MOSA 4491

User Manual

Edition 3.0

Update：2008/06/23

DCC NO. 9171004703

1 Safety Instruction

Warning

1. Do not attempt to service the product yourself. Any servicing of this product should be referred to qualified service personal.

2. To avoid electric shock, do not put your finger, pin, wire, or any other metal objects into vents and gaps.

3. To avoid accidental fire or electric shock, do not twist power cord or place it under heavy objects.

4. The product should be connected to a power supply of the type described in the operating instructions or as marked on the product.

5. To avoid hazard to children, dispose of the product’s plastic packaging carefully.

6. Please read all the instructions before using this product.

Table of Contents

Change History: Software Version 2.01.0	
We launch new hardware and previous hardware is phased out	New hardware has smaller dimension, more power-saving, more powerful and new user-friendly management interface
Change History: Software Version from 1.00 to 1.05.0	
Add new function and bug fixed	Add new function and bug fixed

2 Preface

MOSA 4491 provides many Virtual Ports that can do Forward function for customer. This products need to work with other MOSA IP-PBX/Gateway for Forward function.

2.1 Features

- **100 sets of Virtual Ports**

  Unlike other MOSA IP-PBX that has fixed ports (2、4、8、16 Ports), MOSA 4491 has 100 sets of virtual ports

- **By using Redirect Map function and working with MOSA IP-PBX, system can expand more extension ports and also penetrate traditional PBX**

  By using Redirect Map, extension Prefix can be assigned by this machine and extension suffix is assigned by MOSA IP-PBX. It can expand more extension ports and also penetrate traditional PBX

- **Call Forward Function**

  It has Call Forward function that redirect virtual port to other MOSA IP-PBX or to PSTN/Mobile phone.

- **Built-in Auto Attendant**
  MOSA 4491 had built-in auto attendant. It provides auto attendant for each incoming call and greeting can be recorded by extension phone set

- **Easy to Use and Configure**

  The same as other series of MOSA IP-PBX, it is easy to configure. Connect cable, input phone number and IP address via system console, then it is able to communicate with other MOSA IP-PBX around the world.

- **Allow to Use Private IP**

  MOSA 4600 can be connected to any MOSA products at any location around the world just through the private IP address behind NAT.

- **Users Can Configure Call Forward Number by Themselves**

  Each user can dial IP call to this system and configure Call Forward destination (number) and Offnet Forward destination (number)

- **Network Management**

  1. **Complete Management Capabilities: Phone set, Console, Telnet and WEB**

     The machine provides the management tool via telephone set (by VODTEL's gateway), system console, Telnet and Web Browser. Users can configure or modify the setting through any telephone set, system console, or Telnet. System manager can browse information through PC to manage the system no matter where he is.

  2. **Web and FTP Software Update**

     By Web browser and the FTP server that is embedded into this machine. The machine provides file upload/download and firmware update.

3 Package Contents

MOSA 4491 package Includes:

- The MOSA 4491 Server
- Power Core and adapter
- RJ-45 network cable
- Rubber foot
- Console cable (optional)

4 General Descriptions

4.1 Panel

4.1.1 Front Panel

4.1.2 Rear Panel

4.2 LED indicator

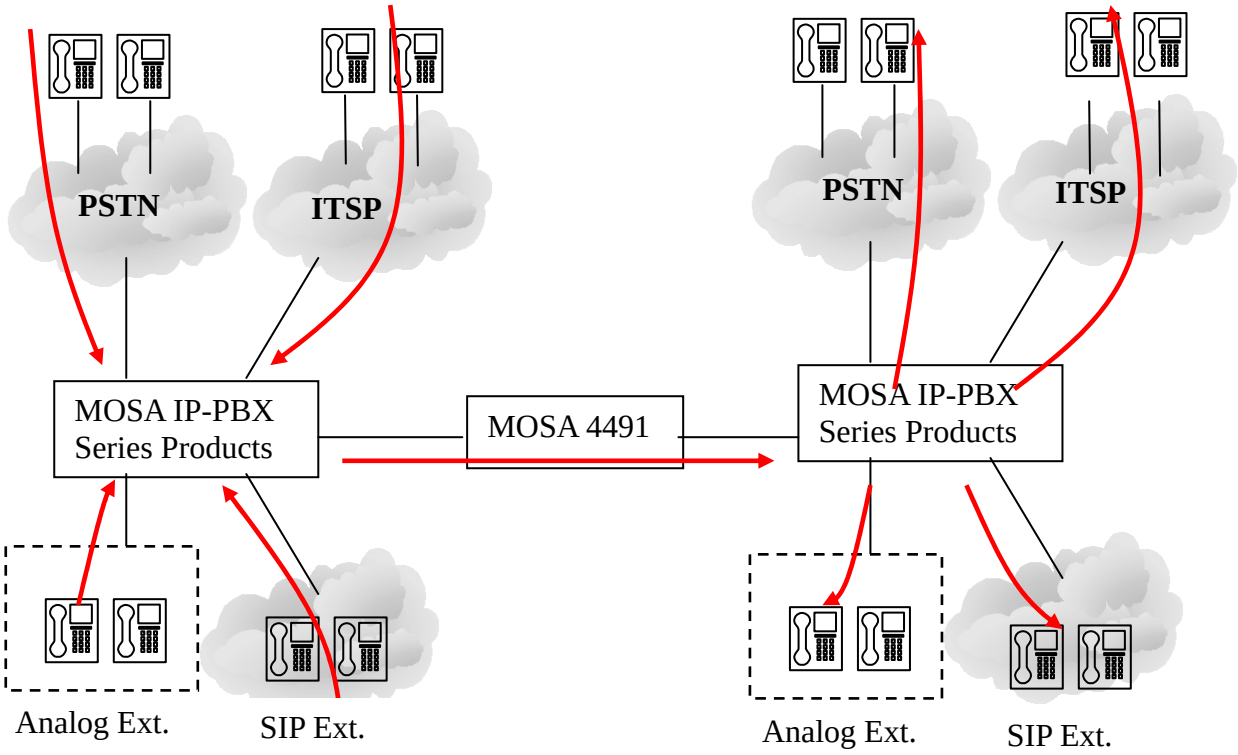
LED	Label		Description
Front	Link/ACT (Green)	ON	Network Linked Up
		FLASH	Sending/Receiving data packets
	100Mbps (Yellow)	ON	Transmission Rate is 100 Mbps
		OFF	Transmission Rate is 10 Mbps
Rear	PWR	ON	Power supply normal
	ALRAM	ON	H/W error is detected when diagnostic test is running.
	CPU/ACT	ON	CPU in normal operation
		FLASH	CPU is Running
	TIME SRVR	ON	Able to access to TIME SERVER
		FLASH	Trying to access to TIME SERVER
		OFF	NOT able to access to TIME SERVER
	NETMOSA	ON	Registered to NETMOSA
		OFF	Not registered to NETMOSA
		FLASH	Both NETMOSA and NETMOSA are configured, but only one server is registered.
	R-MAP	ON	Redirect.map is uploaded
		OFF	No Redirect.map is uploaded

4.3 Connector

Connector	Label	Description
Network	1	RJ-45 connector, cascaded from other Switch/Hub is suggested.
	2, 3, 4, 5	RJ-45 connector, connect to LAN or cascaded to next Switch/Hub is suggested.
RJ-45	CONSOLE	Connect to system console. Connect to 9 pin serial port (RS-232) of PC via Console cable.

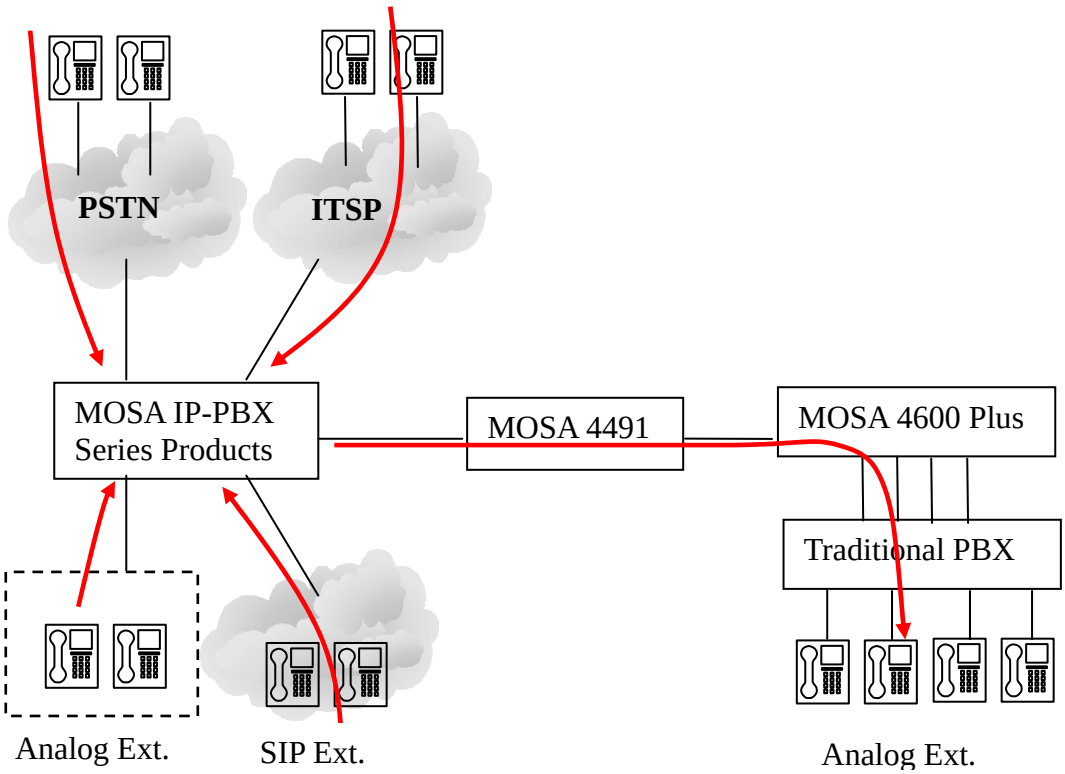
5 Application Structure

MOSA 4491 and MOSA IP-PBX work together can achieve many functions. Here is the illustration.



One step or 2 steps dialing incoming call from trunk (PSTN, ITSP (Internet Telephony Service Provider)) or line (Analog Ext., SIP Ext.) of MOSA IP-PBX to MOSA 4491 can be redirected to line (Analog Ext., SIP Ext.) of remote MOSA IP-PBX directly or remote trunk (PSTN, ITSP (Internet Telephony Service Provider)) of remote MOSA IP-PBX directly.

By using the Redirect map function of MOSA 4491, one-step dialing can penetrate traditional PBX and it also expands usable extension number and no longer limited to the extension table of single MOSA 4600 Plus

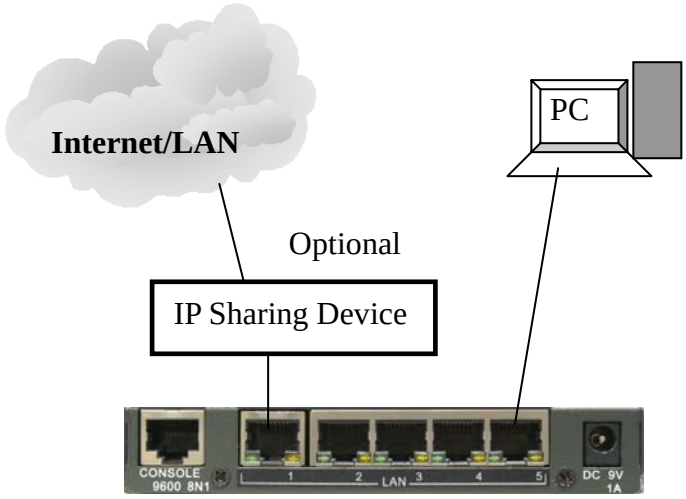

PSTN
ITSP
MOSA IP-PBX
Series Products
MOSA 4491
MOSA 4600 Plus
Traditional PBX
Analog Ext.
SIP Ext.
Analog Ext.

6 Basic Configuration

To configure the function of this machine, configure basic settings for PC to connect this machine is required for configuration.

6.1 Connection of Network Cable

This machine provides 5 RJ-45 Ethernet switch port. It detects straight through and crossover network cable automatically. Any ports can be connected to network. The connection figure below is for your reference.



Please do confirm

- The Link/Act LED of PC network card is ON or blinking.
- 100Mbps (yellow) LED is ON and Link/ACT (green) LED is ON or blinking at network port.

Otherwise, change port or LAN cable and retry it again

Note: To connect PC is for the configuration of this product. When configuration is done, no PC is required to make or accept calls and all PCs can be shut down.

6.2 Open Server Port to penetrate NAT

In additional to connect this machine to Internet directly, MOSA 4491 may connect to IP Sharing device and define the private IP Address to communicate with the other MOSA IP-PBX.

In the table followed, the port number used in MOSA 4491 is listed. Open the ports with port number listed in the table to the firewall.

Packet type	Signaling Port Number
Call Control	UDP 2000
RTP Voice Packet	UDP 4000 – 4199
FTP	TCP 21
Web	TCP 80
Telnet	TCP 23

Description:

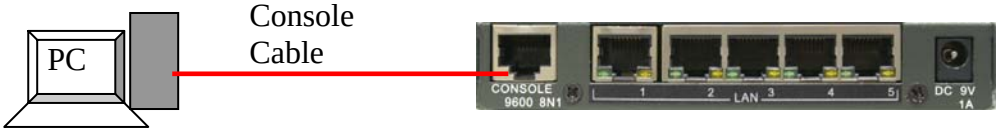
Normally every type of server uses the specific service port number, e.g. WEB server uses the port of TCP 80, and FTP server uses the port of TCP 21. The configuration is to set mapping from the specific port number to the internal private IP Address.

Therefore IP Sharing will transfer the packet, which is delivered to the specific port number, to the corresponding private IP Address. For example, if the private IP Address 192.168.0.2 is used in the LAN network, it should be mapping to a corresponding port number (TCP port 80 of IP Sharing device←→, 192.168.0.2 mapping port 80). Hence, any packets to TCP port 80 will be transferred to TCP port 80 of IP Address "192.168.0.2". In this machine, UDP port 2000 is used for Packet of Control, there should be a mapping port on the IP Sharing. (UDP port 2000 of IP sharing device ←→IP of this machine, UDP port 2000).

Therefore, open Server Port at IP sharing device can let devices inside and outside of firewall can communicate.

6.3 Connection of Console Cable

There is Console port on this box that can connect to PC for initial settings. You can use Web Browser to connect default IP: 192.168.0.2, so console connection is not necessary required.



6.4 Configuration of My Phone Number

My Phone Number means the phone number of this machine. Please configure the number the same as the main PSTN phone number (full number) of your company.

Assume the phone numbers you want to input are

Country Code：886 (Taiwan)

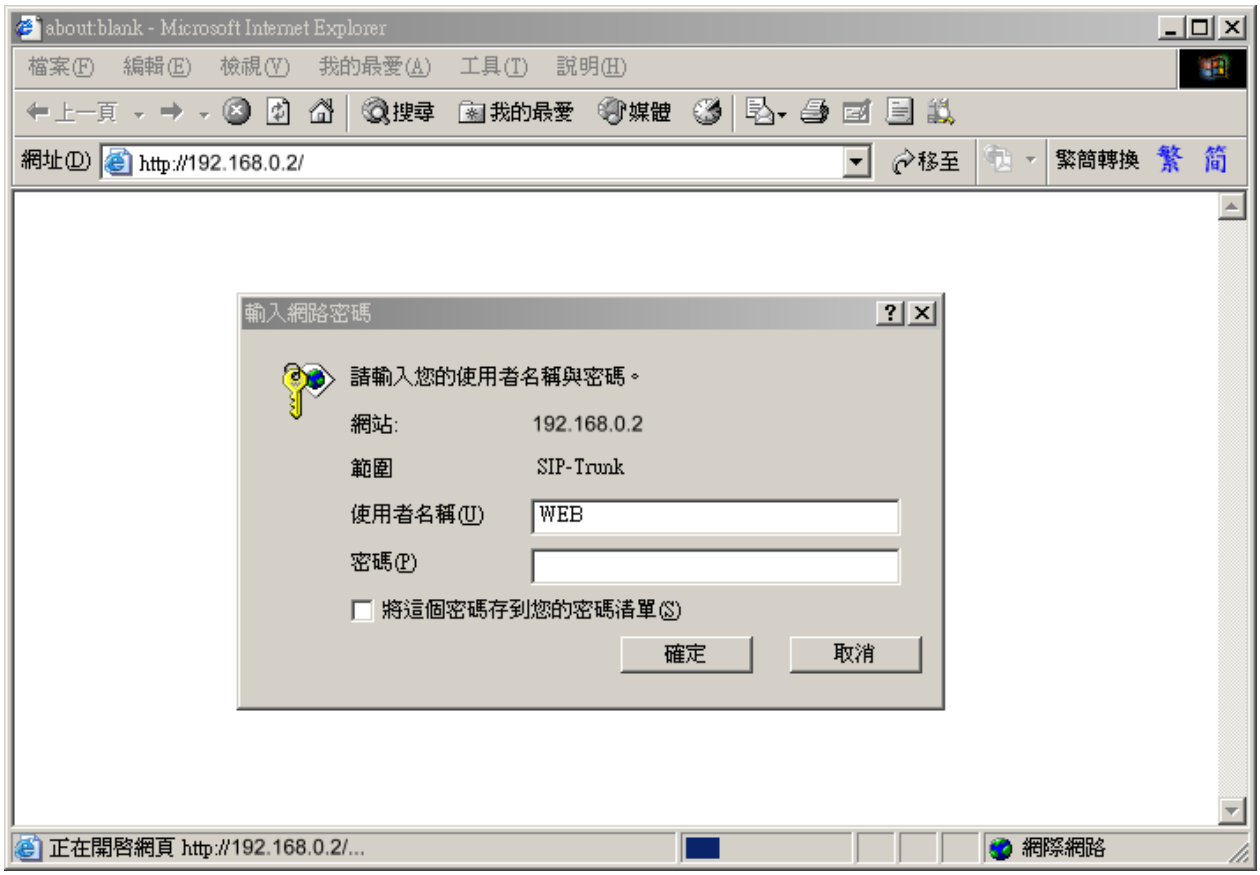
Area Code：2 (Taipei)

Phone Number：2026518

Attention: No matter whether you will make long distance or international call or not, Input the 3 items above is required

Start IE browser and input http://192.168.0.2 (Default IP address of this machine: 192.168.0.2, Subnet Mask: 255.255.255.0. Please configure the Subnet of your PC to connect this machine)

User Name: WEB, and password is not required



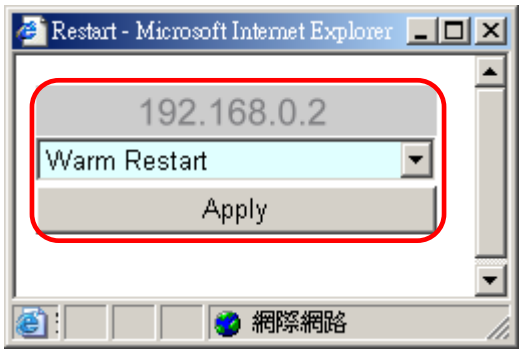
Web Path：1.System Config.\1.1.Basic Information

Click Apply when it is done.

