5.3 Call Service

In this section we will describe all the call service supported in this IAD, and you can set the items for line1 (FXS1) and line2 (FXS2).Please refer the following sub-section, it will guides you how to set it.

Call Service	
Call Waiting	☑ Enable (default: enabled)
Call Waiting Timeout	30 seconds (10..300, default:30, unlimit:300)
Call Hunting Group	☐ FXS Port 0 ☐ FXS Port 1
Call Hunting Timeout	30 seconds (5..180, default:30)
Call Repeat Activity Time	1800 seconds (60..3600, default:1800)
Lines	
Call Transfer Option	Allowed
Call Forward Option	Allowed
Call Forward Always URI	SIP: @
Call Forward on Busy URI	SIP: @
Call Forward on NoAnswer URI	SIP: @
Call Forward on NoAnswer Timeout	30 seconds (1..300, default:30)
Do Not disturb	☐ Enable (default: disabled)
Hot Line	☐ Enable (default: disabled)
Anonymous Call	☐ Enable (default: disabled)
Reject Anonymous Call Coming	☐ Enable (default: disabled)

Call Waiting
The Call Waiting feature allows you to accept an incoming call while you are already on a phone call. This feature places your first call on hold while you answer the second incoming call. You also have the ability to disable Call Waiting on a per call basis or permanently.

Call Forwarding
The Call Forwarding feature allows you to forward all calls to a designated forwarding number immediately. Your phone will not ring or provide call waiting when Call Forwarding is enabled.

Call Attended Transfer
The Attended Transfer feature allows you to transfer a call to any phone number. You can speak to both parties before connecting.

Call Transfer
A call transfer is a telecommunications mechanism that enables a user to relocate an existing call to another telephone or attendants console by using the transfer button and dialing the required location. The transferred call is either announced or unannounced.

If the transferred call is **announced**, the desired party/extension is notified of the impending transfer. This is typically done by putting the caller on hold and dialing the desired party/extension; they are then notified and, if they choose to accept the call, it is transferred over to them.

On the other hand, an **unannounced** transfer is self-explanatory: it is transferred without notifying the desired party/extension of the impending call. It is simply transferred to their line by way of a “transfer” key on the operator’s phone or by keying in a string of digits which achieves the same function.

Call Hunting
The Call Hunting service let you to forward incoming call to a Call Hunting Group. Non-Answered calls will automatic forward to next pre-selected number sequenced after Call Hunting Timeout.

Call Repeat
Call Repeat eliminates wasted time and frustration dialing busy numbers. You are trying to reach someone and the line is busy repeatedly. Instead of dialing the number over and over, let Repeat Call do the dialing.

Do Not Disturb
The Do Not Disturb function allows a caller to listen to a standard voicemail message, which simply states you are away from your desk or the office at this time. The caller is never aware that you have Do Not Disturb activated on your phone, so they will not be offended. You can later return the phone calls when it is more convenient for you.

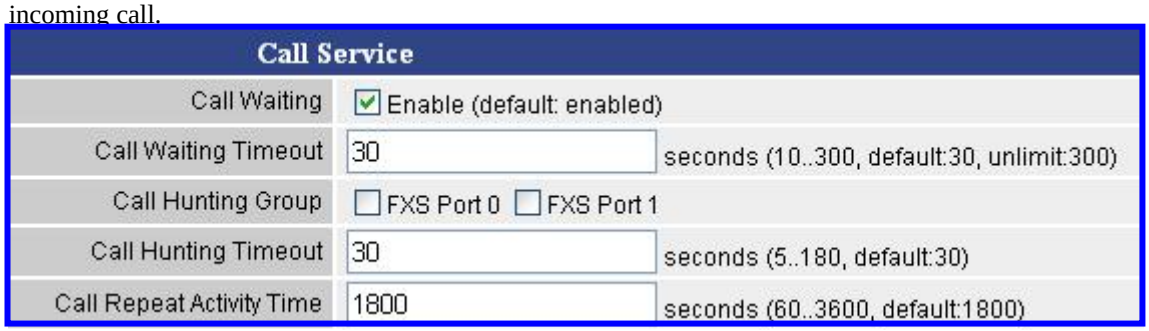
Hot Line
Hot Line provides a way for a user to call a designated phone number without dialing any number. Once the user picks up the handset of the line which is setup as a “Hot Line”, the system will automatically dial the pre-set number and connect the caller to the pre-set place.

Caller ID
Caller ID (Caller Identification or CID, and more properly Calling Number Identification—CNID) is a telephony intelligent network service that transmits the caller’s telephone number and (in some places) the caller’s name to the called party’s telephone equipment during the ringing signal or when the call is being set up but before the call is answered.

Reject Anonymous Call
The Reject Anonymous Call feature allows you to block incoming calls that do not reveal the caller’s Caller ID information.

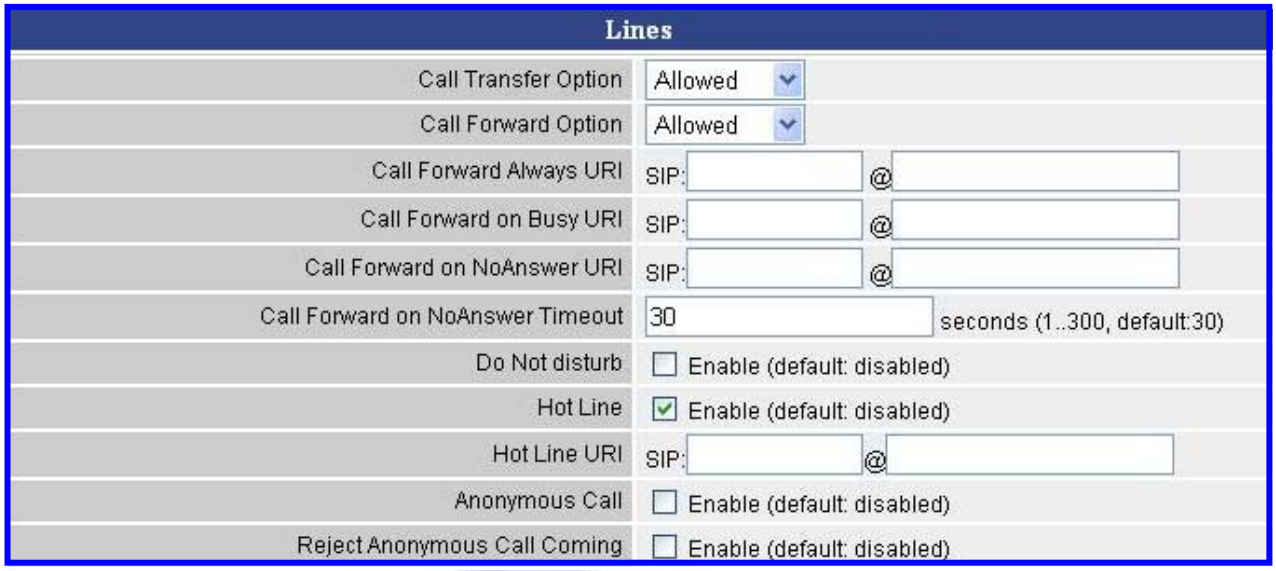
5.3.1 Call Service for All Line

It is a feature on telephone network. If a calling party places a call to a called party which is otherwise engaged, and the called party has the call waiting feature enabled, the called party is able to suspend the current telephone call and switch to the new incoming call, and can then negotiate with the new or the current caller an appropriate time to ring back if the message is important, or to quickly handle a separate incoming call.



Field	Description	Default value
Call Waiting	Disabled / Enabled the call waiting function	Enable
Call Waiting Timeout	Assign the time interval from 10 to 300. Default setting is 30 seconds. If set the value to 300, it will has no timeout limit.	30
Call Hunting Group	A hunt group is a grouping of telephone lines (usually incoming) that are set up to receive calls in a particular order if a line is busy. For example: Line 1 - First in hunt group Line 2 - Second in hunt group If line 1 is busy and a call comes in, then that call will be routed to line 2, depending on the time interval you specified in Call Hunting Timeout field. a. If both lines 1 and 2 are busy, then reply a busy tone to the caller. b. If both lines are available and no one pick up the call, the hunting sequence will be Line 1 → Line 2 → Line 1…looping until anyone pick-up the call or the caller hang-up. Select the port number to join the hunting group: a. FXS Port 0: The phone line plug in ATA Line 1 port. b. FXS Port 1: The phone line plug in ATA Line 2 port.	
Call Hunting Timeout	Time interval for routing the incoming call in the group	30
Call Repeat Activity Time	If the number you are calling is busy and there is no Call Waiting feature. The Repeat Call service allows you to connect to a busy number which is become free. Repeat Call will automatically attempt to place the call in the specified activity time.	1800

5.3.2 Call Service for Per Line



Field	Description	Default value Line1 / Line2
Call Transfer Option	Indicates whether the remote end is allowed to transfer the call to a third party. There are two types: Restricted and Allowed	Allowed / Allowed
Call forward Option	Indicates whether the remote end is allowed to forward the call to a third party. There are two types: Restricted, and Allowed.	Allowed / Allowed
Call Forward Always URI	Assigns a phone number; if you want all incoming calls of the port always be redirected.	
Call Forward on Busy URI	Assigns a phone number. When the port is busy, the incoming call will be redirected to the specified phone number.	
Call Forward on NoAnswer URI	Assigns a phone number. When the port is no answer, the incoming call will be redirected to the specified phone number.	
Call Forward on NoAnswer Timeout	When the phone is ring a long time, the incoming call will timeout and redirected to the specified phone number that is fill in “Call Forward on NoAnswer URI”. Default setting is 180 seconds.	30 / 30
Do Not Disturb	Enable/Disable the do not disturb function.	Disabled / Disabled
Hot Line	Hot Line provides a way for a user to call a designated phone number without dialing any number. Once the user picks up the handset of the station which is setup as a “Hot Line”, the system will automatically dial the pre-set number and connect the caller to the pre-set place. For example, assuming that the station number 101 in the factory is set as hotline to Warehouse “A”. The Hot Line service let you make call to designate number directly	Disabled / Disabled
Hot Line URI	Input the URI value for hot line.	

