

# **IP PBX GLIDERVOX ZX-30x**

## **User's Manual**

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V1.2

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## Chapter1 Brief Introduction

Thank you for your purchasing the ZX30x series of IP PBX. The all-in-one ZX30x IP PBX can not only provide the traditional basic PBX features (call hold, call forwarding, call waiting and so on) as well as enhanced features such as visual voice mail, music on hold, and auto attendant. In addition, the ZX30x IP PBX supports innovative functionality like private VoIP networking, remote access, superior VoIP voice quality with advanced audio processing, and the revolutionary ability to traverse a NAT and firewall. With VoIP solutions, SMEs can quickly deploy VoIP networks to connect multiple branch locations over the Internet without the need to change the current equipment or dial plan. By using the ZX30x IP PBX, an SME can take advantage of the VoIP services provided by the ITSPs (Internet Telephony Service Providers) or traditional telephony services, reduce intra-company telephony expenses, and allow VoIP remote access anywhere via the internet.

## Chapter2 Safety Notice

Please read the following safety notices before installing or using this IP PBX. They are crucial for a safe and reliable operation of the device.

- Please use the external power supply which is included in the package. Other power supplies may cause damage to the device, affect the performance or induce noise.
- Before using the external power supply in the package, please check with residential power voltage. Inaccurate power voltage may cause fire and damage.
- Please do not damage the power cord. If powercord or plug is impaired, do not use it, otherwise, it may cause fire or electric shock.
- The plug-socket combination must be accessible at all times because it serves as the main disconnecting device.
- Do not drop, knock or shake it. Rough handling can break internal circuit boards.
- Do not install the device in places where there is direct sunlight. Also do not place the device on carpets or cushions. It may cause fire or breakdown.
- Avoid exposing the device to high temperature, below  $-10^{\circ}\text{C}$  or high humidity. Avoid wetting the unit with any liquid.
- Do not attempt to open it. Non-expert handling to the device could damage it. Consult your authorized dealer for help, or else it may cause fire, electric shock or breakdown.
- Do not use harsh chemicals, cleaning solvents, or strong detergents to clean it. Wipe it with soft cloth that has been slightly dampened in a mild soap and water solution.
- When lightning, do not touch power plug or phone line, it may cause an electric shock.
- Do not install this device in an ill-ventilated place.
- You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents.

## Chapter3 ZX30x Specification

### 3.1 Appearance&Model

ZX-304 Series IPPBX product line include **ZX304-A4, ZX308-A8,ZX304-AG4,ZX30-AG42, ZX30-G4**,so far, since they have almost the same software and structure so we will use ZX304-AG42 as the demo unit on this article.

Model		FXS	FXO	GSM	E1
ZX304-A4	A404		4		
	A422	2	2		
ZX304-A8	A808		8		
	A826	2	6		
ZX304-AG42	AG4204		4	2	
	AG4222	2	2	2	
ZX304-G4	G4			4	
ZX304	AE4 104		4		1
	AE4 122	2	2		1

### 3.2 System Features

ZX30x series of IPPBX is an embedded ip pbx based on industry standard for Home&SMEs, which is not only a PBX, but also as a voice mail Server , IVR server , conferencing server. With excellent echo cancellation function, it can meet most of the customers' requirement.

- Up to 30 concurrent calls.
- Above 100 registers
- Configuration by Web
- Built-in SIP/IAX Server
- Build in Voice Mail Server
- Codec: G.711-Ulaw, G.711-Alaw, G.726, G.729, GSM, SPEEX
- SIP/IAX Extensions(connect with IP Phone)
- Zap Extensions(connect with Analog Phone)
- Call Forward/Call Hold/Call Transfer/Call Waiting/Caller ID
- Flexible Dial Plan
- Ring group
- Conference Room
- IVR and Auto attendand
- Multimedia Music On Hold and Ring Back

- Call Monitoring
- Video Call
- DISA setting
- Call parking
- Call Paging and intercom
- Follow me Setting
- Call Logs check and download
- Support IP Phone with Key function
- BLF(Busy Lamp Field)
- Static/DHCP/PPPoE network access
- System backup and store
- Set system time manually
- VPN Client (support N2N)
- DDNS Client (support Dyndns.org)
- Codec Negotiation/Echo cancelation/VAD.etc
- FAX T.38

### 3.3 Interface&Panel

Here,we take ZX30xG4 as the sample to show the interface and the indicators at the back and front panel.

#### 1) Back panel



- 4 \* GSM Antenna
- 2 \* Network Interface (RJ45)
- 1 \* Power port (DC 12V 2A)
- 1 \* Reboot Button

#### 2) Front Panel



Mark	Function	Status	Description
PWR	Power Status	On	Power On
		Off	Power Off
SYS	System Status	On	System working
		Off	System Failed
WAN	WAN interface Status	Wink	Data exchanging
		Off	No Data exchanging
LAN	LAN Interface Status	Wink	Data exchanging
		Off	No Data exchanging
G1~G4	GSM Modules Status	Red	GSM channel
		Off	Failed
*1-4	Analog Modules Status	Green	FXS channels
		Red	FXO channels
		Off	Failed

### 3) Hard ware

- 32bit embedded RISC DSP
- 1G Onboard Nand Flash
- 128M Onboard SDRAM

### 4) environmental requirements:

- temperature: -10 °C -45 °C
- Storage temperature: -30 °C -65 °C
- humidity: 10-80% no dew
- Power: AC 100~240V

### 5) Packing List

- IPPBX 1 Unit
- GSM Antennas 4 Unit
- Power Adapter 1 Unit



### 3.4 Default configuration

1. WAN port IP address: <http://192.168.1.100:9999>
2. LAN port IP address: <http://192.168.10.100:9999>
3. LAN port super IP: [169.254.1.254/255.255.0.0](http://169.254.1.254/255.255.0.0)
4. Web GUI username: [admin](#)
5. Web GUI password: [admin](#)

### 3.5 Default Feature Key

1. Press '\*\*11' Playback the IP Address of WAN port
2. Press '\*\*12' Playback the IP Address of LAN port
3. Press '600' Get into the Voicemail Box
4. Press '900' Get into the Meeting
5. Press '#' Blind Transfer
6. Press '\*2' Attended Transfer
7. Press '\*' Disconnect Call

## Chapter4 Login in Home Page

After connecting the IP PBX to the local area network. Launch the web browser on a computer which is in this local area network. Enter the IP address for the system (WAN port IP address **http://192.168.1.100:9999**, LAN port IP address **http://192.168.10.100:9999**). The start web page will appear like this:



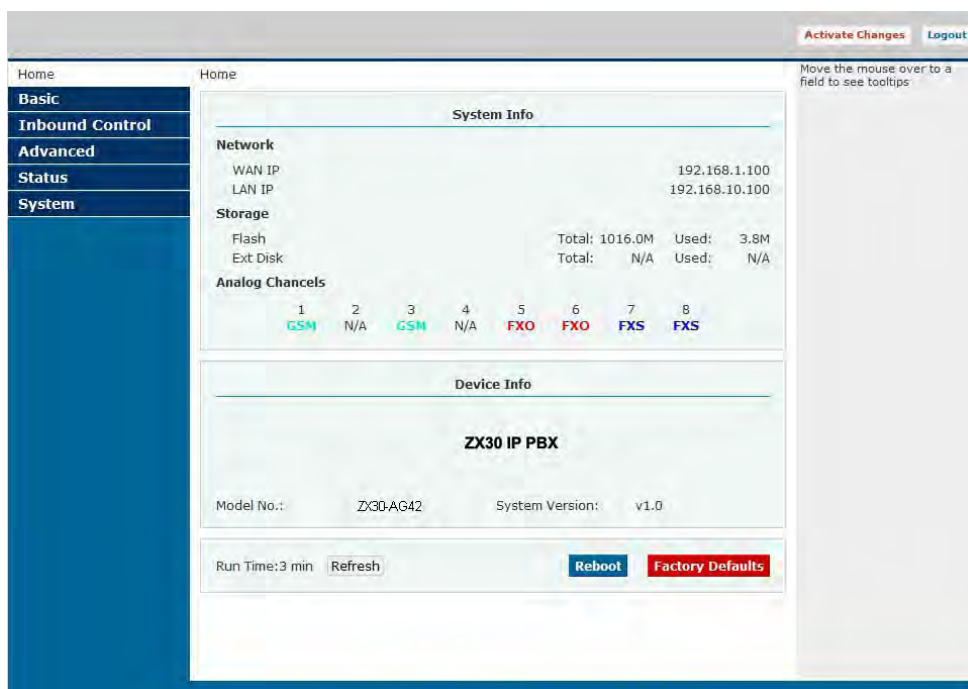
Username:	<input type="text"/>
Password:	<input type="password"/>
Language:	English <input type="button" value="v"/>
<input type="button" value="Login"/>	

Please login...



Enter **Username** and **Password** (default username is **admin**, password is **admin**), set **Language**, then click "login". Once the login is successful, the home page will be display:

**Noted:** you have to add a network segment same with the WAN ports if your PC is not at 192.168.1.XXX.



The screenshot shows the home page of the VAid Systems web interface. It features a navigation menu on the left with options: Home, Basic, Inbound Control, Advanced, Status, and System. The main content area is titled 'System Info' and displays the following information:

System Info			
<b>Network</b>			
WAN IP	192.168.1.100		
LAN IP	192.168.10.100		
<b>Storage</b>			
Flash	Total: 1016.0M	Used:	3.8M
Ext Disk	Total: N/A	Used:	N/A
<b>Analog Chancels</b>			
1	2	3	4
GSM	N/A	GSM	N/A
5	6	7	8
FXO	FXO	FXS	FXS

Below the System Info section is the 'Device Info' section, which displays:

**ZX30 IP PBX**

Model No.: ZX30-AG42      System Version: v1.0

At the bottom of the page, there is a 'Run Time: 3 min' indicator, a 'Refresh' button, and two buttons: 'Reboot' and 'Factory Defaults'. In the top right corner, there are 'Activate Changes' and 'Logout' buttons.

With the PBX GUI, you can configure extensions, conference, voicemail, Dial Plan and etc. Each page of the GUI has three columns:

The left column present all the options tab that you can program the system. Click the tab to go to setting page of different options.

The middle column contains the primary content for each page.

The right column of the user interface contains Tooltips. This area provides brief description for any options of the GUI

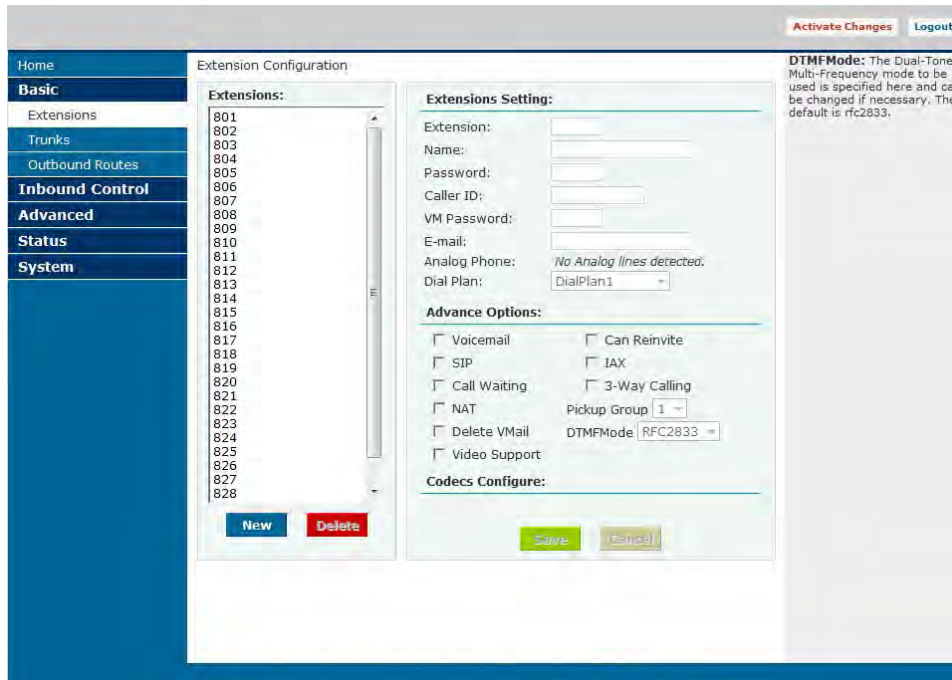
The home page is used for logout, Reboot and Factory Defaults.

- **Logout:** To log out the PBX GUI.
- **Reboot:** Reboot the IP PBX system
- **Factory Defaults:** Restore all settings to factory default.
- **Activate change:** Made the change active for the current configuration after you make a configuration on some page.

## Chapter5 Basic Configuration

### 5.1 Configure Extensions

Click the Extension tab and you will see the extensions setting, your created users are in this page. There are 30 users in your extensions list as default setting, you can add new extensions or remove the existing extensions.



Extensions Setting include:

- **Extension**                      The extension is assigned to the defined user.
- **Name**                              The full name of the individual assigned to this extension.
- **Password**                         The password is used to Extension registered
- **VM Password**                    The password is used to access voicemail for the specified Extension
- **E-mail**                      Set                              the user's E-mail
- **Caller ID**                         Identifies the Caller ID presented when the listed extension dials out
- **Analog Phone**                    A drop-down menu is available to identify the analog phone port which this extension will access.
- **Dial Plan**                         You can choice dial plan based on the extensions' need, this option references the Dial Rules option on the left tool bar.

There are also several advanced extension options available. The advanced options establish the connections from the listed extension to other systems within the IPPBX system server. These advanced options include the following:

- **Voicemail**                         The extension support voicemail
- **SIP**                                    The extension support SIP protocol
- **IAX**                                    The extension support IAX protocol
- **Call Waiting**                        The extension support Call Waiting function
- **3-Way Calling**                      The extension support 3-Way Calling functions

- [Pickup Group](#) Select pickup group of the extension
- [Delete VMail](#) If this option is set, then voicemails will not be checkable using a Phone. Messages will be sent via e-mail, only. Note: You need to have an smtp server configured for this functionality.
- [Video Call](#) Enable/Disable Video support function for this extension.
- [Codecs](#) Click here, you can set the extension's codec (default support: alaw, ulaw and G.729).

## 5.2 Trunk

If you want to make external call, you must register with a Trunk in order to connect to the Public Switched Telephone Network (PSTN) or other VoIP service provider. Through the web page you can add a trunk.

There are three Trunk categories: **Analog Trunk**, **VoIP Providers**, **Peer**.

Add Trunk X

**Provider Type:**

Analog Trunk

Custom Trunk

Peer

Lines:

Analog Port #1

Analog Port #3

Analog Port #5

Analog Port #6

### [Analog Trunk](#)

Select the Analog radio button to define the analog ports you have access to as a service provider. This will give you the ability to place calls through the IP PBX utilizing analog lines. The analog ports available will be displayed when you select this option. Choose one or more analog ports by selecting their associated checkbox. You will not be able to create an analog service provider if you do not have any analog ports available.

### [Custom Trunk](#)

The Custom VoIP option allows you to create a custom VoIP definition. To create the custom VoIP provider definition you will need to complete the following:

**Provider Type:**

Analog Trunk

Custom Trunk

Peer

Description:

Protocol:

DialPlan:

Register:

Host:

Without Authentication

Username:

Password:

- [Description](#) The description should be used as the name of the custom VoIP definition
- [Protocol](#) Specify either a IAX or SIP protocol
- [DialPlan](#) Select a DialPlan for this trunk.
- [Register](#) Enable/Disable server register. Registering is not required for all providers

- **Host** The IP address of your service provider
- **Username** The user name associated with your provider account
- **Password** The password associated with your provider account
- **Without Authentication** if you connect to Voip server without Authentication, pls selected this.

### Peer

The Peer option allows you to create a custom VoIP Peer.

**Add Trunk** X

**Provider Type:**

Analog Trunk

E1 Trunk

VoIP Trunk

Peer

Peer Name:

Protocol:

DialPlan:

Host:

NAT:

Without Authentication

Username:

Password:

- **Peer Name** Defines a peer name for this peer.
- **Protocol** Specify either a IAX or SIP protocol
- **DialPlan** Select a DialPlan for this peer
- **Host** dynamic | hostname | IP Address
- **NAT** Disable/Enable the NAT function
- **Without Authentication** if you connect to the PBX without Authentication, pls selected
- **Username** Defines the peer username
- **Password** Defines the peer password

Once you have added a VoIP Trunk it will appear on the list of Trunk on the Trunk page. There is an Options drop-down list associated with each Trunk listing. The Options drop-down list allows you to edit or delete the Trunk definition, as well as further refine the definition by choosing several advance options. Select either Codex or Advanced to further refine the definition.

- **Edit** Edit you select the trunk.
- **Codecs** Codecs provide the ability for your voice to be converted to a digital signal and transmitted across the internet.
- **Advanced** The following advanced options are available to further refine your trunk.

