cancel

Figure 3-1 DHCP server

- **DHCP Server:** Enable DHCP server or not.
- **Client Range Start IP:** specify DHCP client lease start IP
- **Client Range End IP:** specify DHCP client lease end IP
- **Default Gateway:** specify the default gateway
- **Submask:** specify the subnet mask.
- **DNS Server 1:** specify the DNS server.
- **DNS Server 2:** specify the DNS server.

3-2 UPNP (universal plug and play server)

DHCP Srv.	UPnP	Bandwidth	URL Filter	IP Filter	MAC Filter	App Filter	Port Filter	Port Fwd.	
UPnP Server :		<input type="radio"/> Enable <input checked="" type="radio"/> Disable							
								Apply	Cancel

Figure 3-2 UPnP

- **UPNP Server:** Enable UPNP server or not.

3-3 Bandwidth (Bandwidth Control)

By using bandwidth control feature, the user can manage the traffic based on their needs.

DHCP Srv.	UPnP	Bandwidth	URL Filter	IP Filter	MAC Filter	App Filter	Port Filter	Port Fwd.	
Bandwidth Control :									
Bandwidth Control :	<input type="radio"/> Enable <input checked="" type="radio"/> Disable								
Download Bandwidth :	<input type="text" value="0"/> Kbps								
Upload Bandwidth :	<input type="text" value="0"/> Kbps								
Maximum Bandwidth and Reserved Bandwidth :									
Setup Method :	<input checked="" type="radio"/> Percentage <input type="radio"/> specific								
Priority 1 :	<input type="text" value="0"/> %								
Priority 2 :	<input type="text" value="0"/> %								
Priority 3 :	<input type="text" value="0"/> %								
Edit Control List :	<input type="button" value="Edit"/>								
								<input type="button" value="Apply"/>	<input type="button" value="Cancel"/>

Figure 3-3-1 Bandwidth control

Bandwidth Control:

- **Bandwidth Control:** enable bandwidth control or not.
- **Download Bandwidth:** specify total bandwidth for download (unit: kbps). 0 indicates no limitation.
- **Upload Bandwidth:** specify total bandwidth for upload (unit: kbps). 0 indicates no limitation.

Maximum Bandwidth and Reserved Bandwidth:

- **Setup Method:** bandwidth control method, percentage or specify the required bandwidth
 - percentage : total bandwidth
 - ◆ **priority 1:** highest priority percentage
 - ◆ **priority 2:** Normal priority percentage
 - ◆ **priority 3:** low priority percentage

DHCP Srv.	UPnP	Bandwidth	URL Filter	IP Filter	MAC Filter	App Filter	Port Filter	Port Fwd.	
Bandwidth Control :									
Bandwidth Control :	<input type="radio"/> Enable <input checked="" type="radio"/> Disable								
Download Bandwidth :	<input type="text" value="0"/> Kbps								
Upload Bandwidth :	<input type="text" value="0"/> Kbps								
Maximum Bandwidth and Reserved Bandwidth :									
Setup Method :	<input type="radio"/> Percentage <input checked="" type="radio"/> specific								
Priority 1 - Download :	Maximum <input type="text" value="0"/> Kbps, Reserved <input type="text" value="0"/> Kbps								
Priority 2 - Download :	Maximum <input type="text" value="0"/> Kbps, Reserved <input type="text" value="0"/> Kbps								
Priority 3 - Download :	Maximum <input type="text" value="0"/> Kbps, Reserved <input type="text" value="0"/> Kbps								
Priority 1 - Upload :	Maximum <input type="text" value="0"/> Kbps, Reserved <input type="text" value="0"/> Kbps								
Priority 2 - Upload :	Maximum <input type="text" value="0"/> Kbps, Reserved <input type="text" value="0"/> Kbps								
Priority 3 - Upload :	Maximum <input type="text" value="0"/> Kbps, Reserved <input type="text" value="0"/> Kbps								
Edit Control List :	<input type="button" value="Edit"/>								
								<input type="button" value="Apply"/>	<input type="button" value="Cancel"/>

Figure 3-3-2 Bandwidth control

- specific :
 - ◆ **priority 1 - Download:** highest priority download bandwidth
 - ◆ **priority 2 - Download:** normal priority download bandwidth

- ◆ **priority 3 – Download:** low priority download bandwidth
- ◆ **priority 1 – Upload:** highest priority upload bandwidth
- ◆ **priority 2 – Upload:** normal priority upload bandwidth
- ◆ **priority 3 – Upload:** low priority upload bandwidth

Edit Control List		
Priority	Type	Detail
		<input type="button" value="New"/> <input type="button" value="Insert"/> <input type="button" value="Back"/> Total Record: 0

Figure 3-3-3 Edit control list

In order to set up which target is belonged to which priority, the following is the setting method for target’s priority.

➤ IP Target

Create Control List	
Priority :	<input type="text" value="1"/>
Type :	<input type="text" value="IP"/>
Configure Type :	<input checked="" type="radio"/> Unique <input type="radio"/> IP Range
IP Address :	<input type="text" value="none"/>
<input type="button" value="Apply"/> <input type="button" value="Cancel"/> <input type="button" value="Back"/>	

Figure 3-3-4 IP Target 1

Create Control List	
Priority :	<input type="text" value="1"/>
Type :	<input type="text" value="IP"/>
Configure Type :	<input type="radio"/> Unique <input checked="" type="radio"/> IP Range
Start IP :	<input type="text" value="none"/>
End IP :	<input type="text" value="none"/>
<input type="button" value="Apply"/> <input type="button" value="Cancel"/> <input type="button" value="Back"/>	

Figure 3-3-5 IP Target 2

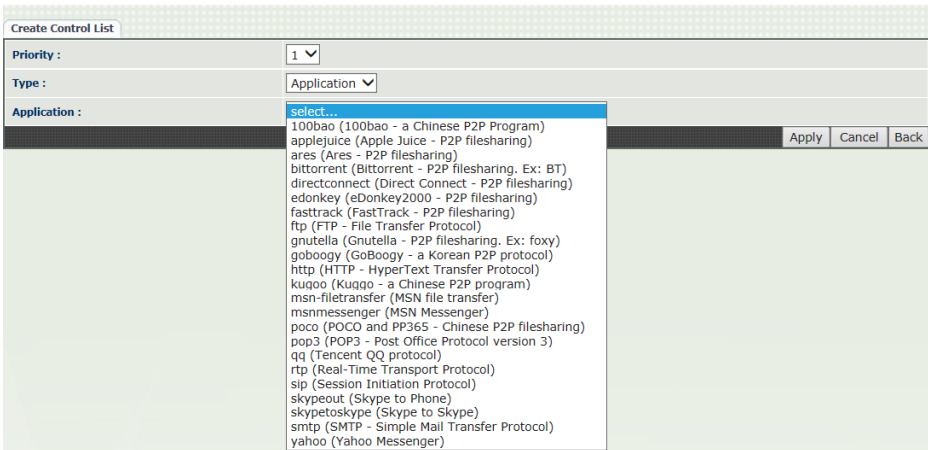
- **Priority:** Priority value for the target
- **Type:** The target type is set to IP
- **Configure Type:** unique IP or a range of IP address
 - Unique:
 - ◆ **IP Address:** the IP address to be set.
 - IP Range:
 - ◆ **Start IP:** The starting IP for a range.
 - ◆ **End IP:** The stopping IP for a range.
- Port Target



Create Control List
Priority : 1
Type : Port
Configure Type : Unique Port Range
Port : none
Protocol : TCP, UDP, BOTH
 Apply Cancel Back

Figure 3-3-6 Port Target

- **Priority:** Priority value for the target.
- **Type:** The target type is set to port number.
- **Configure Type:** unique port number or a range of port number.
- Unique:
 - ◆ **Port:** the port number to be added.
 - ◆ **Protocol:** protocol for the port.
- Port Range:
 - ◆ **Start port:** the starting port number.
 - ◆ **End port:** the stop port number.
 - ◆ **Protocol:** protocol for the port range.
- Application Target



Create Control List
Priority : 1
Type : Application
Application : select...
 100bao (100bao - a Chinese P2P Program)
 applejuice (Apple Juice - P2P filesharing)
 ares (Ares - P2P filesharing)
 bittorrent (Bittorrent - P2P filesharing. Ex: BT)
 directconnect (Direct Connect - P2P filesharing)
 edonkey (eDonkey2000 - P2P filesharing)
 fasttrack (FastTrack - P2P filesharing)
 ftp (FTP - File Transfer Protocol)
 gnutella (Gnutella - P2P filesharing. Ex: foxy)
 goboogy (GoBoogy - a Korean P2P protocol)
 http (HTTP - HyperText Transfer Protocol)
 kuqoo (Kuqoo - a Chinese P2P program)
 msn-filetransfer (MSN file transfer)
 msnmessenger (MSN Messenger)
 poco (POCO and PP365 - Chinese P2P filesharing)
 pop3 (POP3 - Post Office Protocol version 3)
 qq (Tencent QQ protocol)
 rtp (Real-Time Transport Protocol)
 sip (Session Initiation Protocol)
 skypeout (Skype to Phone)
 skypetoskype (Skype to Skype)
 smtp (SMTP - Simple Mail Transfer Protocol)
 yahoo (Yahoo Messenger)
 Apply Cancel Back

Figure 3-3-7 Application Target

- **Priority:** Priority value for the target.
- **Type:** Application
- **Application:** the list for the application.

DSCP target

Create Control List	
Priority :	1
Type :	DSCP
DSCP :	none
<input type="button" value="Apply"/> <input type="button" value="Cancel"/> <input type="button" value="Back"/>	

Figure 3-3-8 DSCP Target

- **Priority:** Priority value for the target.
- **Type:** DSCP value.
- **DSCP:** The DSCP will be mapped to the priority.

The Wellgate 2808 support firewall features as follows.

3-4 URL Filter

DHCP Srv.	UPnP	Bandwidth	URL Filter	IP Filter	MAC Filter	App Filter	Port Filter	Port Fwd.
URL Filter :								
<input checked="" type="radio"/> Enable <input type="radio"/> Disable <input type="button" value="Apply"/>								
				URL				
				<input type="text"/> <input type="button" value="Apply"/> <input type="button" value="Cancel"/>				
<input type="button" value="New"/> Total Record: 0								

Figure 3-4 URL Filter

- **URL Filter:** the specified URL will be blocked.