Anonymous Call	Enable this feature can make an anonymous outgoing call. Your caller ID will not display.	Disabled / Disabled
Reject Anonymous Call Coming	Once Reject Anonymous Call Coming is in place, your telephone will not accept calls from anyone who has a non-listed number or Caller ID blocking activated on their phone. The caller will heard two short beeps.	Disabled / Disabled

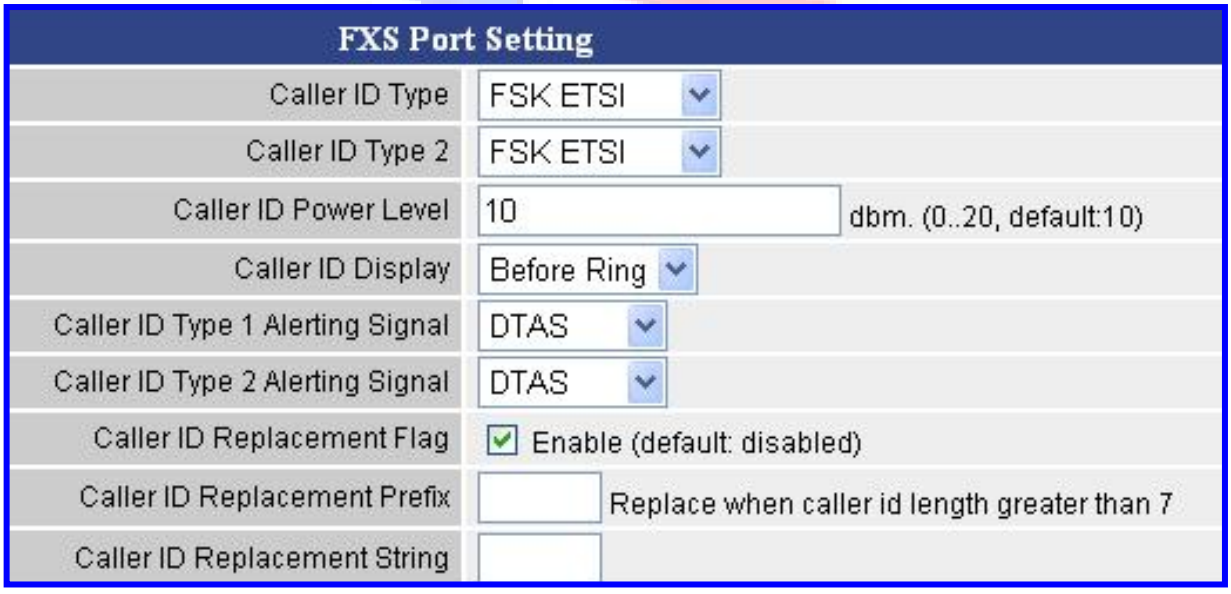
5.4 FXS Port Setting

FXS (Foreign Exchange Station) is the interface on a VoIP device for connecting directly to telephones, fax machines, or similar device and supplies ring, voltage, and dial tone.

5.4.1 FXS Port Setting for All Line

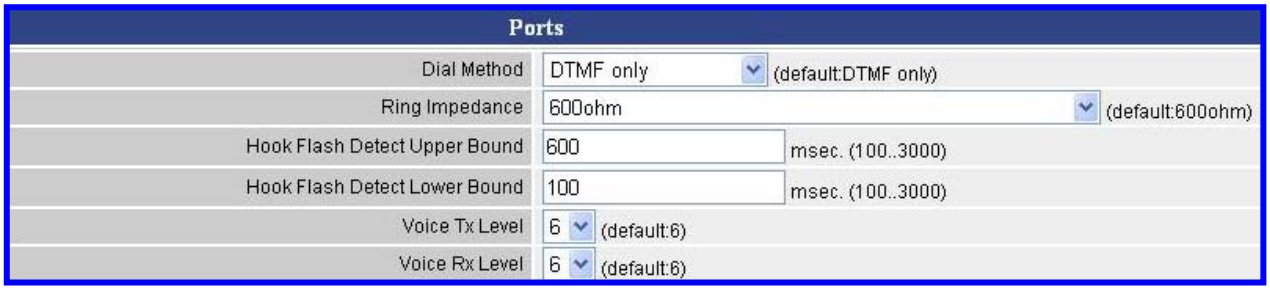
This IAD supports 7 types of Caller ID scheme as below:

- **DTMF (Dual Tone Multi-Frequency)**: DTMF is an example of a multi-frequency shift keying (MFSK) system. Today DTMF is used for most call setup to the telephone exchange, at least in developed regions of the world, and trunk signaling is now done out of band using the SS7 signaling system.
- **FSK Bellcore**: The Bellcore standard is used in United States, Australia, China, Hong Kong and Singapore. It uses the 1200 baud Bell 202 tone modulation and the first bit of data is transferred after receiving the first ring tone.
- **FSK ETSI**: The European Telecommunications -1 and -2, and ES 200 778-1 and -2, the latter replacing ETS 300 778-1 & -2) allows 3 physical transport layers (Bellcore, BT and CCA) combined with 2 data formats (MDMF & SDMF), plus the DTMF system and a no-ring mode for meter-reading and the like. It's more of a recognition that the different types exist than an attempt to define a single "standard".
- **Japan CLIP (Calling Line Identification Presentation)**: It is published by Japan ETSI. The Caller ID information is received from the service provider before the first ring. Set the ring event in the application to occur on or after the first ring. The ring event indicates reception of the CLIP Caller ID information from the CO.
- **Japan JCLIP (Japanese Calling Line Identity Presentation)**: It is published by Japan NTT.
- **BT**: British Telecom developed their own standard, which wakes up the display with a line reversal, then sends the data as CCITT V23 modem tones in a format similar to MDMF. It is used by BT, wireless networks like the late Ionica, and some cable companies.
- **Brazil DTMF**: DTMF used in Brazil.



Field	Description	Default value
Caller ID Type	Select a type from the pull-down menu to suit the standard of different area. The Caller ID is usually involved in telecommunication equipment. Consult your telecommunication service providers before configure this parameter.	FSK ETSI
Caller ID Type 2	Select a type from the pull-down menu to suit the standard of different area. The Caller ID is usually involved in telecommunication equipment. Consult your telecommunication service providers before configure this parameter.	FSK ETSI
Caller ID Power Level	Assign the Caller ID Power Lever from 0 to 100.	10
Caller ID Display	There are two types to display the caller information on the screen. Before Ring, the caller id information is displayed before first ring. After Ring, the caller id information is displayed between first ring and second ring. Default setting is Before Ring.	Before Ring
Caller ID Type 1 Alerting Signal	Type 1 alerting signal is used to detect CID when device is ON-HOOK. Default setting is No Alert. a. DTAS = Dual Tone Alert Signal b. RPAS = Ring Pulse Alert Signal c. LR = Line Reversal d. LR-DTAS = Line Reversal + Dual Tone Alert Signal	DTAS
Caller ID Type 2 Alerting Signal	Type 2 alerting signal is used to detect CID when device is OFF-HOOK. Default setting is No Alert. a. DTAS = Dual Tone Alert Signal b. RPAS = Ring Pulse Alert Signal c. LR = Line Reversal d. LR-DTAS = Line Reversal + Dual Tone Alert Signal	DTAS
Caller ID Replacement Flag	Enabled / Disabled to replace the caller ID when caller ID length is greater than 7 bytes.	Disabled
Caller ID Replacement Prefix	Replace the caller ID with the Prefix string.	
Caller ID Replacement String	Replace the caller ID with the specify string.	

5.4.2 FXS Port Setting for Per Line



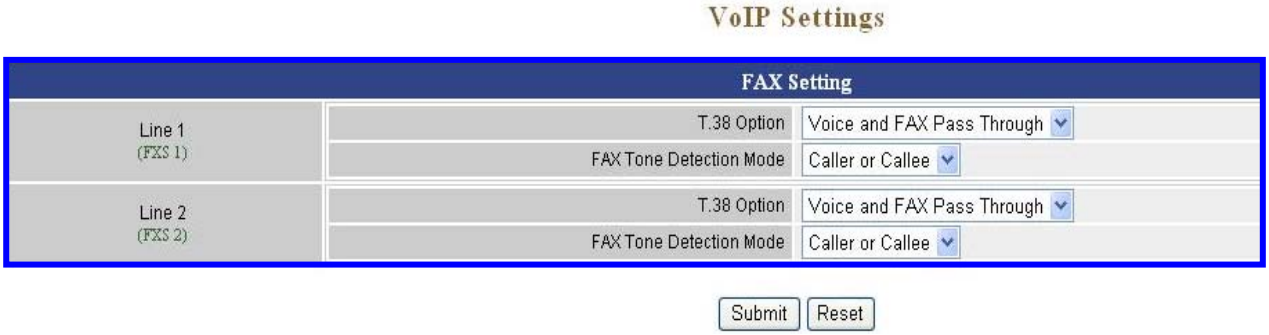
Field	Description	Default value Line1 / Line2
Dial Method	There are two methods for dialing. FTMF only or PULSE only	DTMF only / DTMF only
Ring Impedance	This IAD support 8 type of Ring Impedance. Select a type from the pull-down menu.	600ohm / 600ohm
Hook Flash Detect Upper Bound	Hook-flash indicates the condition when a request for voice conference and is recognized as a quick off-hook/on-hook/off-hook cycle. The maximum time to detect hook flash	600 / 600
Hook flash detect Lower Bound	The minimum time to detect hook flash	100 / 100
Voice Tx Level	Sets a specific sound intensity for transmitting sound. Select a level from 1 to 8, default setting is 6. Table 1 lists the receive/transmit voice gain value for reference. The “gain” means increase in the power of electrical signal, measures by decibel.	6 / 6
Voice Rx Level	Sets a specific sound intensity for receiving sound. Select a level from 1 to 8, default setting is 6. Table 1 lists the receive/transmit voice gain value for reference. The “gain” means increase in the power of electrical signal, measures by decibel.	6 / 6