**Advanced Settings**

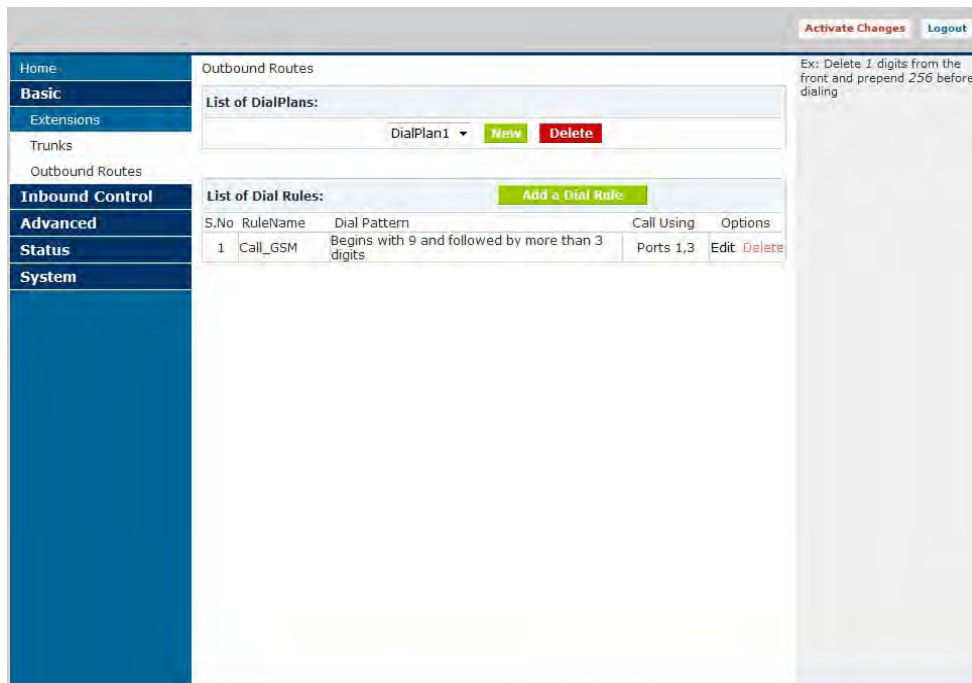
trunkname:	<input type="text" value="trunk_1"/>
insecure:	<input type="text" value="very"/>
port:	<input type="text" value="5060"/>
caller ID:	<input type="text"/>
fromdomain:	<input type="text" value="192.168.1.100"/>
fromuser:	<input type="text" value="test"/>
contact:	<input type="text"/>
qualify:	<input type="text" value="yes"/>

- **Trunkname** Specify a trunk name if you want to refer to the service provider

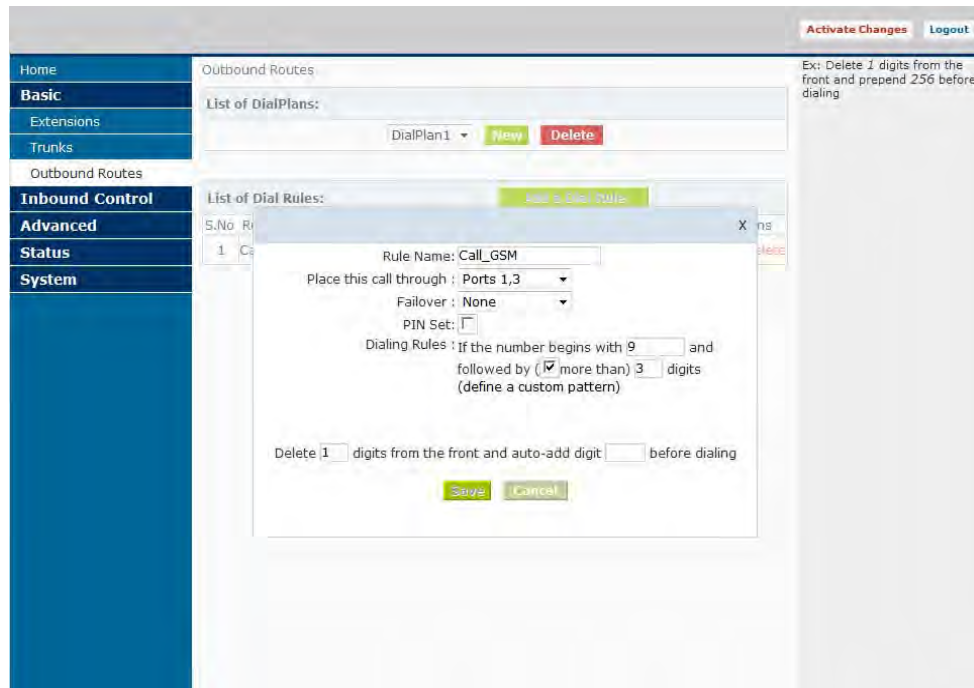
- **Insecure** definition as something other than specified in Comment This option specifies how connects to a service provider (host) should be handled. Valid options are very/yes/no/invite/port. (Default is “very” )
- **Port** The register request is sent through the port. (Default is SIP:5060,IAX:4569)
- **Caller ID** The caller ID will be set to the value specified in this field
- **Fromdomain** Sets default from: domain in SIP messages when acting as a SIP client.
- **Fromuser** Sets default from: user in SIP messages when acting as a SIP client
- **Contact** Specifies a primary extension for call routing

### 5.3 Outbound Routers

The Dial Rules tab on the left toolbar allows you to use basic pattern matching to differentiate outbound calls and route them accordingly (create different DialPlan).



Click on Add a Dial Rule to define a new DialPlan. The following dialog will be displayed.



A DialPlan is comprised of the following items:

- **Rule Name** Set a rule name
- **Place this call through** Select a Trunk through which the call should be made
- **Failover** Select a trunk Failover
- **PIN Set** Set a password when you dial base the Dial rule.
- **Dialing Rules** The Dialing Rule gives you the ability to use basic pattern matching to differentiate calls and route them accordingly. For instance, if a number begins with 9256 followed by 7 or more digits, that would define a call within the state of Alabama. If a call began with 9 followed by 7 digits, it would be a local call that probably didn't require a long distance charge. Instead of adding a rule for every extension or phone number you call, specify the pattern in this rule similar to the example.
- **Define a custom pattern** Set a custom pattern by yourself.

Custom Pattern:   
 (define a Basic Pattern)  
**Z** Any digit from 1 to 9  
**N** Any digit from 2 to 9  
**X** Any digit from 0 to 9  
 . Any number of additional digits

**N** Any digit from 2 to 9  
**Z** Any digit from 1 to 9  
**X** Any digit from 0 to 9  
 . Any number of additional digits

Example: “\_9ZNXXX.” mean first number is 9, second number is any digit from 1 to 9, third number is any digit from 2 to 9 and each “X” is any digit from 0 to 9. The “.” is more.

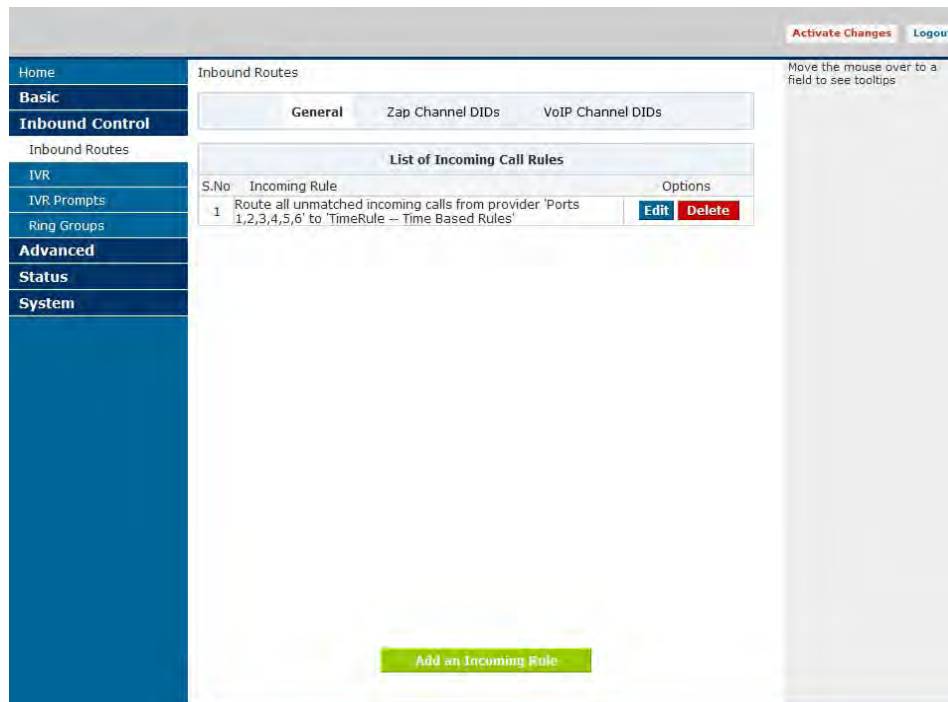
- **Delete** This option gives you the opportunity to remove specified digits from the call being dialed and replace them with the digits needed to make the call. You can also prepend digits to the beginning.



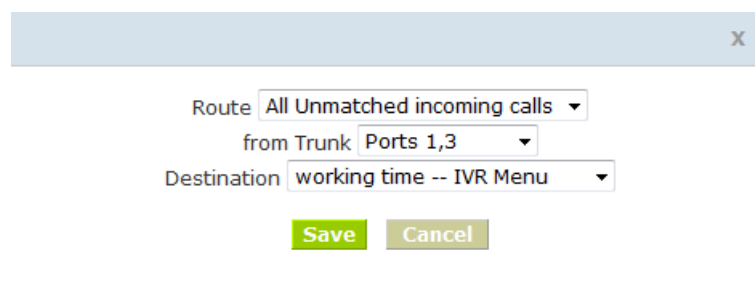
## Chapter6 Inbound Control

### 6.1 Inbound Routers

#### 6.1.1 General Settings



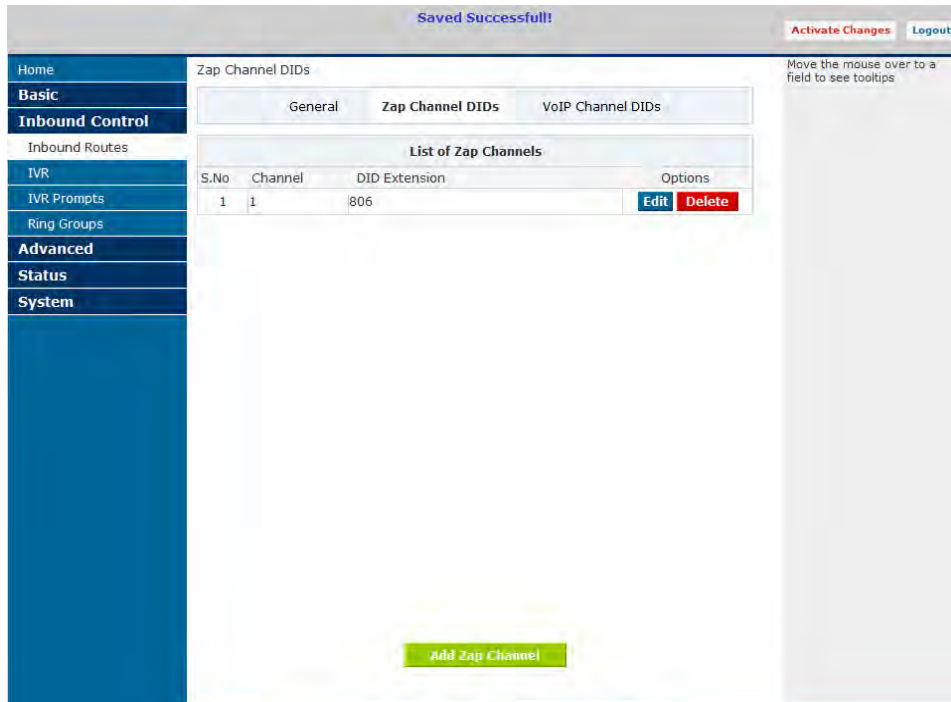
The same pattern-matching logic used for processing outbound calls can also be employed for inbound calls. The two defaults define routing based on whether an incoming call matches or doesn't match a pattern you define.



There are only a few options you need to configure

- **Route** Make a selection from the drop-down list to choose how the calls will be routed. You can select from All Unmatched Calls or Calls which Match
- **From Provider** Select from the list of providers which you previously configuration
- **To Extension** The previously configuration extension which should receive the Call.

### 6.1.2 Zap Channel DIDs



Saved Successful! [Activate Changes](#) [Logout](#)

Home Zap Channel DIDs [General](#) [Zap Channel DIDs](#) [VoIP Channel DIDs](#) Move the mouse over to a field to see tooltips

**Inbound Control**

Inbound Routes

IVR

IVR Prompts

Ring Groups

**Advanced**

Status

System

List of Zap Channels

S.No	Channel	DID Extension	Options
1	1	806	<a href="#">Edit</a> <a href="#">Delete</a>

[Add Zap Channel](#)

This page used to set Zap channel DID.

**Add Zap Channel** X

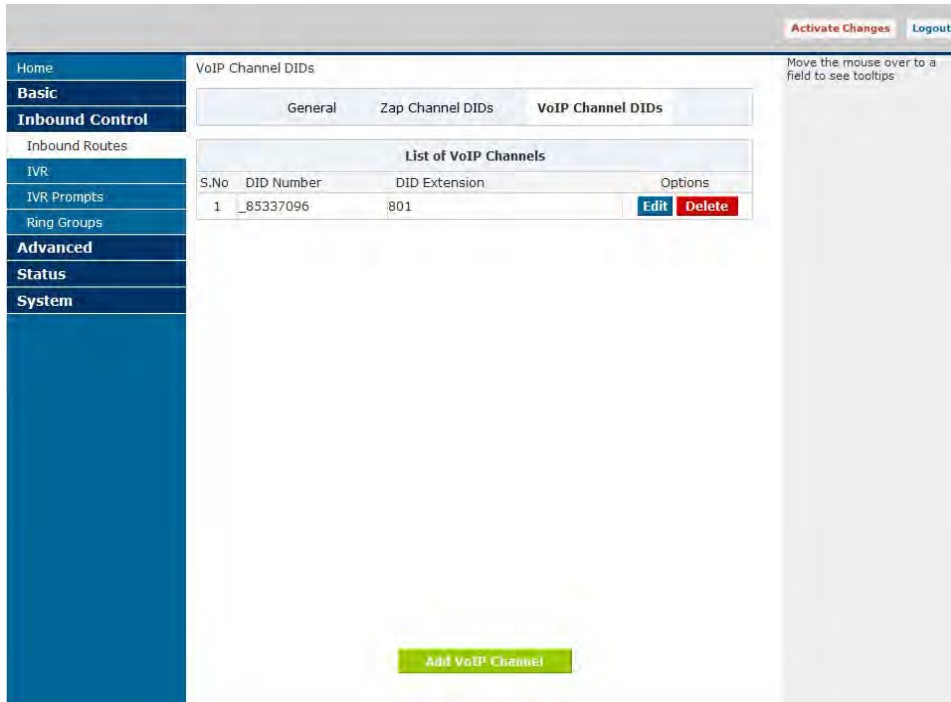
Channel:

DID Extension:

[Save](#)
[Cancel](#)

- **Channel** Set Inbound Zap channel.( eg: Use channel 1, you should set 1)
- **DID Extension** Set a local extension

### 6.1.3 VoIP Channel DIDs



VoIP Channel DIDs

General Zap Channel DIDs VoIP Channel DIDs

List of VoIP Channels

S.No	DID Number	DID Extension	Options
1	_85337096	801	<a href="#">Edit</a> <a href="#">Delete</a>

[Add VoIP Channel](#)

This page used to set Zap channel DID.

X

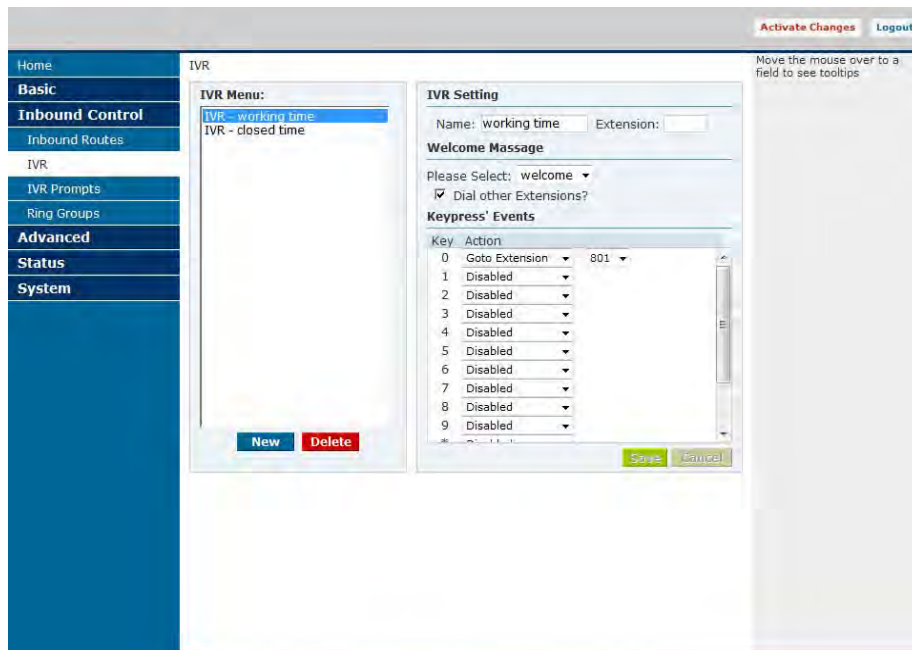
DID Number:

DID Extension:

- **DID Number** Set a VoIP DID Number (The value, you can set in advanced settings of VoIP trunk).
- **DID Extension** Set a local extension

## 6.2 IVR (Interactive Voice Response)

Through the web page, you can create Interactive Voice Response (IVR). IVR are designed to allow for more efficient routing of calls from incoming callers.