3-5 IP Filter

DHCP Srv.	UPnP	Bandwidth	URL Filter	IP Filter	MAC Filter	App Filter	Port Filter	Port Fwd.
IP Filter :								
<input checked="" type="radio"/> Enable <input type="radio"/> Disable <input type="button" value="Apply"/>								
				Local IP Address		Protocol		
				<input type="text"/>		TCP UDP BOTH		
				<input type="button" value="Apply"/> <input type="button" value="Cancel"/>		<input type="button" value="New"/> Total Record: 0		

Figure 3-5 IP Filter

- **IP Filter:** The specified IP address to be blocked.
- **Local IP address:** The LAN side IP address to be forwarded.
- **Protocol:** TCP, UDP or both are used for port forward.

3-6 MAC Filter

DHCP Srv.	UPnP	Bandwidth	URL Filter	IP Filter	MAC Filter	App Filter	Port Filter	Port Fwd.
MAC Filter :								
<input checked="" type="radio"/> Enable <input type="radio"/> Disable <input type="button" value="Apply"/>								
				MAC				
				<input type="text"/> <input type="button" value="Apply"/> <input type="button" value="Cancel"/>				
<input type="button" value="New"/> Total Record: 0								

Figure 3-6 MAC Filter

- **MAC Filter:** The MAC address to be blocked.

3-7 APP Filter

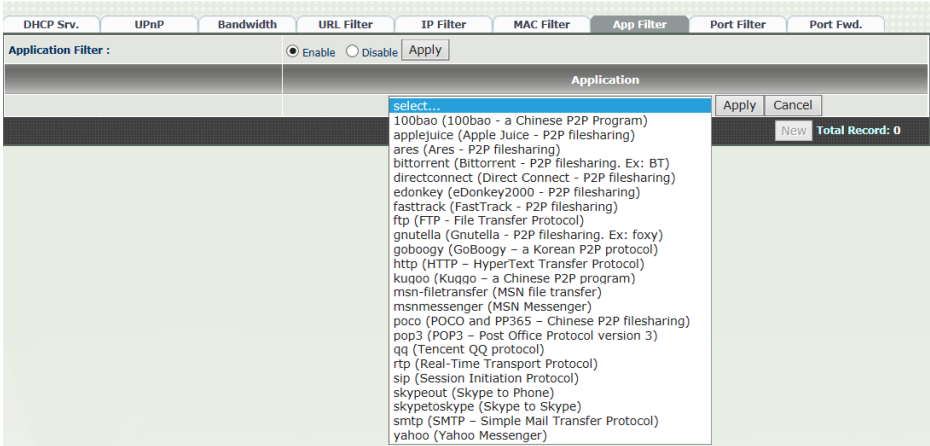


Figure 3-7 App Filter

- **APP Filter:** application to be blocked

3-8 Port Filter

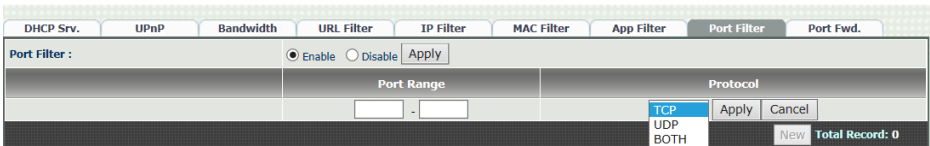


Figure 3-8 Port Filter

- **Port Filter:** enable port Filter or not.
- **Port Range:** Starting and stopping port to be forwarded. If you are using only 1 port, please set up the starting equal to stopping port.
- **Protocol:** TCP, UDP or both are used for port blocked.

3-9 Port Fwd

The wellgate 2808 support port forward feature as follows.

DHCP Srv.	UPnP	Bandwidth	URL Filter	IP Filter	MAC Filter	App Filter	Port Filter	Port Fwd.
Port Forward :								
<input type="radio"/> Enable <input checked="" type="radio"/> Disable <input type="button" value="Apply"/>								
		Port Range	Protocol	Local IP Address		Local Port		
		<input type="text"/> - <input type="text"/>	TCP UDP BOTH	<input type="text"/>		<input type="text"/>	<input type="button" value="Apply"/>	<input type="button" value="Cancel"/>
								<input type="button" value="New"/> Total Record: 0

Figure 3-9 Port Fwd

- **Port Fwd:** enable port forward feature or not.
- **Port Range:** Starting and stopping port to be forwarded. If you are using only 1 port, please set up the starting equal to stopping port.
- **Protocol:** TCP, UDP or both are used for port forward.
- **Local IP address:** The LAN side IP address to be forwarded.
- **Local Port:** The LAN side port to be forwarded. If you are using the port range, this port indicates the starting port.

4-1 SIP parameters setting

SIP	Audio	Tone	NAT Traversal
Session Timer:	<input type="radio"/> Enable <input checked="" type="radio"/> Disable		
Session Expires(sec):			
Min SE(sec):			
PRACK:	None <input type="button" value="v"/>		
SIP Local Port:	8080		
SIP QoS Type:	None <input type="button" value="v"/>		
Accept Proxy Only:	<input checked="" type="radio"/> Yes <input type="radio"/> No		
			Apply Cancel

Figure 4-1 SIP setting

Parameter Description:

- **Session Timer:** Enable session timer or not (RFC 4028)
- **Session Expires (sec):** This is the setting of initial session timer expires time according to RFC4028 - Session Timers in the Session Initiation Protocol.
- **Min SE (sec):** The minimum session timer allowed when receiving a call with session timer value according to RFC 4028.
- **PRACK:** Enable provisioning ACK or not (RFC 3262).
- ◆ None: Disable PRACK.
- ◆ Supported: When select this mode, 100rel will be added to the support list. It indicates Wellgate 2808 can support the PRACK but not mandatory.
- ◆ Require: PRACK is mandatory required.
- **SIP Local Port:** The SIP local service port (default is 8080)
- **SIP QoS Type:** Quality of Service Type for SIP signaling
 - **None:** Not using QoS Tag and not enables QoS.
 - **DiffServ:** Differentiated Services Value. Input DSCP value 0-63 for DSCP.
 - **TOS:** Type of Service which include IP precedence value and TOS.
- **Accept Proxy Only:** Only accept the incoming call from the trusted or registered SIP proxy. **Not accept peer to peer call at this mode. In other words, if you want to configure this gateway at peer to peer mode, this feature should be selected "NO" instead.**

4-2 Audio

SIP	Audio	Tone	NAT Traversal
Codec 1:	G.729A		
Codec 2:	G.711 u		
Codec 3:	G.711 a		
Codec 4:	G.723.1		
Codec 5:	GSM FR		
G.711u Payload Size:	20ms		
GSM Payload Size:	20ms		
G.723 Payload Size:	30ms		Bit Rate: <input type="radio"/> 5.3K <input checked="" type="radio"/> 6.3K
G.711a Payload Size:	20ms		
G.729 Payload Size:	20ms		
Codec Priority:	<input type="radio"/> Local <input checked="" type="radio"/> Remote		
DTMF Relay:	RFC 2833/Fall Back to Inband		
Silence Suppression:	<input type="radio"/> Enable <input checked="" type="radio"/> Disable		
RTP Basic Port:	16384		
RTP QoS Type:	None		
Apply Cancel			

Figure 4-2 Audio setting.

- **Codec 1 to 5:** The preferred codec priority.
- **G.711u Payload Size:** G.711 u-Law payload size.
- **G.711a Payload Size:** G.711 A-law payload size.
- **G.729 Payload Size:** G.729A payload size. It had better to select G.729 as the first priority voice codec because of its reasonable packet bandwidth and acceptable voice quality.
- **GSM Payload Size:** GSM payload size.
- **G.723.1 Payload Size:** G.723.1 payload size. [This codec was used once you are using VSAT as IP communication link and has a long packet delay time as well as limited bandwidth. Please select 6.3 kbps with 90ms payload time to have acceptable voice quality via VSAT.](#)
- **Bit Rate:** G.723.1 bit rate used.
 - ◆ 5.3K bit rate is used
 - ◆ 6.3K bit rate is used
- **Codec Priority:** Selection order to match the remote SDP for codec selection. [Codec 1 has the first priority order to use once a call was established during codec negotiation period between two end devices.](#)
 - Local SDP Order:** Use local SDP order to match codec.
 - Remote SDP Order:** Use Remote SDP order to match codec
- **DTMF Relay:**
 - In-Band DTMF:** use inband DTMF instead of out of band.
 - RFC 2833(fall back to SIP-INFO):** Use RFC 2833 if the SDP negotiation could be done. Or use SIP INFO for DTMF relay.

SIP INFO: Use SIP-INFO DTMF relay

RFC 2833(fall back to Inband): Use RFC 2833 if the SDP negotiation could be done. Or use inband DTMF transmission.

- **Silence Suppression:**

Enable: Start the voice activity (silence) detection when detect silence for 60 seconds.

Disable: Send silence packet as normal voice packet (no silence detection).

- **RTP Basic Port:** The RTP starting port. Each channel will be added additional 10 ports. For example, the RTP basic port is 16384, therefore call 1 will use 16384 while call 2 will use 16394 and etc.

- **RTP QoS Type:** IP QoS tag for RTP stream.

DiffServ: The differentiated service QoS tag will be used. Input DSCP value 0-63 for DSCP.

TOS: Type of Service which include IP precedence value and TOS.

4-3 Tone

The setting page is used to set up the tone to be generated. **When FXS port is in talk mode and received the “bye” signal from IP side, or remote device dropped call while FXS port analog phone was still in OFF Hook, this FXS port will send busy tone to analog phone interface.**

SIP		Audio		Tone		NAT Traversal				
Country Template		Select Country-		Use						
Tone \ Setting	Signal Type	Freq 1 (0,300~1980Hz)	Freq 2 (0,300~1980Hz)	Level 1 (0~63db)	Level 2 (0~63db)	On 1 (0~10230ms)	Off 1 (0~10230ms)	On 2 (0~10230ms)	Off 2 (0~10230ms)	Deviation (0~30)
Dial	Continuous	350	440	13	13	500	0	0	0	10
Stutter Dial	Cadence	350	440	13	13	1000	100	0	0	10
Ring Back	Cadence	440	480	13	13	1000	2000	0	0	10
Busy	Cadence	480	620	13	13	500	500	0	0	10
Call Waiting	Cadence	350	440	13	13	250	250	250	0	10
ROH	Continuous	1400	1750	13	13	10000	0	0	0	10
Warning	Cadence	900	0	13	13	500	0	0	0	10
Holding	Cadence	900	0	13	13	500	500	0	0	10
Disconnect 1	Cadence	480	620	13	13	500	500	0	0	10
Disconnect 2	Cadence	480	620	13	13	250	250	0	0	10

Apply Cancel

Figure 4-3 Tone setting

Please use Country Template to select the country profile which will be applied. Click “Use” icon to load those country tone parameters to system and change if it is necessary. **For those countries are not showed in the list, please select a close country’s tone parameters and modify it to match your country. You can send an email with the tone definition to Welltech if you would like to put your country tone table into the list.**

4-4 NAT Traversal

WellGate 2808 supports the following NAT traversal methods.