Table 1 Receive/Transmit Voice Gain Value

Level	Decibel
1	-24dB
2	-18dB
3	-12dB
4	-6dB
5	-2.5dB
6	0dB (default setting)
7	3.5dB
8	6db

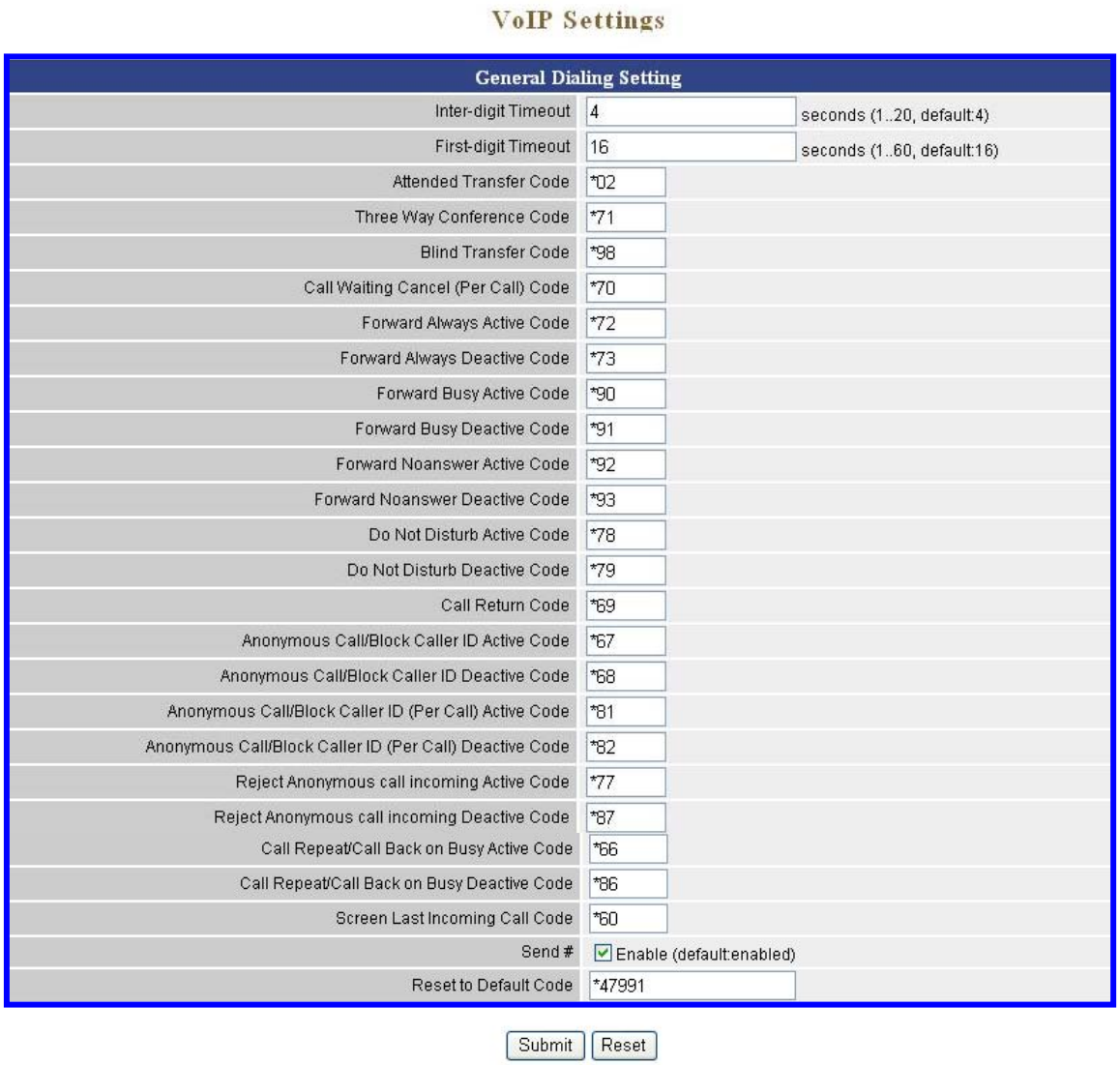
5.5 FAX Setting

The T.38 FAX procedure is used for the changeover from VoIP to fax mode during a call. The SIP will establish a normal VoIP call using INVITEs with SDP field to support T.38 detail.



Field	Description	Default value Line1 / Line2
T.38 Option	This IAD supports 2 T.38 options: a. Voice and T.38 FAX Relay: Choose this option; transfer voice with user selected CODEC priority, and transfer FAX message with T.38. b. Voice and FAX Pass Through: Choose this option; transfer voice with user selected CODEC priority, and transfer FAX message with G.711/Ulaw.	Voice and FAX Pass Through / Voice and FAX Pass Through
FAX Tone Detection Mode	To set the FAX tone will be detected in the following 3 modes: a. Caller b. Callee c. Caller or Callee	Caller or Callee / Caller or Callee

5.6 General Dialing Setting



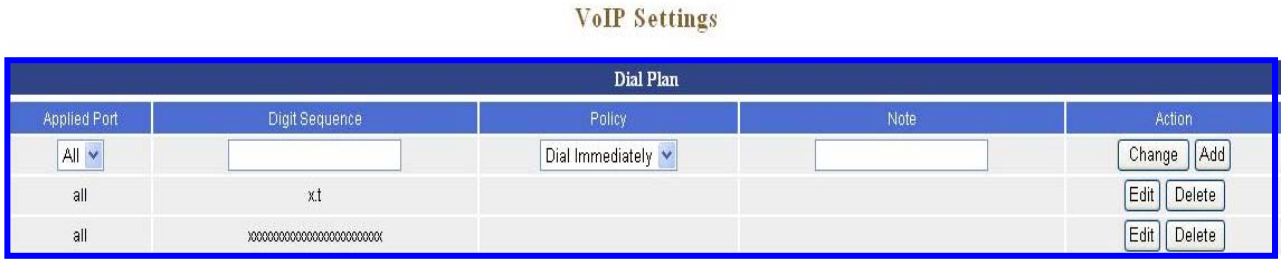
Field	Description	Default value
Inter-digit Timeout	If no other number is being dialed within this interval, this IAD will terminate this call. Assign the time interval from 1 to 20 seconds.	4
First-digit Timeout	If you pick up the phone without dialing any number within this period of time, the tone will be changed to busy tone. Assign the time interval from 1 to 60 seconds.	16
Attended Transfer Code	Keys to be pressed to initiate a attended transfer call.	*02
Three Way Conference Code	Keys to be pressed to initiate a 3-ways call.	*71

Blind Transfer Code	Keys to be pressed to initiate a blind transfer call.	*98
Call Waiting Cancel (Per Call) Code	Keys to be pressed to cancel the call waiting function for per call.	*70
Forward Always Active Code	Keys to be pressed to active the forward always function.	*72
Forward Always Deactive Code	Keys to be pressed to deactive the forward function in always.	*73
Forward Busy Active Code	Keys to be pressed to active the forward function when it is busy.	*90
Forward Busy Deactive Code	Keys to be pressed to deactive the forward function when it is busy.	*91
Forward Noanswer Active Code	Keys to be pressed to active the forward function when it is no answer.	*92
Forward Noanswer Deactive Code	Keys to be pressed to deactive the forward function when it is no answer.	*93
Do Not Disturb Active Code	Keys to be pressed to active the no disturb function.	*78
Do Not Disturb Deactive Code	Keys to be pressed to deactive the no disturb function.	*79
Call Return Code	Keys to be pressed to call return the last incoming call.	*69
Anonymous Call/Block Caller ID Active Code	Keys to be pressed to active the anonymous call or the block caller ID function for all call.	*67
Anonymous Call/Block Caller ID Deactive Code	Keys to be pressed to deactive the anonymous call or the block caller ID function for all call.	*68
Anonymous Call/Block Caller ID (Per Call) Active Code	Keys to be pressed to active the anonymous call or the block caller ID function for per call.	*81
Anonymous Call/Block Caller ID (Per Call) Deactive Code	Keys to be pressed to deactive the anonymous call or the block caller ID function for per call.	*82
Reject Anonymous call incoming Active Code	Keys to be pressed to active the reject in coming call function when the incoming call ID is anonymous for all call.	*77
Reject Anonymous call incoming Deactive Code	Keys to be pressed to deactive the reject in coming call function when the incoming call ID is anonymous for all call.	*87

Call Repeat/Call Back on Busy Active Code	Keys to be pressed to active the call repeat or call back on busy function	*66
Call Repeat/Call Back on Busy Deactive Code	Keys to be pressed to deactive the call repeat or call back on busy function	*86
Screen Last Incoming Call Code	Keys to be pressed to screen the last incoming call.	*60
Send #	Enable: send the digit number at end of dial string is sent to the SIP-Proxy. Disable: the digit number at end of dial string is taken as a terminator.	Enable
Reset to Default Code	Keys to be pressed to reset the dialing code to default settings.	*47991

5.7 Dial Plan

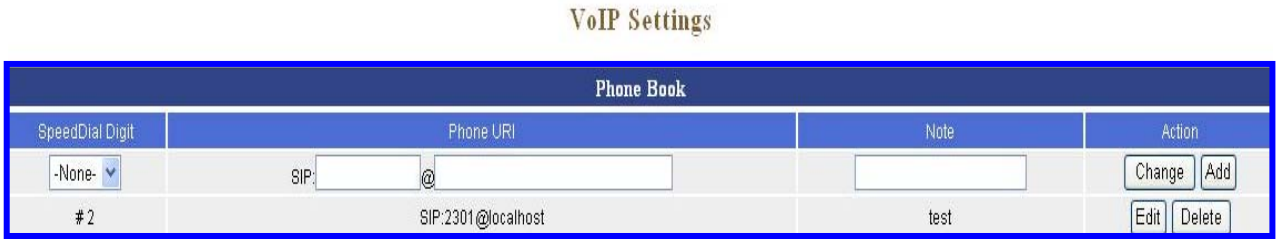
The VOIP dial plan allows VOIP calls made with leading digits and length matching the policy specified to be dialed out immediately. The following dial plan syntax definition is used to define phone specific dialing behavior. A phone dial plan is important for the phone to know when an entered number is complete and therefore the call should be initiated.