My Phone Number	
Country Code:	886
Area Code:	2
Phone Number:	2026518

Restart is required
At left-bottom coner of Web page

Select Warm Restart

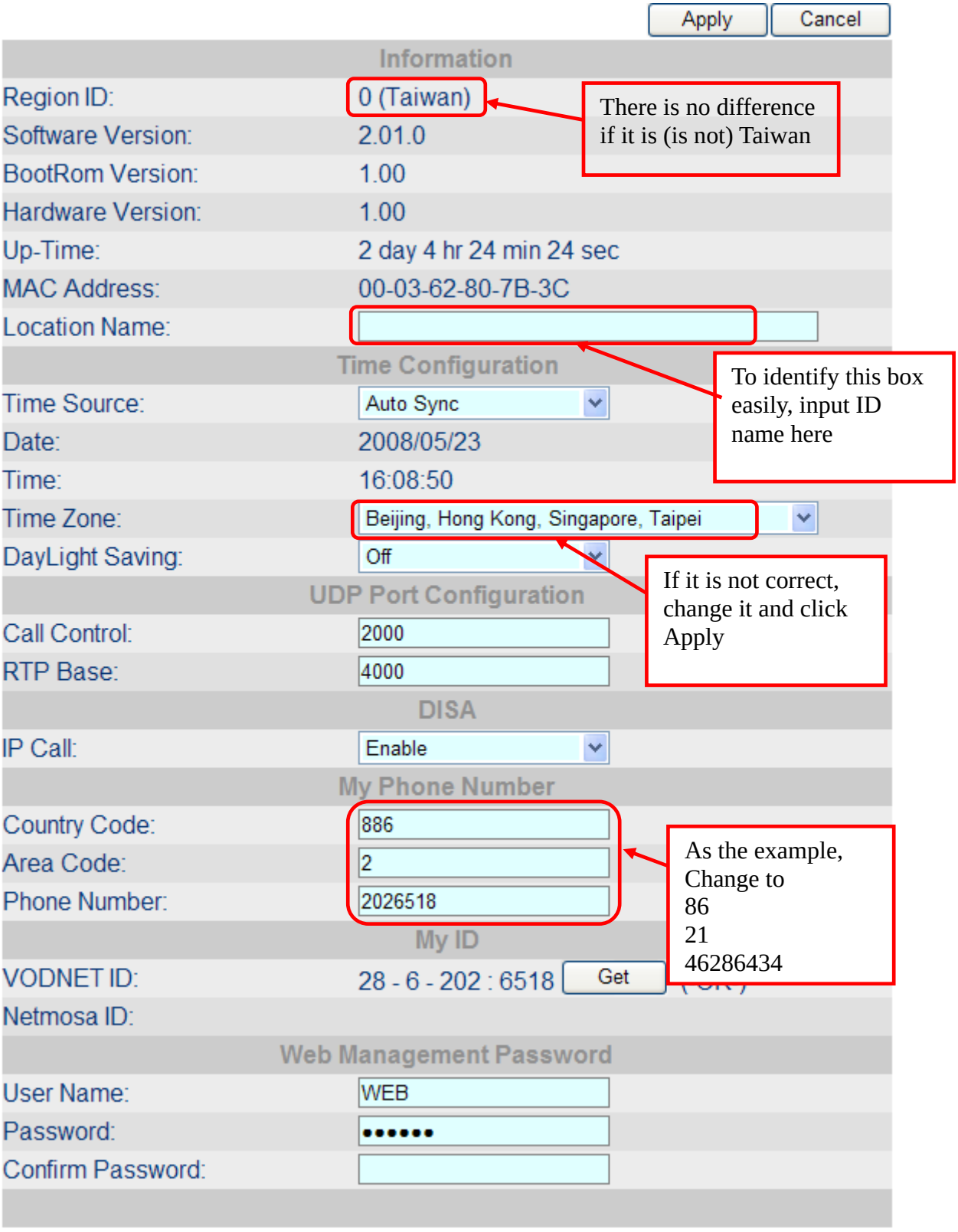


6.5 Verification and Check of Management Web

When you had entered WEB management interface, check or tune settings if required. If settings are modified, Warm Restart at last section can be done here only.

6.5.1 Basic Information

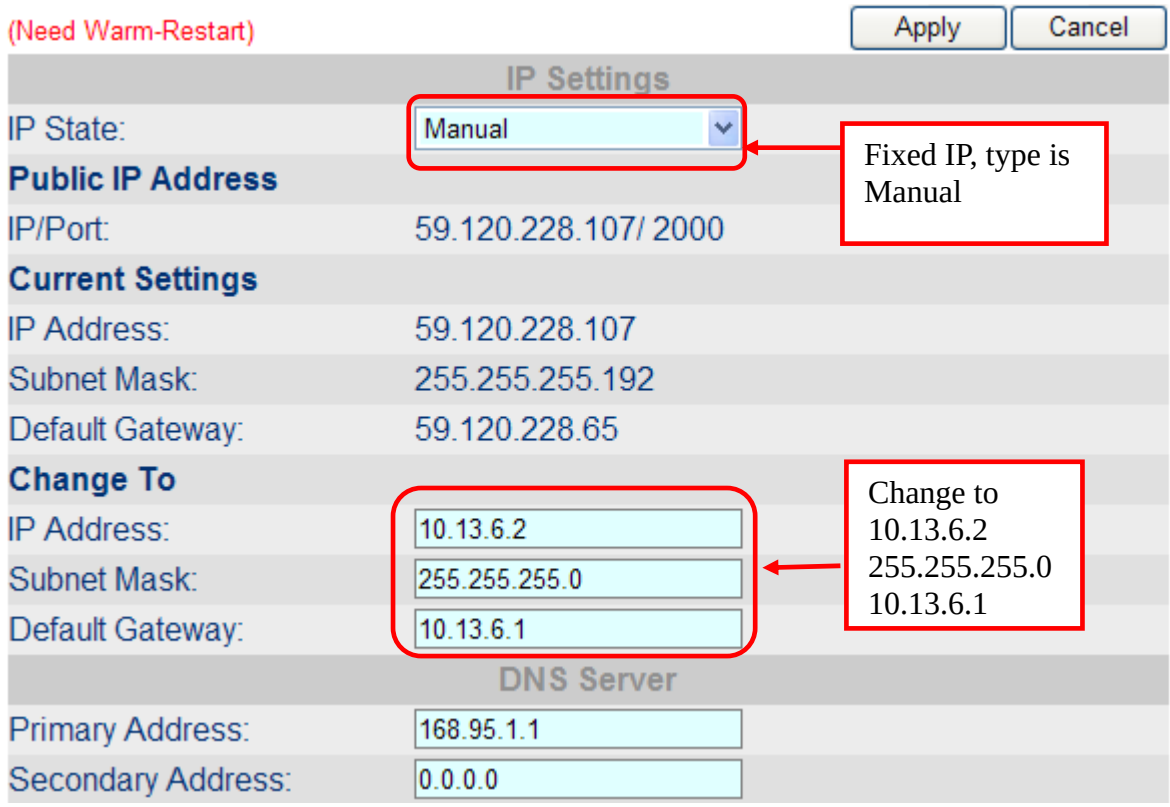
Web Path：1.System Config.\1.1.Basic Information



6.5.2 IP Settings

The default IP of this machine is 192.168.0.2. If user doesn't want to change the IP address of this machine, then IP sharing device has to use subnet 192.168.0.X. If IP sharing device does not assign LAN as subnet 192.168.0.X, but subnet 10.13.6.X, then this machine has to change and use subnet 10.13.6.X, such as IP: 10.13.6.2, subnet Mask: 255.255.255.0

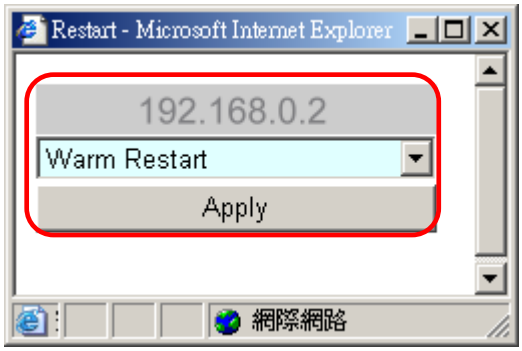
Web Path：6.IP Settings



6.5.3 Restart

To insure that all setting take effect, restart this machine when all configuration is done. To restart this machine, click **–Restart-** at left bottom of Web page to do restart.

Select Warm Restart



Wait for a moment after the system restarts.

If the Router is also need to restart, also restart it. Restart router first than MOSA 4600 Plus is suggested.

7 Function Configuration

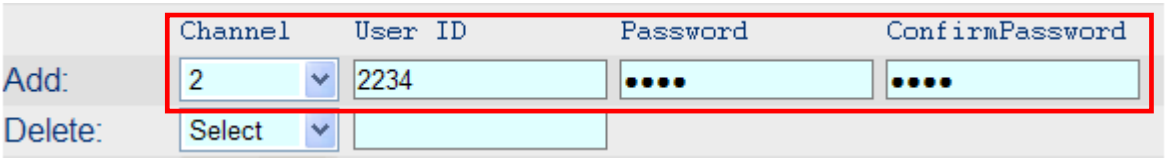
7.1 Configure Authentication of Member

MOSA 4491 has 100 virtual channels for each member. Users have their own accounts and passwords number for authentication for incoming call. They can change the call forward destination number any time and also avoid being changed by others. Each user needs to input channel number and password to configure it.

Here is the method to configure Member

Specify the Channel that user use and input the User ID (default: 0) and password that user will dial for authentication. Input password again for verification.

Web Path：2.System Advanced\2.1.Member



7.2 Configure Forward Number

When authentication is done for incoming call, user can change call forward destination number any time.

Incoming call to MOSA 4491 can be forward to the destination below：

- To Analog FXS port of remote MOSA 4600 Plus
- To SIP extension of remote MOSA 4600 Plus
- To local PSTN call (Offnet Forward) via remote MOSA IP-PBX or ITSP (Internet Telephony Service Provider)

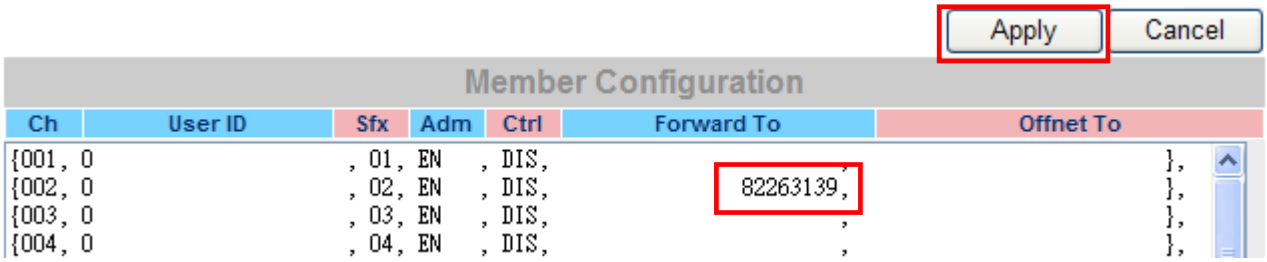
Each user can make call to 4491 and the system greeting help you to configure the Forward To destination.

(1) Make VoIP call to MOSA 4491 from other MOSA IP-PBX and you hear the system greeting.
(2) Input access code #1* of instruction greeting. For access code, please refer to 9.8 Web Path: 2.System Advanced\2.4.Behavior Setting.
(3) By the instruction of greeting, input User ID. For the configuration of User ID, please refer to last section 7.1 Configure Authentication of Member. Press # when it is done.
(4) Input Password of User ID
(5) Select service item. Press "1" to enter Forward configuration item.
(6) Press "0" to enter Forward Number configuration
(7) Input Forward Number and # to finish
(8) The system plays the number you had dialed. Press "0" to confirm
(9) You hear the successful configuration greeting

Call forward number of destination also can be configured at Web page

Configure call forward number at Web page

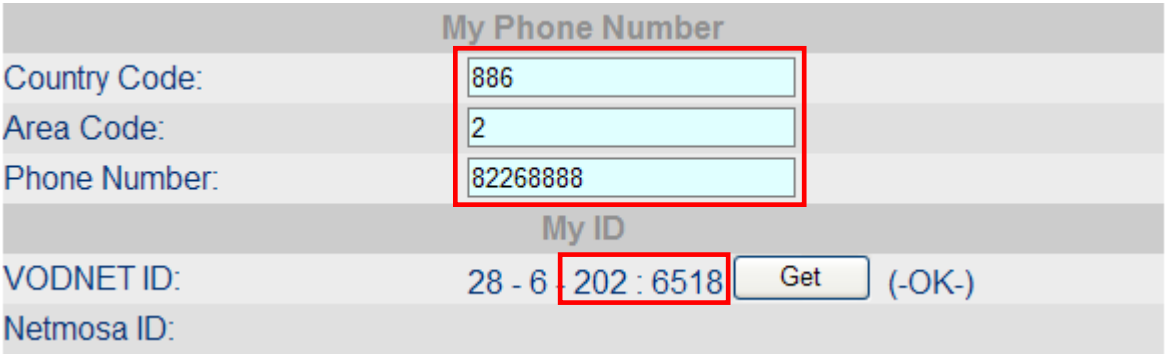
Web Path：1.System Config.\1.2.Channel



7.3 Make Call to Ext. of MOSA 4491 from MOSA IP-PBX

Other MOSA IP-PBX serial products, such as MOSA 4600 Plus, user can make call to this machine or its extension line.
The Phone Number and VODNET ID of MOSA 4491 is shown below
Phone Number can be the same or different from VODNET ID

Web Path：1.System Config.\1.1.Basic Information



Example 1: User of MOSA 4600 Plus at Kaohsiung makes call to FONEMOSA 4491 at Taipei

- Assume the phone number of Taipei MOSA 4491 is 886 2 82268888 and VODNET ID is 2026518

Dialing Method: User at Kaohsiung picks up phone and hear dial tone, and then dial **02 8226 8888# or **2026518#, later, you hears the system greeting of MOSA 4491

Example 2: User of MOSA 4604 Plus at Beijing make call to channel 22 of MOSA 4491

- Channel 22 of MOSA 4491 is configured to Forward To another MOSA 4600 Plus with VODNET ID: 2006628
- Assume the phone number of Taipei MOSA 4491 is 8226-8888

Dialing Method: User at Beijing picks up phone and hear dial tone, and then dial **00 886 2 8226 8888 22#. This call is forward to MOSA 4600 Plus 2006628

7.4 Make Call to MOSA 4491 then Offnet to PSTN or Mobile Phone

7.4.1 Configure MOSA 4491

In addition to Forward Number at previous section, extra Offnet Number is required. Incoming call is forward to the machine with Forward Number and the machine make outgoing trunk call to Offnet Number

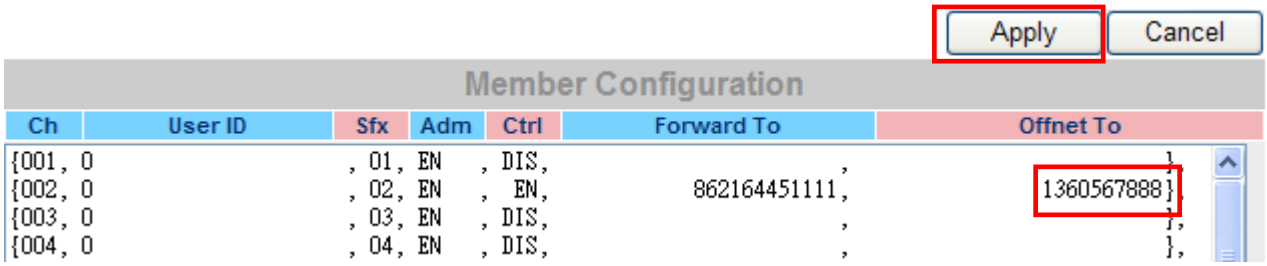
User can configure this function via phone set.

(1) Make VoIP call to MOSA 4491 from other MOSA IP-PBX and you hear the system greeting.
(2) Input access code #1* of instruction greeting. For access code, please refer to 9.8 Web Path: 2.System Advanced\2.4.Behavior Setting.
(3) By the instruction of greeting, input User ID. For the configuration of User ID, please refer to section n 7.1 Configure Authentication of Member. Press # when it is done.
(4) Input Password of User ID
(5) Press "2" according to instruction greeting to enter Offnet Number.
(6) Input Offnet Number and # to finish
(7) The system plays the number you had dialed. Press "0" to confirm
(8) You hear the successful configuration greeting
(9) Hand off the phone

Offnet To number of destination also can be configured at Web page

Configure Offnet To number at Web page

Web Path：1.System Config.\1.2.Channel



7.4.2 Configure Remote MOSA IP-PBX

Due to charge of Offnet Forward trunk call should be paid by the owner of remote MOSA IP-PBX or ITSP, so open permission of remote machine for the MOSA 4491 is required.

Configuration on remote MOSA IP-PBX/Gateway:

Add a set of number at **Permitted Phone Number for Offnet Forward** field and this phone number has to be the same as the Offnet Number of MOSA 4491

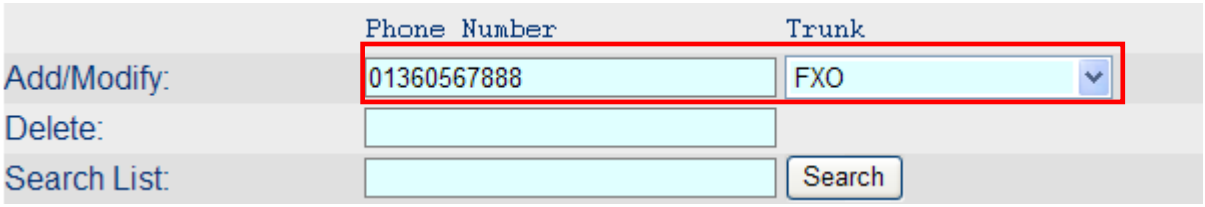
Configuration is shown below: (Example: configuration at remote MOSA 4600 Plus)

Phone Number: For Outbound Forward Number (1.System Config.\1.7.Offnet Forward), full number is not required. System can compare the first N digits. For example, input 0982, then all numbers with prefix 0982 is able to do outbound call.

Trunk：Select trunk interface

- Disable: Trunk call is not allowed
- FXO: Trunk call from FXO is allowed
- IP: Call from SIP Trunk is allowed

Web Path: 1.System Config.\1.7.Offnet Forward



For example, this MOSA 4491 is located at Taipei and incoming call will be forward to Shanghai 21-6445-1111 and it will be offnet to PSTN 1360567888 at Beijing.

Parameter	Channel 2 of This MOSA 4491 (Taipei)	MOSA (8621-6445-1111, Shanghai) that offnet to PSTN
Control	Enable	-
Forward to：	862164451111	-
Offnet to：	01360567888	-
Permitted Phone Number for Offnet forward	-	01360567888

7.4.3 Dialing Example

A MOSA 4600 Plus user make call to the channel 2 of MOSA 4491 at Taipei, then the call is routed to Beijing PSTN phone number 1360567888 via MOSA (862164451111) at Shanghai finally.