Figure 4-4 NAT Traversal

- NAT Traversal:
 - ◆ **Disable:** Disable NAT traversal features.
 - ◆ **STUN (Type 1,2):** Enable STUN for NAT traversal. Since STUN can be used only for type 1 and type 2 NAT server, it is recommended to use this option. When STUN client detect the used NAT is type 3 NAT, it will stop the STUN feature.
 - ✧ **STUN Server:** STUN Server IP address.
 - ◆ **STUN (All):** No matter which NAT type server are used, STUN is always to be used for NAT traversal.
 - ✧ STUN Server: STUN Server IP address.
 - ◆ **UPNP:** Enable UPnP client for NAT traversal. Please note that the IP sharing box need to support UPNP feature.
 - ◆ **Behind NAT:** Use DMZ for NAT traversal.
 - ✧ **IP Sharing Address:** public IP sharing address. You need to specify the port mapping or DMZ for all required port.

CH5 VOIP Advance

5-1 SIP

SIP	Audio	Ring
SIP Hold Type:	Send only <input type="button" value="v"/>	
SIP Compact Form:	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Session Refresher:	UAC <input type="button" value="v"/>	
SIP T1(msec):	500 <input type="text"/>	
SIP T2(msec):	4000 <input type="text"/>	
SIP T4(msec):	5000 <input type="text"/>	
Invite Linger Timer(msec):	32000 <input type="text"/>	
General Linger Timer(msec):	32000 <input type="text"/>	
Cancel General No Response Timer(msec):	5000 <input type="text"/>	
General Request Timeout Timer(msec):	5000 <input type="text"/>	
Cancel Invite No Response Timer(msec):	10000 <input type="text"/>	
Provisional Timer(msec):	180000 <input type="text"/>	
First Response Timer(sec):	5 <input type="text"/>	
MWI Subscript Expires(sec):	600 <input type="text"/>	
Line Congestion Code:	600 <input type="text"/>	
SIP-Info Flash Mode:	<input type="radio"/> Enable(signal=16) <input type="radio"/> Enable(signal=hf) <input checked="" type="radio"/> Disable	
		<input type="button" value="Apply"/> <input type="button" value="Cancel"/>

Figure 5-1 SIP

Parameter Description:

- **SIP Hold Type:** SIP on hold message sending method.
 - **Send Only:** Set up the SDP media to **sendonly** when send an on-hold SIP message.
 - **0.0.0.0:** Set up the SDP connection to 0.0.0.0 when send an on-hold SIP message.
 - **Inactive:** Set up the SDP media to inactive when send an on-hold SIP message.
- **SIP Compact Form:** Enable SIP compact form or not. When enable this feature, the connected SIP proxy is required to support compact form.
- **Session Refresher:** Who will send dialog keep alive message (re-invite or update).
 - ◆ UAC: User Agent Client will do the refresh (default setting).
 - ◆ UAS: User Agent Server will do the refresh.
- **SIP T1 (msec):** T1 determines several timers as defined in RFC3261. For example, when an unreliable transport protocol is used, a Client Invite transaction retransmits requests at an interval that start at T1 seconds and doubles after every retransmission. A Client General transaction retransmits requests at an interval that starts at T1 and doubles until it reaches T2. (Default Value: 500ms)

**

- **SIP T2 (msec):** Determines the maximum retransmission interval as defined in RFC3261. For example, when an unreliable transport protocol is used, general requests are retransmitted at an interval which starts at T1 and doubles until reaches T2. If a provisional response is received, retransmission continue but at an interval of T2. (Default Value: 4000ms) **
- **SIP T4 (msec):** T4 represents the amount of time the network takes to clear message between client and server transactions as defined in RFC3261. For example, when working with an unreliable transport protocol, T4 determines the time that UAS waits after receiving an ACK message and before terminating the transaction. (Default Value: 5000) **
- **Invite Linger Timer:** After sending an ACK for an INVITE final response, a client cannot be sure that the server has received the ACK message. The client should be able to retransmit the ACK upon receiving retransmissions of the final response for this timer. This timer is also used when a 2xx response is sent for an incoming Invite. In this case, the ACK is not part of the Invite transaction.
- **General Linger Timer:** After a UAS sends a final response, the UAS cannot be sure that the client has received the response message. The UAS should be able to retransmit the response upon receiving retransmissions of the request based on this timer.
- **Cancel General No Response Time (msec):** When sending a CANCEL request on a General transaction, the User Agent waits cancel General No Response Timer milliseconds before timeout termination if there is no response for the cancelled transaction(Default Value: 10000ms).**
- **General Request Timeout Timer (msec):** After sending a General request, the User Agent waits for a final response general Request Timeout Timer milliseconds before timeout termination (in this time the User Agent retransmits the request every T1, 2*T1,...T2,...milliseconds)**
- **Cancel Invite No Response Timer (msec):** When sending a CANCEL request on an Invite request, the User Agent waits this timer before timeout termination if there is no response for the cancelled transaction.
- **Provisional Timer (msec):** The provisionalTimer is set when receiving a provisional response on an INVITE transaction. The transaction will stop retransmissions of the INVITE request and will wait for a final response until the provisionTimer expires. If you set the provisionTimer to 0, no timer is set. The INVITE transaction will wait indefinitely for the final response.
- **First Response Timer (msec):** When sending a request out, the User Agent waits this timer for any response received from UAS. If timer is expired and no any SIP message is received, the User Agent will think the request is failed. The default is 5 seconds.

- **MWI Subscript Expires (sec):** You can Enable or Disable the MWI subscribe. The default is 600 sec. If a new voice mail is arrived, the stutter tone will be used instead of regular dial tone. This feature is dedicate to FXS only.
- **Line Congestion Code:** when callee's end system was contacted successfully but the callee is busy and does not wish to take the call at this time, the system wills response the code, default is 600.
- **SIP-Info Flash Mode:** when you enable the feature, system will make flash key to send SIP message by sip-info.
 - ◆ **Signal=16:** send signal 16 on info message.
 - ◆ **Signal=hf:** send signal hf on info message.
 - ◆ **Disable:** disable this function.

5-2 Audio

The setting page includes the device related audio settings.

SIP	Audio	Ring
RFC 2833 Payload Type:	101	▼
DTMF Send On Time(msec):	70	
DTMF Send Off Time(msec):	70	
DTMF Detect Min On Time(msec):	60	
DTMF Detect Min Off Time(msec):	60	
DTMF Relay Volume:	0 dBm	▼
T.38 Fax Volume:	-12 dBm	▼
T.38 Redundant Depth:	2	▼
T.38 ECM:	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	
Min Jitter Buffer(msec):	60	
Max Jitter Buffer(msec):	150	
Max Echo Tail Length(G.168):	128ms	▼
Jitter Opt. Factor:	7	▼
Impedance:	Global	▼
		Apply Cancel

Figure 5-2 Audio setting

- **RFC 2833 Payload Type:** 96 or 101. It is recommended to use 101.
- **DTMF Send On Time(msec):** When generate DTMF, the DTMF on time will be sent (default value is 70 ms)
- **DTMF Send Off Time(msec):** When generate DTMF, the DTMF off time will be sent (default value is 70 ms)
- **DTMF Detect Min on Time (msec):** The minimum DTMF on time will be processed as a regular DTMF event. Smaller than it will be ignored. The default value is 60ms.
- **DTMF Detect Min off Time (msec):** The minimum DTMF off time for the same DTMF value. Smaller than it and the new DTMF digit is the

same as previous one will be handled as 1 digit only.

- **DTMF Relay Volume:** The DTMF relay volume.
- **T.38 Fax Volume:** The T.38 fax relay volume.
- **T.38 Redundant Depth:** The T.38 redundant packet depth. It could 0 (no redundant), 1 or 2. It is recommended to set up to 2.
- **T.38 ECM:** The T.38 error correction mode. Default value is ON.
- **Min Jitter Buffer (msec):** The minimum delay time of Jitter buffer.
- **Max Jitter Buffer (msec):** The Maximum delay time of Jitter buffer.
- **Max Echo Tail Length (G.168):** Enable the echo cancellation feature. The default setting is "128ms".
- **Jitter Opt. Factor:** Jitter buffer dynamic factor for optimize. Please set to 7 unless under Welltech's instruction to change.
- **Impedance:** selected analog phone's impedance.

5-3 Ring

The ring cadence, voltage and frequency for the phone.

SIP	Audio	Ring
Ring Setting		
Frequency (10~70Hz):	<input type="text" value="20"/>	
Ring On (0~8000ms):	<input type="text" value="1000"/>	
Ring Off (0~8000ms):	<input type="text" value="2000"/>	
Ring Level (10~95volt):	<input type="text" value="94"/>	
		Apply Cancel

Figure 5-3 Ring setting

- ◆ **Frequency (10~70HZ):** Specify the ringing frequency value (default is 20HZ)
- ◆ **Ring on (0~8000ms):** Specify the ringing on value (default is 1000msec)
- ◆ **Ring off (0~8000ms):** Specify the ringing off value (default is 2000msec)
- ◆ **Ring level (10~95volt):** Specify the ringing level (default is 94 volt)

CH6 Dialing Plan

6-1 General

General	Dialing Rule	Digit Manipulation	Phone Book
First Digit Time Out(sec):	<input type="text" value="20"/>		
Inter Digit Time Out(sec):	<input type="text" value="5"/>		
End of Digit:	<input type="text" value="#"/>		
Retrieve Number:	<input type="text" value="*#"/>		
			<input type="button" value="Apply"/> <input type="button" value="Cancel"/>

Figure 6-1 General setting

- **First Digit Time Out:** Specify the duration of dial waiting when the receiver is off hook. The range is 1~60 sec.
- **Inter Digit Time Out:** Specify the interval of input digits, if the interval is over the setting, the system will end the dial and send out the DTMF. The limitation range is 1~10sec.
- **End of Digit:** The assigned key will be treated as end of dial.
- **Retrieve Number:** FXS will retrieve transferred line, if FXS port makes transfer to other devices but the devices no answer or go into voice mail. You can press the code to get back line. Default is ``*#``.