Field	Description	Default value
Applied Port	Select the port to apply the policy. There are three types to set: a. 0: means the line1 (FXS1) b. 1: means the line2 (FXS 2) c. All: Means all line	All
Digit Sequence	Digit map is defined by a case insensitive string. It is a set of digits or timers, or as an expression over which the gateway will attempt to find a shortest possible match. The following constructs can be used in each numbering scheme: **Individual keys:** 0, 1...9, *, and # **Timer:** The symbol "t" matching a timer expiry. The value is defined in Inter-digit Timeout field. **Wildcard:** The symbol "x" which matches numeric digit (0 to 9). **Range:** One or more keys enclosed between square brackets ("["and "]"). **Sub-range:** Two numeric digits separated by a hyphen ("-") which matches any digit between and including the two. The sub-range construct can only be used inside a range construct. **Repetition:** A period (".") which matches an arbitrary number, including zero, of occurrences of the preceding construct.	
Policy	There are two policies to select: Dial Immediately / Prefix Substitute	Dial Immediately
Note	Input the description of this policy	
Change	Click "Change" button to modify one of the list routes and to change the value.	
Add	Click "Add" button to add more routes for different target domain	
Edit	Click "Edit" button to edit the route date.	
Delete	Click "Delete" button to delete the unneeded routes.	

5.8 Phone Book

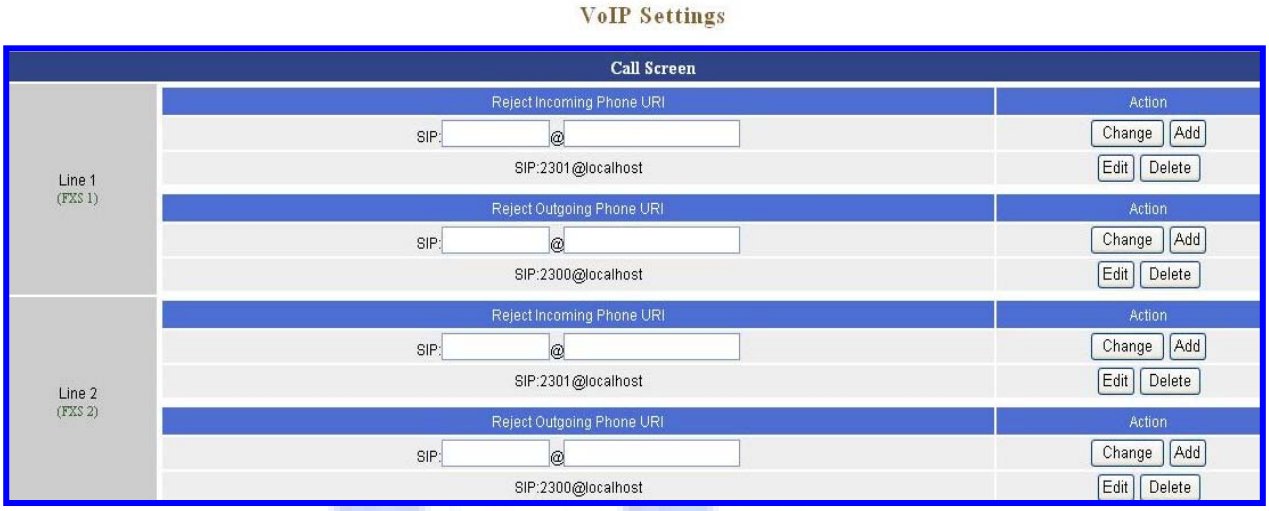
Phone Book lets you define a button or a set of buttons to link to a specific number defined in Phone Book. The speed dial is used to set up a list of telephone numbers and SIP addresses for the frequently called callee. In this list, a shorter number is assigned to the called party instead of original phone numbers or addresses. The module supports up to 10 speed dial numbers.



Field	Description	Default value
SpeedDial Digit	The ID numbers for a speed dial entry. 10 speed dial numbers are supported as #0,#1,#2,……,#9	-None-
Phone URI	Assign the SIP address or PSTN number of the called party	
Note	Input the description of this speed dial.	
Change	Click “Change” button to modify one of the list routes and to change the value.	
Add	Click “Add” button to add more routes for different target domain	
Edit	Click “Edit” button to edit the route date.	
Delete	Click “Delete” button to delete the unneeded routes.	

5.9 Call Screen

Call Screen lets you program your phone to reject calls from a list of phone numbers. This feature allows you to screen incoming calls and/or outgoing calls, based on the pre-defined lists you create. You can modify the lists at anytime. Your phone does not ring with “screened” calls.



Field	Description	Default value Line1 / Line2
Reject Incoming Phone URI	Input the phone URI to reject the incoming call from this URI.	
Reject Outgoing Phone URI	Input the phone URI to reject the outgoing call to this URI.	
Change	Click “Change” button to modify one of the list routes and to change the value.	
Add	Click “Add” button to add more routes for different target domain	
Edit	Click “Edit” button to edit the route date.	
Delete	Click “Delete” button to delete the unneeded routes.	

6. Information

- System Information
- WiMAX Status
- Routing Table
- Call Detailed Record
- Line Status
- Packet Statistic
- System Log

6.1 System Information

Click System Information to display system status, WiMAX status and LAN/WAN information.

This page displays the current information for the device. It will display the LAN, WAN, and system firmware information. This page will display different information for you, according your WAN setting (Static IP, DHCP).
If your WAN connection is set up for Dynamic IP address, there will be a Release button and Renew button. Use Release to disconnect from your ISP and use Renew to connect to your ISP.

Information

System	
Device Mode	Router
Model Name	Quanta WV202
Firmware Version	WV-2.4.4.ba
Host Name	wimax.quantatw.com
System Date	2008-07-09 19:34:05
Up Time	5:40

WiMAX	
Software Version	4.4.1.12 (13905) Patch1-GN
Firmware Version	5.5.1.1 (3629)
MAC Address	00:17:C4:20:46:A4
Chipset Vendor	Sequans
Chipset ID	SQN1130
Product Category	CardBus
RF IC	MAX2839_2
Frequency Band	2.5 ~ 2.7 GHz
Flash	8 MB
SDRAM	32 MB
Software Feature	Generic Software
Serial No.	Generic Product
Customer Code	Generic Version
Hardware Version	N/A

Hardware Series No.	N/A

LAN	
MAC Address	00:17:C4:20:46:A3
IP Address	192.168.1.254
Subnet Mask	255.255.255.0
DHCP Server Function	Active

WAN	
Ethernet Speed	N/A
Ethernet MAC Address	00:17:C4:20:46:A5
IP Assignment	DHCP
DHCP Client	Inactive
DHCP Connection Established Time	N/A
DHCP Connection Expire Time	N/A
DHCP Server Address	N/A
IP Address	N/A
Subnet Mask	N/A
MTU	1500
Gateway Address	N/A
DNS 1 (Primary)	N/A
DNS 2 (Secondary)	N/A

Release IP Renew IP

6.2 WiMAX Status

The WiMAX status pages can show all the service flows between WV202 and BS. User also can read the bandwidth, frequency, FFT size and the other WiMAX parameters

Information

Show SF Detail | Start SS | Stop SS

Service Flow				
SFID	CID	Type	State	Direction
0x00000000	3	Basic	Active	DL / UL
0x00000000	259	Primary	Active	DL / UL
0x00000104	518	Data	Active	DL
0x00000105	519	Data	Active	UL
0x0000FFFF	513	Data	Active	DL

WiMAX Status	
State	Operational
RSSI	-30.93 dBm
CINR	36.50 dB
FCD	
Started	Yes
Bandwidth	10.000 MHz
CP	1/8
Frame Length	5 ms
FFT Size	1024
Preamble Index	0
Cell ID	0
DCD	
BS EIRP	3.00 dBm
Max RssInitRanging	0.00 dBm
Frequency	2.540500 GHz
Count	7
BSID	00:17:C4:10:F0:20
UCD	
Frequency	2.540500 GHz
I-RNG Backoff Start	1
I-RNG Backoff End	5
P-RNG Backoff Start	0
P-RNG Backoff End	3
BWR Backoff Start	0
BWR Backoff End	5
UL Permutation Base	0
UL Subchannel Bitmap	FF:FF:FF:FF:FF:FF:FF:FF
I-RNG Code Qty	8
P-RNG Code Qty	4
BWR Code Qty	16
HO Code Qty	4

➢ Click the “StopSS” button, WV202 will stop the WiMAX connection after 2 seconds.

WiMAX Status

Configuration

Configuration success, page returns in 2 seconds...

Information

Show SF Detail | Start SS | Stop SS

Service Flow				
SFID	CID	Type	State	Direction

WiMAX Status	
State	INIT
RSSI	-
CINR	-
FCD	
Started	-
Bandwidth	-
CP	-
Frame Length	-
FFT Size	-
Preamble Index	-
Cell ID	-
DCD	
BS EIRP	-
Max RssInitRanging	-
Frequency	-
Count	-
BSID	-

➢ Click the “StartSS” button, WV202 will try to connect with BS according to the previous known preamble index.

WiMAX Status

Configuration

Configuration success, page returns in 2 seconds...