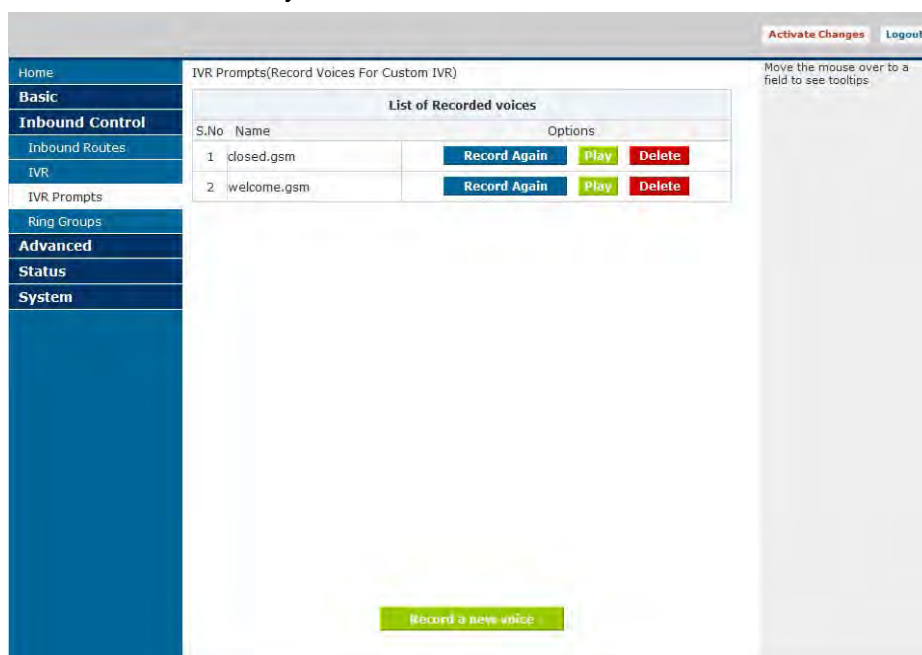


Voice menus are constructed depending on your needs. Just like your business you need to create the solution best suited to your customers.

- **Name** Set a IVR name
- **Extension** Set a IVR connect number
- **Welcome Message** Select a welcome message voice from record
- **Dial other Extensions** Enable/Disable allow dial other extensions.

## 6.3 IVR Prompts

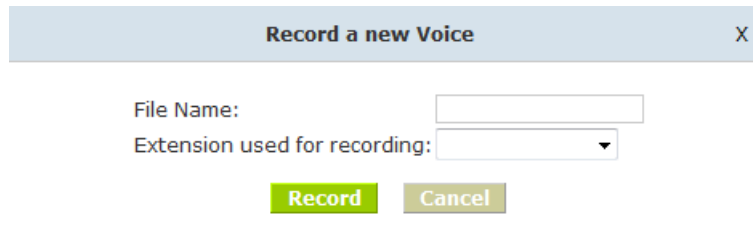
In the event that one wants to record custom IVR prompts for the IP PBX, which can be used in a IVR, the Record may be used.



A list of previously recorded menus is displayed. Here, the user may modify several options

- **Record Again** Clicking this button allows the user to make another attempt at recording and replacing an existing custom sound file
- **Play** Clicking this button brings up a dialog entry box to allow the input of an extension that System will dial and play the prompt over
- **Delete** Clicking this button will delete the selected prompt

There are two options under “Record a new voice”



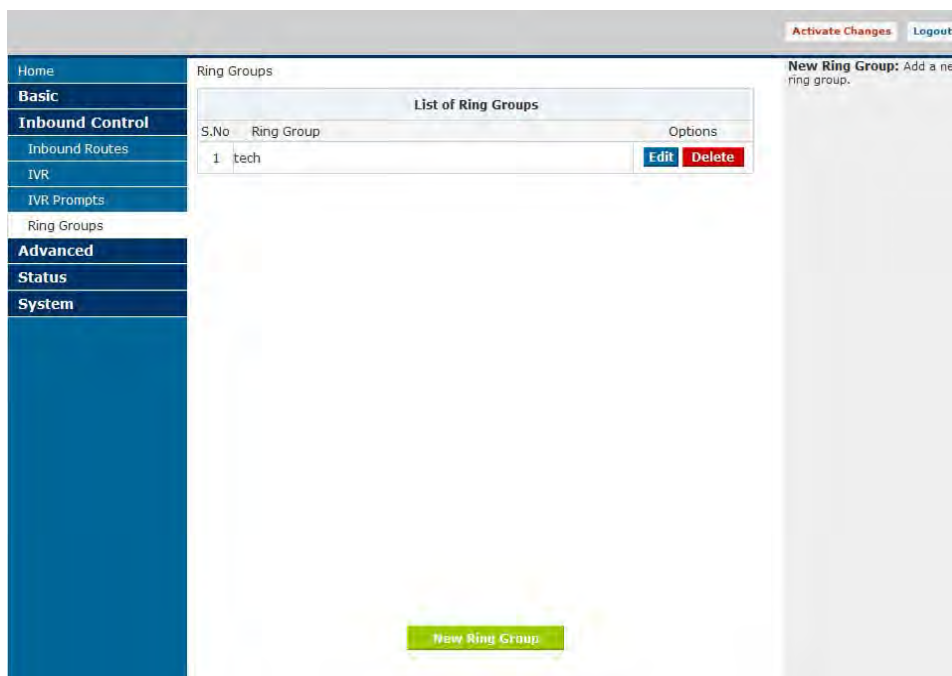
The dialog box titled "Record a new Voice" contains the following fields and buttons:

- File Name:** A text input field.
- Extension used for recording:** A dropdown menu.
- Record** (green button)
- Cancel** (grey button)

- **File Name** This text entry box specifies the saved name of the file that is to be recorded.
- **Extension Used for Recording** This drop-down select box allows the user to choose which extension will dial to wait for the user to speak the prompt

## 6.4 Ring Groups

A ring group is a group of users assigned to answer incoming call to a single extension. When a caller dials a ring group extension, all of the phones of the users in the ring group will ring together, the call is answered when any one of the users in the group pick up the call. You can configure Ring Groups through the web page



The screenshot shows the "Ring Groups" configuration page in a web interface. On the left is a navigation menu with categories: Home, Basic, Inbound Control (with sub-items: Inbound Routes, IVR, IVR Prompts, Ring Groups), Advanced, Status, and System. The main content area is titled "Ring Groups" and contains a "List of Ring Groups" table:

S.No	Ring Group	Options
1	tech	<a href="#">Edit</a> <a href="#">Delete</a>

Below the table is a green button labeled "New Ring Group". On the right side of the page, there are links for "Activate Changes" and "Logout", and a section titled "New Ring Group: Add a new ring group."

Define Ring Groups to Dial more than one extension

**Add Ring Group**
X

Name:

Strategy: Ring all

←
→
»»

SIP/801 -- User1

SIP/605 -- User2

SIP/803 -- User3

SIP/804 -- User4

SIP/805 -- User5

SIP/806 -- User6

SIP/807 -- User7

SIP/808 -- User8

**Ring Group Members**

Extension for this ring group(Optional) :

Ring (each/all) for these many seconds :

**Available Channels**

If not answered

Goto an Extension

Goto an Extension Voicemail

Goto a RingGroup

Goto an IVR menu

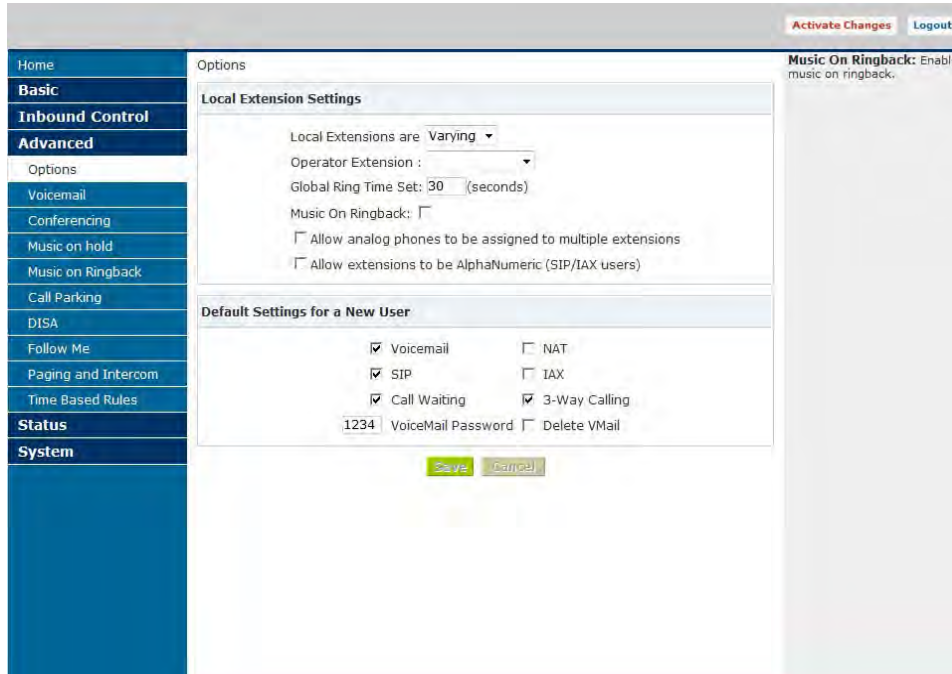
HangUp

Save
Cancel

- **Name** Set a Ring Group name
  - **Strategy** There is a drop-down list, you can choose Ring all or Ring in order.
  - **Ring Group Members** Add Ring Group member from Available channels.
- If the Ring Group no answered you can choose to [Goto an Extension](#), [Goto an Extension Voicemail](#), [Goto a RingGroup](#), [Goto an IVR menu](#), [HangUp](#).

## Chapter7 Advanced Configuration

### 7.1 Options

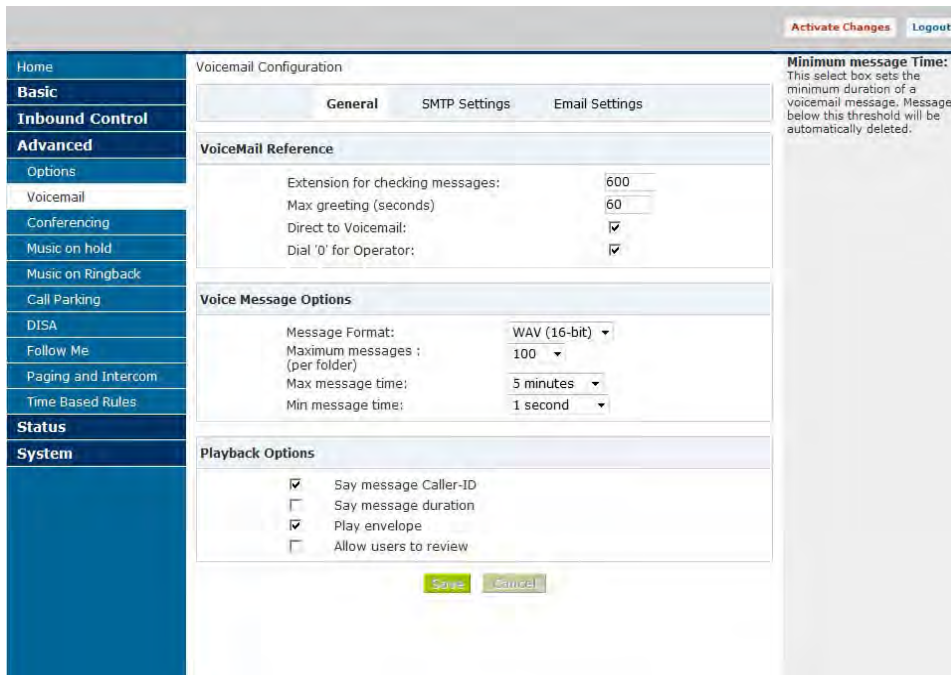


- [Local Extensions are](#) Set up the digit of local extensions
- [Operator Extension](#) Set up Operator Extension. (you can dial “0” go to the extension at any time)
- [Global Ring Time Set](#) Set default each extension ring time.
- [Music On Ringback](#) Enable/Disable the Music On Ringback function
- [Default Settings for a New User](#) Set up the Default Settings for a New User, when You create a new extension will use the configuration.

### 7.2 Voice mail

The ZX30x provides Voice mail for its end users as an optional feature. End users can retrieve their voice mails and change their password. The relationship between the extension and the voice mail is established in the User Extension section of the GUI. You can configure the voicemail through this page.

### 7.2.1 General Settings



Standard configuration information is also present, allowing you to confirm the extension used to check messages as well as general parameters such as the following:

- [Extension for Checking Messages](#) This option defines the extension which Users call in order to access their voicemail account.
- [Max greeting\(Seconds\)](#) With this option, you specify the maximum amount of time available to record your voicemail greeting.
- [Attach recordings to e-mail](#) Enable/Disable send recording file to you email by attachment
- [Dial "0" for Operator](#) Callers who are sent to voice mail can press "0" for the operator and be transferred either during the voice mail salutation, or after recording the message. If this option is not enabled, a caller's pressing "0" will be ignored.

There are several options that can be specified to define the voicemail message in the system.

- [Message Format](#) This option gives you the ability to choose the format in which messages will be mailed.
- [Maximum Messages](#) The maximum number of messages per voice mail box is set here.
- [Maximum Message Time](#) The maximum duration of a message left by a caller is set here
- [Minimum Message Time](#) The minimum duration of a message is dictated here.

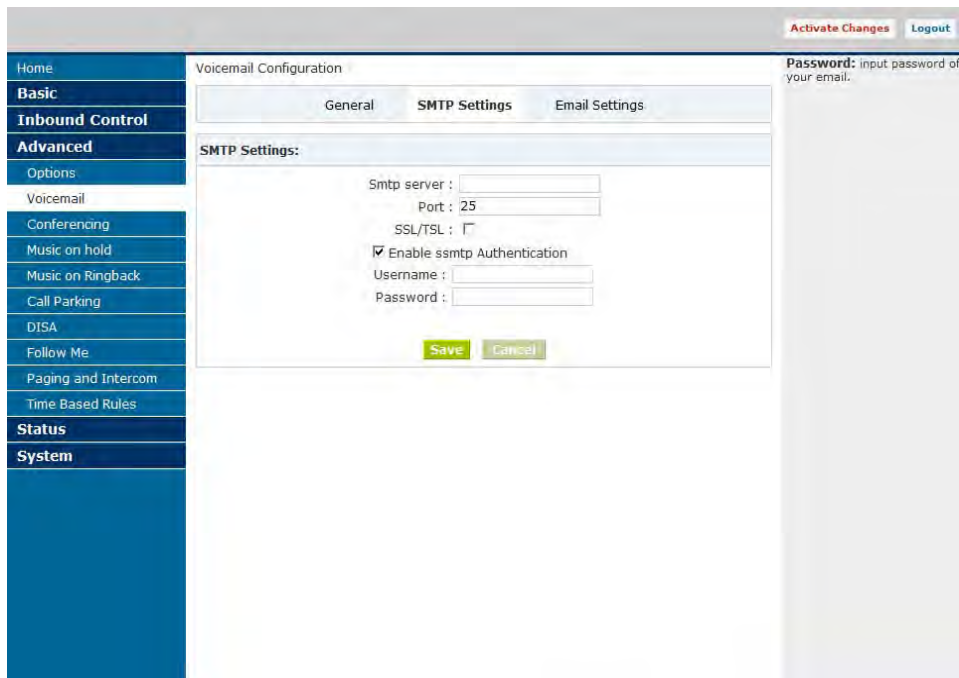
There are several playback options that can be specified.

- [Say Message Caller-ID](#) The Say Message Caller ID option reads the caller ID before the voice mail message is played



- **Say Message Duration** This option identifies exactly how long the message lasted.
- **Play Envelop** The envelope provides the date, time, and caller ID related to a voice mail.
- **Allow Users to Review** This option provides incoming callers the option to review their message before it is saved and can be played back by the owner of the voice mail extension. Standard options are presented to you, allowing you to discard the message or re-record it if you aren't happy with it.

### 7.2.2 SMTP settings



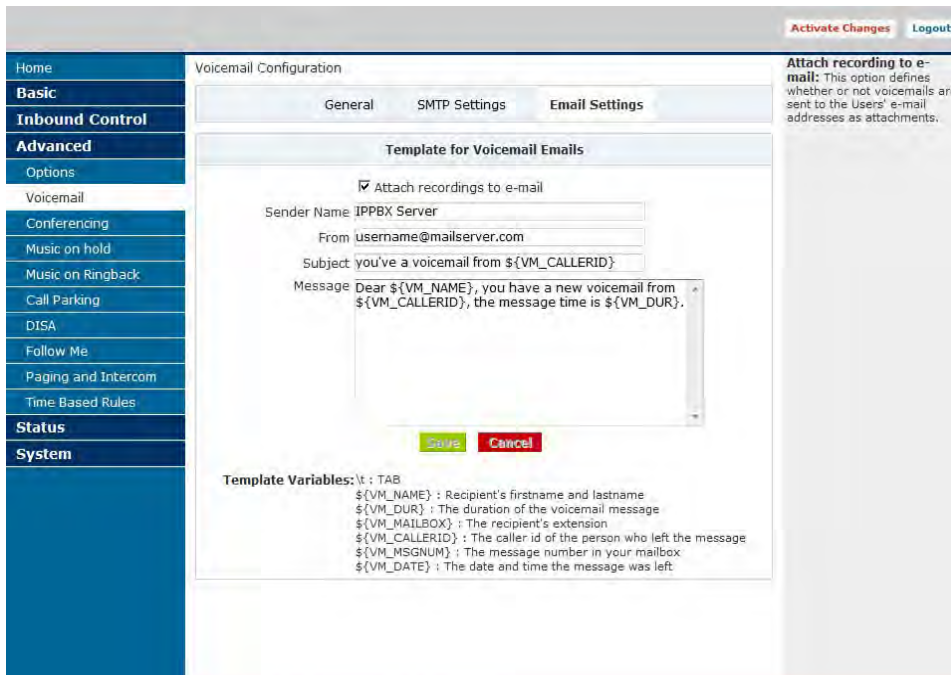
The screenshot shows the 'Voicemail Configuration' page with the 'SMTP Settings' tab selected. The settings include:

- Smtp server : [text input field]
- Port : 25
- SSL/TSL :
- Enable ssmtp Authentication
- Username : [text input field]
- Password : [text input field]

Buttons for 'Save' and 'Cancel' are visible at the bottom of the settings section. On the right side, there is a 'Password:' label and a note: 'input password of your email.' The left sidebar contains navigation options like Home, Basic, Inbound Control, Advanced, and System.