6-2 Dialing Rule

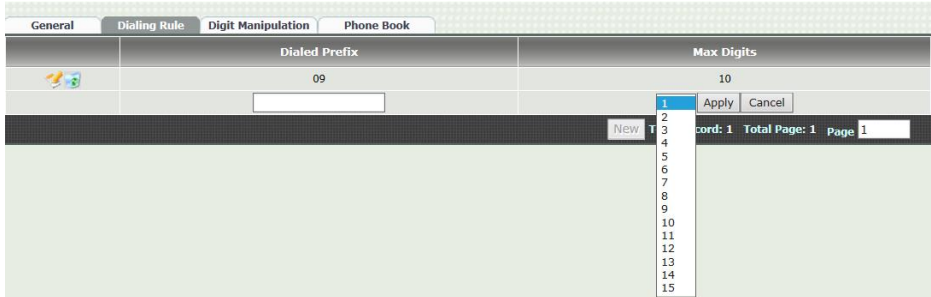


Figure 6-2 Dialing Rule setting

Dialing rule is used to speed up the dialing procedure. Some user doesn't like to use the end of dialing digit such as "#", the administrator can use dialing rule instead. The longest prefix will be matched first.

- **Dialed Prefix:** The prefix to be matched.
- **Max Digits:** The digits will be received based on the Dialed Prefix.

The following is an example for dialing rule:

Mobile call is started with 09 and it is 10 digits.

Long distance call is started with 0 and it is 10 digits.

International call is started with 00 and its max digit should be less than 32

The others are local call and 8 digits.

Emergency call is started with 1 and 3 digits.

The Dialing rule can be set up as follows:

Prefix, max digits

09, 10

0, 10

00, 15

1, 3

2, 8

3, 8

4, 8

5, 8

6, 8

7, 8

8, 8

9, 8

6-3 Digit Manipulation

The Digit Manipulation will be processed based on prefix and DM group after the DNIS is determined.

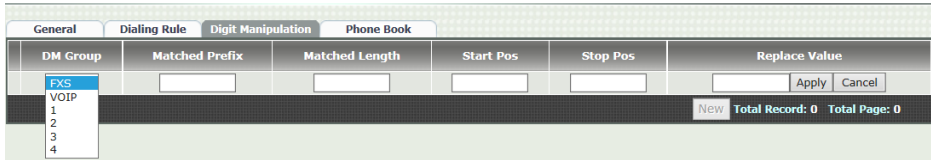


Figure 6-3 Digit Manipulation setting

- **DM Group:** Different DM group have different case to be used.
 - ◆ **FXS:** This DM group is used for FXS dialing out.
 - ◆ **VOIP:** This DM group is used for VOIP incoming call. After the DNIS is collected in 2 stage dialing or 1 stage dialing DNIS, this DM group will be processed before enter the routing procedure.
 - ◆ **1-4:** These DM groups are used for backup routing purpose. When a backup routing is used, the administrator can select a DM group to be processed before start the backup route.
- **Matched Prefix:** The prefix to be matched for DM. The longest prefix will be matched first.
- **Matched Length:** Set to 0 for ignoring the length. The other 1-32 are the length to be matched as a condition.
- **Start Pos:** The start position to be replaced.
- **Stop Pos:** The stop position to be replaced.
- **Replace Value:** The value to replace.

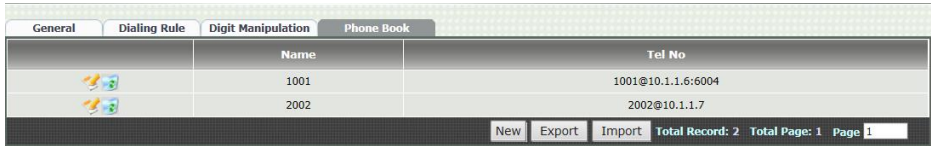
Example of Digit Manipulation Settings:


Prefix	Len	Start Pos	Stop Pos	Replace Value	Test DNIS	Result DNIS
886	0	0	0	002	8862123456	0028862123456
886	12	0	0	002	8862123456	8862123456
886	0	2	5	002	8862123456	8800223456
886	0	30	30	002	8862123456	8862123456002
886	0	1	6		8862123456	83456

Note: The DM Group 1~4 can have the feature to delay the dialing by added a "p" into the replace value. It might be useful, if you want to wait for a while and dial the second part of DTMF for calling out. Each "p" represents 1 seconds delay. For example: 822265699ppp1234; it will first dial 82265699 and wait to 3 sec to dial 1234.

6-4 Phone Book

Phone Book is used for peer to peer call.



General		Dialing Rule		Digit Manipulation		Phone Book	
	Name		Tel No				
	1001		1001@10.1.1.6:6004				
	2002		2002@10.1.1.7				

New Export Import Total Record: 2 Total Page: 1 Page 1

Figure 6-4 Phone Book setting

- **Name:** This field supports **called number** only. If you enter words or text here, it will routes to proxy server automatically.
- **Tel No:** Enter called number and IP address. Please follow this sample of picture, as the format of "number@uri:port". (default port is 5060)
- **Export:** To backup the phone book records.
- **Import:** To reload setting of phone book.

CH7 TEL Setting

The Tel setting includes each line number and SIP proxy settings.









FXS Line	SIP Proxy	Caller ID	Others	
	Line ID	State	TEL No	Hot Line TEL
	1	Active	1001	
	2	Active	1002	
	3	Active	1003	
	4	Active	1004	
	5	Active	1005	
	6	Active	1006	
	7	Active	1007	
	8	Active	1008	

Figure 7-0 FXS setting

- **Line ID:** FXS line (TEL1 to TEL8) which refer to RJ-11 ports 1 to 8.
- **State:** The line is active or not.
- **TEL No:** The telephone number.
- **Hotline TEL:** If hot line is set up, this field shows the hot line number.

7-1 FXS line

Modify Line Setting

Line ID : 1

Line Type : FXS

Line State : Active Inactive

Forward Reason : Unconditional Busy No Answer

Forward TEL :

No Answer Timeout(sec):

Call Waiting :

Reject Anonymous Call: Yes No

Hot Line: Enable Disable

Hot Line TEL :

Polarity Reversal Generation : Yes No

Current Drop Generation : Yes No

Input(Encode) Gain:

Output(Decode) Gain:

FAX Relay :

Voice Mail Subscription: Enable Disable

Caller ID Mode :

SIP Caller ID Mode :

Register Type :

TEL No:

User ID:

User Password:

Display Name:

Figure 7-1 FXS setting

- **User ID:** FXS Line number (TEL1 to TEL8).
- **User Type:** The line type, FXO or FXS. If this RJ-11 connector color is

Black, then it is a FXS port and here should be showed as FXS.

- **Line State:** Set up to active if you would like to use this line. Otherwise, set to Inactive.
- Forward reason:
 - ◆ **Unconditional forward:** forward the call all the time.
 - ◆ **Busy forward:** Forward the call when phone is busy.
 - ◆ **No answer forward:** forward the call when the call does not answered after no answer timeout.
 - ◆ **Forward TEL:** The forward telephone number for the selected reason.
- **No answer timeout (sec):** The no answer timeout will be used (default is 120 sec).
- **Call waiting:** Enable call waiting or not. When disable call waiting features, the second incoming call will be rejected.
- **Reject Anonymous Call:** Reject the anonymous incoming call or not
- **Hot line:** Enable to disable hot line feature.
- **Hot line TEL:** The number to be dialed automatically after the user picks up the phone.
- **Polarity Reversal generation:** Enable Polarity Reversal for FXS as billing signal or not. When a FXS calls to VOIP and answered by the VOIP, Wellgate 2808 will generate reverse signal at tip/ring signal of FXS as a billing start. When VOIP side disconnect first, Wellgate 2808 will reverse back as a billing stop signal.
- **Current Drop generation:** Enable loop current drop (drop to 0 voltage between tip and ring) when VOIP is disconnected or not.
- **Input(Encode)Gain:** Adjust the volume from FXS to VOIP (default is 0 dB).
- **Output(Decode)Gain:** Adjust the volume from VOIP to FXS (default is 0 dB)
- **FAX Relay:** Enable T.38 Fax Relay or not.
- **Voice mail subscription:** enable voice mail subscription (MWI) or not.
- **Caller ID mode:**
 - ◆ **Inhibit:** don't send caller ID to analog phone.
 - ◆ **Transparent:** send caller ID to analog phone.
- **SIP caller ID mode:**
 - ◆ **Inhibit:** don't send caller ID to VoIP SIP.
 - ◆ **Transparent:** send caller ID to VoIP SIP.
- **Register Type:**
 - ◆ **Register:** register to proxy. If it is not registered to SIP proxy, the FXS line still can use SIP trunk for VOIP call.
 - ◆ **Predefine:** When it is set up to predefine, Wellgate 2808 will not send register message out.
 - ◆ **Internal:** When it is set up to internal, Wellgate 2808 does not send register message out, the FXS line still can use SIP trunk for VOIP call or call locally.

- **TEL No:** The registrar telephone number.
- **User ID:** The SIP user ID for register and call making.
- **User Password:** The SIP password for register and call making.
- **Display Name:** The SIP display name.

7-2 SIP Proxy

The SIP proxy server defined here is dedicated used for FXS lines.

FXS Line	SIP Proxy	Caller ID	Others
Domain :	<input type="text"/>		
Primary Proxy Server:	<input type="text" value="10.1.1.2"/>		
Primary Proxy Server Port:	<input type="text" value="5060"/>		
Outbound Proxy Server:	<input type="text"/>		
Outbound Proxy Server Port:	<input type="text" value="5060"/>		
Primary Proxy Server Keep Alive:	<input type="radio"/> Enable <input checked="" type="radio"/> Disable		
Keep Alive Time (sec):	<input type="text"/>		
Secondary Proxy:	<input type="radio"/> Enable <input checked="" type="radio"/> Disable		
Secondary Proxy Server:	<input type="text"/>		
Secondary Proxy Server Port:	<input type="text"/>		
Secondary Outbound Proxy Server:	<input type="text"/>		
Secondary Outbound Proxy Server Port:	<input type="text"/>		
Register Expires:	<input type="text" value="120"/>		
Secondary Proxy Server Keep Alive:	Enable Disable		
Keep Alive Time (sec):	<input type="text"/>		
Proxy Network Type:	<input checked="" type="radio"/> IPv4 <input type="radio"/> IPv6		
			Apply Cancel

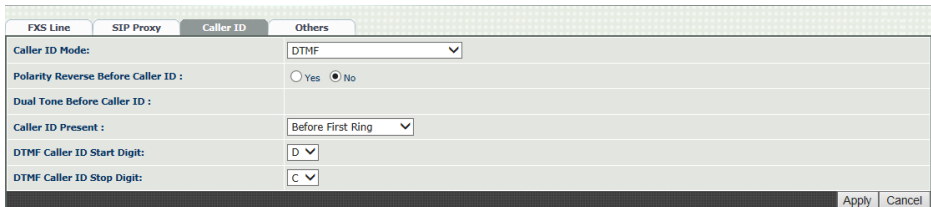
Figure 7-2 TEL setting

- **Domain:** The SIP domain for register or call making.
- **Primary proxy server:** Primary SIP registrar server address.
- **Primary proxy server port:** Primary SIP registrar server port number.
- **Outbound Proxy server:** Primary outbound proxy server address.
- **Outbound Proxy server port:** Primary outbound proxy server port number.
- **Primary Proxy server keep Alive:** using through NAT and keep the port.
- **Keep Alive Time (sec):** Specify of times send sip register message to proxy server.
- **Secondary Proxy:** Enable secondary proxy or not. When enable it, the primary and secondary proxy will be registered at the same time.
- **Secondary proxy server:** Secondary SIP registrar server address.
- **Secondary proxy port:** Secondary SIP registrar server port number.
- **Secondary outbound Proxy server:** Secondary outbound proxy server address.