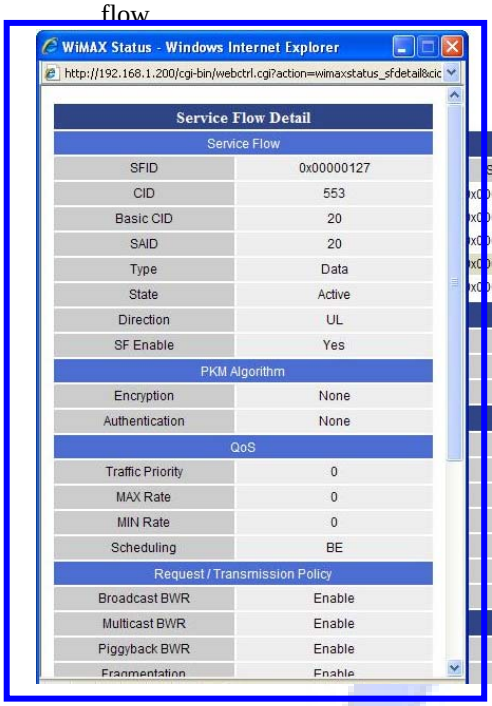
Information

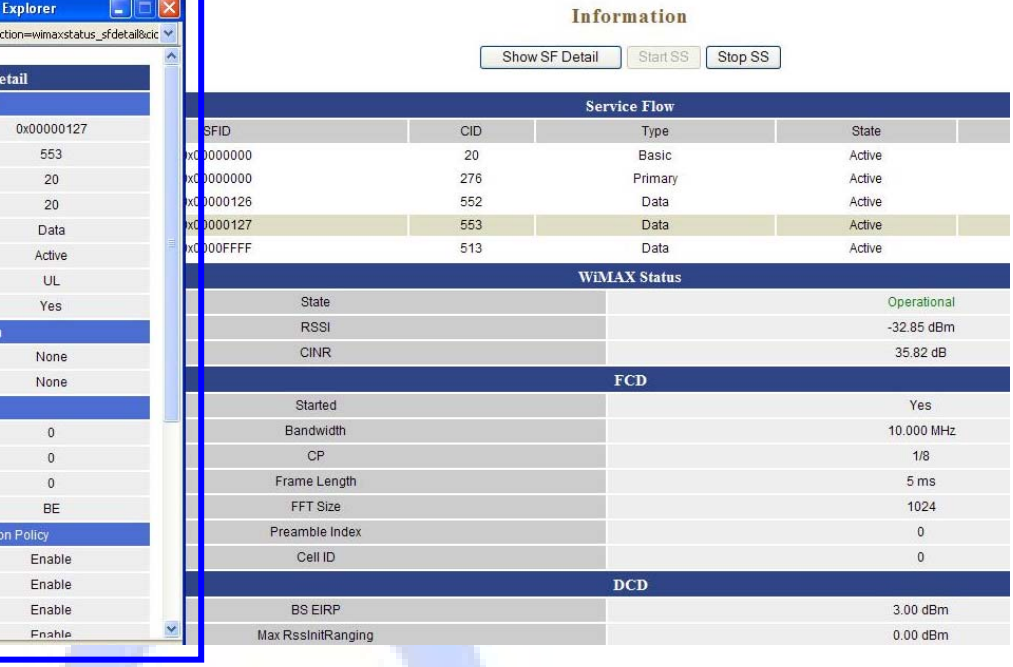
Show SF Detail | Start SS | Stop SS

Service Flow				
SFID	CID	Type	State	Direction
0x00000000	3	Basic	Active	DL / UL
0x00000000	259	Primary	Active	DL / UL
0x00000104	518	Data	Active	DL
0x00000105	519	Data	Active	UL
0x0000FFFF	513	Data	Active	DL

WiMAX Status	
State	Operational
RSSI	-30.93 dBm
CINR	36.50 dB
FCD	
Started	Yes
Bandwidth	10.000 MHz
CP	1/8
Frame Length	5 ms
FFT Size	1024
Preamble Index	0
Cell ID	0
DCD	

- Click the “Show SF Detail: button, WV202 will show the detail information of the selected service flow





6.3 Routing Table

A routing table contains the information necessary to forward a packet along the best path toward its destination. Each packet contains information about its origin and destination. When a packet is received, a network device examines the packet and matches it to the routing table entry providing the best match for its destination. The table then provides the device with instructions for sending the packet to the next hop on its route across the network.

Field	Description	Default value
Destination	The IP address of the packet's final destination The destination can be an IP address or a class-based, sub netted, or super netted network ID.	192.168.1.0
Gateway	The IP address to which the packet is forwarded	0.0.0.0
Netmask	Includes directly-attached subnets, indirect subnets that are not attached to the device but can be accessed through one or more hops, and default routes to use for certain types of traffic or when information is lacking.	255.255.255.0
Flags	Possible flags include: a. U: route is up b. H: target is a host c. G: use gateway d. C: cache entry e. !: Reject route	U
Metric	A number used to indicate the cost of the route so that the best route, among potentially multiple routes to the same destination, can be selected.	0
Ref	Number of references to this route	0
Use	Number of references to this route	0
Ifac	Interface to which packets for this route will be sent.	eth1

6.4 Call Detail Record

This IAD keeps records for all calls. The Call Detail Record contains information related to a telephone call, such as the origination and destination addresses of the call, the time the call started and ended, the duration of the call, among other details of the call.

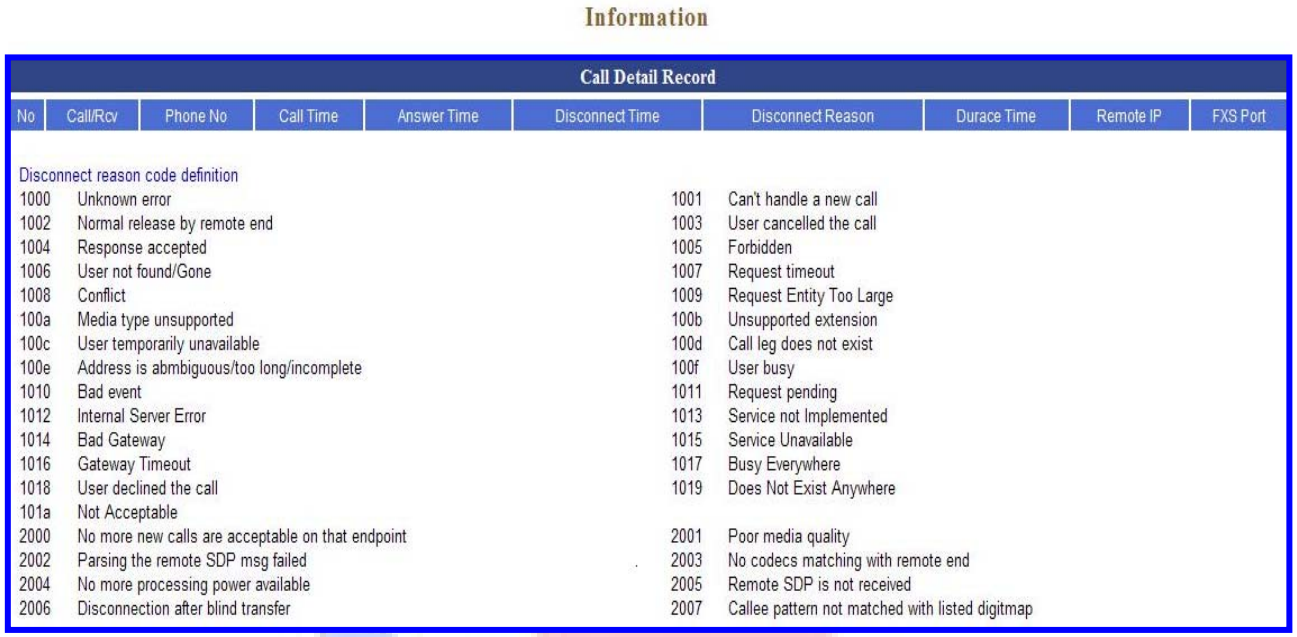


Table 2 Code Definition for Disconnect Reason

Code	Definition
1000	Unknown error.
1001	Can’t handle a new call.
1002	Normal release by remote end.
1003	User cancelled the call.
1004	Response Accepted
1005	Forbidden.
1006	User not found/Gone
1007	Request timeout
1008	Conflict.
1009	Request entity too large.

100a	Media type unsupported.
100b	Unsupported extension
100c	User temporarily unavailable.
100d	Call leg does not exist
100e	Address is ambiguous/too long /incomplete.
100f	User busy
1010	Bad event
1011	Request pending
1012	Internal Server Error
1013	Service not Implemented
1014	Bad Gateway
1015	Service Unavailable
1016	Gateway Timeout
1017	Busy Everywhere
1018	User declined the call.
1019	Does Not Exist Anywhere
101a	Not Acceptable
2000	No more new calls are acceptable on the endpoint
2001	Poor media quality
2002	Parsing the remote SDP msg failed
2003	No codecs matching with remote end.
2004	No more processing power available
2005	Remote SDP is not received.
2006	Disconnection after blind transfer.
2007	Callee pattern not matched with listed digitmap

6.5 Line Status

This window displays the FXS ports and SIP registered status. Click on **Refresh** button to retrieve the status.

Line Status

Gateway Status	
Line 1 (FXS 1)	ONHOOK
Line 2 (FXS 2)	ONHOOK

SIP Registered Status	
Line 1 (FXS 1)	NOT_REGISTERED (No error)
Line 2 (FXS 2)	NOT_REGISTERED (No error)

RTP Statistics

Current		Send	Recv	Lost
Line 1 (FXS 1)	channel 0	0	0	0
	channel 1	0	0	0
Line 2 (FXS 2)	channel 0	0	0	0
	channel 1	0	0	0

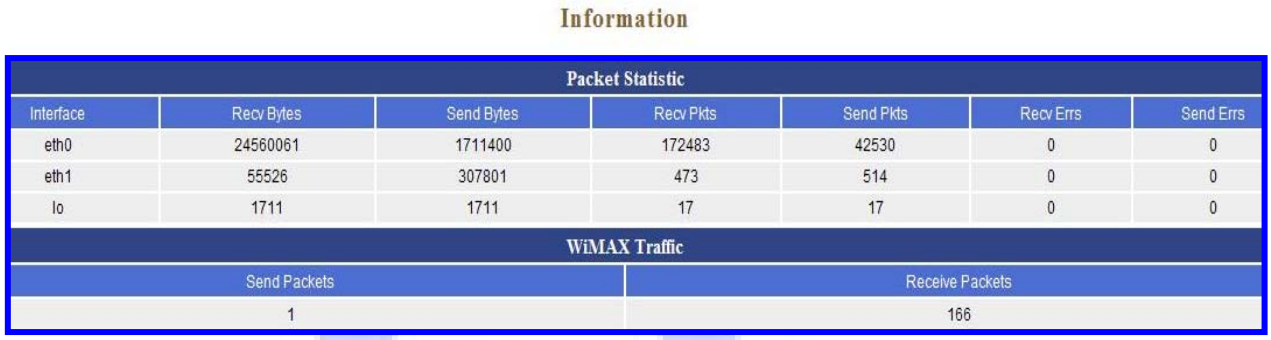
Total		Send	Recv	Lost
Line 1 (FXS 1)	channel 0	0	0	0
	channel 1	0	0	0
Line 2 (FXS 2)	channel 0	0	0	0
	channel 1	0	0	0

Refresh

6.6 Packet Statistic

A packet is the fundamental unit of information carriage in all modern computer networks that use packet switching technologies. Each packet is then transmitted individually and can even follow different routes to its destination. Once all the packets forming a message arrive at the destination, they are recompiled into the original message.