- **Smtp server** The IP address or hostname of an SMTP server that your IP PBX may connect to, in order to send e-mail notifications of your voicemail; eg:mail.yourcompany.com
- **Port** The port number on which the SMTP server is running; generally port 25.
- **SSL/TSL** Enable use SSL/TLS to send secure messages to server.
- **Enable SMTP Authentication** if your SSMTP server needs Authentication, please enable SSMTP Authentication setting, and configure the following information
- **Username** input username of your email.
- **Password** input password of your email.

### 7.2.3 Email settings



The screenshot shows the 'Voicemail Configuration' page with the 'Email Settings' tab selected. The 'Template for Voicemail Emails' section is active, showing a form with the following fields:

- Attach recordings to e-mail
- Sender Name: IPPBX Server
- From: username@mailserver.com
- Subject: you've a voicemail from \${VM\_CALLERID}
- Message: Dear \${VM\_NAME}, you have a new voicemail from \${VM\_CALLERID}, the message time is \${VM\_DUR}.

Below the form are 'Save' and 'Cancel' buttons. A 'Template Variables' section lists the following variables:

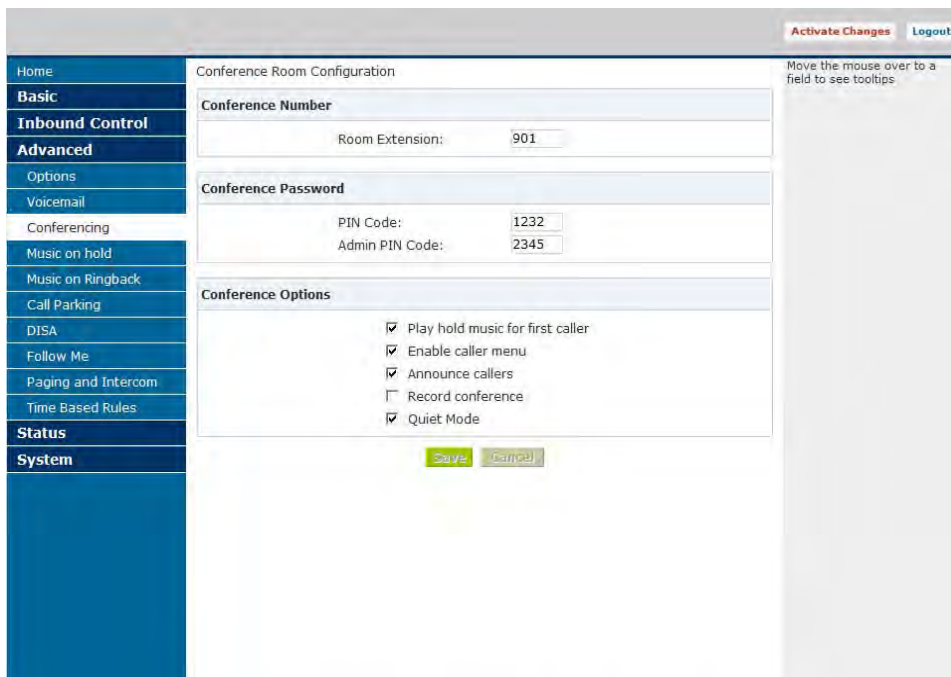
- !t : TAB
- ! \${VM\_NAME} : Recipient's firstname and lastname
- ! \${VM\_DUR} : The duration of the voicemail message
- ! \${VM\_MAILBOX} : The recipient's extension
- ! \${VM\_CALLERID} : The caller id of the person who left the message
- ! \${VM\_MSGNUM} : The message number in your mailbox
- ! \${VM\_DATE} : The date and time the message was left

On the right side, there is a note: 'Attach recording to e-mail: This option defines whether or not voicemails are sent to the Users' e-mail addresses as attachments.'

- **Sender Name** Set the name for sender
- **From** Set the from email
- **Subject** Set the email title
- **Message** Input the matter in your email.

### 7.3 Conferencing

Every company reaches the point of needing more people on a call than it can effectively include through three-way calling. conference bridges allow you to include more people as well as project a professional image.



The screenshot shows the 'Conference Room Configuration' page. The 'Conference Number' section has a 'Room Extension' field set to '901'. The 'Conference Password' section has a 'PIN Code' field set to '1232' and an 'Admin PIN Code' field set to '2345'. The 'Conference Options' section has the following checked options:

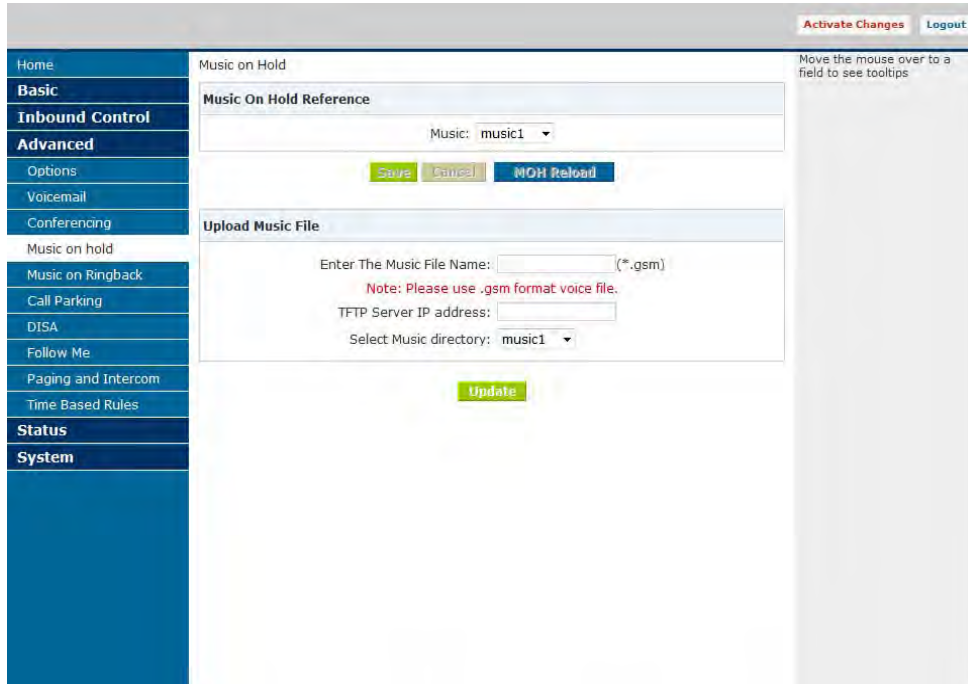
- Play hold music for first caller
- Enable caller menu
- Announce callers
- Record conference
- Quiet Mode

At the bottom of the form are 'Save' and 'Cancel' buttons. On the right side, there is a note: 'Move the mouse over to a field to see tooltips'.

The configuration of the conference room and standard features is very straightforward.

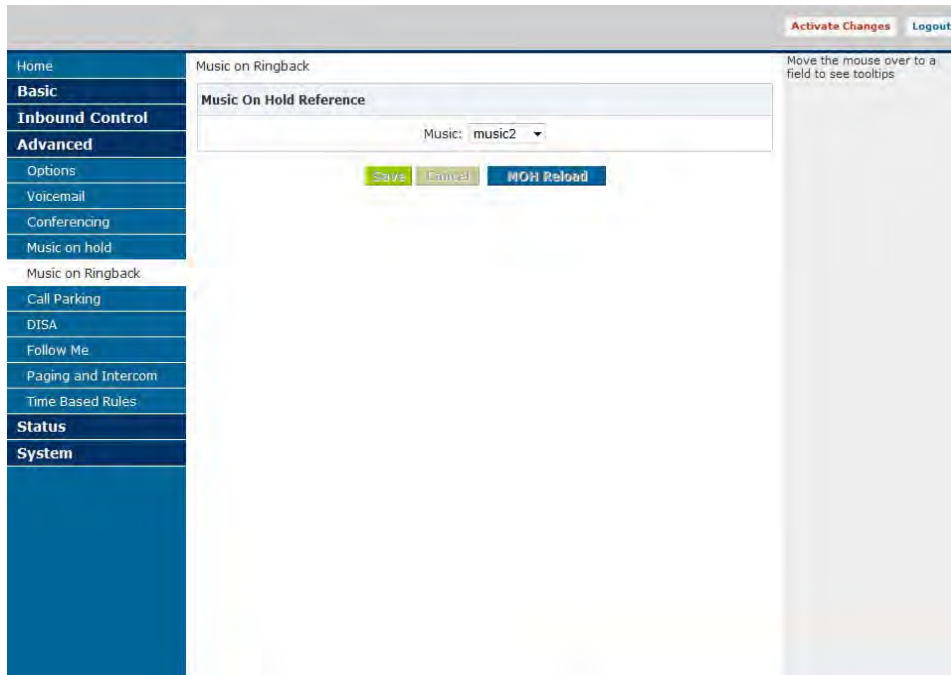
The conference room use default extension 900, but you can always change it to any extension number you want. After establishing the extension for the room, you need to specify the password settings for the conference. Assign the PIN Code used by participants to enter the conference as well as the Administrator PIN Code used by the moderator of the conference to open the conference room.

## 7.4 Music On Hold



- [List of Music On Hold](#) Display Music On Hold class list
- [Class](#) Set Music On Hold class name
- [Music](#) Select music. (you can replace music file through the update page.)
- [Enter The Music File Name](#) Set you want upgrade music file name
- [TFTP Server IP address](#) Set the TFTP server IP
- [Select Music directory](#) Select directory that you want saved music file.

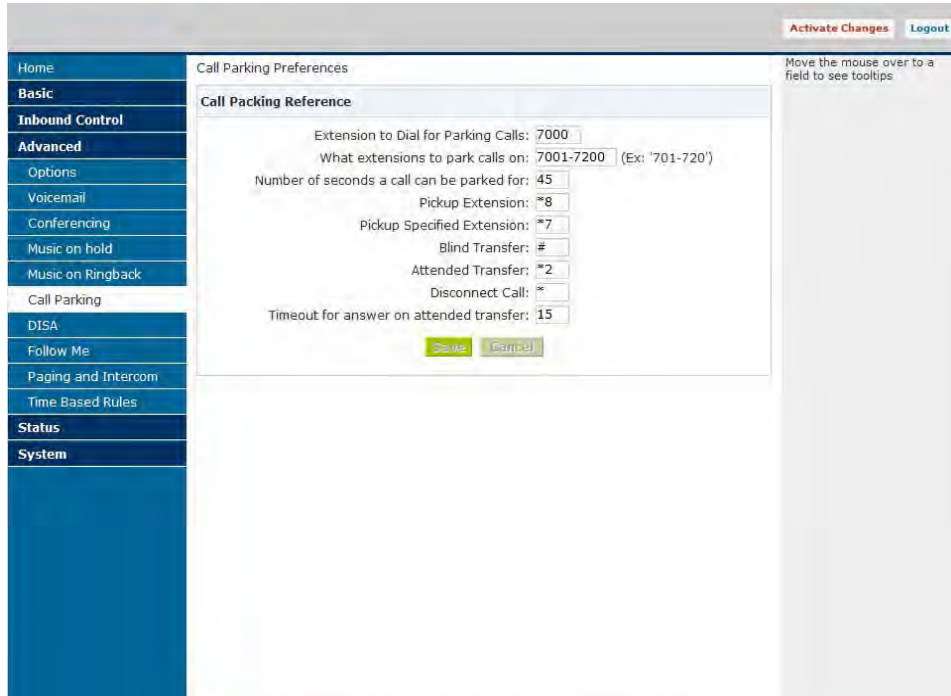
## 7.5 Music On Ringback



- **Music** Select a music for Music On Ringback

**Notice:** You must enable Music On Ringback function.(In Options Page)

## 7.6 Call Parking

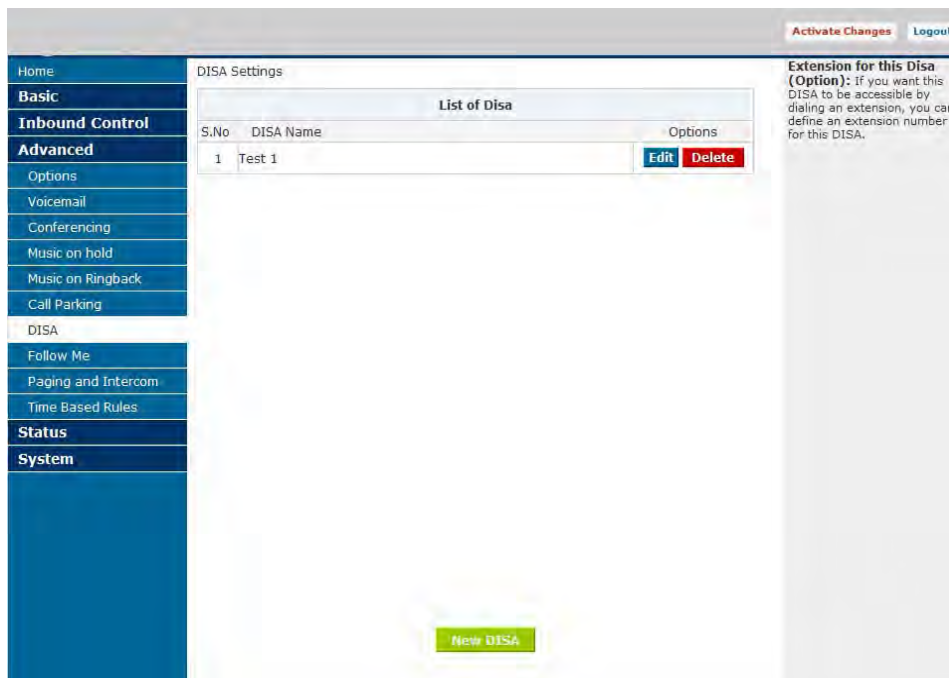


- **Extension to Dial for Parking Calls:** Set Call Parking number
- **What extensions to park call on:** Set the Call Parking get number (eg:701-720)
- **Number of seconds a call can be parked for:** Set the second call time
- **Pickup Extension:** Set Pickup Extension
- **Pickup Specified Extension** Set Pickup Specified Extension
- **Blind Transfer** allows unattended or blind transfers. It works like this:

While on a conversation with another party, you dial the blind transfer sequence. The system says "Transfer" then gives you a dial tone, while putting the other party on hold. You dial the transferee number and the caller is put through to that number immediately. Your line drops. The caller ID displayed to the person receiving the transferred call is exactly the same as the caller ID presented to you.

- **Attended Transfer** allows attended transfer or supervised transfer. It works like this: While on conversation with another party, you dial the transfer key sequence. The system says "Transfer" then gives you a dial tone, while putting the other party on hold. You dial the transferee number and talk with the transferee to introduce the call, then you can hang up and the other party will be connected with the transferee. In case the transferee does not want to answer the call, he/she simply hangs up and you will be back to your original conversation. Press the disconnect key sequence, set to \* by default, to return yourself to the original caller.
- **Disconnect Call** Disconnect the current transfer call (for Attended transfer).
- **Timeout for answer on attended transfer:** Set the answer timeout value.

## 7.7 DISA Settings



The screenshot displays the 'DISA Settings' page. A table titled 'List of Disa' contains the following data:

S.No	DISA Name	Options
1	Test 1	<a href="#">Edit</a> <a href="#">Delete</a>

Below the table is a green button labeled 'New DISA'. To the right of the table, a note states: 'Extension for this Disa (Option): If you want this DISA to be accessible by dialing an extension, you can define an extension number for this DISA.'

- **List of DISA** DISA name are listed in the table.
- **New DISA** Create a new DISA.

**Add a Disa** X

DISA Name:

PIN:  Without PIN

Response Timeout(s):

Digit Timeout(s):

Extension for this Disa(Optional):

**Allow Outbound Route**

Select DialPlan DialPlan1

Save
Cancel

- [DISA Name](#)                      Set a name for DISA
- [PIN](#)                                      Set a password for DISA
- [Response Timeout\(s\)](#)              Set effective time for inputing a password
- [Digit Timeout\(s\)](#)                      After you input the right password, the interval  
between                                      n digits that you need dial.
- [Extension for this DISA\(Optional\)](#)      Set a number connect DISA
- [Select DialPlan](#)                              Select your DialPlan for calling out

## 7.8 Follow Me

Saved Successfull!
Activate Changes
Logout

- Home
- Basic
- Inbound Control
- Advanced
- Options
- Voicemail
- Conferencing
- Music on hold
- Music on Ringback
- Call Parking
- DISA
- Follow Me
- Paging and Intercom
- Time Based Rules
- Status
- System

**List of Follow Me**

S.No	Extensions	State	Forward No.	Options
1	804	BN	806	<span style="background-color: #0070c0; color: white; padding: 2px 5px;">Edit</span> <span style="background-color: #cc0000; color: white; padding: 2px 5px;">Delete</span>

New Follow Me

**Destinations:** Set your followme numbers with fixed format :

"<number>  
[&<number>...],<ringtime>".