- Assume that MOSA 4491 at Taipei is 8226-8888
- The Channel 2 of MOSA 4491 is configured **Forward To** MOSA at Shanghai, and then **Offnet To** Beijing PSTN number 1360567888.
- MOSA at Shanghai had configured permission to PSTN number 1360567888 at Beijing

Dialing method: Kaohsiung user hook off and hear dial tone, then dial **02 82268888 02#, the call is route to 1360567888 at Beijing finally.

7.5 Make call to MOSA 4491 then route to other MOSA IP-PBX

When DISA of MOSA 4491 is activated, number can be dialed is not limited to 100 virtual channels for user that make call to MOSA 4491, it also includes 1000 sets of extension at extension table. User can make call to other MOSA IP-PBX if Extension Table and Phone Book in MOSA 4491 is pre-configured.

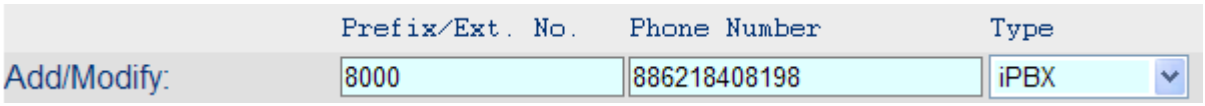
7.5.1 Configuration of Extension Number

Other MOSA IP-PBX product can be configured as a Prefix/Ext. number in Extension Table of MOSA 4491. User that make call to this machine can dial to other device again by this Prefix/Extension table.

For example: There is other MOSA IP-PBX with phone number 886218408198. The administrator hope MOSA 4491 user can dial 8000 to reach that MOSA IP-PBX. Please input the information below and then click Apply.

Input VODNET ID directly to Phone Number field is also OK, such as 286 200 4341.

Web Path: 1.System Config.\1.3.Extension Number



Note: Here is the Restrictions of Prefix/Extension table

The length of Prefix/Ext. code is 1-5 characters. In principle, you can't define a new prefix number starting with the number that has been defined previously. For example, "33" is defined as a prefix number, then any numbers starting with "33", like "330", "3312", can not be defined as a prefix number. However, "31", "32", or "34" are OK. Another example, "555" is defined previously, then "5551" or "55522" can not be defined as a prefix/ext. number, but "551" or "552" or "553" …etc. is OK.

7.5.2 Configuration of Phone Book

At last section, we add MOSA IP-PBX to the extension table of MOSA 4491, then we should add information of that MOSA IP-PBX into MOSA 4491's Phone Book. By this way, incoming call can be redirected to correct destination.

- If the IP address of remote MOSA IP-PBX is fix public IP, then we can add the phone number and IP address to static Phone Book.

Web Path: 4.Phone Book

	Phone Number	IP Address	Control Port
Add/Modify:	886218408198	218.211.67.21	2000

These information can be found on the System Info of management page at other MOSA IP-PBX (for the example of MOSA 4600 Plus)

- If numbers configured at MOSA 4491's Prefix/Ext. table are VODNET ID, then configuration for phone book in section is not required. However, the MOSA IP-PBX of that VODNET ID should connect to Internet. If it is located under VPN, then configuration of phone book still required.

- If numbers configured at MOSA 4491's Prefix/Ext. table are VODNET ID, however, the MOSA IP-PBX (or the router that MOSA IP-PBX connect to) does not use fix public IP, use this phone book to do learning is required.

Input VODNET ID (such as 2862004388), IP: 0.0.0.0, Port: 0

Web Path: 4.Phone Book

	Phone Number	IP Address	Control Port
Add/Modify:	2862004388	0.0.0.0	0

8 Other Configuration

8.1 Configuration of Operator

MOSA 4491 series provides the operator mode below:

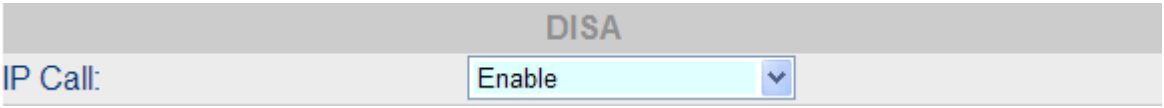
- Built-in DISA: Auto Attendant that has greeting and answer incoming call
- Local Operator: Operator is located at some IP-PBX that the virtual channel connect to
- Network Operator: Operator is located at some IP-PBX that is defined at extension table of this machine

8.1.1 Built-in DISA

The parameter below decide the behavior of DISA
Answer and deal with incoming IP Call
Enable：Activated and process / Disable：No action

Attention: If this function is Disabled, all management function of virtual channel is invalid, including management system for administrator and IVR.

Web Path: 1.System Config.\ 1.1.Basic Information

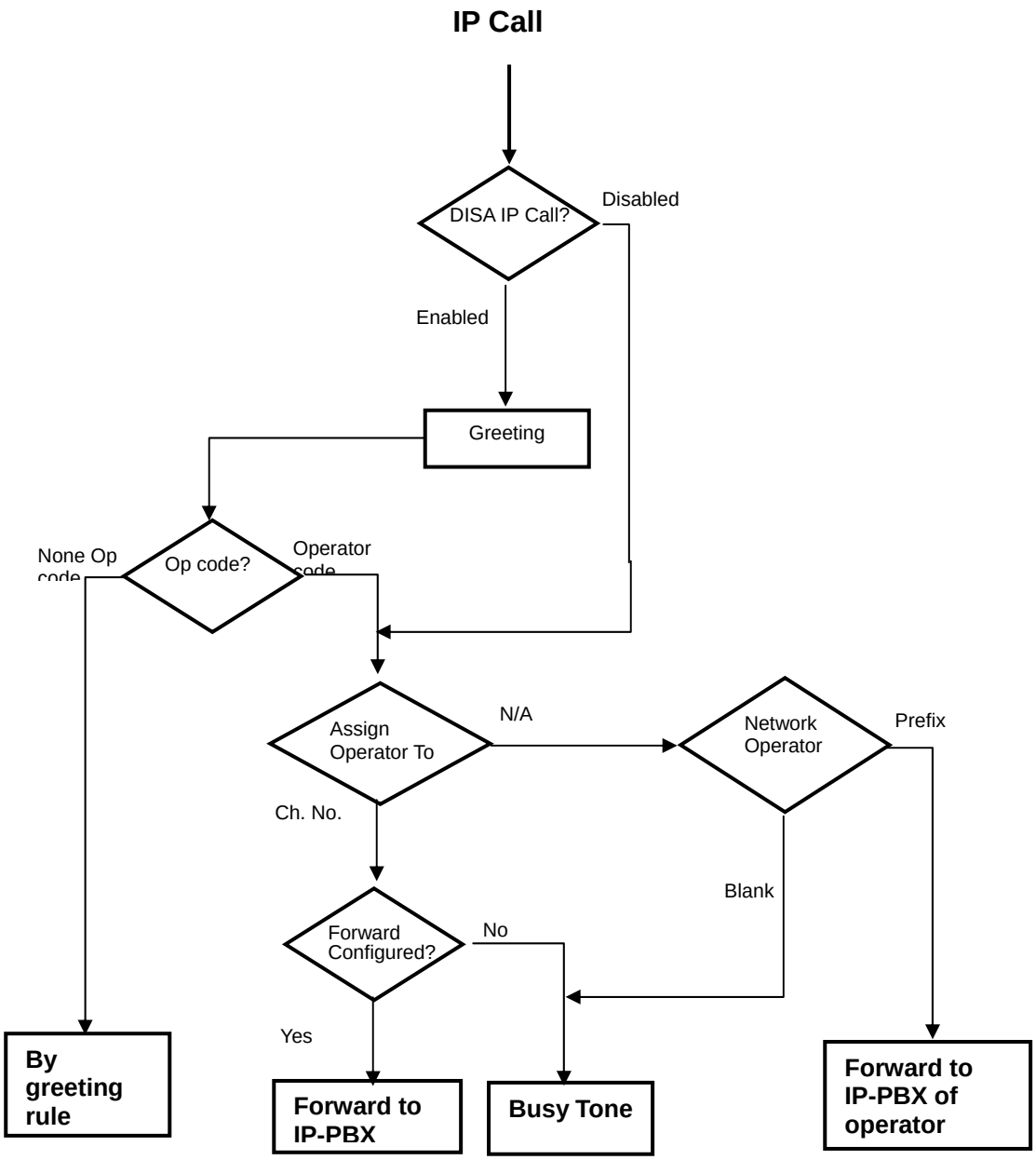


◆ **Process of Incoming Call**

For incoming number from user, MOSA 4491 take action according to the table below:

Dialed number from user	Action
Extension No.	Forward to the extension of MOSA IP-PBX
Operator Code	Forward to the MOSA IP-PBX that is defined for virtual operator channel.
Function Code	#1* or *0 to enter voice management system
None of above	Send greeting "The number you dial is invalid". If this case happens 3 times, system disconnects the call.

For incoming IP call, MOSA 4491 process it according to the workflow below.

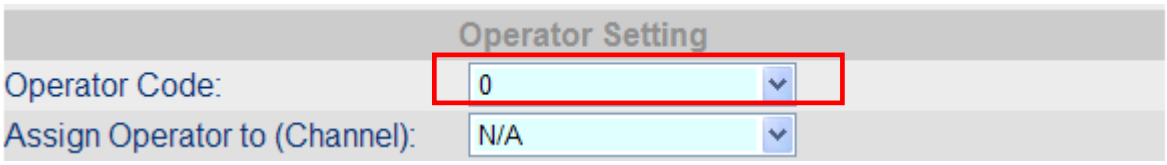


8.1.2 Local Operator

When DISA for IP call is Enabled for incoming IP call, MOSA 4491 redirect call to operator if user dial Operator Code.

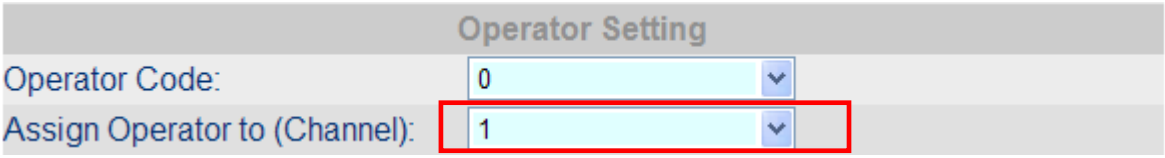
◆ Configuration of Operator Code

Web Path: 2.System Advanced\2.4.Behavior Setting



◆ Specify a channel as operator

Web Path: 2.System Advanced\2.4.Behavior Setting



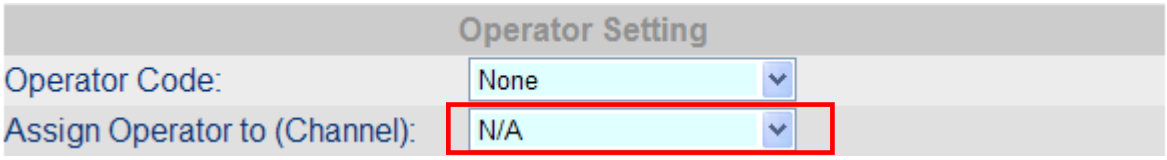
8.1.3 Network Operator

Operator can be assigned to another device through IP network. When incoming call user dial operator code, system search local operator first. If local operator (Assign Operator to (Channel)) is set to N/A, system will assume that Operator is defined on another device. From the Network Operator Extension Number configuration, system will find the Operator for this call. (Of course, the Network Operator Extension Number has to be configured in Prefix/Ext. table in advance.)

In the following example, the Operator is configured on equipment with Prefix code 81, which is a MOSA 4600 Plus with phone No. 886-2-8226-8881, as a Network Operator.

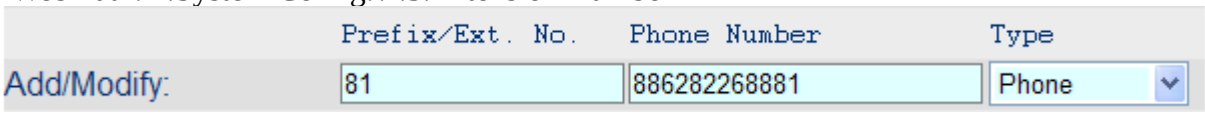
Steps of configuration:

1) Web Path: this machine: 2.System Advanced\2.4.Behavior Setting
   Set **Assign Operator to (Channel)** as "N/A"

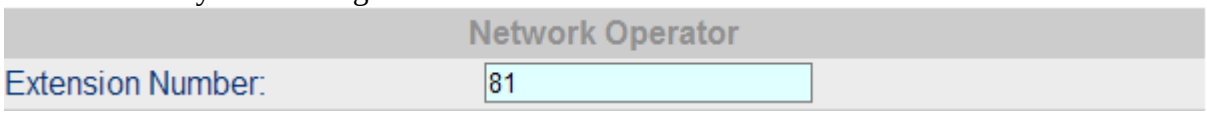


2) Add Prefix/Ext. number of network operator to the Prefix/Ext. table of MOSA 4491. For example, the phone number of network operator is 886282268881 and we use 81 as its Prefix/Ext. number.

   Web Path: 1.System Config.\1.3.Extension Number



3) Configure **Network Operator** of this machine as the Prefix/Ext. of network operator.
   Web Path: 1.System Config.\1.3.Extension Number



8.2 Greeting of DISA

About Greeting

Any extension of MOSA IP-PBX can dial into this machine and record the message of greetings. Totally you may have 4 sections of greetings and max 30 seconds for each section. You can save the greetings to PC file and then upload the file to other machine via FTP.

You can also use the greeting file from MOSA 4600 Plus. Rename these file name as below and upload it to this machine.

For example:

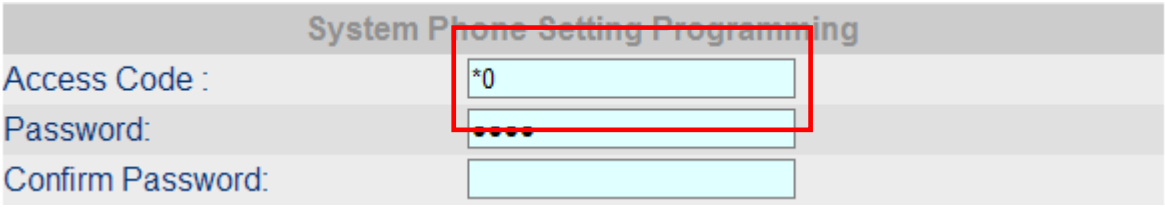
File Name	Type of Greetings	Description of Greetings	Example of Messages
grt_1	Greeting (1)	The Greetings for office hour	Good day, this is XX XXX, please dial extension number or 0 for Operator
grt_3	Greeting (3)	The message when the number is wrong or can not be recognized	The number you dialed can not be recognized, please dial again
grt_4	Greeting (4)	The message for waiting, the call is transferring	Thank you, please wait a moment
grt_7	Greeting (7)	The message that extension is unable to answer the call. (May be network problem or line problem)	There is problem or no answer for this extension, please dial other extension number or 9 for operator

Attention: If greeting is recorded by phone set, it takes effect immediately without doing restart. If it is uploaded by FTP, it takes effect after Warm Restart.

8.2.1 Method to Record Greeting

User that has Access Code and Password of Administrator is able to record greeting. The information of Administrator can be configured below.

Web Path: 2.System Advanced 2.4.Behavior Setting



(1) Entering the Management Mode

Hook off the phone set, make call to this machine, dial Access Code + Password (default *0 0000) to enter the management mode, → hear the tone of "DuDu….."

(2) Recording the 1st section

Dial 99 1 → * → start to record → # (end the record)

(3) Storing the 1st section

Dial 9# → hear the tone of "DuDu…"→ #

(4) Recording the 2nd section

Dial 99 2 → * → start to record → # (end the record)

(5) Storing the 2nd section

Dial 9# → hear the tone of "DuDu…"→ #

(6) Recording the 3rd section

Dial 99 3 → * → start to record → # (end the record)

(7) Storing the 3rd section

Dial 9# → hear the tone of "DuDu…"→ #

(8) Recording the 4th section

Dial 99 4 → * → start to record → # (end the record)

(9) 9 Storing the 4th section

Dial 9# → hear the tone of "DuDu…"→ #

(10) Recording the 5th section

Dial 99 5 → * → start to record → # (end the record)

(11) Storing the 5th section

Dial 9# → hear the tone of "DuDu…"→ #

(12) Recording the 6th section

Dial 99 6 → * → start to record → # (end the record)

(13) Storing the 6th section

Dial 9# → hear the tone of "DuDu…"→ #

(14) Recording the 7th section

Dial 99 7 → * → start to record → # (end the record)

(15) Storing the 7th section

Dial 9# → hear the tone of "DuDu…"→ #

Attention: Don't forget to dial additional "#" to end the last record, then start the next section.

8.2.2 Method to Listen Greeting

(1) Hook off the phone set, make call to this machine, dial Access Code + Password (default *0 0000) to enter the management mode, → hear the tone of "DuDu….."

(2) Listening the 1st message : Dial 961 → If you like to stop, just dial #

(3) Listening the 2nd message : Dial 962 → If you like to stop, just dial #

(4) Listening the 3rd message : Dial 963 → If you like to stop, just dial #

(5) Listening the 4th message : Dial 964 → If you like to stop, just dial #

(6) Listening the 5th message : Dial 965 → If you like to stop, just dial #

(7) Listening the 6th message : Dial 966→ If you like to stop, just dial #

(8) Listening the 7th message : Dial 967 → If you like to stop, just dial #

8.3 Instruction Greeting for User

When user make call to this machine, input access code of instruction greeting and then input user account and password according to the instruction. Operate it according to instruction greeting and users are able to configure Forward Number and Offnet Number. Record instruction greeting is required for this system. Max 99 sections and 30 minutes totally are available for this machine. Upload Instruction Greeting by FTP client software to this machine is also OK. Please refer to 12 Dialing Flow Chart

Example

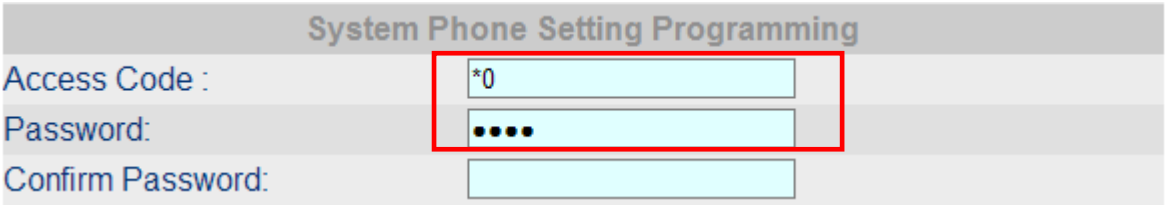
Greeting	Example of instruction greeting
01	Please input user account, end with <#> sign
02	Please input password
03	The user account you dial is not correct. Please input again.
04	To configure Forward Number, please press <1> To configure Offnet Number, please press <2> To listen current number, please press <3> To change password, please press <4> To end the process, please press <5>
05	The password you dial is not correct. Please input again.
06	The number you dial is not correct. please try again later with new number
07	You had entered...
08	Configuration
09	Please try again
10	To configure Forward Number, please press <0> To configure Prefix Number, please press <1> Or press <2> to return previous level
11	Please input Offnet Number, end with <#>
12	The Forward Number you had configured is
13	Thank you, good-bye.