The device keeps statistic of the data traffic that it handles. You are able to view the amount of Receive and Sent packets that passes through the device on both the WAN port and the LAN ports. The traffic counter will reset when the device is rebooted.



Information

Packet Statistic						
Interface	Recv Bytes	Send Bytes	Recv Pkts	Send Pkts	Recv Errs	Send Errs
eth0	24560061	1711400	172483	42530	0	0
eth1	55526	307801	473	514	0	0
lo	1711	1711	17	17	0	0

WiMAX Traffic	
Send Packets	Receive Packets
1	166

6.7 System Log

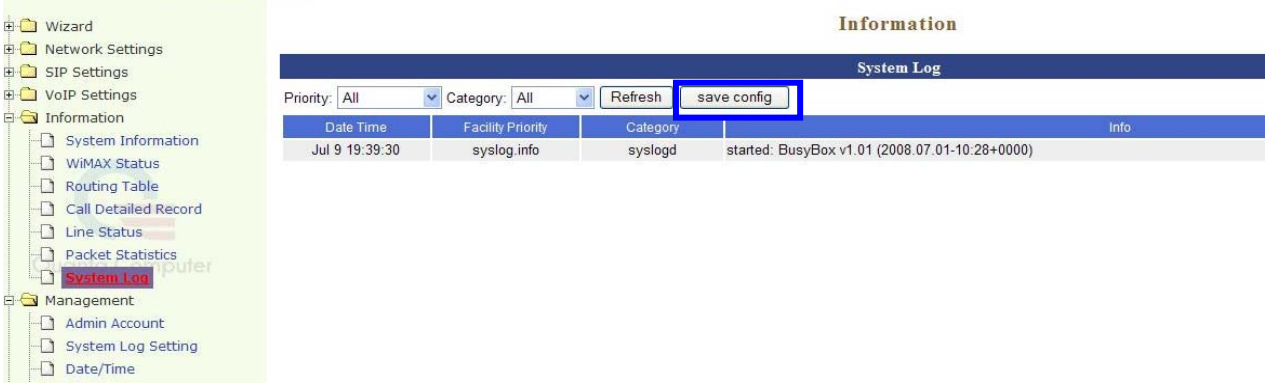
The log file keeps a running log of events and activities occurring on the device. The log always displays recent logs. When the device is rebooted, the logs would not be cleared.

The system log can be screen with 2 types of criteria, Priority and Category. This IAD supports eight priorities and three categories.

Field	Description	Default value
Priority	To decide which priority level of the log data will be shown. There are 8 levels to select: All / Emergence / Alert / Critical / Error / Warning / Notice / Info / Debug	All
Category	To decide which category type of the log data will be shown. There are 4 types to select: All / Kernel / Process / VoIP	All
Refresh	To refresh the log data	
Save config	Save the log to file	

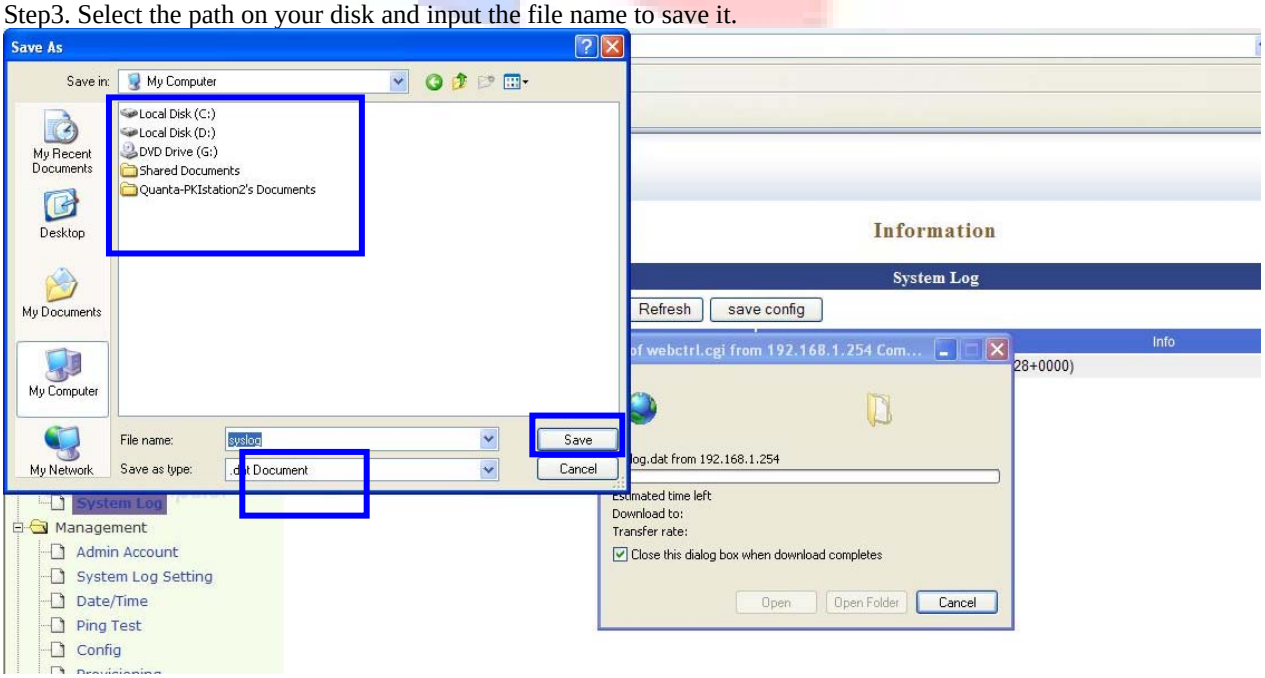
➢ Save log to file

Step1. Click the “Save config” button.



Step2. Click the “Save” button to save the log file.

Step3. Select the path on your disk and input the file name to save it.



7. Management

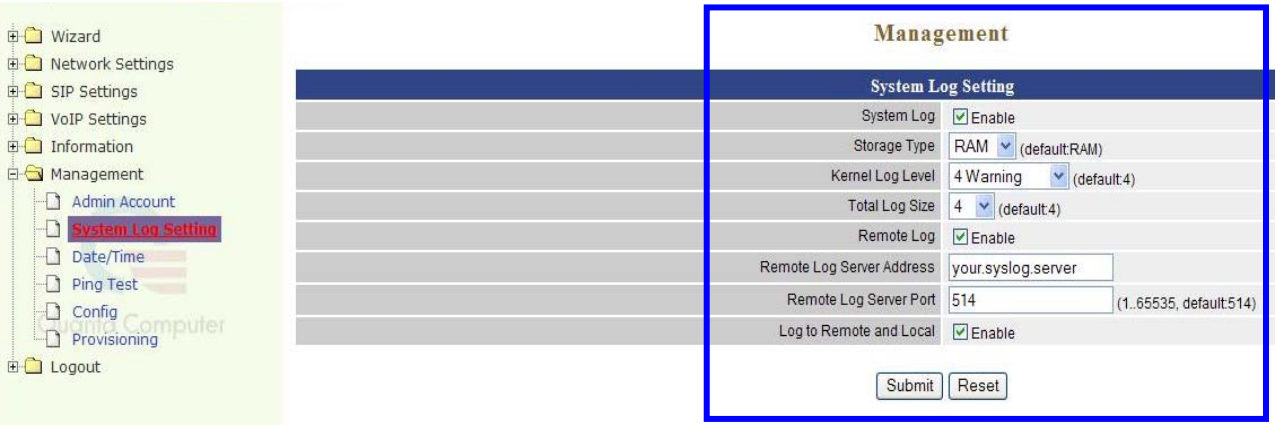
- Administrator Account
- System Log Setting
- Date / Time
- Ping Test
- Config
- Provisioning

7.1 Administrator Account

The administrator account can access the management interface through the web browser. Only the administrator account has the ability to change account password.

Field	Description	Default value
Remote Administration	This IAD allows administrator access the Web interface remotely. Enable this feature; specify the remote port and IP as well.	Enable
HTTP port for remote	Specify http port number for control this IAD Web interface remotely.	8888
HTTPS port for remote	Specify https port number for control this IAD Web interface remotely.	8443
Remote administration only from IP	Specify remote IP address	0.0.0.0
Update	Update the remote administration data.	
Access Level	There are 3 access level to set: admin / user / guest	admin
Username	Username is a text-field where the user can enter the name of the new login account to be added, or a new string to rename an existing login account.	
Password	This parameter holds the Password used for authentication with the registrar.	
Confirm Password	Re-type the password.	
Change	Click change button to modify an existed item.	
Add	Click add button to add a new item	
Edit	Click edit button to edit the existed item.	
Delete	Click delete button to delete the unneeded item.	

7.2 System Log Setting



Field	Description	Default value
System log	Enable/Disable the feature.	Disable
Storage Type	Select the storage type: RAM or Flash	RAM
Kernel Log Level	Assign the message level to be sent to syslog server. There are 8 message levels to set: 0 Emergence / 1 Alert / 2 Critical / 3 Error / 4 Warning / 5 Notice / 6 Info / 7 Debug	4 Warning
Total Log Size	Specify the size of the system log file. There are 3 different size to set: 4 Kbytes / 8 Kbytes / 12 Kbytes	4
Remote Log	Enable/Disable the remote log feature.	Disable
Remote Log Server Address	Enter the IP Address of remote log server	your.syslog.server
Remote Log Server Port	Enter the port number of remote log server.	514
Log to Remote and Local	Enable: Both local and remote sites will keep system log file. Disable: Only remote log server can keep the system log file.	Disable

7.3 Date/Time

The "system time" setting is used by the unit for synchronizing scheduling services and system logging activities. You will need to set the time zone corresponding to your location. The time can be set manually or the device can connect to a NTP (Network Time Protocol) server to retrieve the time. You may also set Daylight Saving dates and the system time will automatically adjust on those dates.