- for example:  
809,10  
810,10  
8068803,20  
9013542125751,30

- [List of Follow Me](#)                      Call Forward extensions are listed in the table.
- [New Follow Me](#)                              Create a new Call Forward

X
Add a Follow Me

Extension:

Ring lasting for  seconds

Status:  Always  Busy  No answer

**Set your call forward number**

Forward a Local Extension:   Forward a Outside Number:

Select forward extension

Save
Cancel

- [Extension](#)                      Select a need to call forward extension
- [Ring Time](#)                      Set the extension ring time
- [State](#)                      Set state of the extension.(Disable, Always, Busy, No answer)
- [Select forward extension](#)      Select a call forward to extension

When you select "Forward an Outside Number" the follow page will be displayed.

X
Add a Follow Me

Extension:

Ring lasting for  seconds

Status:  Always  Busy  No answer

**Set your call forward number**

Forward a Local Extension:  Forward a Outside Number:

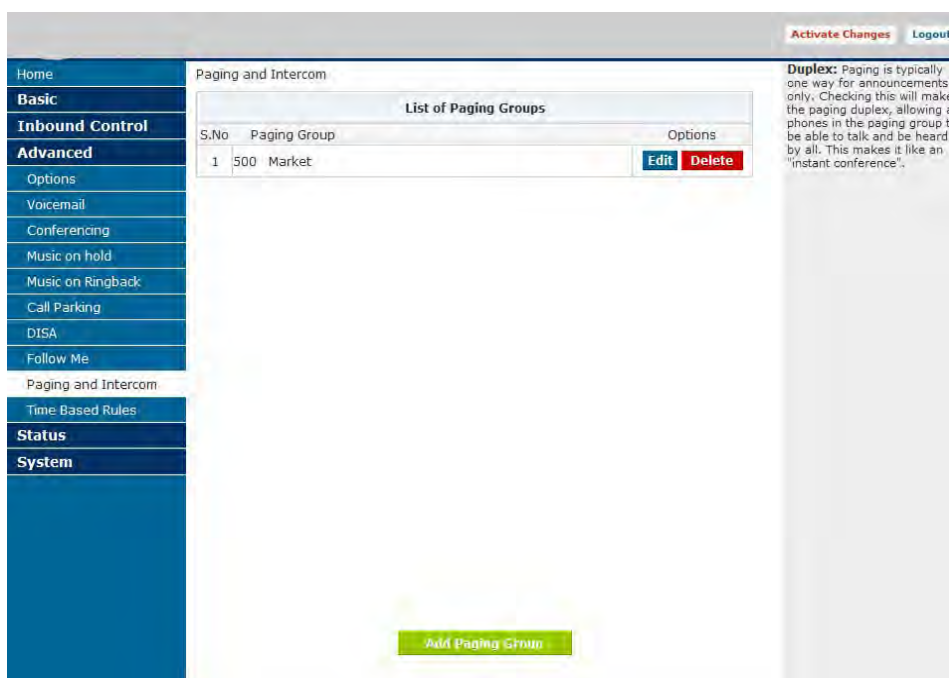
Select DialPlan

Set forward outside number

Save
Cancel

- [Select DialPlan](#)                      Select a Call forward to outside number using dialingrules
- [Set forward outside number](#)      Input a Call forward to outside number. (Notice: This number must be consistent with the corresponding DialPlan)

## 7.9 Paging and Intercom



Activate Changes   Logout

- Home
- Basic
- Inbound Control
- Advanced
- Options
- Voicemail
- Conferencing
- Music on hold
- Music on Ringback
- Call Parking
- DISA
- Follow Me
- Paging and Intercom
- Time Based Rules
- Status
- System

Paging and Intercom

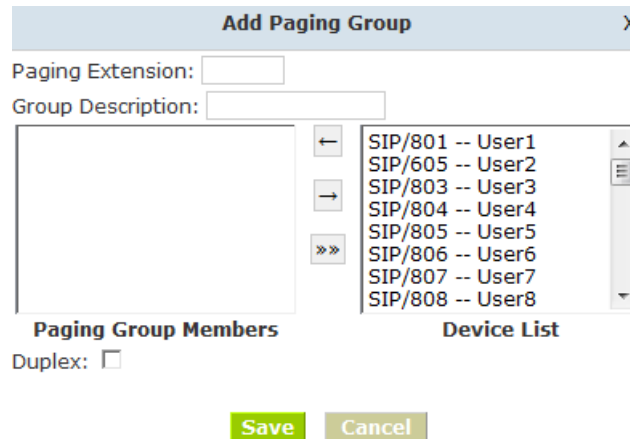
List of Paging Groups

S.No	Paging Group	Options
1	500 Market	<span style="background-color: #0056b3; color: white; padding: 2px 5px;">Edit</span> <span style="background-color: #cc0000; color: white; padding: 2px 5px; margin-left: 5px;">Delete</span>

Add Paging Group

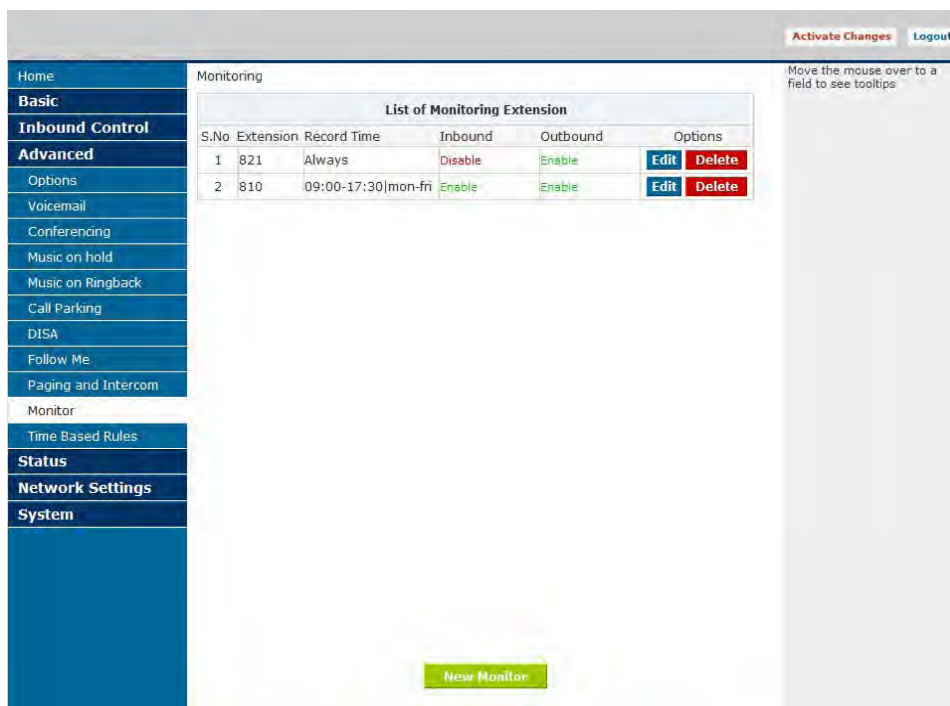
**Duplex:** Paging is typically one way for announcements only. Checking this will make the paging duplex, allowing all phones in the paging group to be able to talk and be heard by all. This makes it like an "instant conference".

- [List of Paging Groups](#) Call Forward extensions are listed in the table.
- [Add Paging Group](#) Create a new Call Forward



- [Paging Extension](#) Set a extension for the Paging Group.
- [Group Description](#) Provide a descriptive title for this Page Group.
- [Paging Group Members](#) Selected Device(s) in this Page.
- [Device List](#) Select Device(s) to Page.
- [Duplex](#) Paging is typically one way for announcements only. Checking this will make the paging duplex, allowing all phone s in the paging group to be able to t alk and be heard by all. This makes it like an "instant conference".

### 7.10 Monitor



S.No	Extension	Record Time	Inbound	Outbound	Options
1	821	Always	Disable	Enable	<a href="#">Edit</a> <a href="#">Delete</a>
2	810	09:00-17:30 mon-fri	Enable	Enable	<a href="#">Edit</a> <a href="#">Delete</a>

- [List of Monitoring Extension](#) Monitoring extensions are listed in the table.
- [Add Monitor](#) Create a new Monitor



**Add Monitor** X

Extension:

**Monitor Time**

Always Monitor:

Start Time:  :  End Time:  :

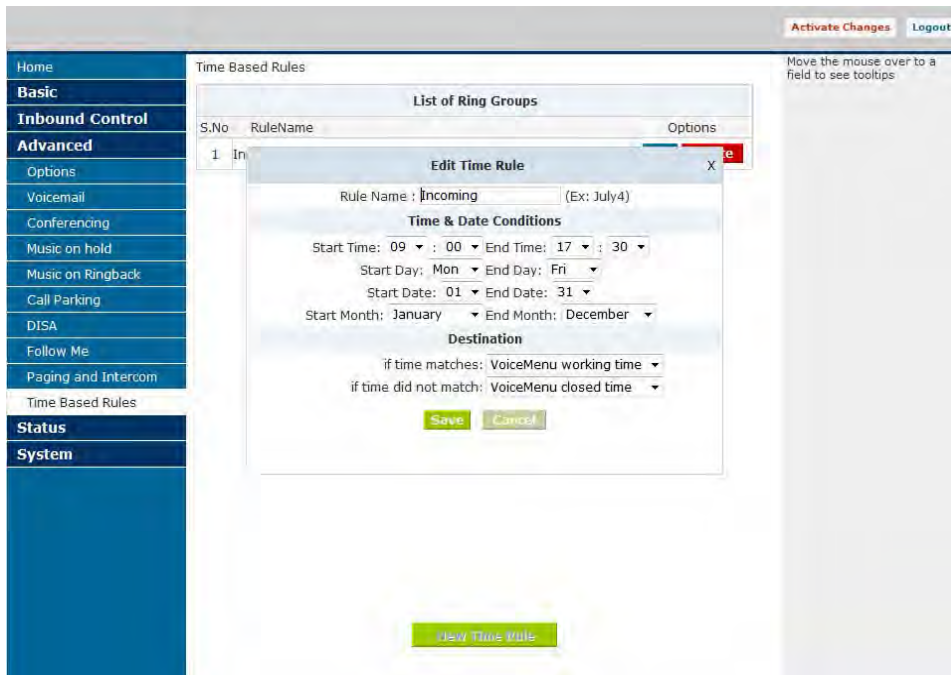
Start Day:  End Day:

**Monitor Settings**

Inbound Record:       Outbound Record:

- Extension**                      Select a Monitoring extension
- Monitoring Time**            Set always Monitor or select a Monitoring time
- Monitoring Settings**        Set inbound record and outbound record

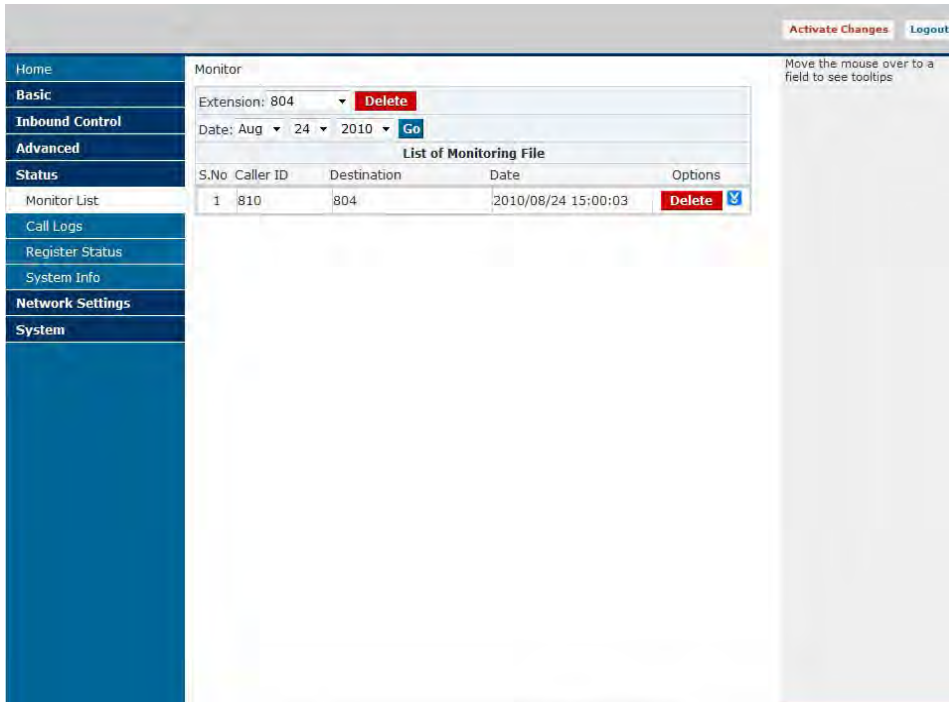
### 7.11 Time Based Rules



On this page, Define call routing rules based on date and time

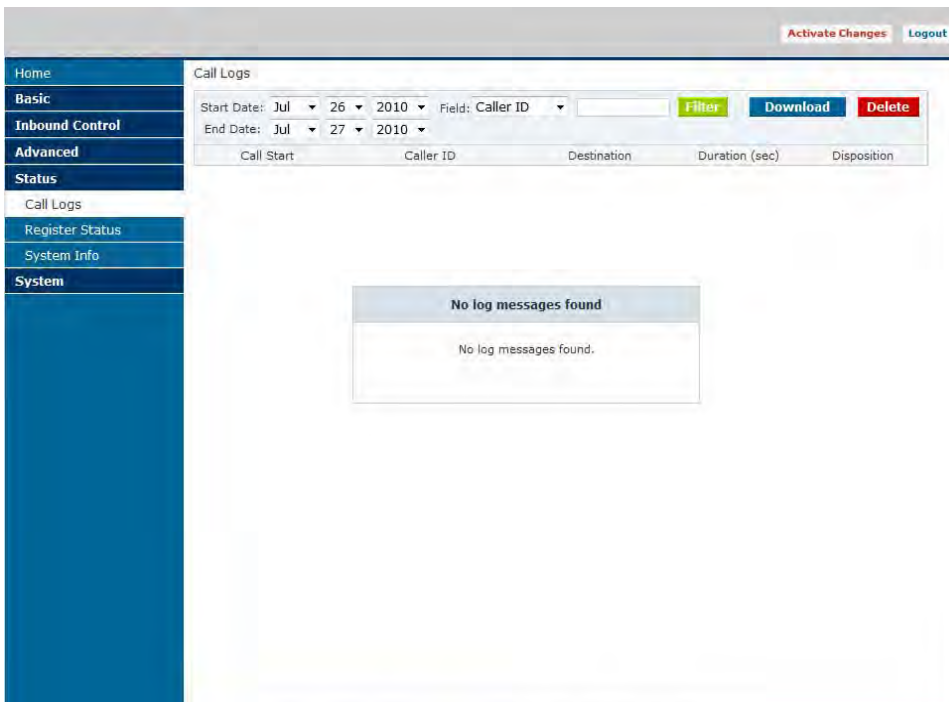
## Chapter8 Status Display

### 8.1 Monitor List



This web page will display Monitor info for each extension

### 8.2 Call Logs

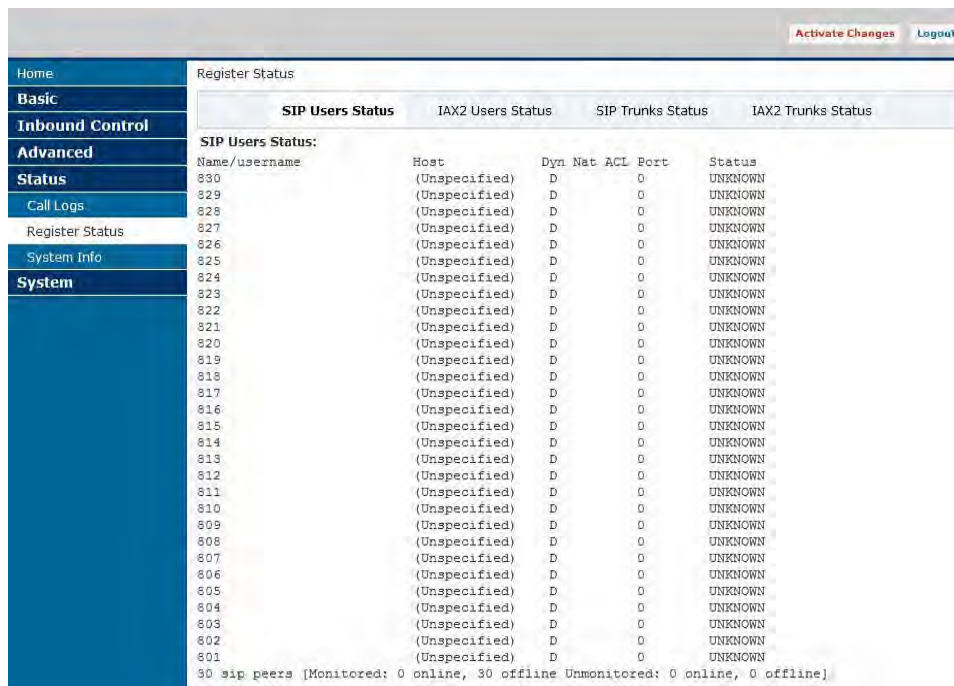


This web page will display call logs

- [Download](#) download the call logs file
- [Delete](#) delete the call logs file

### 8.3 Register Status

In this page, you can check SIP/IAX Users and Trunks Status.