- **Secondary outbound Proxy server port:** Secondary outbound proxy server port number.
- **Register Expire:** SIP register time to live.
- **Primary Proxy server keeps Alive:** using through NAT and keep the port.
- **Keep Alive Time (sec):** Specify of times send sip register message to proxy server.
- **Proxy Network Type:** the sip server IP is IPv4 or IPv6.

7-3 Caller ID

The caller ID stand for the caller’s ID which was received by analog telephone set while there is an incoming call to this FXS port. There are several caller ID modes to send to analog telephone set which must equip with the same caller ID mode feature in order to display ID at analog telephone set.



The screenshot shows a configuration window with four tabs: 'FXS Line', 'SIP Proxy', 'Caller ID', and 'Others'. The 'Caller ID' tab is active. The settings are as follows:

- Caller ID Mode:** DTMF (dropdown menu)
- Polarity Reverse Before Caller ID :** No (radio button selected)
- Dual Tone Before Caller ID :** (empty field)
- Caller ID Present :** Before First Ring (dropdown menu)
- DTMF Caller ID Start Digit:** D (dropdown menu)
- DTMF Caller ID Stop Digit:** C (dropdown menu)

Buttons for 'Apply' and 'Cancel' are located at the bottom right of the window.

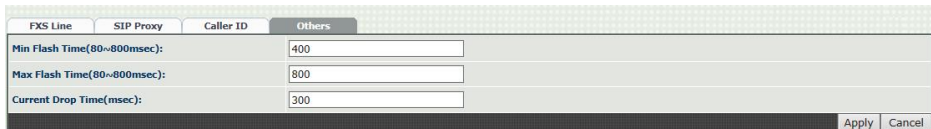
Figure 7-3 Caller ID setting

- **Caller ID Mode:** Caller ID mode to be used for phone (i.e. FSK Bellcore, FSK ETSI, and DTMF).
- **Polarity Reverse before caller ID:** start polarity reverse at tip/ring before sending the caller ID to analog telephone set.
- **Dual tone before caller ID:** Send DTMF tone before caller ID (for FSK ETSI use only).
- **Caller ID present:** The timing to send the caller ID. For instance, it was sent Before first ring, after first ring, or after first short ring.
- **DTMF caller ID start digit:** specify the DTMF caller ID start digit (default is D, the range is A to D and #)
- **DTMF caller ID stop digit:** specify the DTMF caller ID start digit (default is C, the range is A to D and #).

7-4 Others

Flash time feature was used to detect **Hook Flash signal** comes from analog telephone set. Flash time may be different from different analog telephone set. This webpage page is to configure an acceptable time range to recognize effective Hook Flash signal.

On the other hand, the **loop current drop** feature is to generate an interval time while the voltage between tip and ring was dropped to 0. This drop time is frequently used between 300 to 500 msec. This **loop current drop** feature was happened when the remote end device drop the call and this FXS gateway receive "Bye" SIP signal to indicate a drop call.



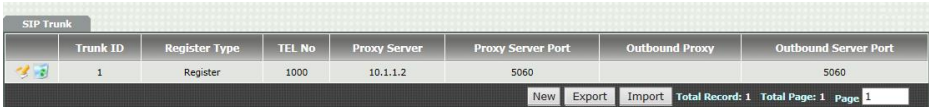
FXS Line	SIP Proxy	Caller ID	Others
Min Flash Time(80~800msec):			
<input type="text" value="400"/>			
Max Flash Time(80~800msec):			
<input type="text" value="800"/>			
Current Drop Time(msec):			
<input type="text" value="300"/>			
<input type="button" value="Apply"/> <input type="button" value="Cancel"/>			


Figure 7-4 Others setting

- **Min flash time(80~800msec):** Specify the value of the flash (low), If the phone-set's flash time is shorter than the Flash Low setting, the flash signal will be ignored.
- **MAX flash time (80~800msec):** Specify the value of the flash (high), if the phone-set's flash time is longer than the Flash high setting, the flash signal will be handled as hang-up.
- **Current Drop Times (msec):** Specify the value of the loop current drop times (generate – for FXS / detect – for FXO).

CH8 SIP Trunk

The administrator needs to set up the SIP trunk for VOIP outgoing call and incoming call. There are up to 24 SIP trunk can be used for whole system.



SIP Trunk							
	Trunk ID	Register Type	TEL No	Proxy Server	Proxy Server Port	Outbound Proxy	Outbound Server Port
	1	Register	1000	10.1.1.2	5060		5060

New Export Import Total Record: 1 Total Page: 1 Page 1

Figure 8-0 SIP Trunk setting

- **Trunk ID:** SIP trunk ID 1 to 24.
- **Register Type:** Register type is predefine or register.
- **TEL No:** The Tel no for the SIP account.
- **Proxy Server:** The SIP proxy server.
- **Proxy Server port:** The SIP proxy server port.
- **Outbound Proxy:** The SIP outbound proxy server.
- **Outbound Server Port:** The SIP outbound proxy server port.
- **Export:** To backup the SIP Trunk records.
- **Import:** To reload setting of SIP Trunk.

8-1 Create SIP Trunk

Modify SIP Trunk	
Trunk ID :	1
Register Type :	<input checked="" type="radio"/> Register <input type="radio"/> Predefine
Domain :	<input type="text"/>
Proxy Server:	10.1.1.2
Proxy Server Port:	5060
Outbound Proxy Server:	<input type="text"/>
Outbound Proxy Server Port:	5060
Register Expires:	120
TEL No:	1000
User ID:	1000
User Password:	****
Display Name:	1000
Reject Anonymous Call:	<input type="radio"/> Yes <input checked="" type="radio"/> No
Outgoing Caller ID:	
- Display Name:	SIP Display Name
- User ID:	SIP User ID
Keep Alive:	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Keep Alive Time (sec):	
Proxy Network Type:	<input checked="" type="radio"/> IPv4 <input type="radio"/> IPv6
<input type="button" value="Apply"/> <input type="button" value="Cancel"/> <input type="button" value="Back"/>	

Figure 8-1 SIP Trunk page

- **Trunk ID:** SIP trunk ID 1-24.
- **Register Type:** Whether this account need register or not.
 - ◆ **Register:** When it is set to register, Wellgate 2808 will send REGISTER message to SIP proxy server for registration.
 - ◆ **Predefine:** When it is set to predefine, Wellgate 2808 will NOT send REGISTER message out.
- **Domain:** The SIP domain for register or call making.
- **Proxy Server:** SIP registrar server address.
- **Proxy Server Port:** SIP registrar server port number.
- **Outbound Proxy Server:** outbound proxy server address.
- **Outbound Proxy server port:** outbound proxy server port number.
- **Register Expires:** the default register expires for negotiation.
- **TEL No:** The registrar telephone number.
- **User ID:** The SIP user ID for register and call making.
- **User Password:** The SIP password for register and call making.
- **Display Name:** The SIP display name.
- **Reject Anonymous Call:** Reject the anonymous call.
- **Outgoing Caller ID:** The outgoing SIP caller ID mode.
 - ◆ **Display Name:** The display name will be set up according to the following type.
 - ◆ **None:** No display name will be used.
 - ◆ **SIP display name:** The display name will be the Display Name set in this SIP trunk.
 - ◆ **SIP user ID:** If the SIP user ID is set, the SIP user ID set in this SIP trunk will be used and the domain/SIP proxy will be the host



part. The SIP FROM header's URL will be the following form.
[SIP_User_ID@Domain](#) or [SIP_User_ID@SIP_Proxy_Server](#).

- **Keep Alive:** Enable or Disable it.
- **Keep Alive Time (sec):** Specify of times to send sip register message to proxy server.
- **Proxy Network Type:** the sip server IP is IPv4 or IPv6.

Note: please don't delete sip trunk, even it is not be used right now, because it has to be used with Route plan.

CH9 Route Plan

The core of Wellgate 2808 is the routing policy. The policy is based on incoming call type/target, length and prefix to determinate the outgoing call process. For VOIP incoming call, it can send to FXS interface and vice versa.

For FXS interface, it could be routed to VOIP and vice versa. You can ignore the routing plan if you don't need it for FXS interface.

Route Plan					
	Incoming Call Type	Matched Prefix	Matched Incoming List	Matched Length	Outgoing Type
	FXS Default Route		TEL 1,2,3,4,5,6,7,8	0	VOIP
	VOIP Default Route		1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24	0	FXS

New Total Record: 2 Total Page: 1 Page 1

Figure 9-0 Route Plan page

- **Incoming Call Type:** Incoming call type (from VOIP or FXS).
- **Matched Prefix:** matched DNIS (called number) prefix.
- **Matched Incoming List:** matched DNIS incoming interface target.
- **Matched Length:** matched DNIS (called number) length.
- **Outgoing Type:** The outgoing call type (FXS or VOIP).

9-1 Create Route Plan

Click Route Plan and Click new to create a new routing policy.