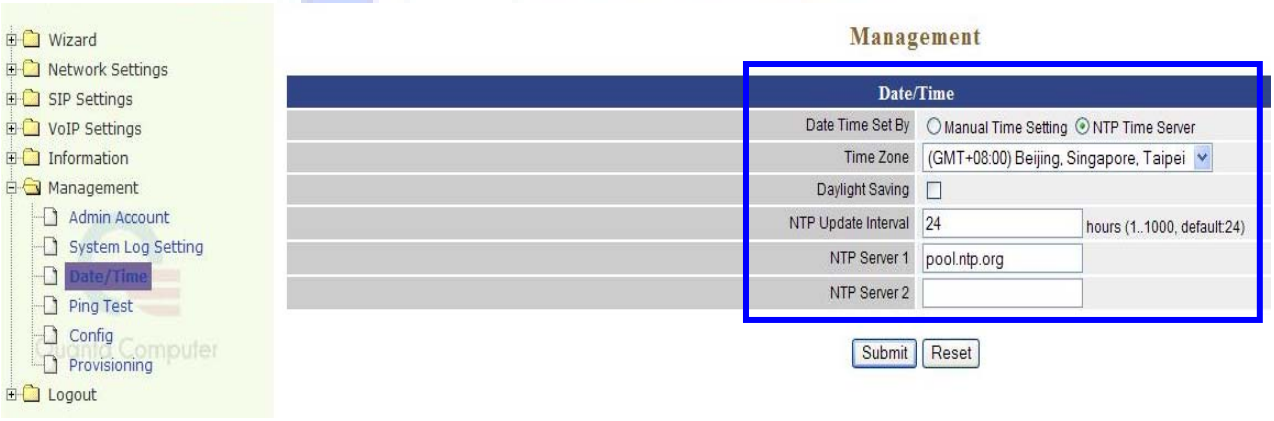
NTP (network time protocol) is a protocol that allows local computers to synchronize the clocks. When a NTP client initiates a time request exchange with the NTP server, the client can adjust its local clock to exactly match the clock at the server's computer. Accurate time information is critical for monitoring the device with system log. The device will synchronize itself with an external NTP server automatically When one of the following conditions occurs:

- ✓ Rebooting the device
- ✓ The **Expires** time having run out

You will need to set the time zone corresponding to your location. The time can be set manually or the device can connect to a NTP server to retrieve the time. You may also set Daylight Saving dates and the system time will automatically adjust on those dates.

Note: The Time Zone does not adjust automatically to the North America daylight saving time. Adjust the value manually when needed. -4 is the time zone with daylight saving and -5 is without daylight saving. The value can also be modified through the configuration file.

➢ NTP Time Server



Field	Description	Default value
Date Time Set By	a. Manual Time Setting – If you choose this item, then go to the fields of Date Value Setting and Time Value Setting for setting time. b. NTP Time Server – If you choose this item, then go to the filed of NTP Server Address to assign the domain name for NTP Server.	NTP Time Server
Time Zone	GMT (Greenwich Mean Time) is World Time and the basis of every world time zone which sets the time of day and is at the centre of the time zone map. GMT sets current time or official time around the globe. According to the location, select a time zone from the pull-down menu.	(GMT+08:00) Beijing, Singapore, Taipei

Daylight Saving	Daylight Saving Time begins for most of the United States at 2:00 a.m. on the first Sunday of April. Time reverts to standard time at 2:00 a.m. on the last Sunday of October. In the U.S., each time zone switches at a different time. In the **European Union**, Summer Time begins and ends at 1:00 a.m. GMT. It begins the last Sunday in March and ends the last Sunday in October. In the EU, all time zones change at the same moment.	Disable
NTP Update Interval	Configure how often to updates its system clock. This setting is based on hour inside the registry.	24
NTP Server 1	Assign the domain name of the NTP Server 1.	Pool.ntp.org
NTP Server 2	Assign the domain name of the NTP Server 2.	

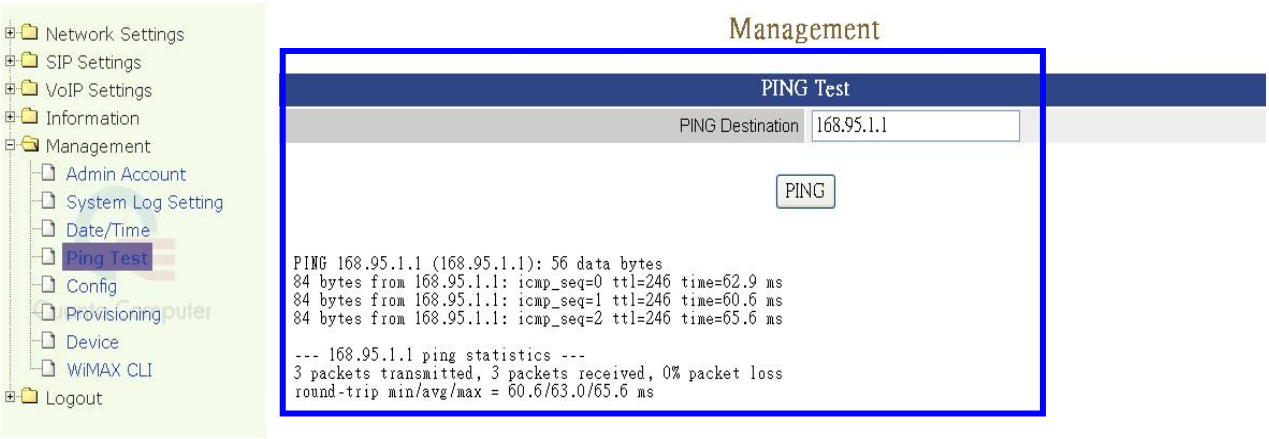
➢ Manual Time Setting

Field	Description	Default value
Date Time Set By	a. Manual Time Setting – If you choose this item, then go to the fields of Date Value Setting and Time Value Setting for setting time. b. NTP Time Server – If you choose this item, then go to the filed of NTP Server Address to assign the domain name for NTP Server.	NTP Time Server
Time Zone	GMT (Greenwich Mean Time) is World Time and the basis of every world time zone which sets the time of day and is at the centre of the time zone map. GMT sets current time or official time around the globe. According to the location, select a time zone from the pull-down menu.	(GMT+08:00) Beijing, Singapore, Taipei
Daylight Saving	Daylight Saving Time begins for most of the United States at 2:00 a.m. on the first Sunday of April. Time reverts to standard time at 2:00 a.m. on the last Sunday of October. In the U.S., each time zone switches at a different time. In the **European Union**, Summer Time begins and ends at 1:00 a.m. GMT. It begins the last Sunday in March and ends the last Sunday in October. In the EU, all time zones change at the same moment.	Disable
Date value Setting	Assign the day value from the pull-down menus.	
Time Value Setting	Assign the time value from the pull-down menus.	

7.4 Ping Test

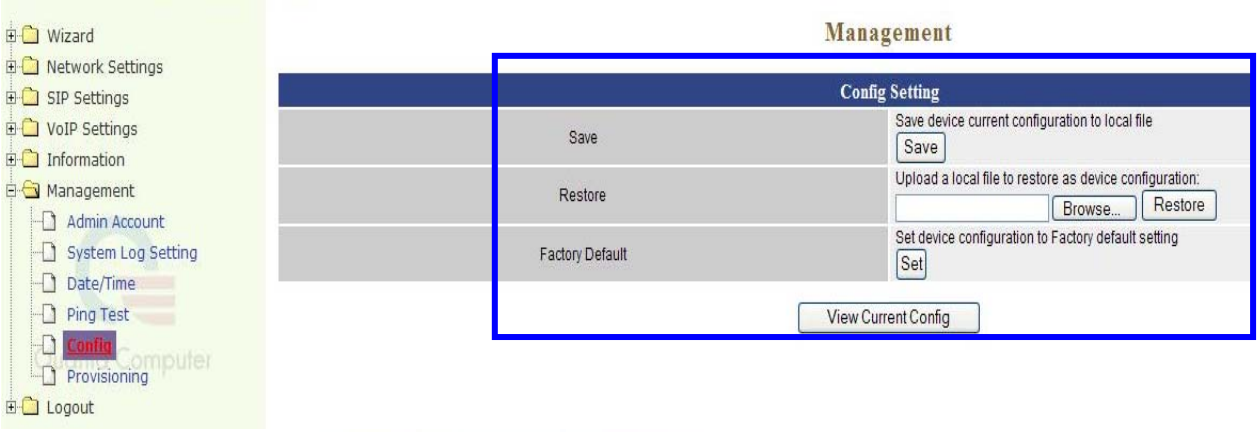
This useful diagnostic utility can be used to check if a computer is on the Internet. It sends ping packets and listens for replies from the specific host. Enter in a host name or the IP address that you want to ping (Packet Internet Groper) and click Ping.
Example:
yahoo.com or 216.115.108.245

- Ping Destination – Assign a legal IP address.



7.5 Config

All the system settings can be saved to a file and then use this file to restore in the future. You also can reset this WiMAX IAD to factory default setting.



Field	Description	Default value
Save	All settings can be saving to a local file. Click the **Save** button to save the configuration.	
Restore	Specify the path of Config file, then click **Restore** button to restore as device configuration for IAD.	
Factory Default	This function is used to restore all the parameters back to factory default setting.	