Register Status

[SIP Users Status](#)
[IAX2 Users Status](#)
[SIP Trunks Status](#)
[IAX2 Trunks Status](#)

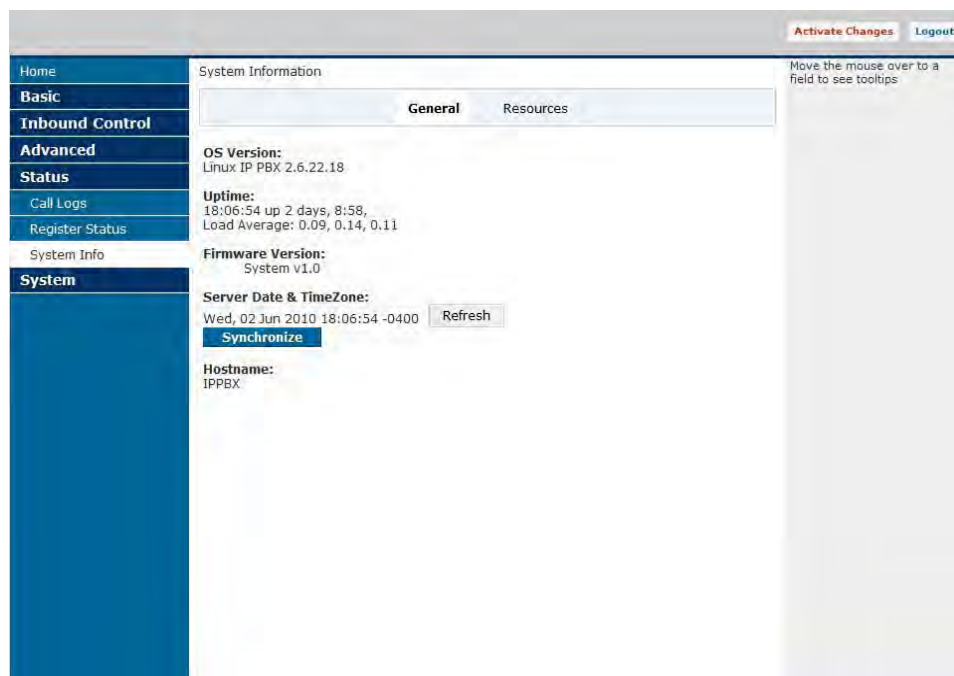
**SIP Users Status:**

Name/username	Host	Dyn	Nat	ACL	Port	Status
830	(Unspecified)	D			0	UNKNOWN
829	(Unspecified)	D			0	UNKNOWN
828	(Unspecified)	D			0	UNKNOWN
827	(Unspecified)	D			0	UNKNOWN
826	(Unspecified)	D			0	UNKNOWN
825	(Unspecified)	D			0	UNKNOWN
824	(Unspecified)	D			0	UNKNOWN
823	(Unspecified)	D			0	UNKNOWN
822	(Unspecified)	D			0	UNKNOWN
821	(Unspecified)	D			0	UNKNOWN
820	(Unspecified)	D			0	UNKNOWN
819	(Unspecified)	D			0	UNKNOWN
818	(Unspecified)	D			0	UNKNOWN
817	(Unspecified)	D			0	UNKNOWN
816	(Unspecified)	D			0	UNKNOWN
815	(Unspecified)	D			0	UNKNOWN
814	(Unspecified)	D			0	UNKNOWN
814	(Unspecified)	D			0	UNKNOWN
813	(Unspecified)	D			0	UNKNOWN
812	(Unspecified)	D			0	UNKNOWN
811	(Unspecified)	D			0	UNKNOWN
810	(Unspecified)	D			0	UNKNOWN
810	(Unspecified)	D			0	UNKNOWN
809	(Unspecified)	D			0	UNKNOWN
808	(Unspecified)	D			0	UNKNOWN
808	(Unspecified)	D			0	UNKNOWN
807	(Unspecified)	D			0	UNKNOWN
806	(Unspecified)	D			0	UNKNOWN
805	(Unspecified)	D			0	UNKNOWN
804	(Unspecified)	D			0	UNKNOWN
804	(Unspecified)	D			0	UNKNOWN
803	(Unspecified)	D			0	UNKNOWN
802	(Unspecified)	D			0	UNKNOWN
801	(Unspecified)	D			0	UNKNOWN

30 sip peers [Monitored: 0 online, 30 offline Unmonitored: 0 online, 0 offline]

### 8.4 System Info

In this page it will display nonce system info



System Information

[General](#)
[Resources](#)

OS Version:  
Linux IP PBX 2.6.22.18

Uptime:  
18:06:54 up 2 days, 8:58,  
Load Average: 0.09, 0.14, 0.11

Firmware Version:  
System v1.0

Server Date & TimeZone:  
Wed, 02 Jun 2010 18:06:54 -0400 [Refresh](#)

[Synchronize](#)

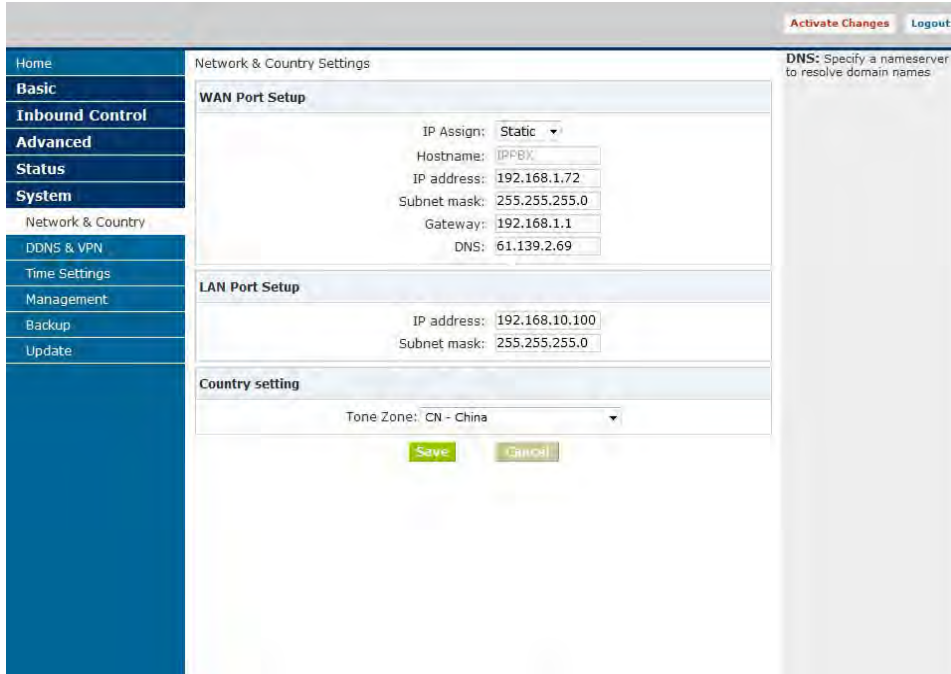
Hostname:  
IPPBX

Move the mouse over to a field to see tooltips

## Chapter9 System Management

### 9.1 Network and Country

On this page you can set WAN, LAN interface information and the country of Tone Zone.



Network & Country Settings

WAN Port Setup

IP Assign: Static

Hostname: IPPBX

IP address: 192.168.1.72

Subnet mask: 255.255.255.0

Gateway: 192.168.1.1

DNS: 61.139.2.69

LAN Port Setup

IP address: 192.168.10.100

Subnet mask: 255.255.255.0

Country setting

Tone Zone: CN - China

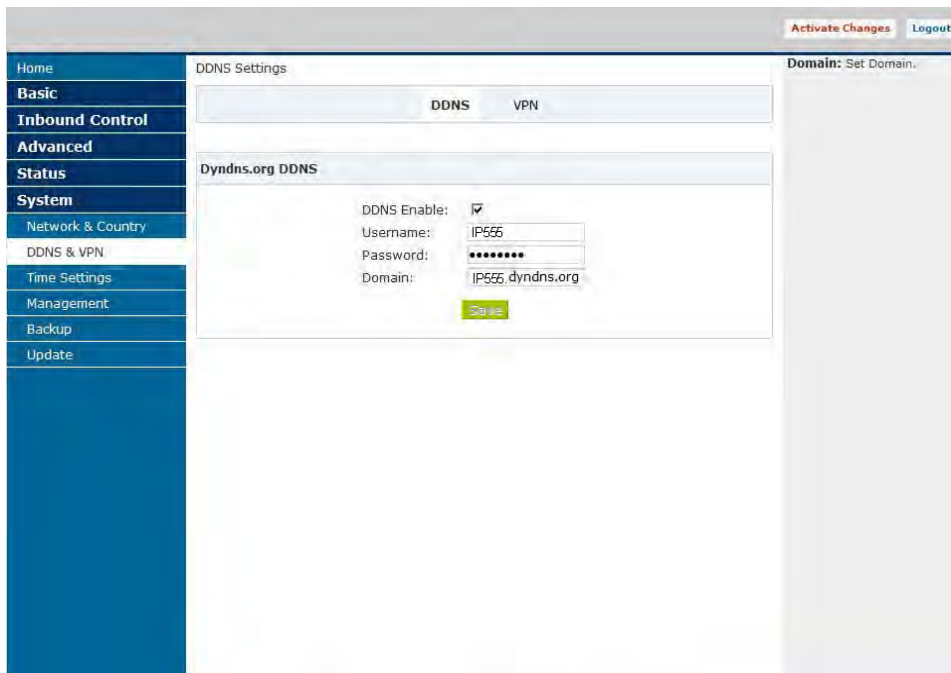
Save Cancel

DNS: Specify a nameserver to resolve domain names

- **IP Assign:** you can select STATIC, DHCP and PPPoE three mode
- **Tone Zone:** Set your Country, and use the Country Tone

### 9.2 DDNS&VPN

#### 9.2.1 DDNS Settings



DDNS Settings

DDNS VPN

DynDNS.org DDNS

DDNS Enable:

Username: IP555

Password: \*\*\*\*\*

Domain: IP555.dyndns.org

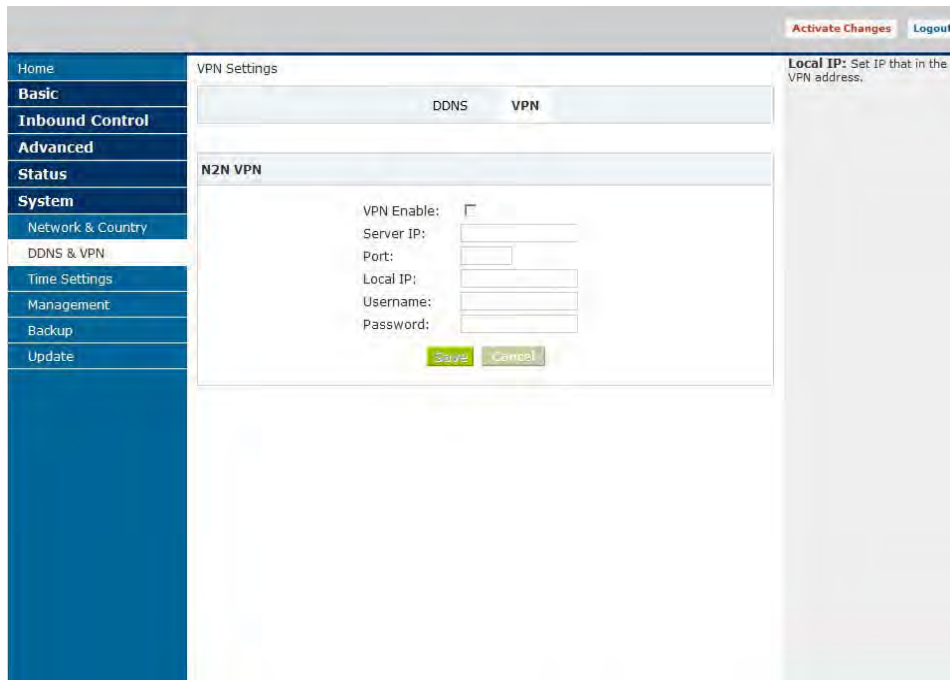
Save

Domain: Set Domain.

On this page, you can set DDNS reference.

**Notice:** Now, it only supports DynDNS.org server. More other servers, you can customize based on your requirement

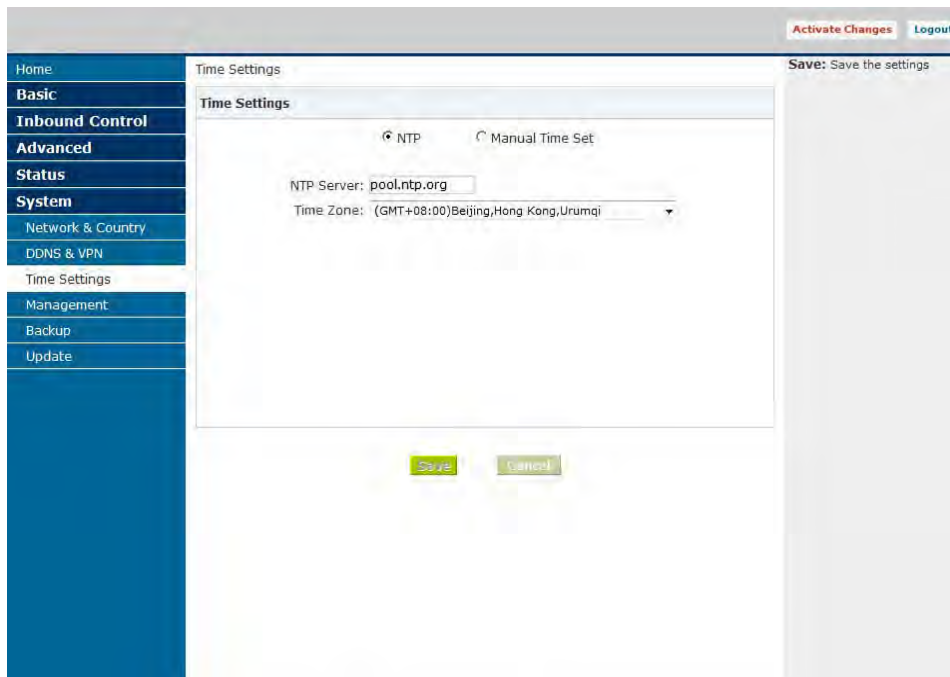
### 9.2.2 VPN Settings



On this page, you can set VPN reference.

**Notice:** Now, it only supports N2N VPN. More other VPN, you can customize based on your requirement.

### 9.3 Time Settings



### 9.3.1 NTP Settings

NTP     Manual Time Set

NTP Server:

Time Zone:

- **NTP Server** Specify the NTP server that you wish to use. You may type either the domain name or the IP address of the server, and it may be either remote or local. The default server is pool.ntp.org. Be aware that the PBX needs to be able to access a NTP server in order to function properly.
- **Time Zone** Select your time zone so that the system will set time base on the time zone.

### 9.3.2 Manual Time Settings

NTP     Manual Time Set

Year:  (YYYY, eg: 2010)

Month:  (MM, eg: 05)

Day:  (DD, eg: 08)

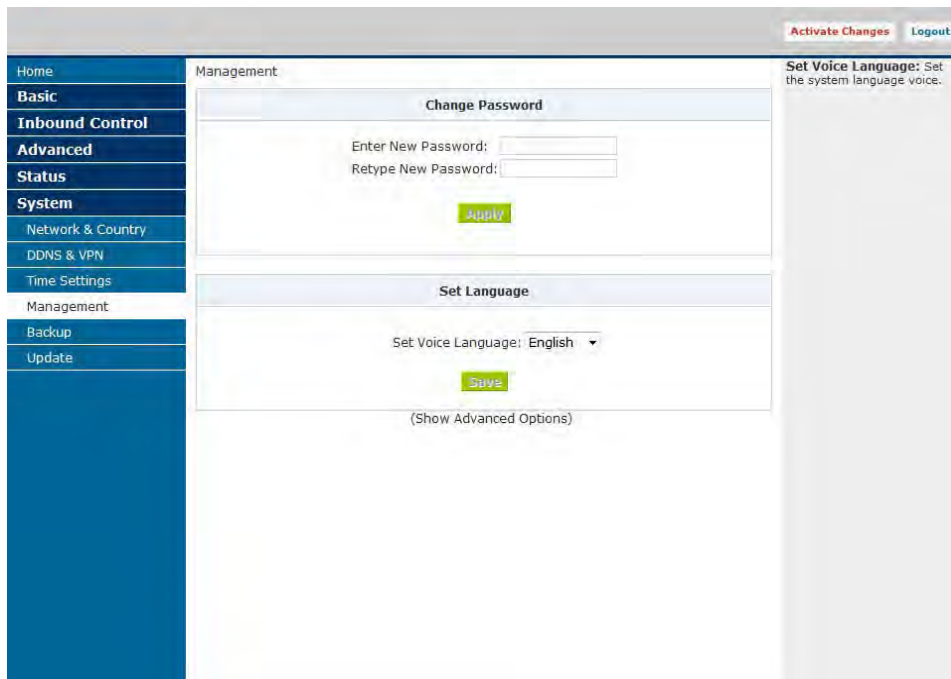
Hour:  (HH, eg: 09)

Minute:  (MM, eg: 30)

Synchronize current PC time

- **Synchronize current PC time** Click the button ,the current PC time synchronization.