Create Route Plan	
Incoming Call Type :	VOIP
Matched Prefix :	
Matched Incoming List :	
Matched Length :	
No Answer Timeout :	
Primary Route	
Outgoing Type :	FXS
Hunting Type :	Cyclic Ring
Routing List :	01. TEL1 02. TEL2 03. TEL3 04. TEL4 05. TEL5 06. TEL6 07. TEL7 08. TEL8
Hunting Cycle :	1
DM Group :	None
Backup Route	
Backup Route Active :	<input checked="" type="radio"/> Active <input type="radio"/> Inactive
Outgoing Type :	FXS
Hunting Type :	Cyclic Ring
Routing List :	01. TEL1 02. TEL2 03. TEL3 04. TEL4 05. TEL5 06. TEL6 07. TEL7 08. TEL8
Hunting Cycle :	1
Reroute DM Group :	None
<input type="button" value="Apply"/> <input type="button" value="Cancel"/> <input type="button" value="Back"/>	

Figure 9-1 Route Plan setting

- **Incoming Call Type:** Incoming call type.
 - **VOIP:** The incoming SIP call type.
 - **FXS:** The FXS extensions incoming call type.
- **Matched Prefix:** matched DNIS (called number) prefix.
- **Matched Incoming List:** matched DNIS incoming interface target.
 - For FXS incoming call type, the incoming target will be the line ID (T1 to T24). Only the call is coming from the selected line will be accepted for this route.
- **Matched Length:** matched DNIS (called number) length. For ignoring the length, please set up to 0.
- **No Answer Timeout:** How long the hunting will continue to next when the called target doesn't answer.

Create Route Plan>Primary Route

- **Outgoing Type:** Outgoing call type (FXS or VOIP)
- **Hunting Type:** The hunting method will be used for this route.
 - Priority Ring: The call will be hunted based on the routing list order one by one.
 - Cyclic Ring: The call will be hunted based on the cyclic basis. This is the recommended method.
- **Routing List:**
 - The routing target list will be used for this route.
- **DM Group:** Select DM group 1 to 4 in case it requires a DM (for example remove the prefix) before to make the call.

Create Route Plan>Backup Route

- **Backup Route Active:** Active the backup route or not.
- **Outgoing Type:** The backup route outgoing call type.
- **Hunting Type:** The hunting method will be used for this route. Please refer to the Primary Route.
- **Routing List:** The backup routing target list will be used for this route.
- **Route DM Group:** Select DM group 1 to 4 in case the backup required the DM before to make the call. The DNIS is unchanged by the primary route DM and same as the DNIS before routing. For example, the DNIS is 886282265699 and primary DM group remove 886 and use it (DNIS = 282265699) to make call. When backup route is started, the DNIS is still unchanged as 886282265699. This makes the DM easy to predict and implement.

Two special default routes, “[VOIP Default Route](#)” and “[FXS default Route](#)”, are used as the default routing when there is not any other routing are matched. It is not recommended to disable these two default routes. The FXS default route is used when a FXS outgoing call’s default routing. VOIP default route is used for a VOIP incoming call’s default routing.

CH10 Status

Wellgate 2808 provides the system status here.

Device Status	Line Status	SIP Trunk Status
Model:	WG2808	
MAC-Address:	WAN: 00:0A:80:FF:08:AA LAN: 00:01:AB:FF:08:AB	
Network Type:	Fixed IP	
IP-Address:	WAN: 192.168.16.83 LAN: 192.168.123.123	
IPV6 IP-Address:		
Firmware:	wg28.1.01_2DSP_140919b.bin	

Figure 10-0 Status page

10-1 Device Status

[See the figure 10-0 Status page.](#)

- **Model:** The model number, WellGate 2808.
- **MAC-Address:** The MAC address of Wellgate 2808.
- **Network Type:** The Network Interface Type Settings.
- **IP-Address:** IP address is using.
- **IPV6 IP-address:** display IPV6 address.
- **Firmware:** The firmware version and release information.

10-2 Line Status

This page shows each line's current status.

Device Status		Line Status	SIP Trunk Status
Line	Account	Registered	Call State
1	1001	Not Register	Idle
2	1002	Not Register	Idle
3	1003	Not Register	Idle
4	1004	Not Register	Idle
5	1005	Not Register	Idle
6	1006	Not Register	Idle
7	1007	Not Register	Idle
8	1008	Not Register	Idle

Refresh Interval (second): 5

Figure 10-2 Line Status

- **Line:** L1 to L8.
- **Account:** display each line number
- **Registered:** display each line register status.
- **Call State:** The line status for this line.
- **Refresh Interval (second):** The time to refresh the status.

10-3 SIP Trunk Status

Device Status		Line Status	SIP Trunk Status
Account	Registered	Concurrent Call	
1000	Not Register	0	

Refresh Interval (second): 5

Figure 10-3 SIP Trunk Status

- **Account:** SIP trunk account.
- **Registered:** The SIP trunk register status.
- **Concurrent Call:** The concurrent calls are used for this SIP trunk.
- **Refresh Interval (second):** The time to refresh the status.

CH11 Maintenance

Wellgate 2808 can be managed by this management page for upgrading firmware or reset gateway.



Figure 11-0 Maintenance

- **Backup:** Backup the system settings for restoring purpose.
- **Restore (*.ini):** Restoring the backup setting back to Wellgate 2808.
- **Restore (*.cfg):** Restoring the automatic provision file back to Wellgate 2808.
- **Reset to Default:** Reset system setting to factory default.
- **Quick-Reset:** Warm Reset without reboot Wellgate 2808.
- **Reboot:** reboot Wellgate 2808.

11-1 Firmware Update

This maintenance page provides the firmware upgrade features.

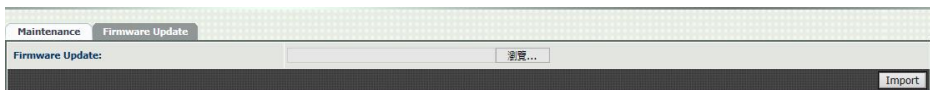


Figure 11-1 firmware update

- **Firmware Update:** Upgrade the new firmware through web page.

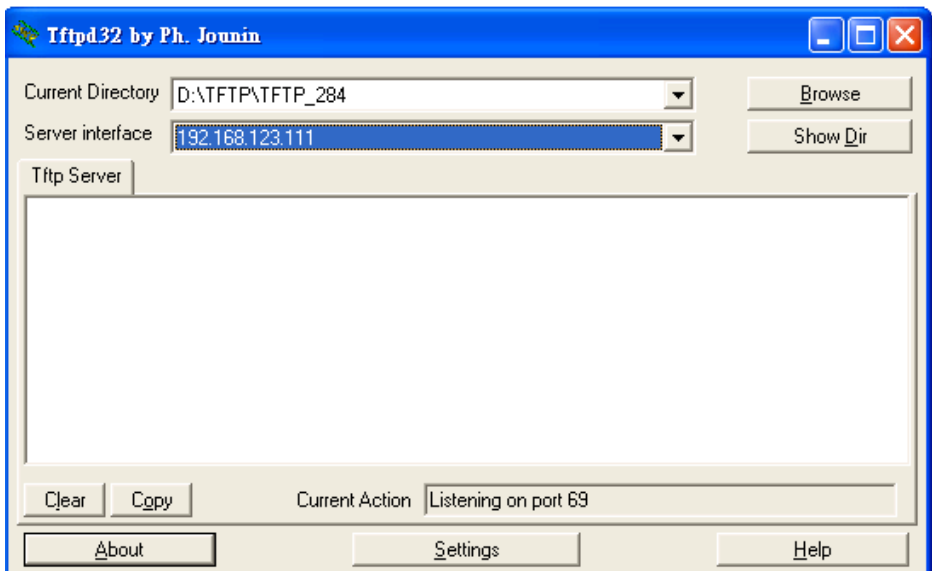
CH12 Logout

Click the Logout item to logout web page.

Appendix A--- System Recovery

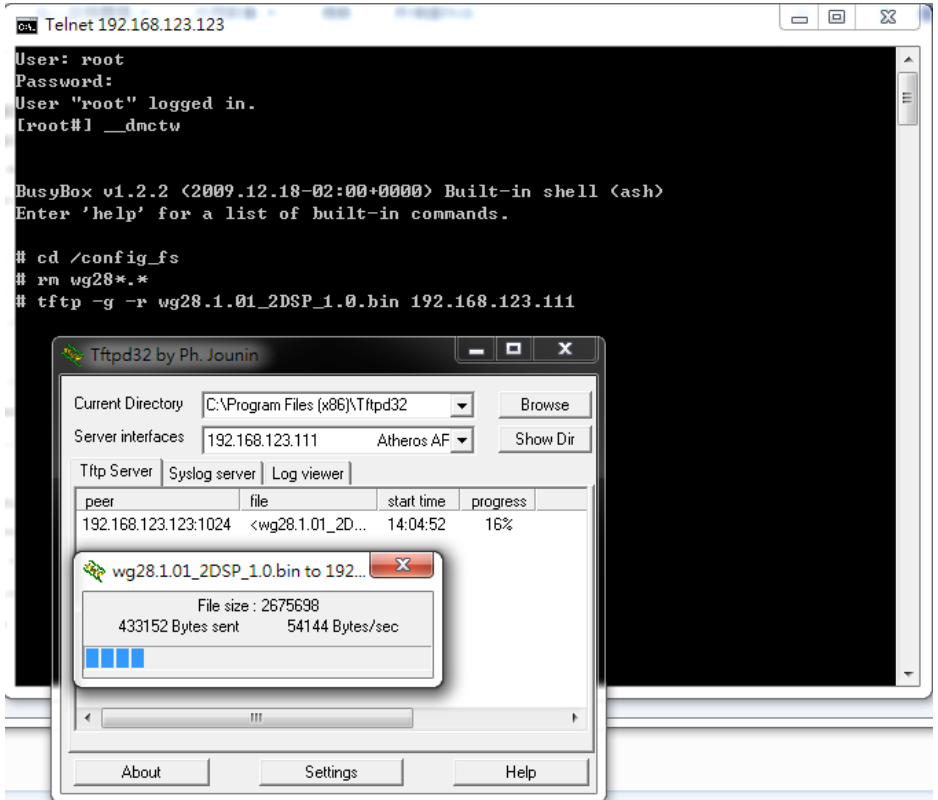
Wellgate 2808 uses dual firmware image to ensure the system stabilities. In most cases, you will not encounter the system failed to boot issue. Normally, the user should be able to use Web page to login and upgrade the firmware through it. If you are not able to do it, please following the following steps for recovery.