Greeting	Example of instruction greeting
14	Please input Forward Number, end with <#>
15	Please input Prefix Number, end with <#>
16	Press <0> if it is correct Press <1> if it is not correct
17	Number is not correct, please dial <#> and input again
18	No number is configured currently
23	Cancel
24	Please input new password, end with <#>
25	Change successfully
26	Password exceeds 6 digits. Please dial <#> and input again
27	Configuration is failed
28	Configuration is successful
29	To listen Forward Number, please dial <0> To listen Offnet Number, please dial <1> To return to previous level, please dial <2>
30	The Offnet Number you had configured is
31	This Account is suspend now, please contact system administrator

8.3.1 Method to Record Instruction Greeting

User that has Access Code and Password of Administrator is able to record greeting. The information of Administrator can be configured below.

Web Path: 2.System Advanced 2.4.Behavior Setting



(1) Hook off the phone set, make call to this machine, dial Access Code + Password (Default *0 0000) to enter the management mode, → hear the tone of "DuDu….."

(2) Recording the 1st section

Dial 77 01 → * → start to record → # (end the record)

(3) Storing the 1st section

Dial 9# → hear the tone of "DuDu…"→ #

(4) Recording the 2nd section

Dial 77 02 → * → start to record → # (end the record)

(5) Storing the 2nd section

Dial 9# → hear the tone of "DuDu…"→ #

(6) Recording the 3rd section

Dial 77 03 → * → start to record → # (end the record)

(7) Storing the 3rd section

Dial 9# → hear the tone of "DuDu…"→ #

(8) And so on...

Attention: Don't forget to dial additional "#" to end the last record, then start the next section.

8.3.2 Method to Listen Instruction Greeting

(1) Hook off the phone set, make call to this machine, dial Access Code + Password (default *0 0000) to enter the management mode, → hear the tone of "DuDu….."

(2) Listening the 1st message : Dial 77 01 → 0 (listen recording) → # (end) → Press # to listen next section

(3) Listening the 2nd message : Dial 77 02 → 0 (listen recording) → # (end) → Press # to listen next section

(4) Listening the 3rd message : Dial 77 03 → 0 (listen recording) → # (end) → Press # to listen next section

(5) And so on...

8.4 Application of Forward Map

When there are many MOSA 4491 and they all use the same Forward number, or only slight modification is enough, you can use this Forward.map file function and modification for each individually channels via Web is not required.

Forward.map is a text file and it records the Forward To number of each channel. If there is no extra Forward configuration at individual channel, system use default configuration from Forward.map.

Use Windows Notepad software to write the example below.

1 ,886282263391

2 ,886282263392

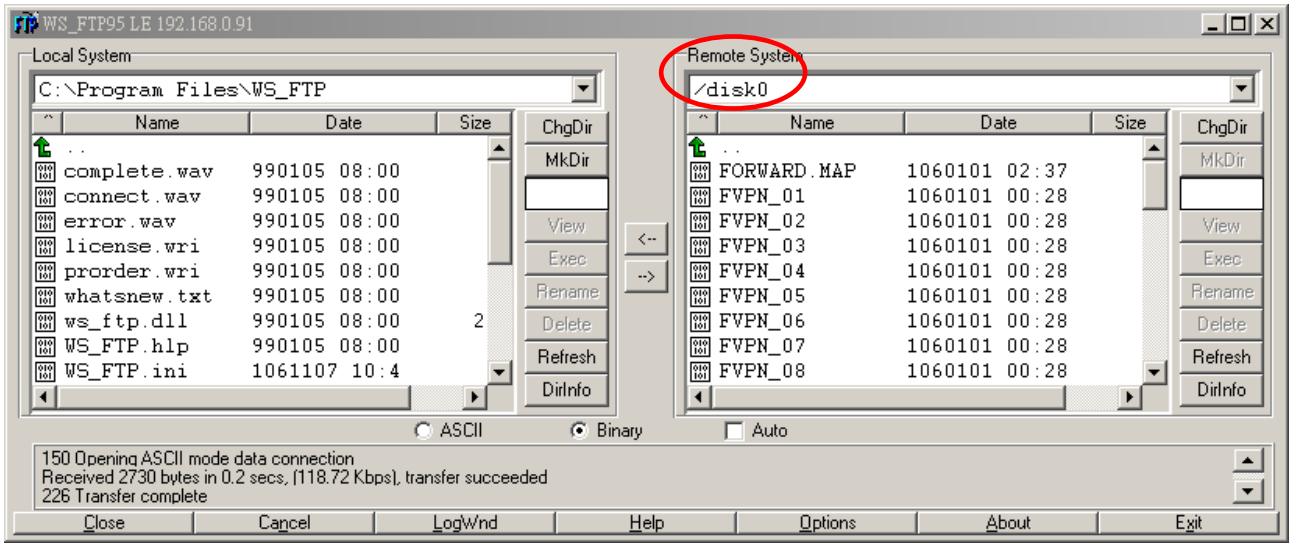
Means the 1st port is forwarded to 886282263391

Means the 2nd port is forwarded to 886282263392

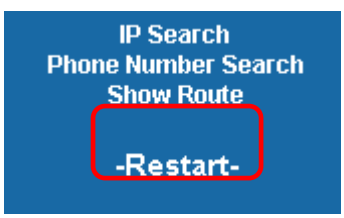
Note: field is separated by ","

Save it and upload this file to machine.
Web Path: 5.File Transfer

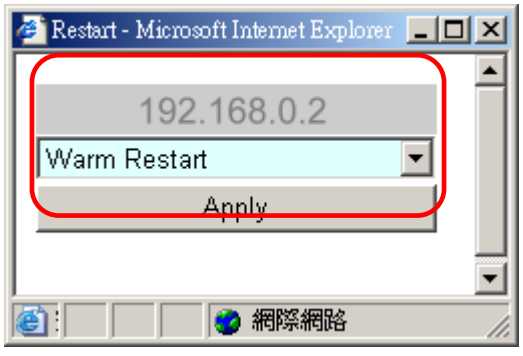
Or you can upload FORWARD.MAP to the folder under /disk0 by FTP client software



Then restart it. To restart this system, click left-bottom corner of Web page – Restart -



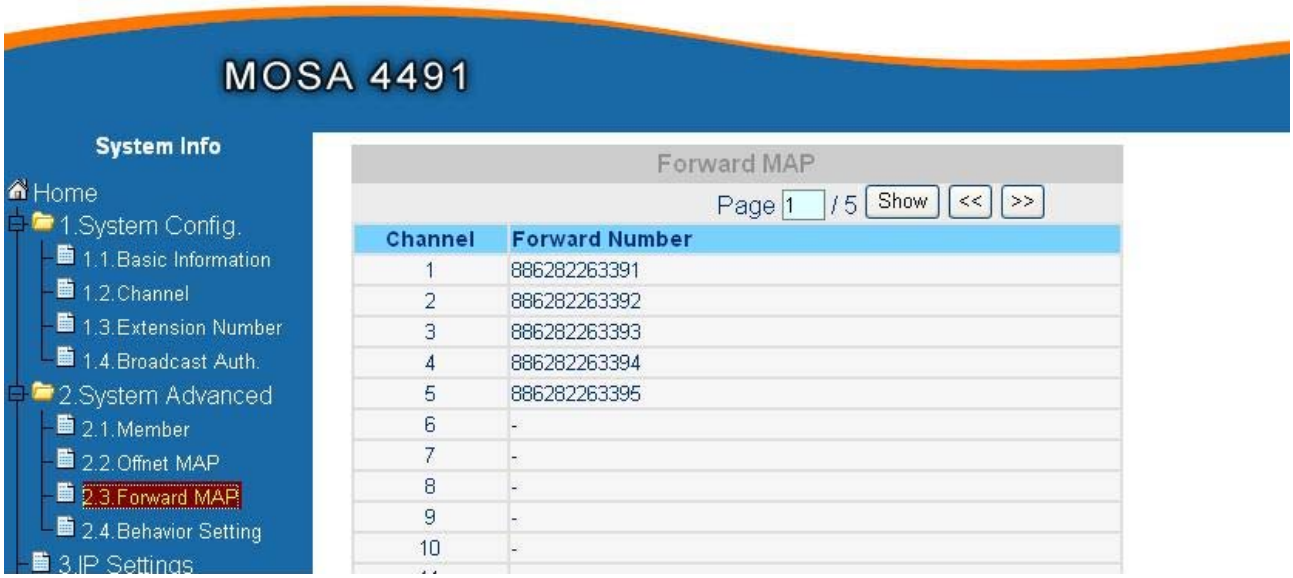
Select Warm Restart



Wait for few seconds of restart procedure

After it is restarted

Web Path: 2.System Advanced\ 2.3.Forward MAP, and it shows information of FORWARD.MAP



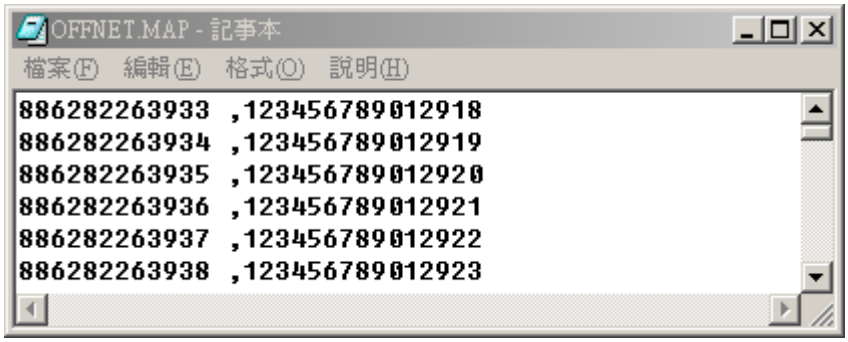
8.5 Application of Offnet Map

When there are many MOSA 4491 is located at different location and its PSTN Offnet To numbers are the same, or only slight modification is enough, you can use this Offnet.map file function and modification for each individually channels via Web is not required.

Offnet.map is a text file and it records the mapping of Offnet To number via Forward Number. If there is no extra configuration of Offnet To number at individual channel, system use default configuration from Offnet.map.

In practical application, the same Offnet To PSTN number can be dialed from different MOSA IP-PBX. In other words, different Forward Number can map to the same Offnet To Number. By this way, make call to PSTN via Offnet To number can has different route choices.

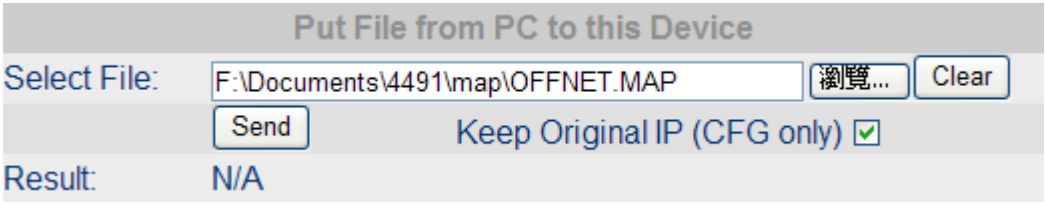
Use Windows Notepad software to write the example below.



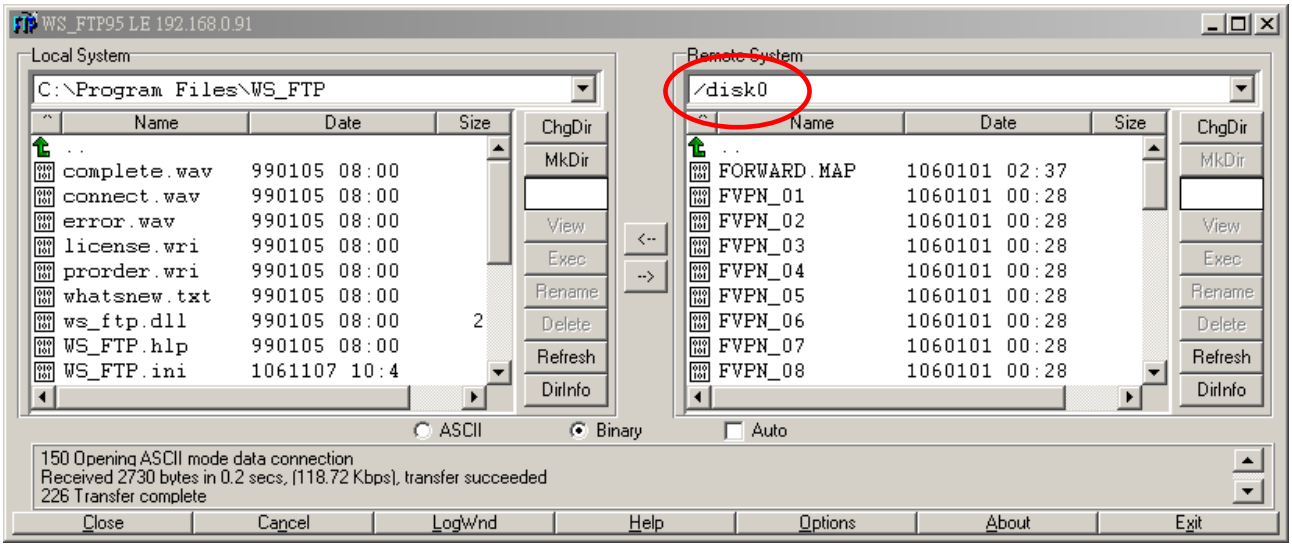
Ahead from Offnet To number, then followed by Forward Number.

Save it and upload this file to machine.

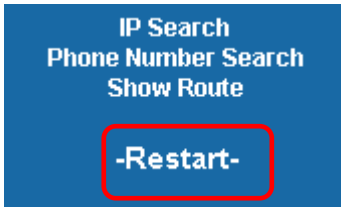
Web Path: 5.File Transfer



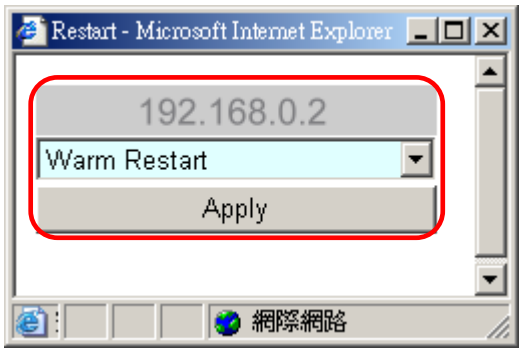
Or upload this OFFNET.MAP file by FTP software to the /disk0 folder of this machine.



Then restart it. To restart this system, click left-bottom corner of Web page – Restart -

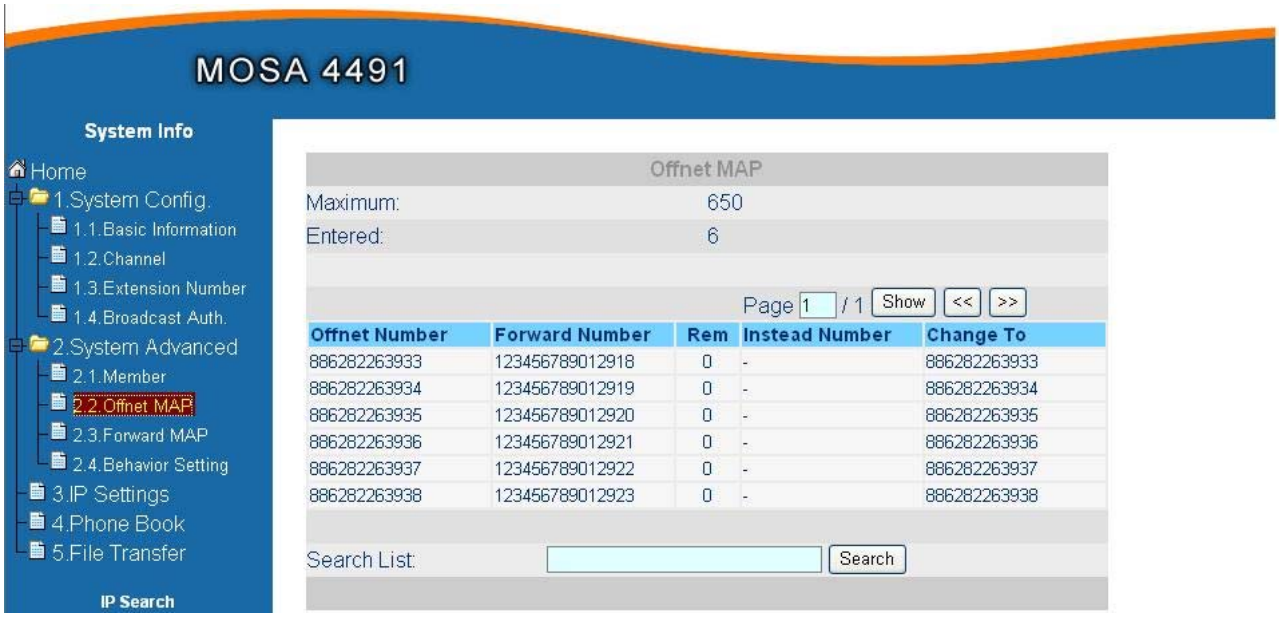


Select Warm Restart



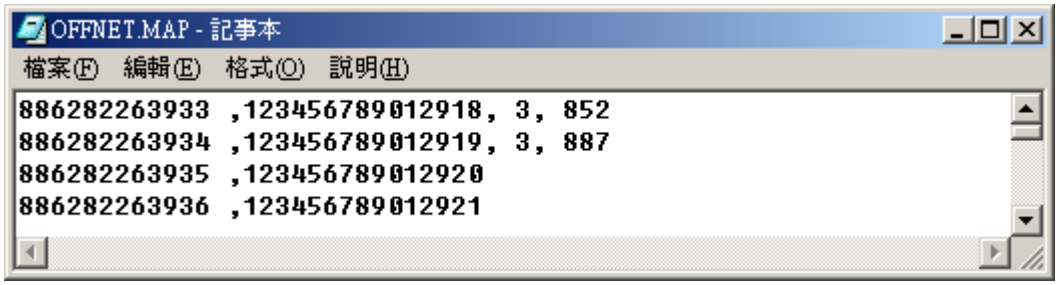
Wait for few seconds of restart procedure

After it is restarted
Web Path: 2.System Advanced\ 2.3.Offnet MAP, and it shows information of FORWARD.MAP

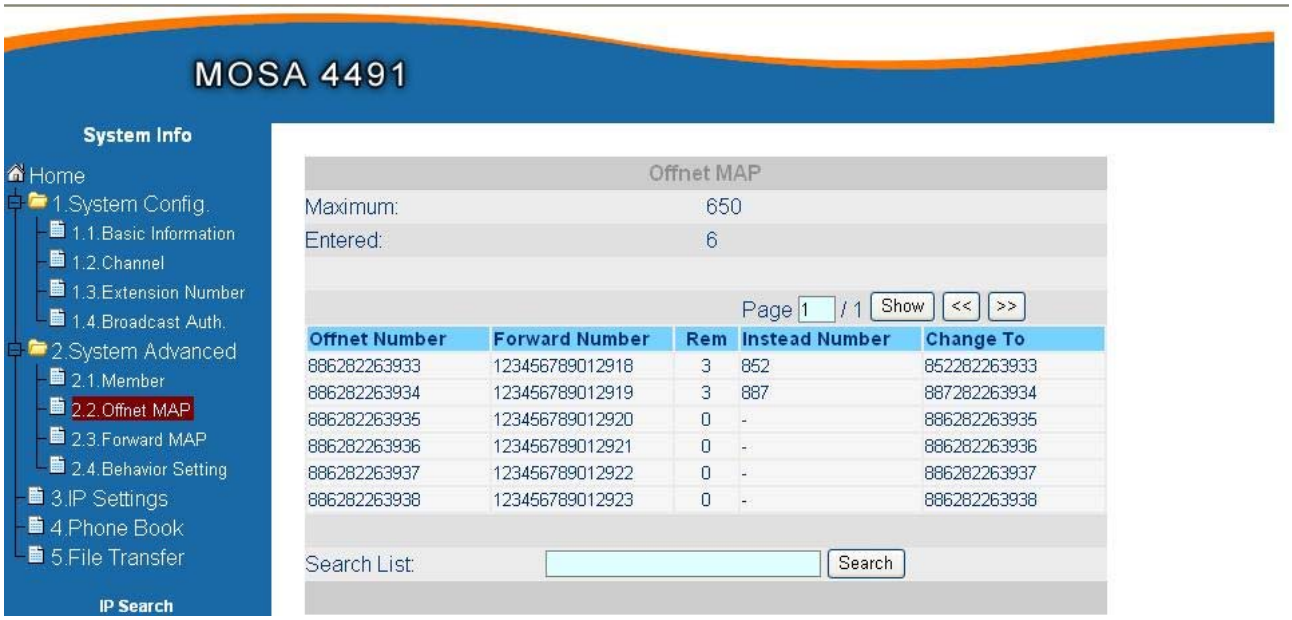


In addition to the function above, OFFNET MAP has the ability to change prefix number. This function changes the prefix of incoming Offnet To number and make outgoing Offnet To number with new prefix number.