## 9.4 Management



Home | Management |

**Change Password**

Enter New Password:   
 Retype New Password:

**Set Language**

Set Voice Language: English

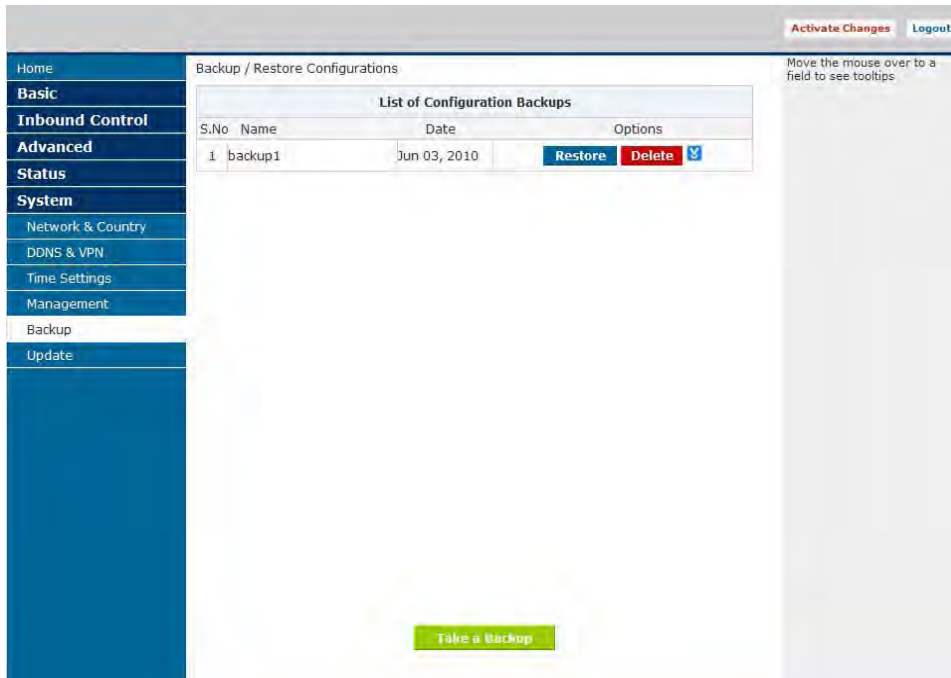
(Show Advanced Options)

Set Voice Language: Set the system language voice.

- **Change Password** On this page, you can change the administrator password (Default password: admin)
  - **Set Language** Set the system language voice
- And you can also set the advanced options about SIP and Zap protocol in the "Show

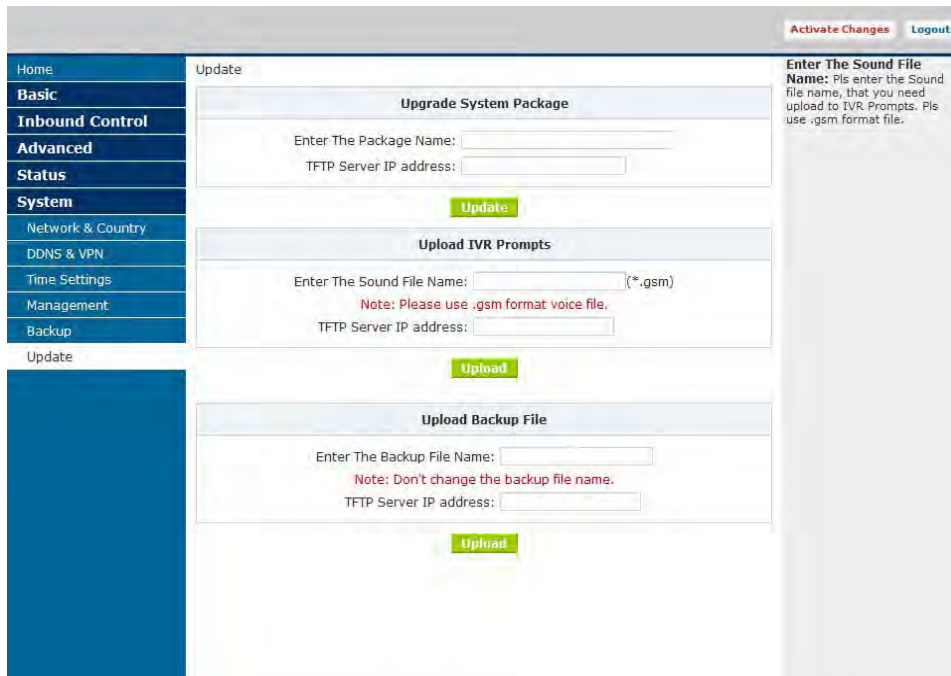
Advanced Options" list, that is useful when you set connect two ippbx in different network.

## 9.5 Backup



On this page, clicking the “Take a Backup” button, you can backup once configuration

## 9.6 Upgrade



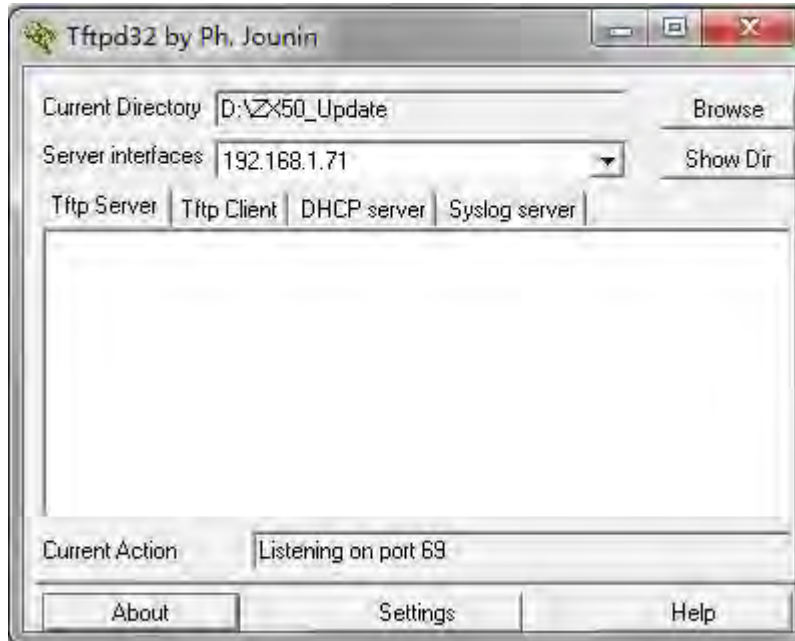
In this page you can upgrade system package

- **Enter The Package Name** Set system package name
- **TFTP Server IP address** Set TFTP server IP

Unzip the file you download, you will get a TFTP server and an upgrading packet.



Run the TFTP server, you will see below:



Enter the configuration page, then upgrading page;

Enter [The Package Name](#), hereby it's `uImage-md5`

Enter [TFTP Server IP address](#), hereby it's

192.168.1.71

After done, click [Update](#) to update, then the system will reboot automatically.

**(Note: the upgrading will set your system as default, please make backup before you do it.)**

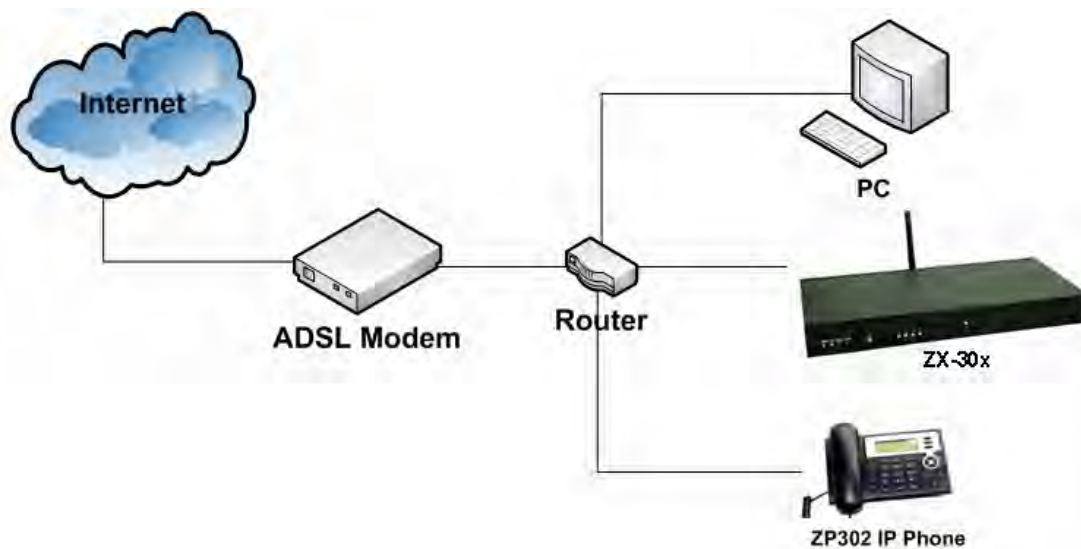


## Chapter10 Operating Instruction

### 10.1 How to link the ZX30x IP PBX to the interwork

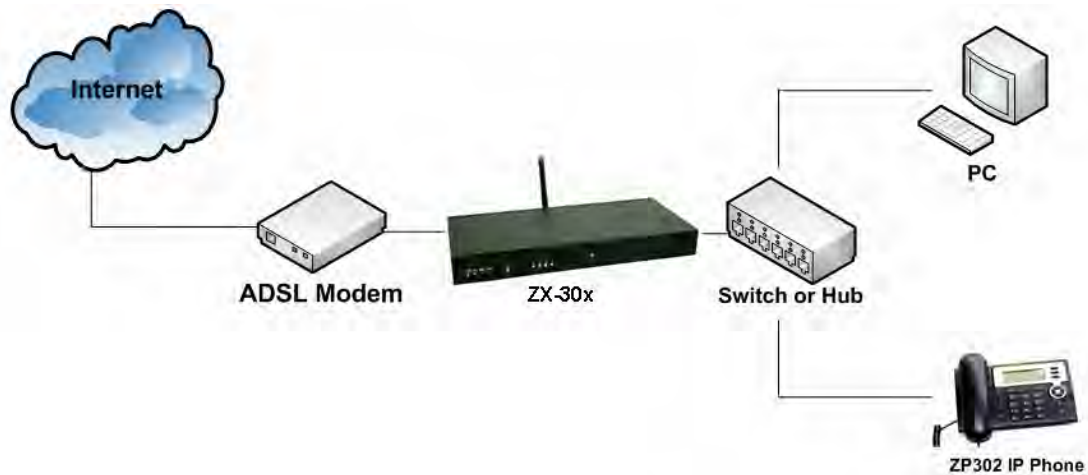
#### 10.1.1 IP PBX behind the Router

If your office access the public network with router, you can put the IPPBX behind the router. You should connect the Wan port of the IPPBX to the Lan ports of the router, and you also can connect HUB or Switch to the Lan ports of the IPPBX to let some PC or IP Phone to access the public network..



#### 10.1.2 IP PBX behind the Modem

If you have the public IP and want the IPPBX access the public network directly without router, then you should connect the Wan port of the IPPBX to the public network and connect HUB or Switch to the Lan ports of the IPPBX to let your PC access the public network..(If you want to access the public network through Modem, then you should use the PPPOE function of the IPPBX and let the IPPBX dial-up to connect the public network)

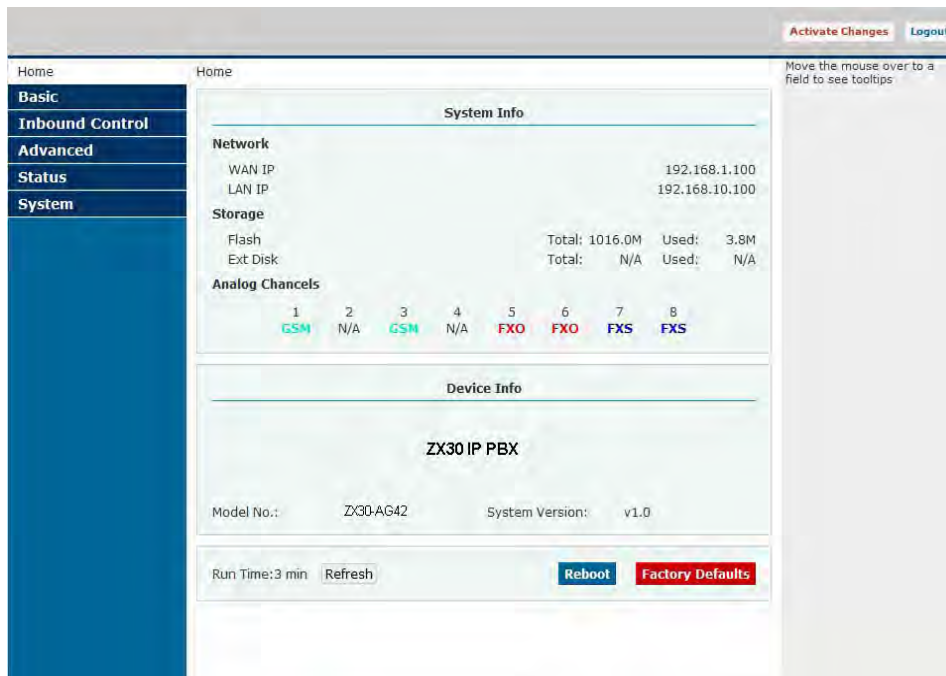


## 10.2 How to log in the IP PBX system

After connecting the ippbx to the local area network. Launch the web browser on a computer that is in this local area network. Enter the IP address for the system (default: Wan port IP address is <http://192.168.1.100:9999>, Lan port IP address is <http://192.168.10.100:9999>). The start web page will appear like this:



Enter Username and password (default username is **admin**, password is **admin**), then click login. Once the login is successful, the home page will be display:



With the PBX GUI, you can configure extensions, conference, voicemail, Outbound Routers and etc. Each page of the GUI has three columns:

The left column present all the options tab that you can program the system. Click the tab to go this kind of option setting page.

The middle column contains the primary content for each page.

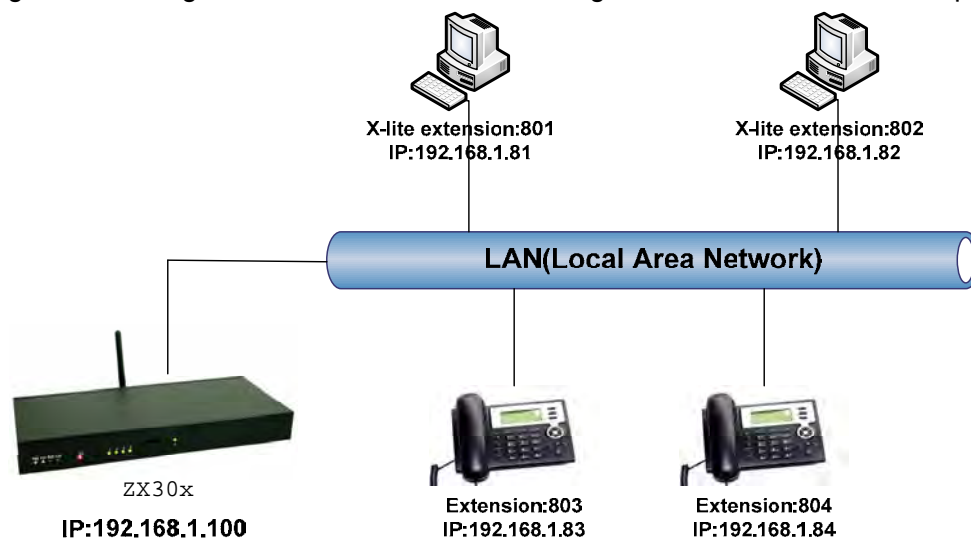
The right column of the user interface contains Tooltips. This area provides brief description for any options of the GUI

The home page is used for logoff, Reboot and Factory Defaults.

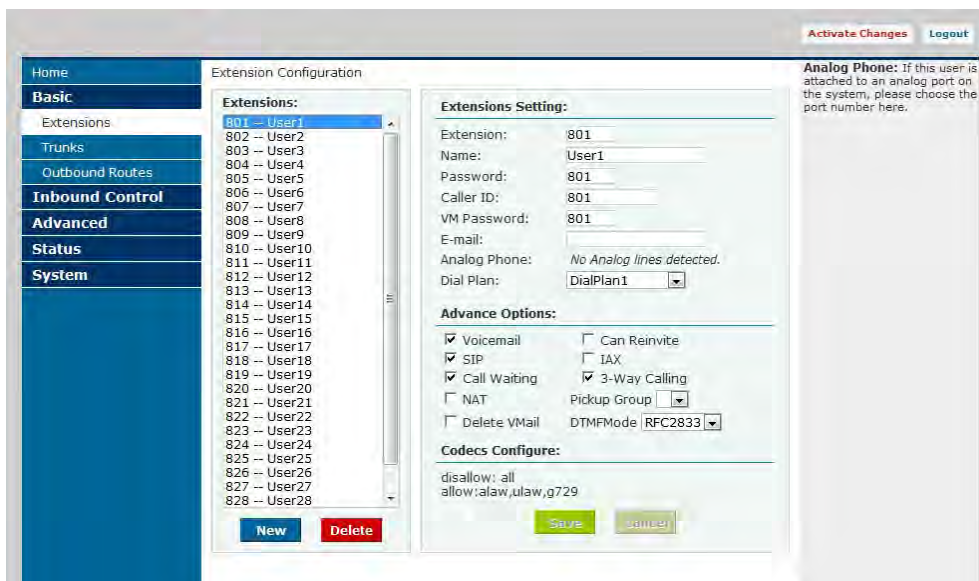
- **Logout:** To log out the PBX GUI.
- **Reboot:** Reboot the ZX30x system
- **Factory Defaults:** Restore all settings to factory default.
- **Activate change:** Made the change active for the current configuration after you make a configuration change on some page.