1. Start the WellGate 2808 and check the STATUS LED light is up or not. If STATUS LED is ON, please press the reset button and hold on 5 seconds to reset to default. After all LEDs are light up, the system is back to factory settings.
2. Change your PC IP address to **192.168.123.111** and network set up to fix IP address mode.
3. Connect your PC to LAN port and use <http://192.168.123.123> to upgrade the firmware. Make sure you are using Microsoft IE 9 or later version. **Do not support FireFox or Google Chrome Web browser.**
4. If you can't login to the web page through **192.168.123.123**. Open a command line windows and type "telnet 192.168.123.123". If you can see the following display, go to the next step. Otherwise, please contact Welltech FAE for RMA (Repair).
5. Prepare a TFTP server for firmware download as follows
 - download TFTP server program.
http://www.welltech.com/support/voip/TFTP/TFTP_Server.zip
or
http://tftpd32.jounin.net/tftpd32_download.html
 - start TFTP server.



- download the firmware into TFTP data directory.

6. In the Telnet terminal, do the following command.
 - 1. `__dmctw`
 - 2. `cd /config_fs`
 - 3. `rm -f wg28*.bin`
 - 4. `tftp -g -r wg28.1.01_2DSP_1.0.bin 192.168.123.111`



- 4. copy firmware successfully
 - 5. reboot
7. Check whether the system was recovered or not.

Appendix B --- HTTP auto provision

Get the HTTP provision packet from Welltech and start the provision as follows:

Step 1: build mac list for mass configuration file generation

Please open the "wg2808 MAC.csv" gotten from Welltech by using Microsoft Excel. You can refer to the picture below. Normally, you should get all required configuration mac list from Welltech and use it for configuration file generation.

For FXS>

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	\$MACAddress	fxs1.displa	fxs1.passw	fxs1.telno	fxs1.userid	fxs2.displa	fxs2.passw	fxs2.telno	fxs2.userid	fxs3.displa	fxs3.passw	fxs3.telno	fxs3.userid	fxs4.displa	fxs4.passw	fxs4.telno	fxs4.userid	fxs5.displa
2	0001a8ff03aa	1001	1001	1001	1001	1002	1002	1002	1002	1003	1003	1003	1003	1004	1004	1004	1004	1004
3	0001a8ff03ab	2001	2001	2001	2001	2002	2002	2002	2002	2003	2003	2003	2003	2004	2004	2004	2004	2004
4	0001a8ff03ac	3001	3001	3001	3001	3002	3002	3002	3002	3003	3003	3003	3003	3004	3004	3004	3004	3004
5																		

The wg2808 MAC.csv contains most frequently changed parameters as following:

MACAddress: Wellgate 2808 MAC Address (user can type more MAC address here).

fxs1.displayname ~ fxs8.displayname: display name for each line.

fxs1.password ~ fxs8.password: user password for register to SIP proxy for each line.

fxs1.telno ~ fxs8.telno: tel no for each line.

fxs1.userid ~ fxs8.userid: user id for register to SIP proxy for each line.

Please save and close it.

Step 2: create a template configuration file.

Open the "wg2808 Parameter.txt" getting from Welltech and make the required change. Please at least make the changes for those provision and SIP proxy settings. [For detail, please refer the comments of "wg2808 Parameter.txt"](#).

Step 3: Make the change for wegencfg.ini as follows if necessary

```
# Template File
BaseFile=.\wg2808 Parameter.txt
# MAC list file
ListFile=.\wg2808 MAC.csv
# 0: Off, 1: On
Encrypt=0
```

Step 4: Generate the individual configuration file.

Double click the "wtgencfg.exe", it will generate the configuration file for each MAC list in "MAC address.cfg" as the following pictures.

```
wtgencfg.exe 1.0.0 (R091006)
14:28:57 L0114 Notice : wtgencfg.exe 1.0.0 (R091006) start.
14:28:57 L0270 Info : Read ".\wtgencfg.ini".
14:28:57 L0271 Info : [System].
14:28:57 L0289 Info : Action=0.
14:28:57 L0304 Info : ToCase=0.
14:28:57 L0315 Info : BaseFile=.\wg2808 Parameter.txt.
14:28:57 L0327 Info : ListFile=.\wg2808 MAC.csv.
14:28:57 L0340 Info : HeadTagPrefix=FmtNo=_wtcfg_.
14:28:57 L0348 Info : HeadTagSuffix=wg28.
14:28:57 L0355 Info : Encrypt=0.
14:28:57 L0364 Info : Default EncryptKey=*****.
14:28:57 L0397 Info : Read ".\wg2808 Parameter.txt" 41671 element(s).
14:28:57 L0454 Info : Read ".\wg2808 MAC.csv" 967 element(s).
14:28:57 L0665 Info : Opened ".\0001a8ff08aa.cfg".
14:28:57 L0703 Info : ".\0001a8ff08aa.cfg" finished 394 record(s).
14:28:57 L0563 Info :
14:28:57 L0665 Info : Opened ".\0001a8ff08ab.cfg".
14:28:57 L0703 Info : ".\0001a8ff08ab.cfg" finished 394 record(s).
14:28:57 L0563 Info :
14:28:57 L0665 Info : Opened ".\0001a8ff08ac.cfg".
14:28:57 L0703 Info : ".\0001a8ff08ac.cfg" finished 394 record(s).
14:28:57 L0563 Info :
14:28:57 L0154 Notice : Total 3 file(s) generated.
請按任意鍵繼續 . . .
```

Step 5:

Put the "*.cfg" file into http or ftp directory. Set up the provision settings in Wellgate 2808 and reboot to test it. You can use the hfs for http file server. It can be downloaded from <http://www.rejetto.com/hfs/>.

Note: please link it to download provision file. More information please refers "wg2808 Parameter.txt".

http://www.welltech.com/support/voip2/SIP%20series/FXSO%20series/28xx/provision/2808/2808_Provision.zip

Appendix C --- SNMP

MIB value: ".1.3.6.1.4.1.18888.1.2.0"

Command: "[bdb -i keyword -a prefix -v values]", the command include the [] two symbol.

[a]is add abbreviation , [d]is delete abbreviation, [i] is item abbreviation, [v] is value abbreviation

For example:[bdb -i Param -a ipa -v 10.1.1.3]
[bdb -i DialPlan -d 911 -v 3]

Parameter list and description.

For Network:

item	keyword	prefix	Values and description
WAN IP	Param	ipa	This IP address(ex:10.1.1.3)
WAN submask	Param	ipm	This submask (ex:255.255.255.0)
WAN Default Gateway	Param	ipgw	This default gateway(ex:10.1.1.254)
DNS 1	Param	dns1	DNS server IP
DNS 2	Param	dns2	DNS server IP
NTP Server	Param	ntps	NTP server IP
NTP refresh interval	Param	ntpt	NTP refresh interval time (1~65535 sec)
Time Zone	Param	tz	-13.5~13.5 (-13:30~+13:30)
Http Port	Param	http	http port number (default :80)
Https Port	Param	https	https port number (default:443) 0 is disable.
Telnet Port	Param	telnet	Telnet port number (default:23) 0 is disable.
Administrator Login	Param	u1	The Administrator login name
Administrator Password	Param	u1p	The Administrator password
Administrator Language	Param	u1langid	0: English, 1: Traditional Chinese, 2: Simple Chinese
Supervisor Login	Param	u2	The supervisor login name

Supervisor password	Param	u2p	The supervisor password
Supervisor Language	Param	u2langid	0: English, 1: Traditional Chinese, 2: Simple Chinese
User login	Param	u3	The user login name
User password	Param	u3p	The user password
User Language	Param	u3langid	0: English, 1: Traditional Chinese, 2: Simple Chinese
SIP local Port	Param	slpt	This device local port number
Rtp port	Param	rtpb	Rtp port number

For Dial Plan:

General

item	keyword	prefix	Values and description
First digit time out	Param	fddt	First digit time out, unit: sec
Inter digit time out	Param	iddt	Inter digit time out, unit:sec
End of Digit	Param	eod	0: none, 1:*, 2:#

Dialing Rule

item	keyword	prefix	Values and description
Dial Rule	DialPlan	N/A	The prefix field must input dialed prefix number. The values field must input this number's total length. (the range is 1~15).

Example:

1.

If the prefix is 911 total length is 3

This command is "[bdb -i DialPlan -a 911 -v 3]"

2.

If the prefix is 09 total length is 10

This command is "[bdb -i DialPlan -a 09 -v 10]"

3.

Delete prefix 911 on list

This command is "[bdb -i DialPlan -d 911 -v 3]"

Digit Manipulation

item	keyword	prefix	Values and description
Digit Manipulation	DigMan	DMGroup,Matched prefix,Matched Length	Start Pos,End Pos,Replace Value

Each DM Group values.

FXO value is 100

FXS value is 101

VOIP value is 102

DM Group 1 the value is 1

DM Group 2 the value is 2

DM Group 3 the value is 3

DM Group 4 the value is 4

Example:

1.

DM Group is FXS , Matched Prefix is 02 , Matched Length is 10, Start Pos is 0 , Stop Pos is 0, Replace value is empty.

This command is "[bdb -i DigMan -a 101,02,10 -v 0,0,]"

2.

DM Group is FXO , Matched Prefix is 822 , Matched Length is 0, Start Pos is 0 , Stop Pos is 0, Replace value is 02.

This command is "[bdb -i DigMan -a 100,822,0 -v 0,0,02]"

3.

DM Group is 4 , Matched Prefix is 886 , Matched Length is 0, Start Pos is 0 , Stop Pos is 2, Replace value is 009.

This command is "[bdb -i DigMan -a 4,886,0 -v 0,2,009]"

4.

Delete DM Group 4 on list.

This command is "[bdb -i DigMan -d 4,886,0 -v 0,2,009]"

Phone Book

item	keyword	prefix	Values and description
Phone Book	PhoBook	N/A	The prefix field can input name or number. The values field can input name or number or IP URL.

Example

1.

Name is WellTech , Tel No is 82265699

This command is "[bdb -i PhoBook -a WellTech -v 82265699]"

2.

Name is 1001 , Tel No is 1001@10.1.1.3:5060

This command is "[bdb -i PhoBook -a 1001 -v 1001@10.1.1.3:5060]"

3.