For example:



Web Path: 2.System Advanced\ 2.3.Offnet MAP, shows information of OFFNET.MAP



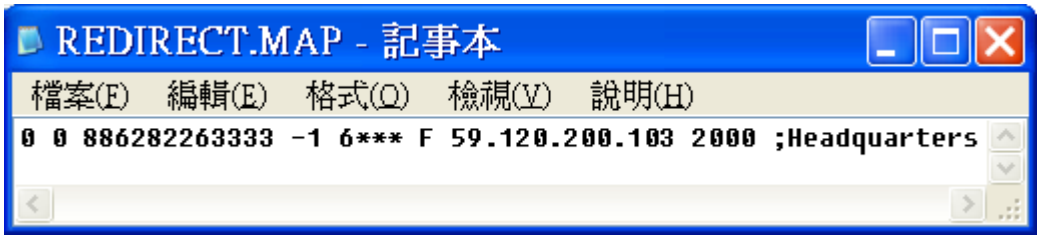
The prefix of entries 1 and 2 are changed.

8.6 Application of Redirect Map

When this machine works with MOSA 4600 Plus, Redirect Map can provides more available extension and it is not limited to 100 channels of this machine, also, it make one step dialing to traditional PBX behind MOSA 4600 Plus possible. The same as Forward Map, Redirect Map is also a text file, and it can be edited by Windows Notepad software and upload by FTP software to this machine.

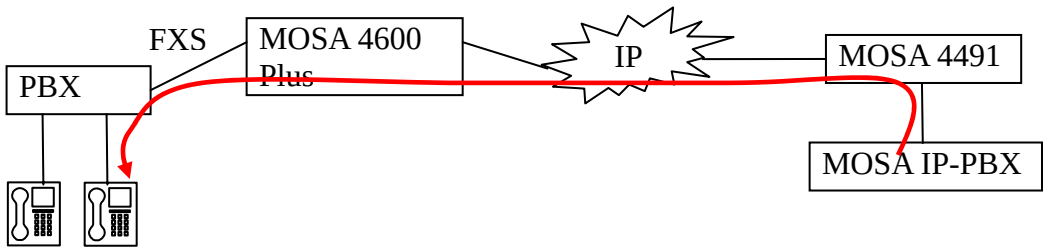
Example of format and field of Redirect Map

Field 1	Field 2	Field 3	Field 4	Field 5	Field 6	Field 7	Field 8	Field 9	Field 10
RSVD1	RSVD2	Forward No.	RSVD3	Suffix	Query	IP address	UDP port	Offnet No.	Note
0	0	886282263333	-1	6***	F	59.120.200.103	2000		;Headquarters



Field: (10 fields)

1. Reserve code for system (has to be 0)
2. Reserve code for system (has to be 0)
3. The complete phone number or VODNET ID (max 22 digits) of the machine that connect to PBX (for the example below, MOSA 4600 Plus)
   Illustration Figure



4. Reserve code for system (has to be -1)
5. Suffix Phone number that is brought from MOSA IP-PBX (as the figure above, max 22 digits, can be “*”. “*” means any digits from 0~9)

   (Note: For example, the number that is brought from MOSA IP-PBX is 9996000; and configuration here is 6***. It means system retrieve 4 suffix digits only and the first digit has to be 6. Retrieves 4 digits, 6000 is the result. Make call with these 4 digits only.)
6. Select to inquire dynamic phonebook / VODNET ID or not (F: not query / V: query but IP =

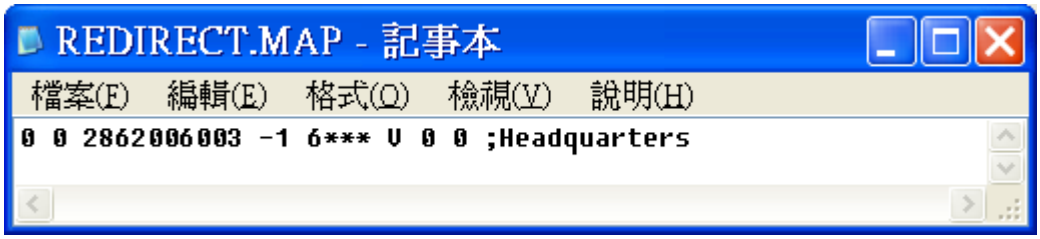
0)

7. The IP address of the device (as the figure above, MOSA 4600 Plus) that connect to PBX (IP or 0)
8. The Port Number of the device (as the figure above, MOSA 4600 Plus) that connect to PBX (0~65535)
9. Configuration of Offnet Number. Keep it blank for this application (Max 22 digits, optional)
10. Note for this line. Add ";" ahead in this field. It is optional.

Note: Each field is separated by blank and the 5th field can not be repeated in each records.

The description above can also be another form. When the devices that connect with PBX uses dynamic IP. That device and MOSA 4491 are all able to connect with VODNET.

Field 1	Field 2	Field 3	Field 4	Field 5	Field 6	Field 7	Field 8	Field 9	Field 10
0	0	2862006003	-1	6***	V	0	0		;Headquarters

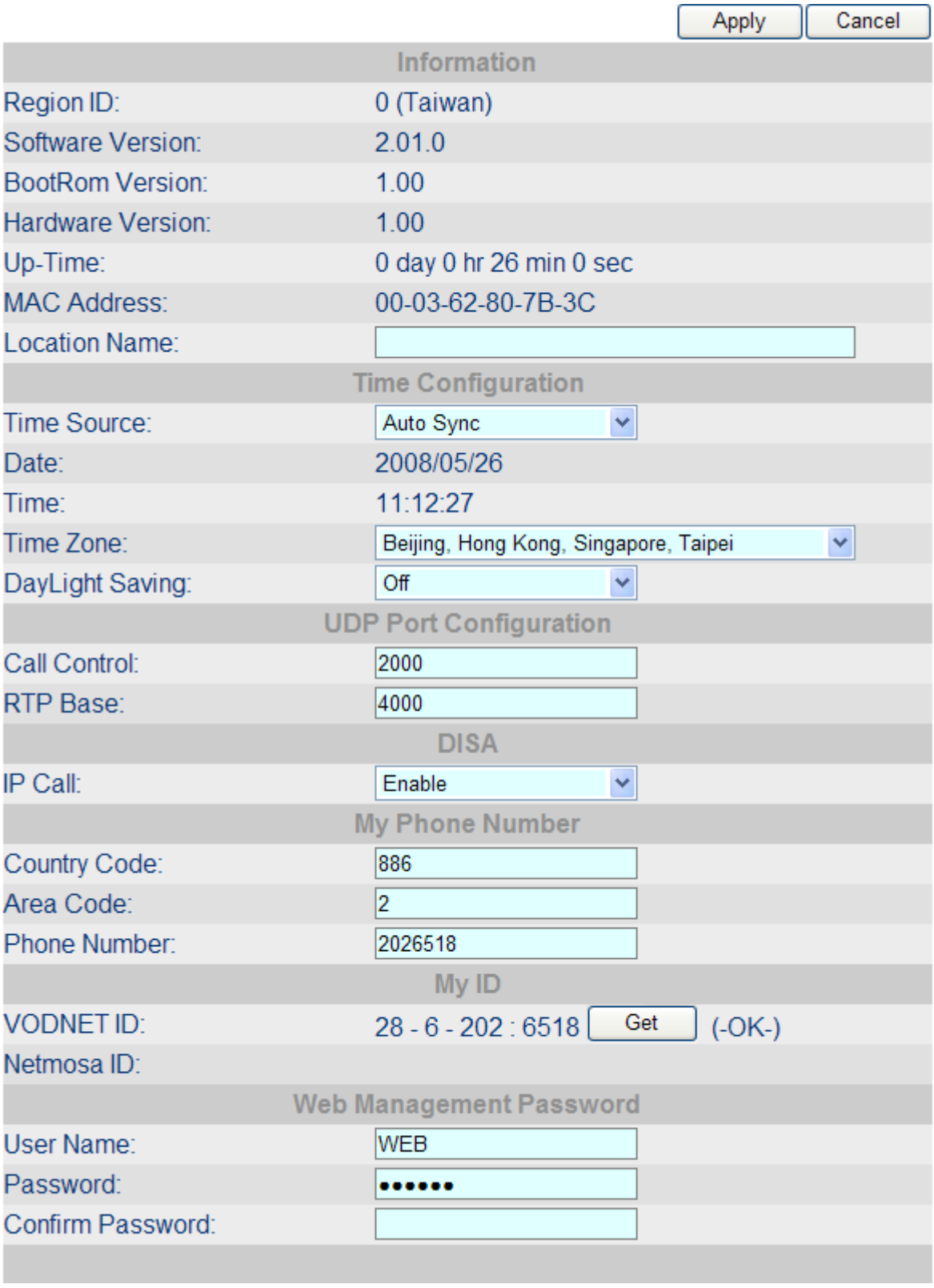


When the editing of this file is done, upload it to MOSA 4491 by FTP software or Web page. Attention: file name has to be REDIRECT.MAP

To use this special application, tune MOSA 4600 Plus, traditional PBX and other devices is required. Please contact with us for more detail.

9 Management Web

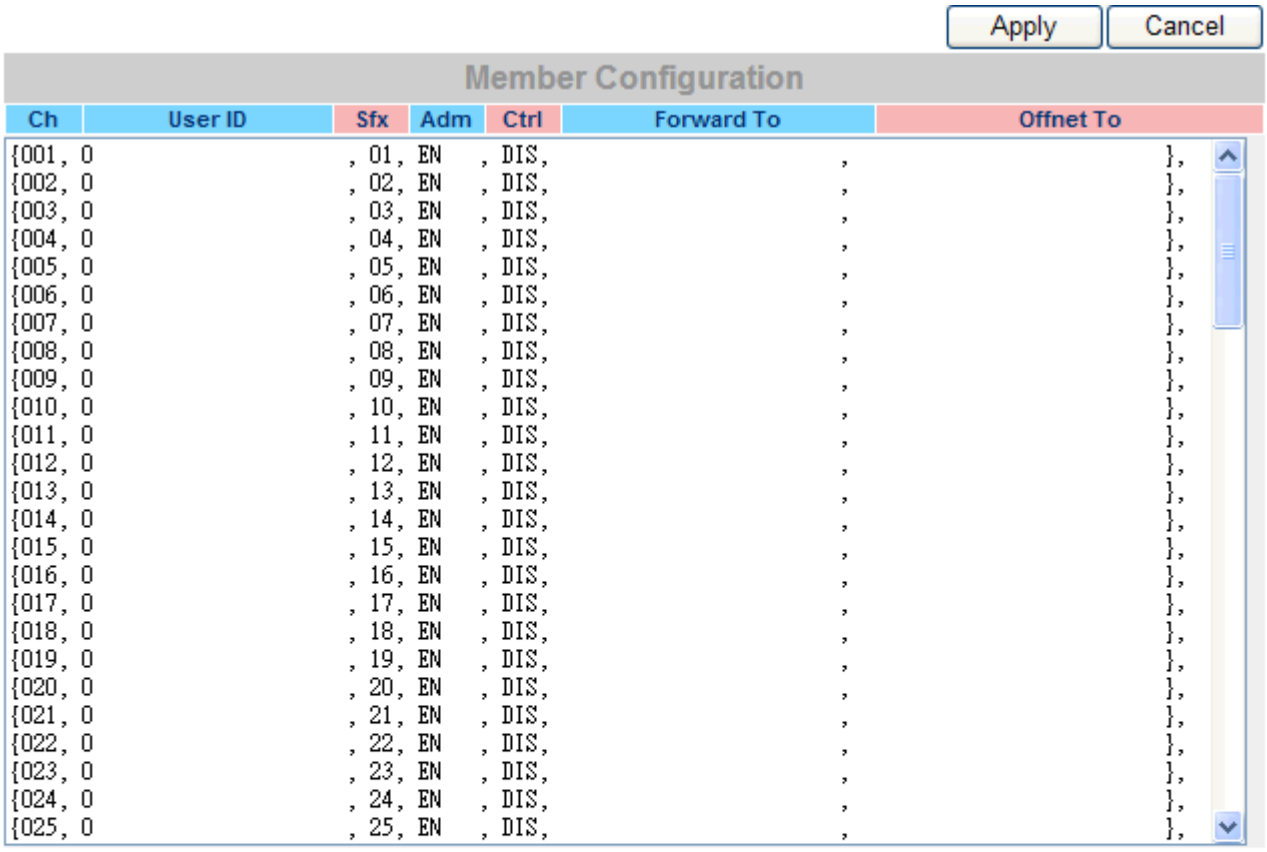
9.1 Web Path: 1.System Config.\Basic Information



Category	Field	Description	Default Value
Information	Region ID	Displays the Region ID (Country ID) of this machine. The ID on the screen is what the machine now using.	0
	Software Version	Displays the Software Version of this machine	(Read Only)
	BootRom Version	Displays hardware BootRom Version of this machine	(Read Only)
	Hardware Version	Displays hardware Version of this machine	(Read Only)
	Up-Time	Display the elapse time since last start	(Read Only)
	MAC Address	Display the MAC address of HW equipment	(Read Only)
	Location Name	Displays the identification name of this machine	
Time Configuration	Time Source	Select the method to synchronize the system date and time **Auto Sync**：Synchronize automatically **Manual**：Entered manually	Auto Sync
	Date	Enter the date manually, valid only if "**Manual**" is selected in Time Source, In format yyyy/mm/dd	(Read Only)
	Time	Enter the time manually, valid only if "**Manual**" is selected in Time Source, in format hh:mm:ss	(Read Only)
	Time Zone	Select the time zone which the system is located	Time Zone of Region ID
	DayLight Saving	Select if daylight saving applied **ON**：daylight saving applied **OFF**：daylight saving not applied	OFF
UDP Port Configuration	Call Control	Define UDP port number for packet transmission. The number is between the range of 0 – 65535. (It is activated after system re-started)	2000
	RTP Base	Define UDP port number for voice packet transmission. The port number must be even and between the range of 0 – 65534. (It is activated after system re-started)	4000
DISA	IP Call	Auto attendant (DISA) for incoming IP Call Enable：DISA answer the call Disable：DISA don't answer the call	Enable
My Phone Number	Country Code	Country Code of the location of this machine (such as China: 86, USA: 1)	Country Code according to region ID
	Area Code	Area Code of the location of this machine (such as Shanghai: 21, Taipei: 2)	Area Code according to region ID's capital
	Phone Number	Enter the office telephone number.	Phone Number created by MAC
My ID	VODNET ID	VODNET ID is displayed if registration is successful; "OK" is displayed if register to VODNET	(Read Only)
	Get	Request VODNET ID	

Category	Field	Description	Default Value
	Netmosa ID	NETMOSA ID is displayed if registration is successful; "OK" is displayed if register to NETMOSA	
Web Management Password	User Name	User Name to login Web	WEB
	Password	Password to login Web	
	Confirm Password	Double confirm the password to login Web (has to be consistent with the Password above)	

9.2 Web Path: 1.System Config.\1.2.Channel



Note

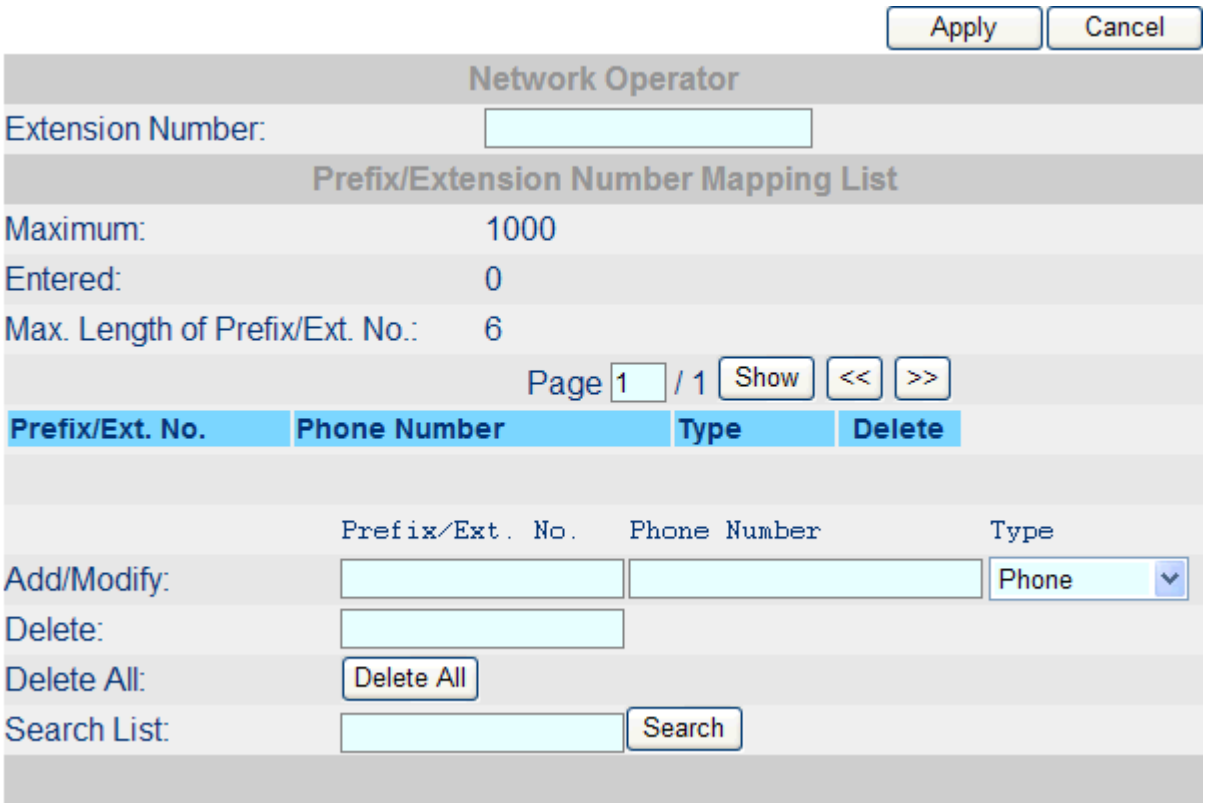
Field	Name	Length	Description
Ch	Channel	-	read only
User ID	User ID	-	read only
Sfx	Suffix	2	read only
Adm	Admin. State	3	read only
Ctrl	State Control	3	EN:Enable / DIS:Disable
Forward To	-	21	0 ~ 9
Offnet To	-	23	0 ~ 9 P