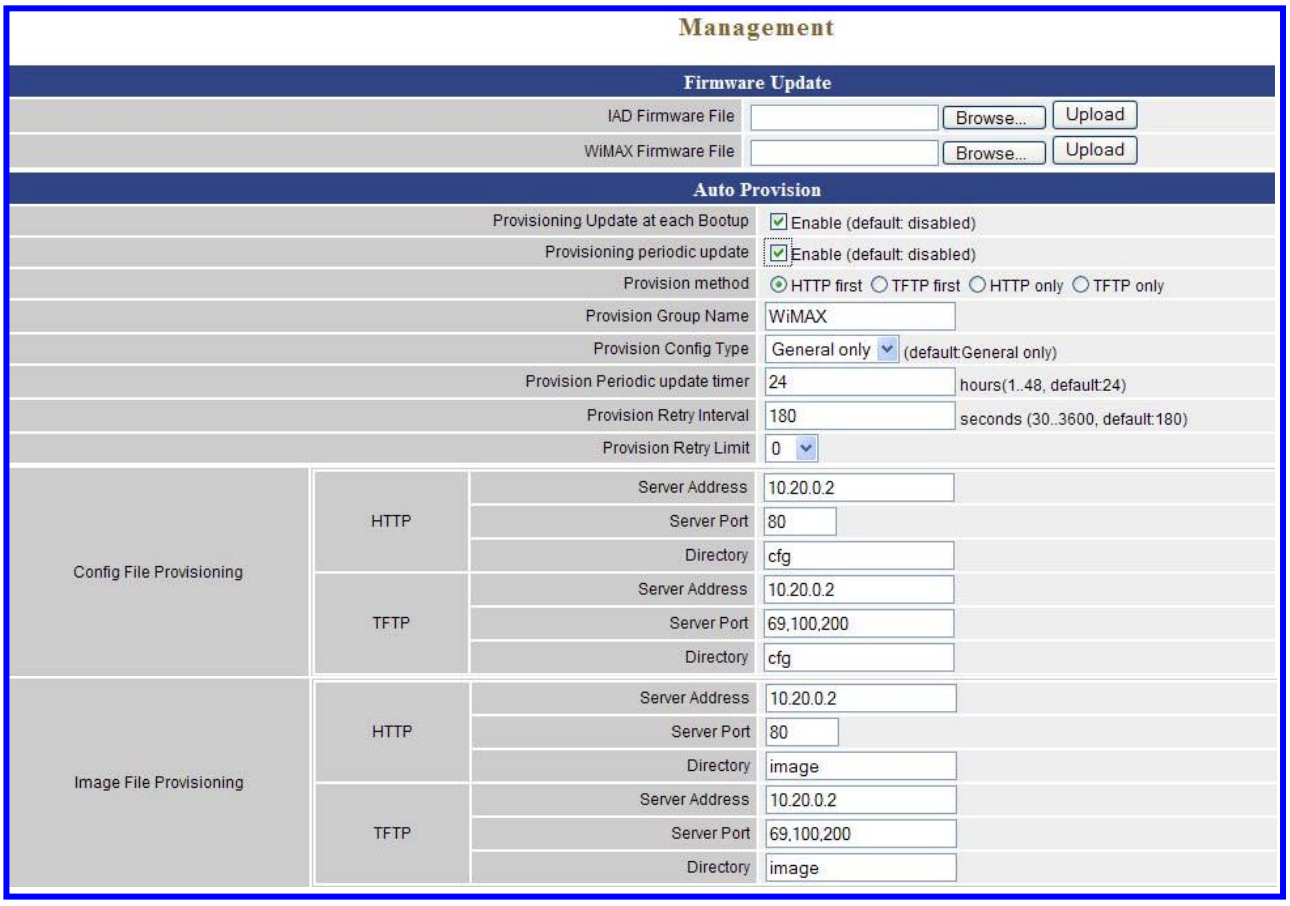
7.6 Provisioning

This page is used to upgrade WV202 system firmware. WV202 has two firmware parts, one is for system board and the second is for WiMAX adapter. User can upgrade them separately. Before upgrade, please make sure that the firmware you want to upgrade is saved on the local hard drive of the computer. Click on “Browse” button to select the local hard drive and click “Upload” button for the upgrade.

There are two ways to update firmware.

✓ Upload the firmware to system manually. However, for the user may not familiar with the product, recommend to enable Auto-provisioning.

✓ Auto-provisioning mechanism is a way which can check for latest firmware and then upgrade it automatically. It enables a system always run with a newest or stable firmware.



Field	Description	Default value
IAD Firmware File	Specify the path of IAD firmware file for uploading.	
WiMAX Firmware File	Specify the path of WiMAX firmware file for uploading.	
Provisioning Update at each Bootup	Enable: Update firmware at each bootstrap.	Disable
Provisioning Periodic update	Enable: IAD will check server for new firmware by the provision periodic update timeer and update firmware if new firmware is available.	Disable
Provision Method	Provisioning priority defines the provisioning/upgrade server priority. There are 4 items to set: HTTP first / TFTP first / HTTP only / TFTP only	HTTP first
Provision Group Name	Input the provision group name	WiMAX
Provision Config Type	This will download General config file only.	General Only
Provision Periodic update timer	The timer to update the firmware. It can be set from 1 hour to 48 hours.	24
Provision Retry Interval	This IAD will retry with 2nd-Priority protocol to get firmware image after 1st-Priority protocol timeout. The value can be set in the range from 30 seconds to 3600 seconds.	180
Provision Retry Limit	Set the retry times.	0
	Config File Provisioning	
HTTP Server Address	Provisioning HTTP Server Address is set to default your HTTP provisioning server. This server is used for transacting all configuration files using HTTP protocol.	10.20.0.2
HTTP Server Port	This is the HTTP port to be used for the HTTP Provisioning server.	80
HTTP Directory	The directory of the firmware file.	cfg
TFTP Server Address	Provisioning TFTP Server Address is set to default your TFTP provisioning server. This server is used for transacting all configuration files using TFTP protocol.	10.20.0.2
TFTP Server Port	Provisioning TFTP server ports are set to port 69 (1st-Priority), port 100 (2nd-Priority) and port 200(3rd Priority). These are TFTP ports used on the TFTP servers and their order of priority.	69,100,200
TFTP Directory	The directory of the firmware file.	cfg
	Image File Provisioning	
HTTP Server Address	Provisioning HTTP Server Address is set to default your HTTP	10.20.0.2

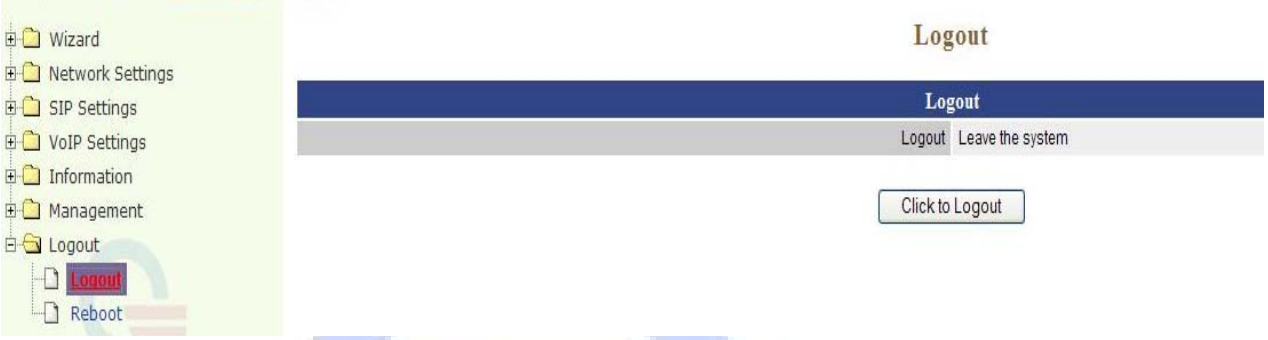
	provisioning server. This server is used for transacting all configuration files using HTTP protocol.	
HTTP Server Port	This is the HTTP port to be used for the HTTP Provisioning server.	80
HTTP Directory	The directory of the firmware file.	cfg
TFTP Server Address	Provisioning TFTP Server Address is set to default your TFTP provisioning server. This server is used for transacting all configuration files using TFTP protocol.	10.20.0.2
TFTP Server Port	Provisioning TFTP server ports are set to port 69 (1st-Priority), port 100 (2nd-Priority) and port 200(3rd Priority). These are TFTP ports used on the TFTP servers and their order of priority.	69,100,200
TFTP Directory	The directory of the firmware file.	cfg

8. Logout

- Logout
- Reboot

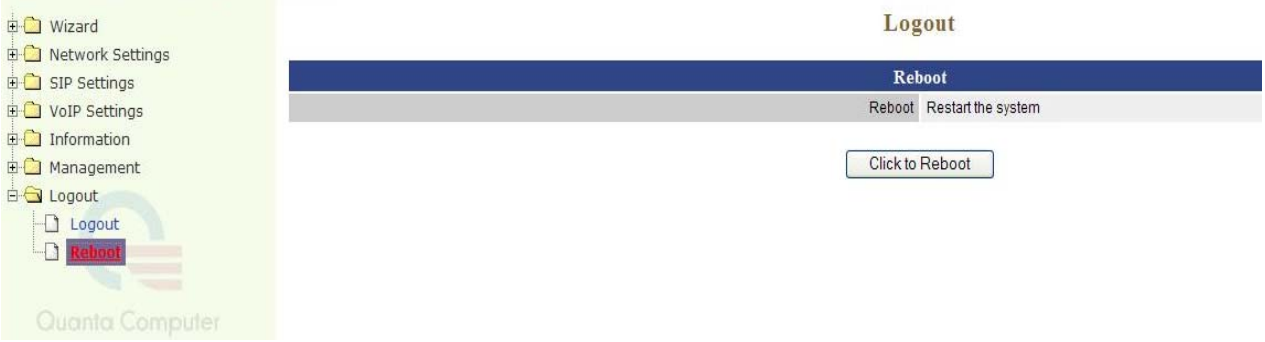
8.1 Logout

If you need to logout administrator right for web-access, please click the Logout link. The web system management interface will auto–logout with 1800 sec default value.



8.2 Reboot

There is software reboot button. You can click it for reboot if necessary.



It will take about 50 seconds to reboot and auto go to the login web page after boot up.