Delete WellTech on list

This command is "[bdb -i PhoBook -a WellTech -v 82265699]"

FXO Line(CO Line)

item	keyword	prefix	Values and description
CO Line	Line	fxo1 To fxo8 According that how many the FXO port. (please refer the Line ID, if line ID is 1, the prefix is fxo1)	Below in accordance with the priority arrangement TEL No, Polarity Reversal Detection, Current Drop for Disconnect, Incoming Call Handling, Hot Line Tel, FAX Relay, Flash Time(sec), Input(Encode)Gain, Output(Decode)Gain, Dialing Answer Delay Time(sec), PSTN Answer Ring Count, Caller ID Mode, Playback Voice File, Repeat Count, Voice File Name, 0,0,0,0,0

Each option values description

- ◆ **TeL No:** FXO Tel No number
- ◆ **Polarity Reversal Detection:** 0 is disable, 1 is enable.
- ◆ **Current Drop for Disconnect:** 0 is disable, 1 is enable.
- ◆ **Incoming Call Handling:** 0 is Hot line, 1 is 2 stage dialing.
- ◆ **Hot Line Tel:** this port hot line number.
- ◆ **FAX Relay:** 0 is disable, 1 is bypass, 2 is T38
- ◆ **Flash Time(sec):** this fxo port flash time
- ◆ **Input(Encode) Gain:** the range is from 0(mute) to 37(+5db)
- ◆ **Output(Decode)Gain:** the range is from 0(mute) to 37(+5db)
- ◆ **Dialing Answer Delay Time(sec):** unit is sec
- ◆ **PSTN Answer Ring Count:** PSTN Answer Ring Count
- ◆ **Caller ID Mode:** none is -1, Bellcore FSK is 1, ETSI FSK is 2, ETSI DTMF is 3, Danish DTMF is 4, Indian DTMF is 5, Brazilian DTMF is 6.
- ◆ **Playback Voice File:** 0 is disable, 1 is enable.
- ◆ **Repeat Count:** the repeat count
- ◆ **Voice File Name:** the voice file name (default is greeting.pcm)
- ◆ **0:** it is reserved field, please don't change this value.
- ◆ **0:** it is reserved field, please don't change this value.
- ◆ **0:** it is reserved field, please don't change this value.
- ◆ **0:** it is reserved field, please don't change this value.
- ◆ **0:** it is reserved field, please don't change this value.

Example:

Set the fxo tel no to 999 and hotline number to 888.

This command is

```
"[bdb -i Line -a fxo1 -v
999,0,0,0,888,2,500,32,32,3,2,3,1,5,greeting.pcm,0,0,0,0,0]"
```

If input command is

```
"[bdb -i Line -a fxo1 -v 999,0,0,0,888]"
```

The behind values will be changed to 0

Notice: please input completely command line, there should have 19 commas(,).

FXS Line

item	keyword	prefix	Values and description
FXS Line	Line	fxs1 To fxs8 According that how many the FXS port. (please refer the Line ID, if line ID is 5, the prefix is fxs5)	Below in accordance with the priority arrangement 0,Forward Reason,Forward Tel,No Answer Timeout(sec), Call Waiting,Reject Anonymous call,600,Hot Line, Hot Line Tel, Polarity Reversal Generation, Current Drop Generation, Input(Encode) Gain, Output(Decode) Gain,Register Type,0,TEL No,User ID, User Password,Display Name,FAX Relay,Voice Mail Subscription, Caller ID Mode,SIP Caller ID Mode,0,0,0

Each option values description

- ◆ **0:** it is reserved option, please don't change this value.
- ◆ **Forward Reason:** 0 is not selected, 1 is unconditional, 2 is busy, 4 is No Answer, 6 is busy and No Answer.
- ◆ **Forward Tel:** the FXS port forward number
- ◆ **No Answer Timeout(sec):** this FXS port no answer time (unit: sec)
- ◆ **Call Waiting:** 3 is disable, 2 is enable.
- ◆ **Reject Anonymous call:** 0 is disable, 1 is enable.
- ◆ **600:** it is reserved option, please don't change this value.
- ◆ **Hot Line:** 0 is disable, 1 is enable.
- ◆ **Hot Line Tel:** Hotline number
- ◆ **Polarity Reversal Generation:** 0 is disable, 1 is enable.

- ◆ **Current Drop Generation:** 0 is disable, 1 is enable.
- ◆ **Input(Encode) Gain:** the range is from 22(-10db) to 37(+5 db)
- ◆ **Output(Decode) Gain:** the range is from 22(-10db) to 37(+5 db)
- ◆ **Register Type:** 0 is register, 1 is predefine , 2 is internal.
- ◆ **0 :** it is reserved option, please don't change this value.
- ◆ **TEL No:** this fxs port phone number.
- ◆ **User ID:** this fxs port registers account.
- ◆ **User Password:** this fxs port authentication password.
- ◆ **Display Name:** this fxs port display name.
- ◆ **FAX Relay:** 0 is disable, 1 is bypass, 2 is T38.
- ◆ **Voice Mail Subscription:** 0 is disable, 1 is enable.
- ◆ **Caller ID Mode:** 0 is inhibit, 1 is Transparent
- ◆ **SIP Caller ID Mode:** 0 is inhibit, 1 is Transparent
- ◆ **0:** it is reserved option, please don't change this value.
- ◆ **0:** it is reserved option, please don't change this value.
- ◆ **0:** it is reserved option, please don't change this value.

Example:

1.

Set the tel no/ user id/ user password/ display nema to 101/101/welltech/Eddie and hot line number to **999 for fxs port 5.

This command is

```
"[bdb -i Line -a fxs5 -v  
0,0,,120,3,0,600,1,**999,0,0,32,32,0,0,101,101,welltech,Eddie,2,0,1,1,0,0  
,0]"
```

2.

Set the busy and no answer forward to 201 for fxs port 5.

This command is

```
"[bdb -i Line -a fxs5 -v  
0,6,201,120,3,0,600,1,**999,0,0,32,32,0,0,101,101,welltech,Eddie,2,0,1,1  
,0,0,0]"
```

Notice: please input completely command line, there should have 25 commas(,) totally. If lost anyone commas, this page will be cleaned to empty or 0 for all values.

SIP Proxy (FXS use only)

item	keyword	prefix	Values and description
SIP Proxy	Line	px	Below in accordance with the priority arrangement Domain, Primary Proxy Server, Primary Proxy Server Port, Outbound Proxy Server, Outbound Proxy Server Port, Secondary Proxy Server, Secondary Proxy Server Port, Secondary Outbound Proxy Server, Secondary Outbound Proxy Server Port, Register Expires, Secondary Proxy, Primary Proxy Server Keep Alive, Keep Alive Time (sec), Secondary Proxy Server Keep Alive, Keep Alive Time (sec), 0

Each option values description

- ◆ **Domain:** this proxy domain name
- ◆ **Primary Proxy Server:** this primary proxy server IP address
- ◆ **Primary Proxy Server Port:** this primary proxy server port number
- ◆ **Outbound Proxy Server:** this outbound proxy server
- ◆ **Outbound Proxy Server Port:** this outbound proxy server port number
- ◆ **Secondary Proxy Server:** this secondary proxy server IP address
- ◆ **Secondary Proxy Server Port:** this secondary proxy server port number.
- ◆ **Secondary Outbound Proxy Server:** this secondary outbound proxy server IP address
- ◆ **Secondary Outbound Proxy Server Port:** this secondary outbound proxy server port number.
- ◆ **Register Expires:** register expires time
- ◆ **Secondary Proxy:** 0 is disable , 1 is enable.
- ◆ **Primary Proxy Server Keep Alive:** 0 is disable , 1 is enable.
- ◆ **Keep Alive Time (sec):** keep alive time for primary proxy server(the range is 30 to 300 sec)
- ◆ **Secondary Proxy Server Keep Alive:** 0 is disable, 1 is enable.
- ◆ **Keep Alive Time (sec):** keep alive time for secondary proxy server. (the range is 30 to 300 sec)
- ◆ **0:** it is reserved option, please don't change this value.

Example:

Set the domain name to welltech.com and primary proxy to 192.168.18.247, primary proxy port to 8888,outbound proxy to 192.168.18.247, outbound proxy port to 8888.

This command is

```
"[bdb -i Line -a px -v
welltech.com,192.168.18.247,8888,192.168.18.247,8888,,0,,0,120,0,
0,0,0,0,0]"
```

Notice: please input completely command line, there should have 15 commas(,).

SIP Trunk

item	keyword	prefix	Values and description
SIP Trunk	SipTrunk	1~16 According the sip trunk ID	Below in accordance with the priority arrangement Trunk ID, Register Type, 0, Domain, Proxy Server, Proxy Server Port, Outbound Proxy Server, Outbound Proxy Server Port, Register Expires, TEL No, User ID, User Password, Display Name, Reject Anonymous Call, Display Name, User ID, For DNIS is Register TEL, Keep Alive, Keep Alive Time (sec), 0

Each option values description

- ◆ **Trunk ID:** this Trunk ID number from 1 to 16.
- ◆ Register Type: 0 is register , 1 is predefine
- ◆ **0:** it is reserved option, please don't change this value.
- ◆ **Domain:** this proxy domain name
- ◆ **Proxy Server:** this proxy server IP address
- ◆ **Proxy Server Port:** this proxy server port number.
- ◆ **Outbound Proxy Server:** this outbound proxy server IP address
- ◆ **Outbound Proxy Server Port:** this outbound proxy server port number.
- ◆ **Register Expires:** the register expires time.
- ◆ **TEL No:** the sip trunk line number.
- ◆ **User ID:** this sip trunk register account
- ◆ **User Password:** this sip trunk authentication password
- ◆ **Display Name:** this sip trunk display name
- ◆ **Reject Anonymous Call:** 0 is disable , 1 is enable.
- ◆ **Display Name:** 0 is none, 1 is PSTN Caller ID, 2 is SIP User ID, 3 is FXO Tel No.
- ◆ **User ID:** 0 is SIP User ID, 1 is PSTN Caller ID, 2 is FXO Tel No
- ◆ **For DNIS is Register TEL:** 0 is 1 stage dialing, 1 is 2 stage dialing
- ◆ **Keep Alive:** 0 is disable, 1 is enable.
- ◆ **Keep Alive Time (sec):** keep alive time (the range is 30 to 300 sec)

◆ **0:** it is reserved option, please don't change this value.

Example:

Create a sip trunk.

Trunk ID 3, trunk number 0700123456, trunk account test, trunk password test123, trunk display name welltech.

Proxy server domain name welltechtch.com, proxy ip 192.168.18.247, Proxy port 8888, outbound proxy ip 192.168.22.247, outbound proxy port 8890, expire time 60.

This command is

```
"[bdb -i SipTrunk -a 3 -v  
3,0,0,welltechtch.com,192.168.18.247,8888,192.168.22.247,8890,60,070  
0123456,test,test123,welltech,1,1,0,1,0,0,0]"
```

Notice: please input completely command line, there should have 19 commas(,).

Reboot

item	keyword	prefix	Values and description
Reboot	Reboot	N/A	N/A

This command is "[reboot]"