Category	Field	Description	Default Value
Member Configuration	Ch	Channel number (Read Only)	001~100
	User ID	User ID number (Read Only)	0
	Sfx	Suffix number (Read Only)	01~99, 00
	Adm	Current status of this channel (Read Only) EN: Enable DIS: Disable	EN (Enable)
	Ctrl	Configure new state of this channel EN: Enable DIS: Disable	DIS (Disable)
	Forward To	Forward To number	
	Offnet To	Offnet To number	

Note：

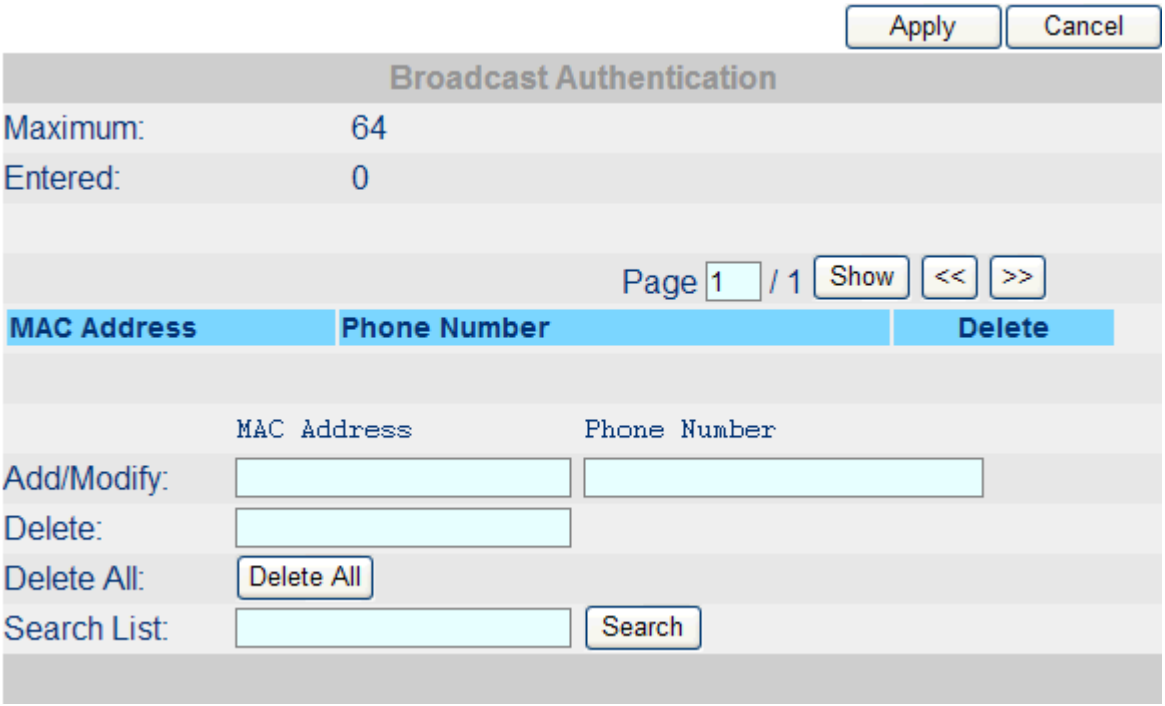
- The text at Web page can be edited on Web page directly. It also can be copy and paste to Windows Notepad for editing and backup purpose. Edit it at Notepad, copy and re-paste to Web page, and then click Apply.
- You can also use Microsoft Excel to edit or create these data and save it as CSV (*.csv) format (separated by comma) that has correct format what this machine need.

9.3 Web Path: 1.System Config.\1.3.Extension Number



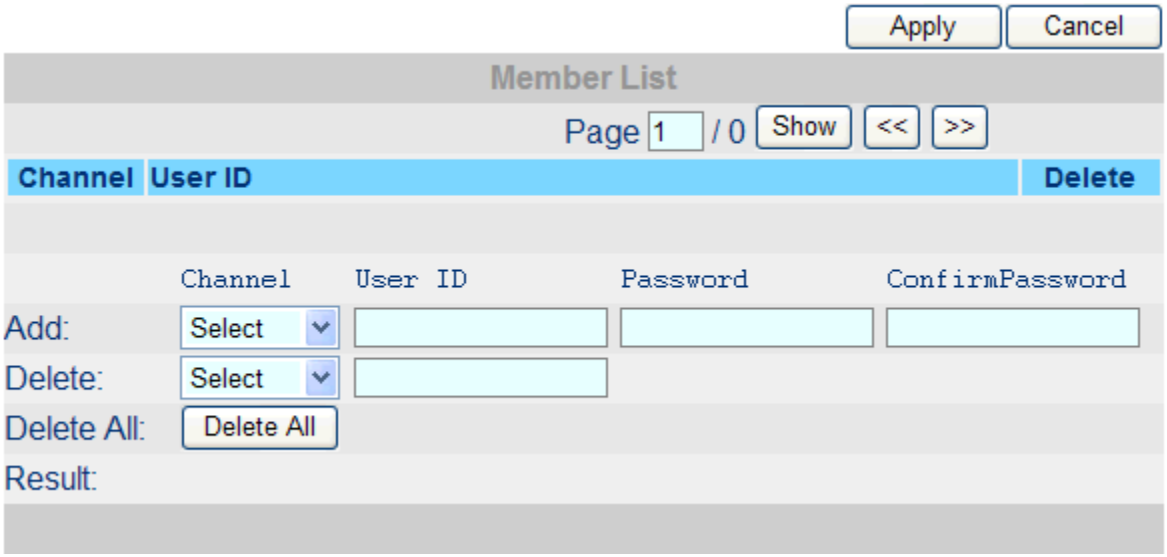
Category	Field	Description	Default Value
Network Operator	Extension Number	Enter the prefix number of equipment that the Operator is defined. Normally the Operator of this machine will be connected if Access Code for Operator (default is "0") is dialed. If the Operator of this machine is set to N/A, the call will be transferred to the Operator of other equipment whose prefix number is assigned here. E.g. the Extension Number of this machine: Prefix/Ext. No Phone Number type 33 886282268888 iPBX If the Operator is assigned to equipment with prefix 33, then enter 33 in this field	
Prefix/Extension Number Mapping List	Maximum	The maximum number of equipment can be entered. (read only)	1000((Read Only)
	Entered	The number of equipment has been entered (read only)	0
	Max. Length of Prefix/Ext. No.	The maximum length of Prefix number (read only)	6(Read Only)
	Add/Modify	**Prefix/Ext. No.** Add/Modify a Prefix number Enter the Prefix/Extension number for other equipment, digits length is 1~6	
		Phone Number： Input the Phone Number or VODNET ID of that specified machine	
		Type： ■ Phone：System will start to create the call path after dialing the Prefix/Ext. No. ■ iPBX：System will start to create the call path after dialing prefix number plus 2 digit suffix number (prefix ID + Suffix No). ■ Conference: It has to work with FONEMOSA 4496 (Conference Bridge). When chairman had invited one person to conference, chairman can dial # and invite next person to join.	Phone
	Delete	Input Prefix/Ext. that will be deleted	
	Delete All	Delete All (button), Delete all data of Prefix/Ext. No.	
	Search List	Input the Prefix/Ext. No. prefigured that you want to search Search (button)：Click this button to search number in Search List	

9.4 Web Path: 1.System Config.\1.4.Broadcast Auth.



Category	Field	Description	Default Value
Broadcast Authentication	Maximum	The maximum number of Broadcast server (FONEMOSA 4483/ MOSA4600P) can be entered. (read only)	64(Read Only)
	Entered	The number of Broadcast server (FONEMOSA 4483/ MOSA4600P) has been entered (read only)	0
	List	MAC Address: List MAC address	
		Phone Number: The phone number that map the MAC address	
		Delete: Delete Entry Delete (button): Click the button to remove this entry	
	Add/Modify	Mac Address Input the MAC address of Broadcast server (FONEMOSA 4483 / MOSA4600P). If this machine connects to Broadcast server, then it needs related information of Broadcast server for authentication.	
		Phone Number： Input Phone Number or VODNET ID of that specified device	
	Delete	Input MAC address that will be deleted	
	Delete All	Delete All (button), Delete all data	
	Search List	Input the MAC Address prefigured that you want to search Search (button)：Click this button to search in Search List	

9.5 Web Path: 2.System Advanced\2.1.Member



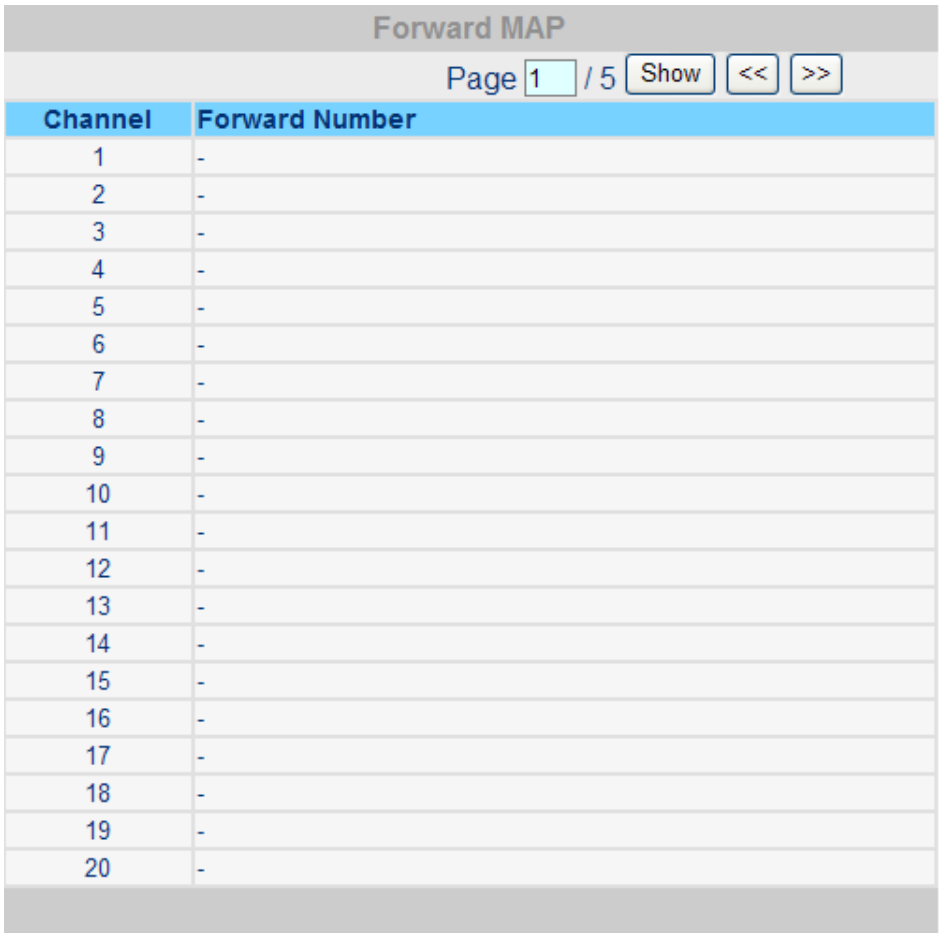
Category	Field	Description	Default Value
Member List	List	Channel: Channel that specified for the member	
		User ID: Account of the user. Digits made from 1~9.	
		Delete: Delete date Delete (button): Click this button to remove this entry	
	Add/Modify	Channel: Select the Channel that the user uses.	
		User ID: Input the User ID for member to operate that channel by phone set.	
		Password: Input the Password for member to operate that channel by phone set.	
		Confirm Password: Double confirm this password	
	Delete	Channel: Select the channel that its member will be removed.	
		User ID: Input User ID of member and click Apply to remove.	
	Delete All	Delete All (button). Click this button to remove all data	
	Result	Shows the result of operation	

9.6 Web Path: 2.System Advanced\2.2.Offnet MAP

Category	Field	Description	Default Value
Offnet MAP	Maximum	The maximum number of entries can be entered. (read only)	
	Entered	The number of entries has been entered (read only)	
	List	Offnet Number: The Offnet (PSTN) number that will dial at remote site. Forward Number: The Forward number to remote site Rem: The prefix length that will be replaced. Instead Number: Replaced by new prefix number. Change To: The actual number will be dialed.	
	Search List	Input Offnet Number for search Search (button): Click to search	

Note: Text editor software is required to create or edit Offnet Map. Upload it to machine to take effect. Please refer to 8.5 Application of Offnet Map

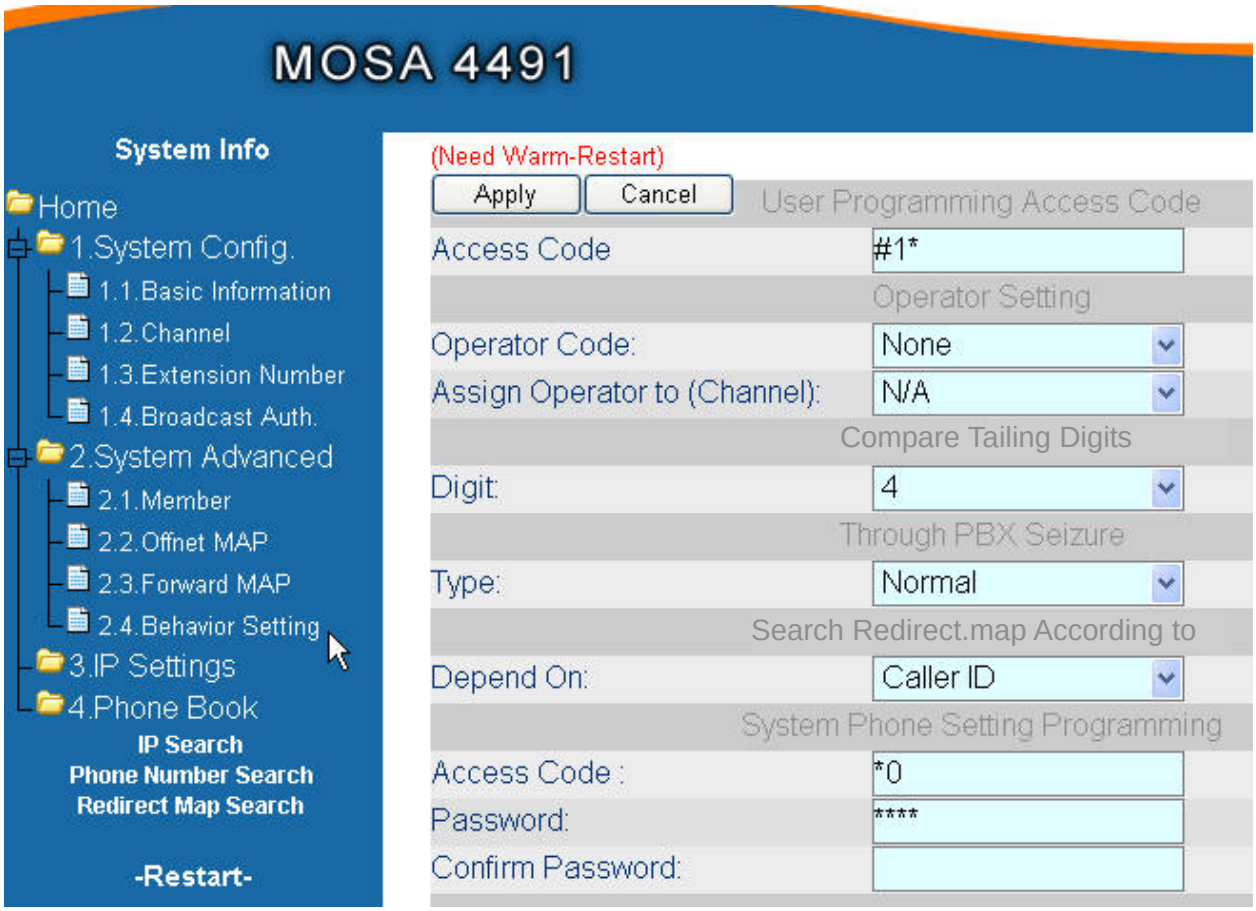
9.7 Web Path: 2.System Advanced\2.3.Forward MAP



Category	Field	Description	Default Value
Forward MAP	Channel	Channel No.	1~100
	Forward Number	Forward number of that channel	

Note: Text editor software is required to create or edit Forward Map. Upload it to machine to take effect. Please refer to 8.4 Application of Forward Map

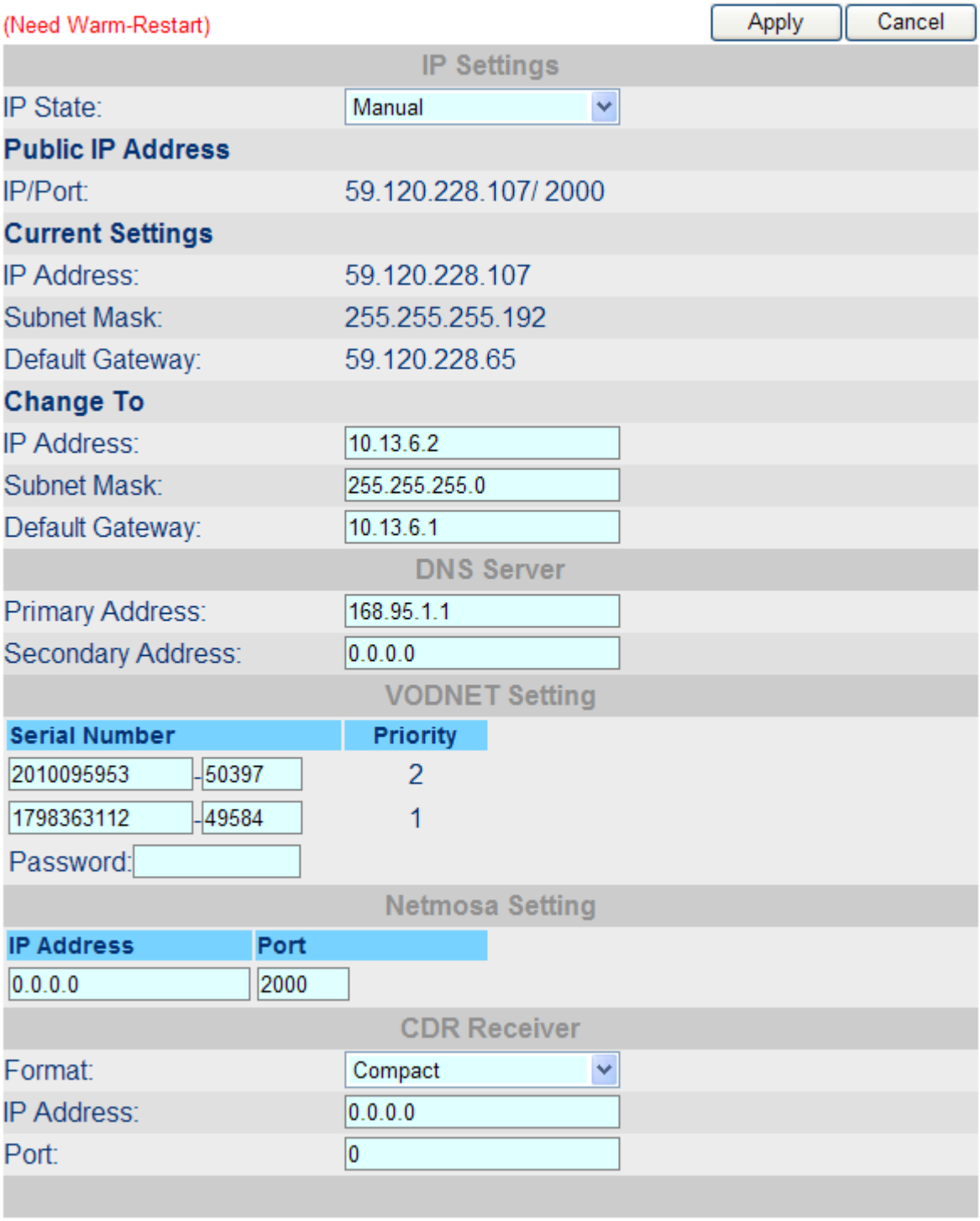
9.8 Web Path: 2.System Advanced\2.4.Behavior Setting



Category	Field	Description	Default Value
User Programming Access Code	Access Code	Access code for user to enter management mode by phone set	#1*
Operator Setting	Operator Code	Dial this code to reach operator	None
	Assign Operator to (Channel)	Assign channel for operator	N/A
Compare Tailing Digits	Digit	When this machine works with MOSA IP-PBX (MOSA 4600 Plus), it can do one-step dialing to penetrate traditional PBX. By this special application, it expands available extension number. Specify the suffix digits length from MOSA IP-PBX, and compare these digits with Redirect.map. If it matches, then dial the forward number that is specified at Redirect.map.	0

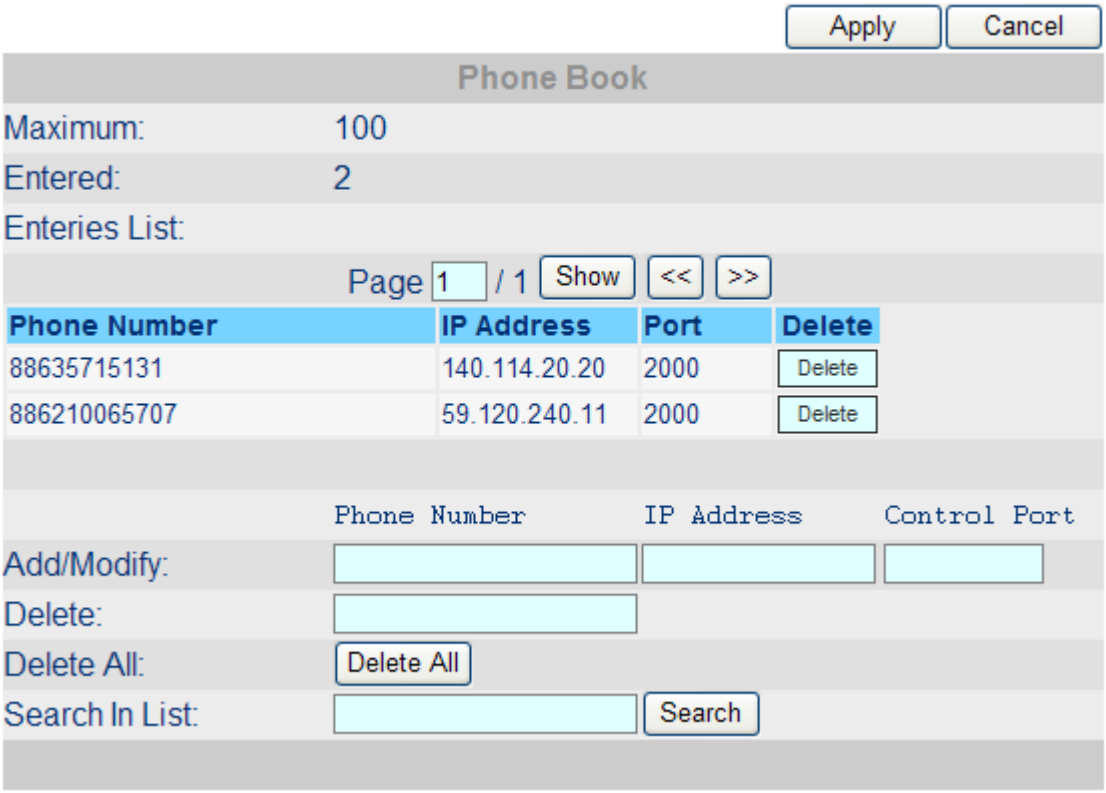
Category	Field	Description	Default Value
Through PBX Seizure	Type	**Normal**: Original using method, calling side of IP-PBX dials IP call via 4491 (this machine), or IP->outbound to PSTN call via 4491 **Voice Mail**: Calling side is the extension of traditional PBX or Voice Mail. It can seize trunk to MOSA 4600 Plus and then it is forwarded via 4491. This is for special application.	Normal
Search Redirect.map According to (Trunk Call only)	Depend On	System can specify outgoing call according to incoming caller ID automatically. Here specify the incoming caller ID for judgment Extension：Extension number of MOSA IP-PBX Caller ID：Caller ID of incoming trunk call	Extension
System Phone Setting Programming	Access Code	Configure access code of phone-set programming for administrator	*0
	Password	Configure password of phone-set programming for administrator	
	Confirm Password	Input password again	

9.9 Web Path: 3.IP Settings



Category	Field	Description	Default Value
IP Settings	IP State	The type of IP Address get: ♦ Manual：User enters the assigned static IP address ♦ Auto(DHCP)：Dynamic IP address from DHCP server	Manual
	Public IP Address	IP Address / Port current used for this machine	
	Current Settings	Display the current setting (current using) IP information, including IP Address, Subnet Mask and Default Gateway. (Display only)	192.168.0.2 255.255.255.0 192.168.0.1(Read Only)
	Change To	Enter the information to be updated to, including : 1. IP Address 2. Subnet Mask 3. Default Gateway (IP State must be at state “Manual”) After you had filled out these parameters, click button “Apply” to activate the updated value and the system must be restarted. (Warm Start)	192.168.0.2 255.255.255.0 192.168.0.1
DNS Server	Primary Address:	IP Address of Primary DNS server.	168.95.1.1
	Secondary Address:	IP Address of Secondary DNS server.	0.0.0.0
VODNET Setting	Serial Number	Serial Number of VODNET. Default value is pre-configured. If you don't have this number, please contact with distributor. This number is required for making VODNET call	2010095953- 50397 1798363112- 49584
	Priority	The priority of the Serial Number above (Read Only)	1 or 2
	Password	If password is required to register VODNET, please input here.	
Netmosa Setting	IP Address	Input NETMOSA IP	0.0.0.0
	Port	Input NETMOSA Control Port	2000
CDR Receiver	Format	Select what type of CDR it reports Regular: Complete data Compact: Partial	Compact
	IP Address	Input the IP address of FONEMOSA 4492 that will receive CDR data.	0.0.0.0
	Port	Input the control port of FONEMOSA 4492 that will receive CDR data.	0

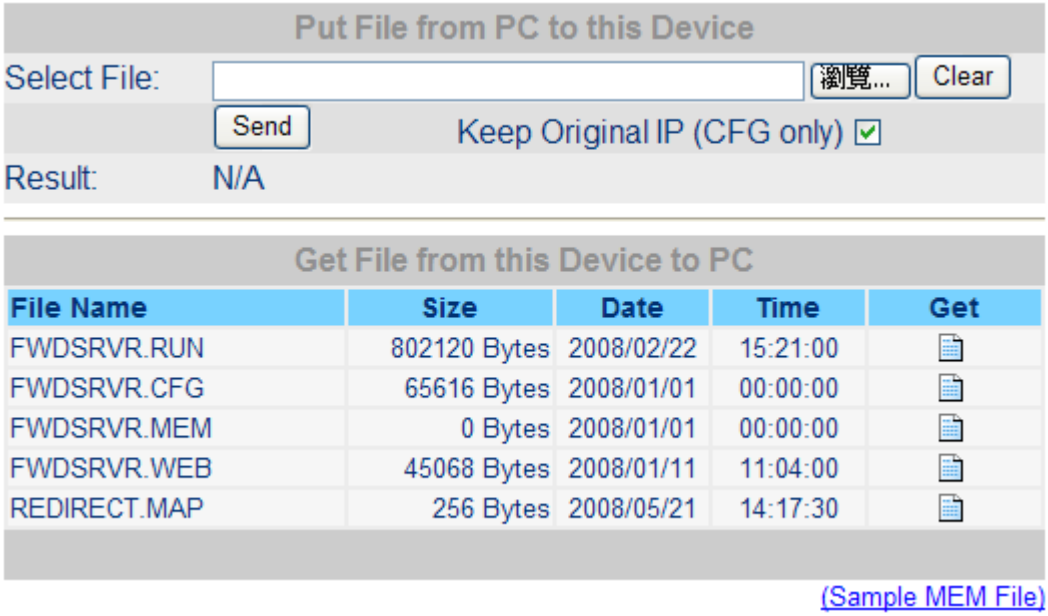
9.10 Web Path: 4.Phone Book



Category	Field	Description	Default Value
Phone Book	Maximum:	Maximum number of "static phone book entries" allowed	100(Read Only)
	Entered	Number of "static phone book entries" entered.	0(Read Only)
	Entries List:	List of static phone book entries ■ Phone Number ■ IP Address ■ Port (number) Delete (button): Click it to delete this entry	(Read Only)
	Add/Modify:	There are 2 ways to configure static Phone number 1. If the device use fix IP ■ Phone Number：Number you want to add or modify (including country code + area code + Phone No.) ■ IP Address：IP address you want to add or modify ■ Control Port：Control port you want to add or modify 2. If the device use dynamic IP ■ Phone Number：Number you want to add or modify (including country code + area code + Phone No.) ■ IP Address： Set to 0.0.0.0 ■ Control Port：Set to 0	

Category	Field	Description	Default Value
	Delete	Input "phone number" (including country code + area code + phone number) you want to delete. It removes static phone book entry.	
	Delete All	Delete all "static" entries from the Phone Book. It won't remove "dynamic" entry from learning procedure Yes: Yes, delete all No: No	No
	Search In List:	Search IP/Control Port of other machine via the Phone number input here. The number input here has to be complete number (country code + area code + phone number) Search (button): Input phone number (includes country code + area code + phone number) and click search	

9.11 Web Path: 5.File Transfer



Category	Field	Description	Default Value
Put File from PC to this Device	Select file	Browse (button): Select the file that will upload to this machine Send (button): Execute upload action Clear (button): Clear the file and path that had been input Attention: Run Restart is required when .RUN and .Web file is uploaded	
	Keep Original IP (CFG only)	Click this option to keep IP Address intact if other CFG configuration is loaded.	

Category	Field	Description	Default Value
	Result	Shows the upload status Success: file is uploaded successful and take effect immediately Need Warm Restart: Warm restart is required, such as file: GT1~GT8, WEB, VON Need Cold Restart: Cold restart is required, such as file: RUN File ID Error: File uploaded is not for this machine. N/A: No action	N/A
Get File From this Device to PC	File Name	Shows the file information of in this machine currently. File Name	
	Size	File Size	
	Date	File date	
	Time	File time	
	Get	Select file that can be download to PC	
Sample MEM file		If text editor (Notepad) is used to edit the contents, here is the example of parameter.	

10 File Management

10.1 File Type

The naming convention to the file type of MOSA 4491 is listed in the following table:

File Name	File Type	Description
FWDSRVR.CFG	System configuration file	File of system configuration
FWDSRVR.RUN	Executing file	System Software
FWDSRVR.WEB	Web file	Page for web browser
FWDSRVR.MEM	Text file	MEM setting file can be downloaded by FTP to PC; open file and modify the contents using NOTEPAD or other word processing tool; then uploaded the file to system. PS. Data can be added or modified only. Delete data in the file and upload again won't delete anything. To remove data, please remove it from Web directly.
FWDSRVR.VON	Greeting File	Voice greeting that report the ID of user
REDIRECT.MAP	Text file	MAP setting file can be downloaded by FTP to PC; open file and modify the contents using NOTEPAD or other word processing tool; then uploaded the file to system. This file is to expand available extension number or one step dialing to penetrate PBX

File meaning in DISK0\ folder: Max 2 MB

File Name	File Type	Description
VMM.TRE	Structure File	Structure file of Instruction greeting
GRT_1	Greeting File	Section 1 greeting file
GRT_2	Greeting File	Section 2 greeting file
⋮	⋮	
GRT_7	Greeting File	Section 7 greeting file

FVPN-01	Instruction greeting	Section 1 instruction greeting file
FVPN-02	Instruction greeting	Section 2 instruction greeting file
FVPN-03	Instruction greeting	Section 3 instruction greeting file
⋮	⋮	⋮
FVPN-31	Instruction greeting	Section 31 instruction greeting file
FORWARD.MAP	Text file	MAP setting file can be downloaded by FTP to PC; open file and modify the contents using NOTEPAD or other word processing tool; then uploaded the file to system. This file records the default Forward To number of each port.
OFFNET.MAP	Text file	MAP setting file can be downloaded by FTP to PC; open file and modify the contents using NOTEPAD or other word processing tool; then uploaded the file to system. This file records Offnet To number and its Forward To mapping number.

10.2 Upgrade firmware by Management Web

This is the most simple way and most common use way to upgrade firmware. Please prepare FWDSRVR.RUN and FWDSRVR.WEB file first

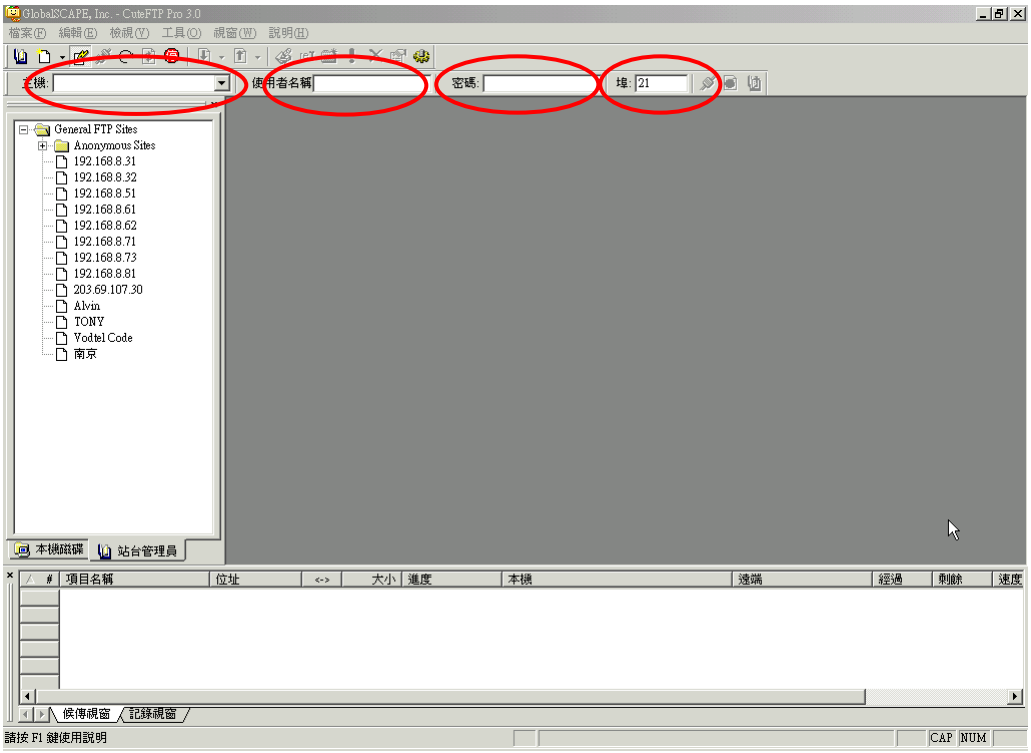
For other upgradable file, please refer to previous section

To upgrade firmware via management web, please refer to 9.11Web Path: 5.File Transfer

10.3 Upgrade firmware by FTP

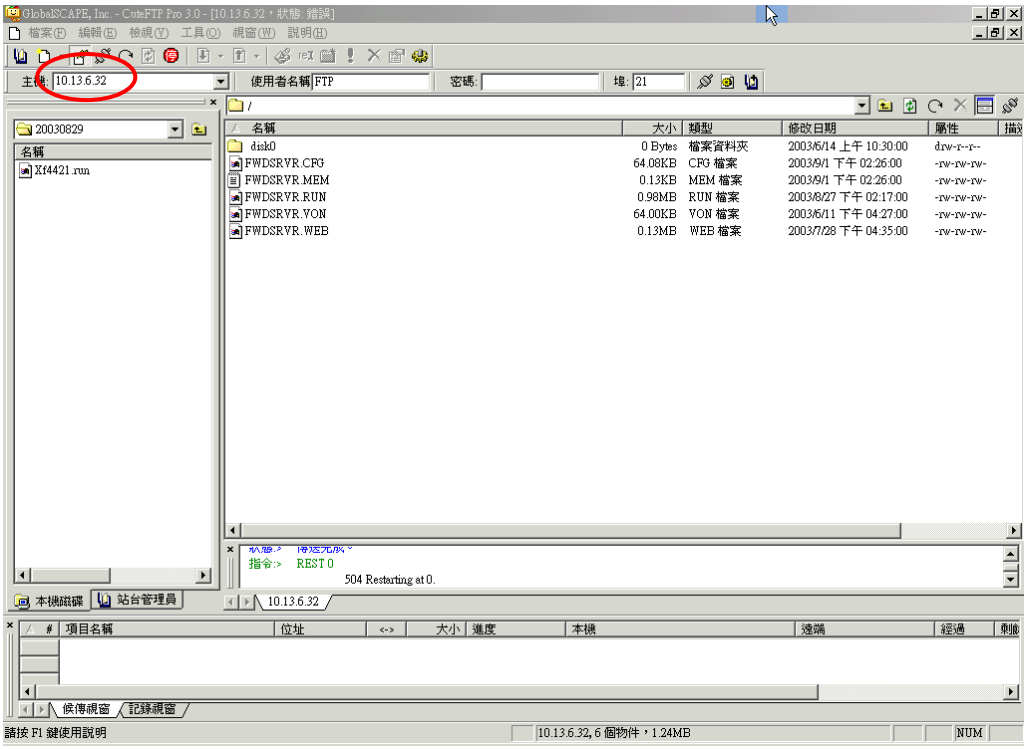
10.3.1 Software Update by FTP for File Type RUN and WEB

1. Execute FTP Client Software, e.g. CuteFTP
   Enter IP Address, User Name (default is FTP), Password (the password of FTP and Console is same, and the default is blank), and the Port Number to 21

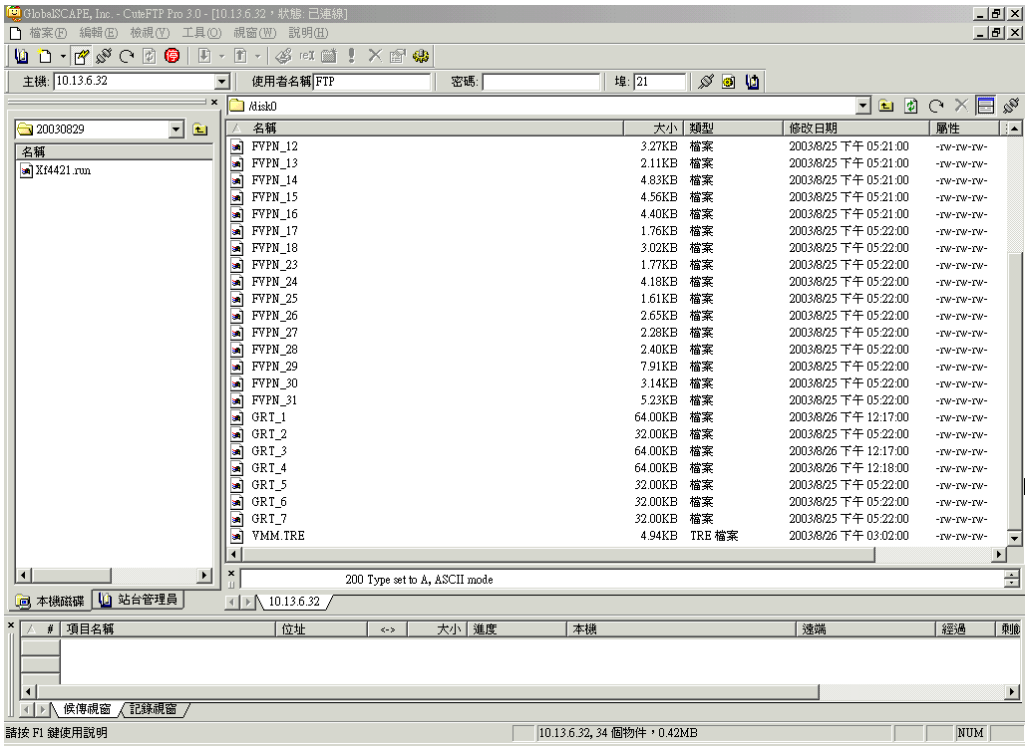


2. Click button **Connect** to get connection between Gateway and FTP Client. The files of Gateway will be displayed on the window if the connection is successful.

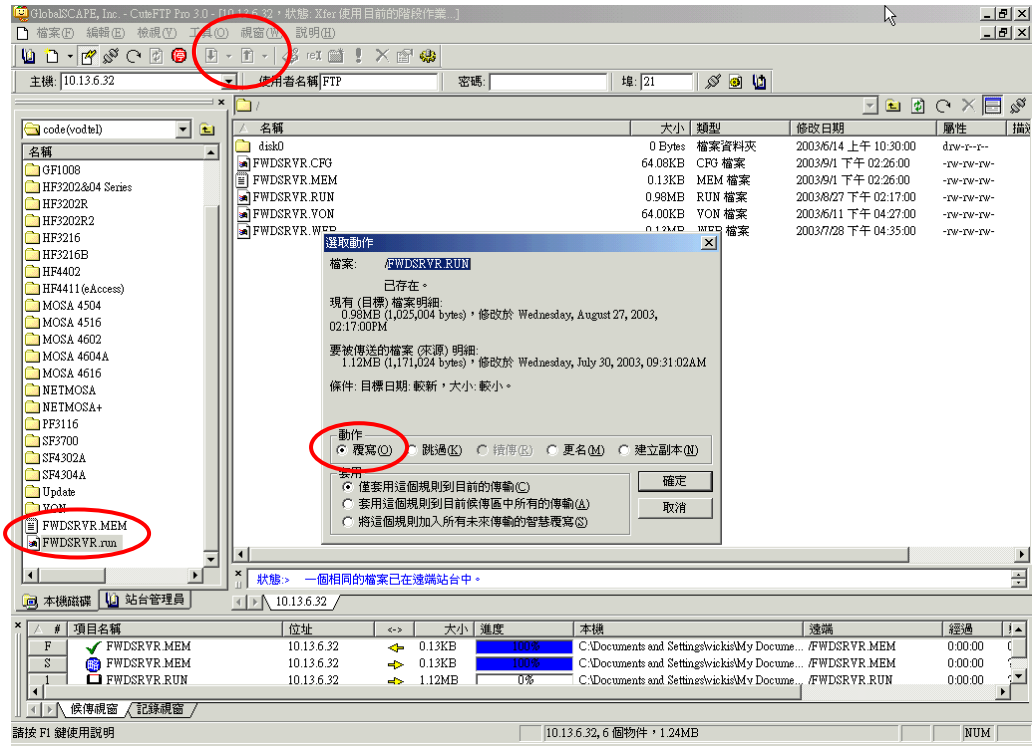
   (1) Files in Root：



(2) File in /disk0 folder：



3. Select the file with extension of .RUN and click button **Upload** and then **Overwrite**. (Please notice that the file name must be same as the file name in the machine, e.g. FWDSRVR.RUN).

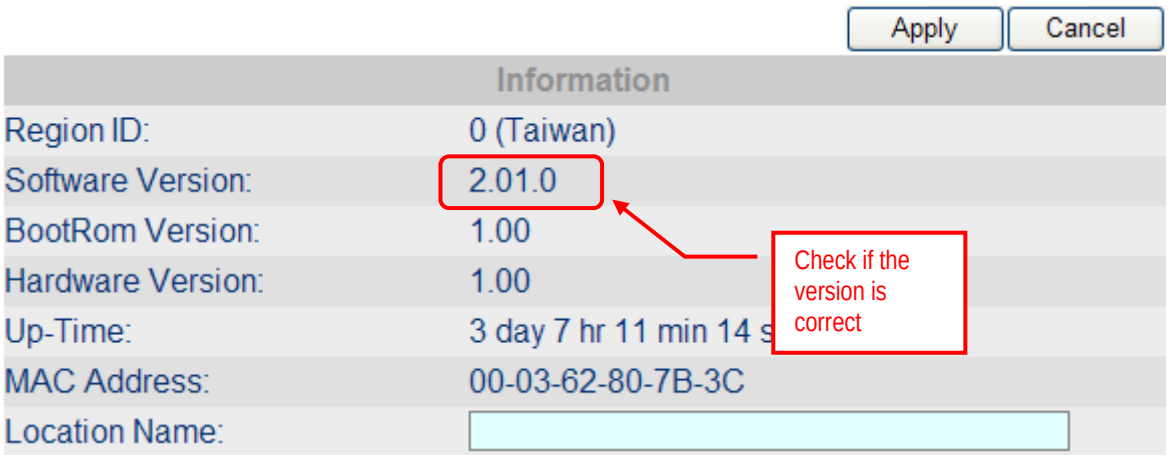


4. After the file is overwritten (you may check if the time of the file is updated), machine has to run Cold Start to store the configure file, then the updating is effective.

5. Select the file with extension of .WEB and click button **Upload** (Please notice that the file name

must be same as the file name in the machine, e.g. FWDSRVR.WEB). And repeat the step 3 ~ 4.

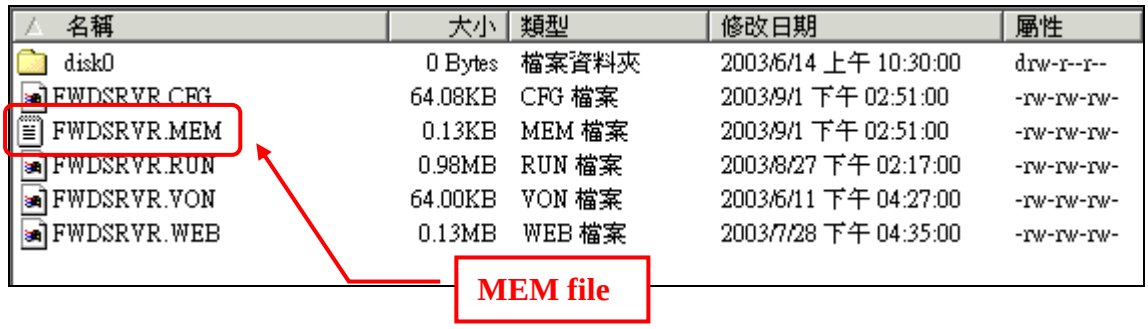
6. Check if the uploading is successful, you enter the Web Management Page to examine the version of software.



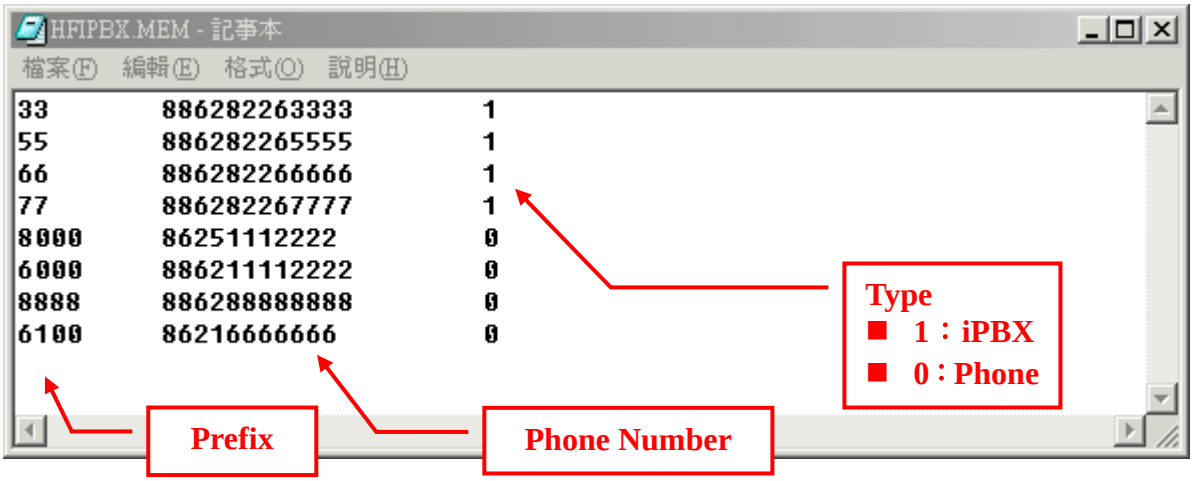
10.3.2 Update MEM file via FTP

Extension Table file can be download via FTP and edit, modify by Notepad or other text editor software. Upload it back when it is done.

You will see one more file FWDSRVR.MEM via FTP software. This table below is Extension Table data file.



You can download FWDSRVR.MEM to computer and open it by Notepad, which is shown below.



By this way, you can modify or add the data by Notepad software. When it is done, upload it back to the machine by FTP software, then data is updated.
(Note: this way can modify or add data only. Delete data is useless. Please delete it from Web page)

Remarks for Update Software of File Type MEM：

After the configuration is finished, please make a backup file for CFG file. It is in case that if the data is lost, you may upload the backup file of CFG file to machine. If you upload the previous backup file of CFG file to gateway after the MEM file is uploaded, the MEM file will be ineffective because the backup file overwrites the Prefix Map table. You have to re-upload the updated MEM file to machine to get the correct data.

11 Network Management

11.1 Management by Console, and Telnet

11.1.1 List of all commands

User Exec commands：

Enable	Turn on privileged commands
Exit	Exit from the EXEC
Help	Description of the interactive help system
Show	Show running system information

show：

Dns	Show the IP address of domain name server
ethernet	FastEthernet port status and configuration
history	Display the session command history
Ip	Display IP configuration
running-config	Show current operating configuration
version	System hardware and software status

Privileged Mode：

Configure	Enter configuration mode
Delete	Reset configuration
Disable	Turn off privileged commands
Exit	Exit from the EXEC
Help	Description of the interactive help system
Ping	Send echo request to destination
probe-hook	probe busytone cadence
probe-remove	stop probe busytone cadence
Reload	Halt and perform cold start
Restart	Halt and perform warm start
Show	Show running system information

Global Mode：

Dbflush	DataBase flush
Dns	Set the IP address of domain name server
End	Exit from configure mode to privileged mode
Exit	Exit from configure mode
Help	Description of the interactive help system
Ip	Global IP configuration subcommands
manager	Enable/Disable the specific management function
No	Negate a command or set its defaults
password	Modify password of enable command
regional_id	Set regional id
service_port	Set service port number

11.2 Management by Phone-set

11.2.1 Command of phone set

Pick up phone set and hear dial tone, and then dial *0 0000, dial the number below to configure setting after Du Du Du tone

Item	Description	Parameter	Description
77	Record instruction greeting	2 Digit；01~99	Record instruction greeting. Total 99 sections. Max 30 mins. Only 31 sections currently.
93	Configure extension of operator	2 Digits；11~26	Configure an extension as operator
96	Play greeting	1 Digit；1~7	Play the greeting
98	Restart	1：Execute	Warm Restart
99	Record greeting	1 Digit，1~7	Record greeting, totally 7 sections.

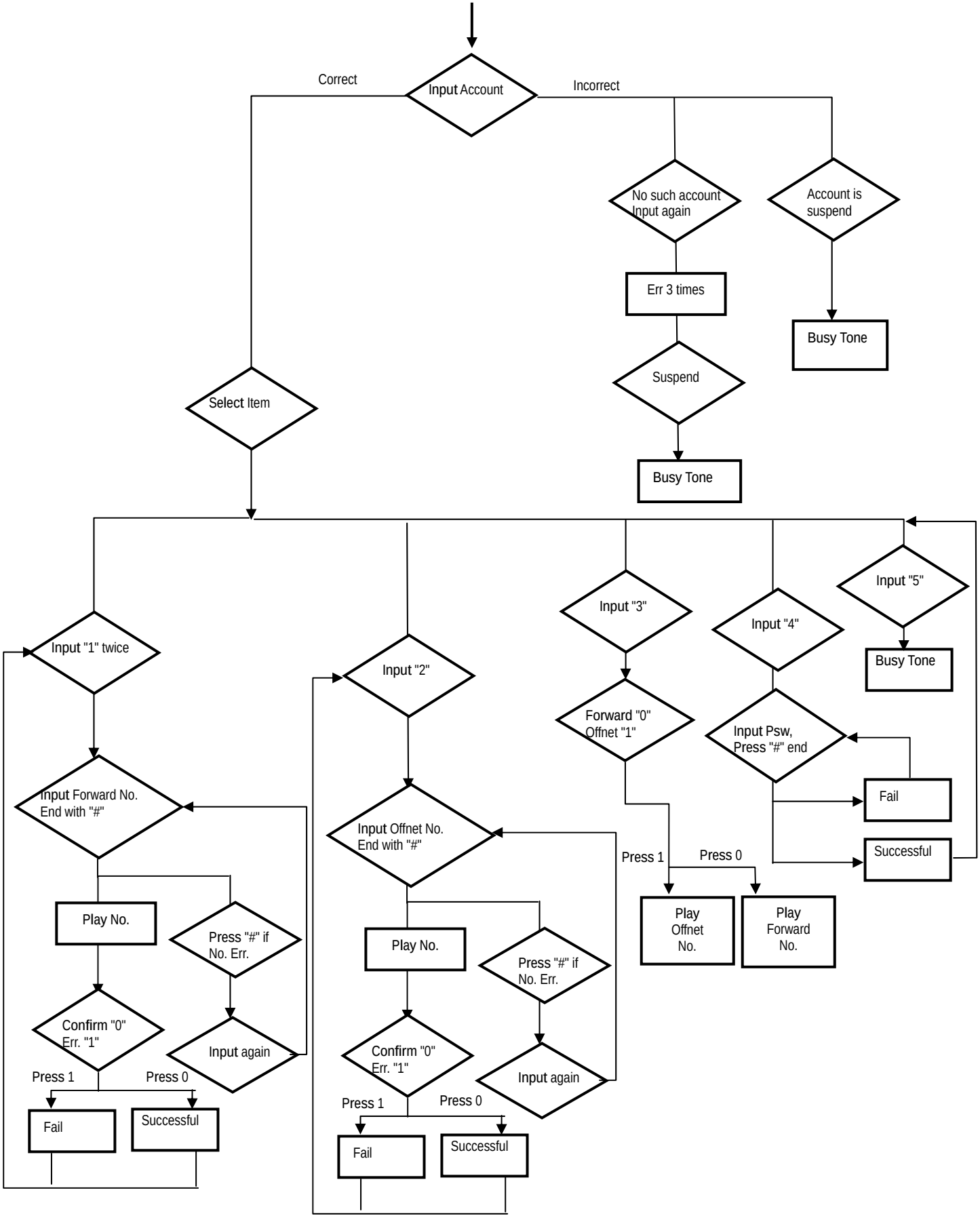
Record Greeting (Please refer to 8.2 Greeting of DISA)

*	Start recording
#	End recording
0	Listen recording
#	Stop listening
9 #	Save recording and exit
#	Leave recording mode

Record Instruction Greeting (Please Refer to 8.3 Instruction Greeting for User)

*	Start recording
#	End recording
0	Listen recording
#	Stop listening
9	Save recording and exit
#	Leave recording mode

12 Dialing Flow Chart



13 Specification

Voice Compression: G.711/G.729 AB/G.723

Silence Suppression: VAD, CNG

Echo Cancellation: G.165/G.168 16 ms

Jitter Buffer: Adaptive Jitter buffer Management

Gain Control：In/Out +/-6db

Packet Time: 40 ms

Transport Protocol: RTP, RTCP

Call Control Protocol: Proprietary

Phonebook: Manual input, Automatic

LAN Interface: 5 * Ethernet Ports; 10BASE-T/100BASE-TX Auto-negotiation; RJ-45 Connectors

System Console interface: 1

Management:

Management Tool: Web Browser, Phone set, System Console, and Telnet

IP Address: Static IP / DHCP

Firmware Update: Web, FTP

Power

Power Adaptor, Voltage: 100VAC ~ 240VAC. Frequency: 50/60Hz

Power Consumption: 9 W

Dimension: 127 mm x 80 mm x 21 mm

Working Environment

Operating Temperature: 0 to 50℃, Storage Temperature: -10 to 70℃

EMI certification: FCC part 15 Class B.CE Mark

PTT Regulation: FCC part 68, NALTE, iD A, JATE

Safety: cUL, CCIB, CB