### 10.3 How to make a internal call

Making internal calls are the base requirement for a telephony system. Below are the settings for this usage. It is based on ZX30x but setting is the same in other ZX30x products.



### Set User



The screenshot shows the 'Extension Configuration' page in the PBX GUI. On the left, a sidebar menu includes 'Home', 'Basic', 'Trunks', 'Outbound Routes', 'Inbound Control', 'Advanced', 'Status', and 'System'. The main area is titled 'Extension Configuration' and contains a list of extensions (801-828) and a configuration form for extension 801. The form includes fields for Extension (801), Name (User1), Password (801), Caller ID (801), VM Password (801), E-mail, Analog Phone (No Analog lines detected), and Dial Plan (DialPlan1). There are also checkboxes for Voicemail, SIP, Call Waiting, NAT, and Delete VMail, and a dropdown for DTMFMode (RFC2833). The 'Save' button is highlighted.

There are 30 default users, the extensions number are 801~830

Set user, Extension is 803, Name, Password and Caller ID, etc

Select Dial Plan is DialPlan1

Set Extension 804 as the same way

Use a IP Phone based SIP protocol registered with the user.  
Then you can use 803 call 804 successfully.

## 10.4 How to make an outbound call

To make an outbound call, we need to add a trunk first. There are two types of Trunk:

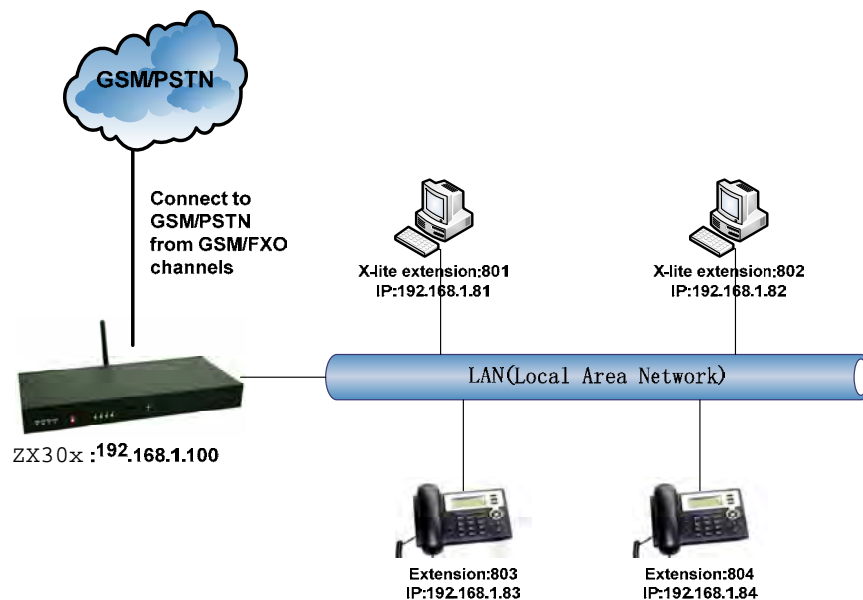
**Analog Ports:** GSM/FXO ports of ZX30x connect to GSM/PSTN lines.

**VoIP Trunk:** SIP or IAX trunk, connect to remote SIP/IAX server

In using ZX30xG4, the port1-4 are configured as GSM ports. When a port is configured as a GSM/FXO port, the corresponding LED shows **RED**. When a port is configured as FXS port, the corresponding LED shows **GREEN**.

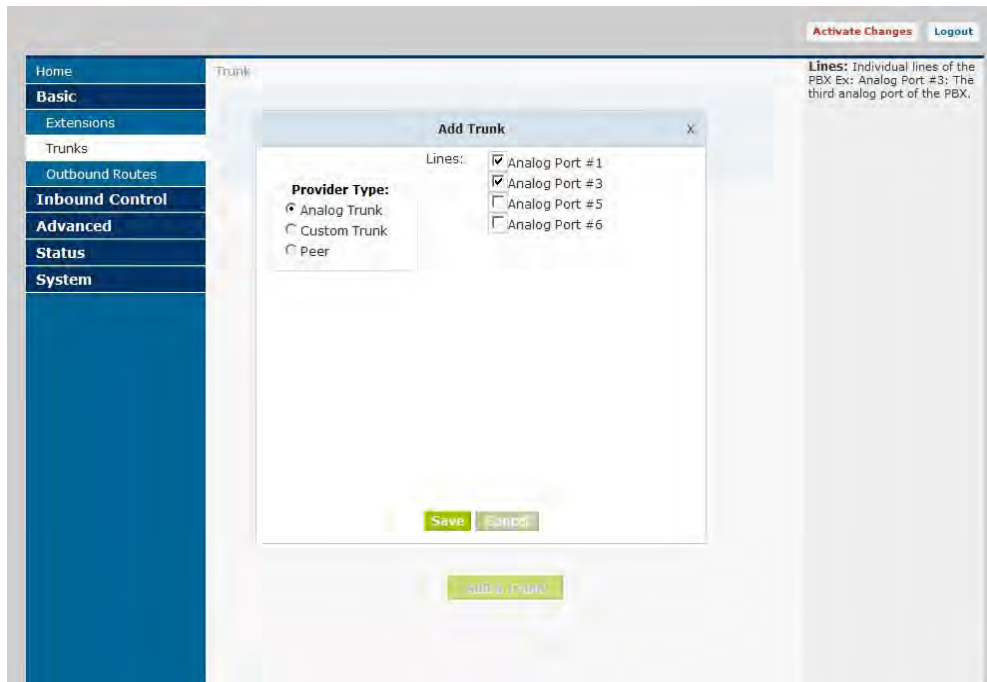
### 10.4.1 Make call via GSM trunk

You can use the GSM trunking to make outgoing call via your outside line. The set up is as per below:



### Add Analog Trunk

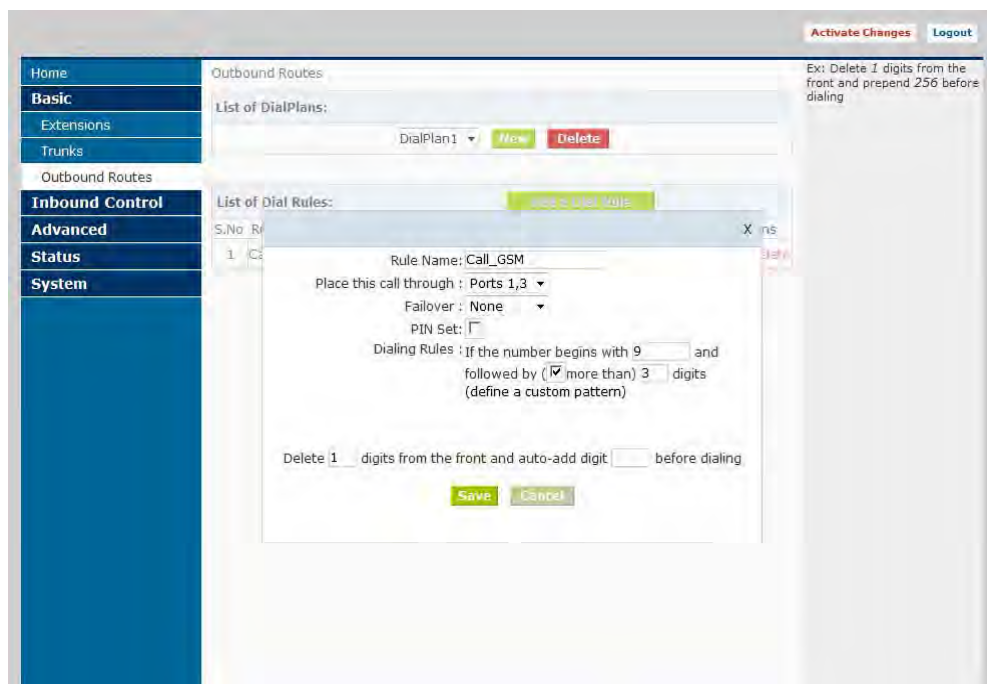
Trunks -> Add a Trunk:



### Add Outbound Routers

In Outbound Routers -> add a Dial rule as below

Dial Rules

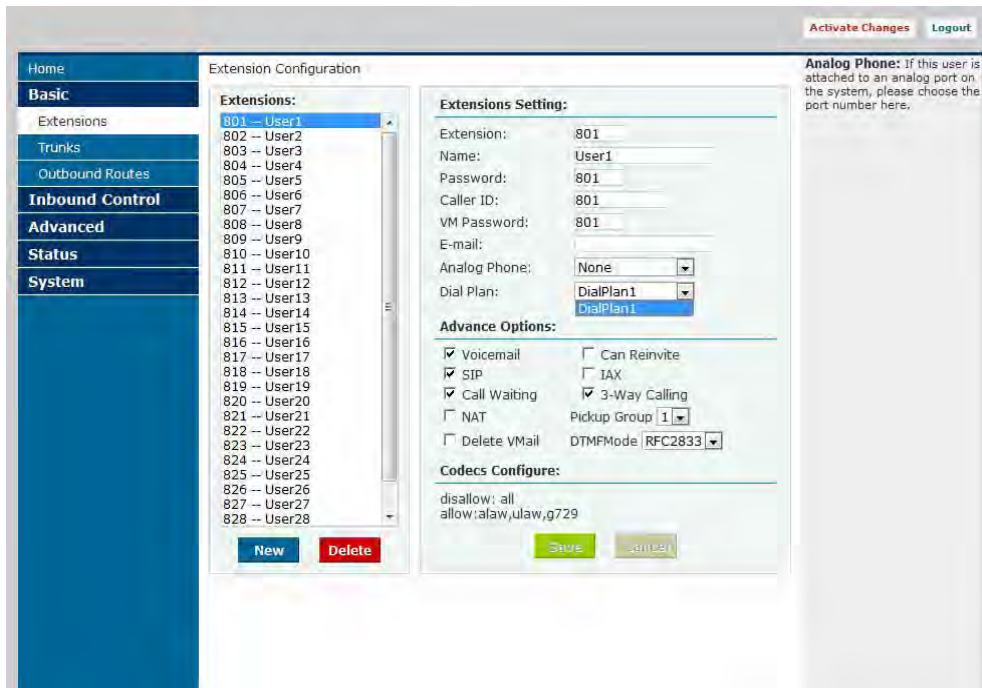


We have now added a Dial rule "OUT\_GSM" in the "DialPlan1".

As we can see from the dialing rule of "OUT\_GSM", all numbers start with 9 will be cut the first digit ('9') and sent to GSM (port1 or port3).

### Choose Dial Plan for extensions:

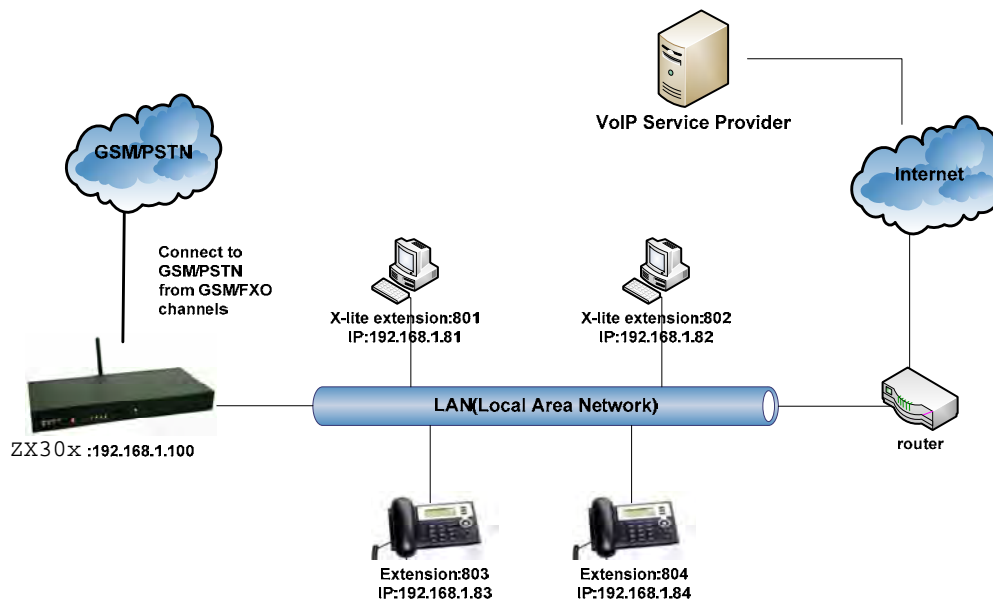
On the User page, edit the extensions to choose DialPlan1.



After we have done a bove, in t he extension we can dial 9 + local number to dial out via GSM line.

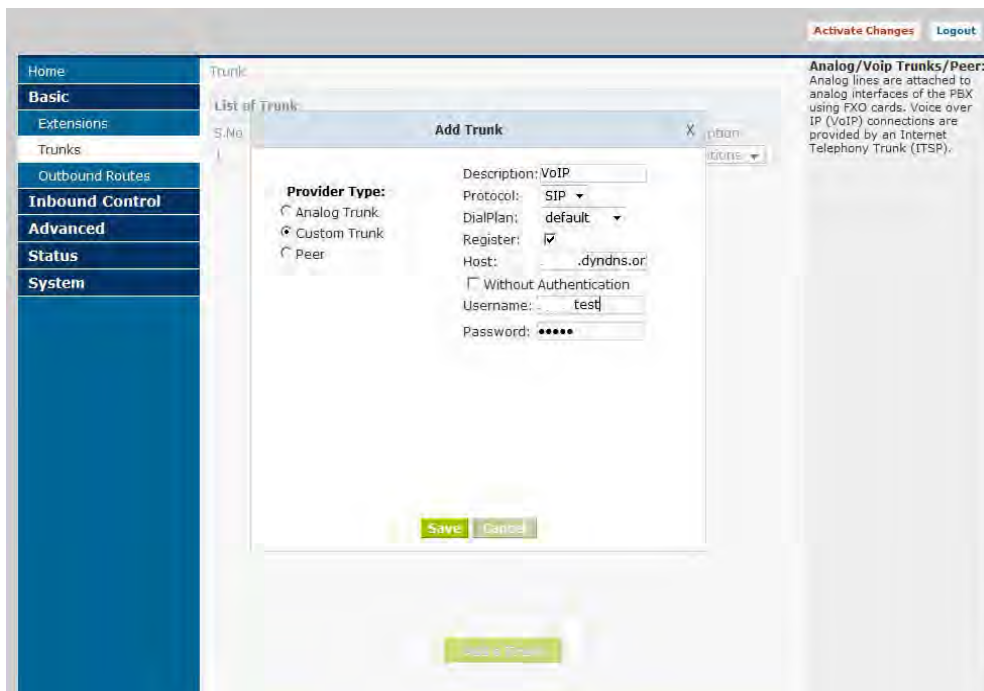
#### 10.4.2 Make call via VoIP trunk

Via the voip trunking we can dial call via the voip service to reduce our cost when making international calls.



#### Add VoIP service provider

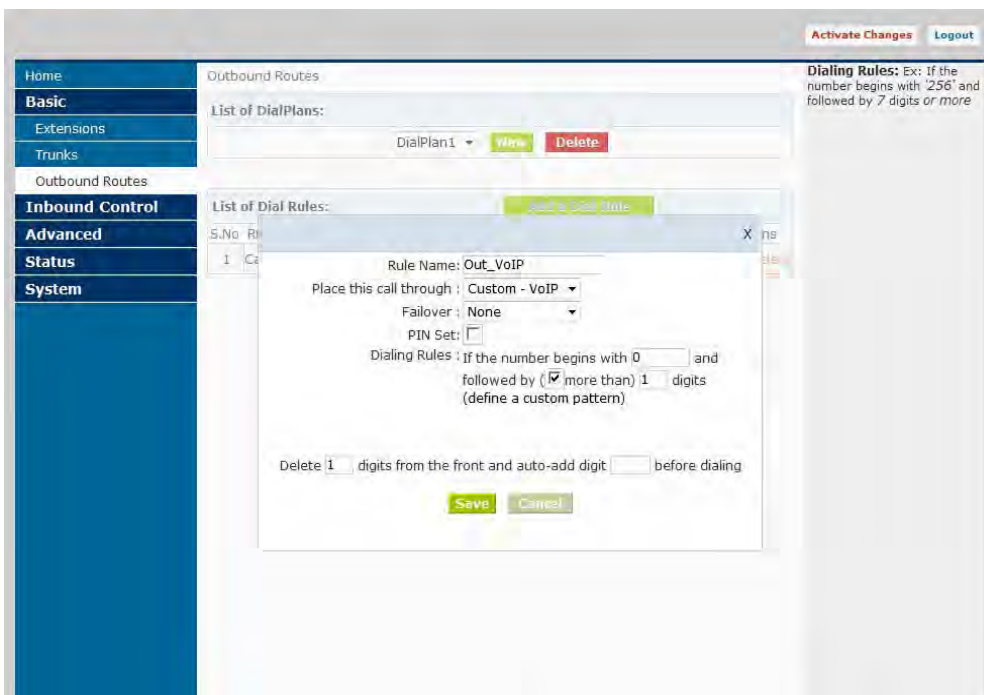
Trunk -> Add a Trunk:  
Add a Custom Trunk.



### Add Dial Rule

In Dial Rules -> add a new calling rule as below

#### *Dial Rules*



Now we have added a new calling rule "Out\_VoIP" in the "DialPlan1".

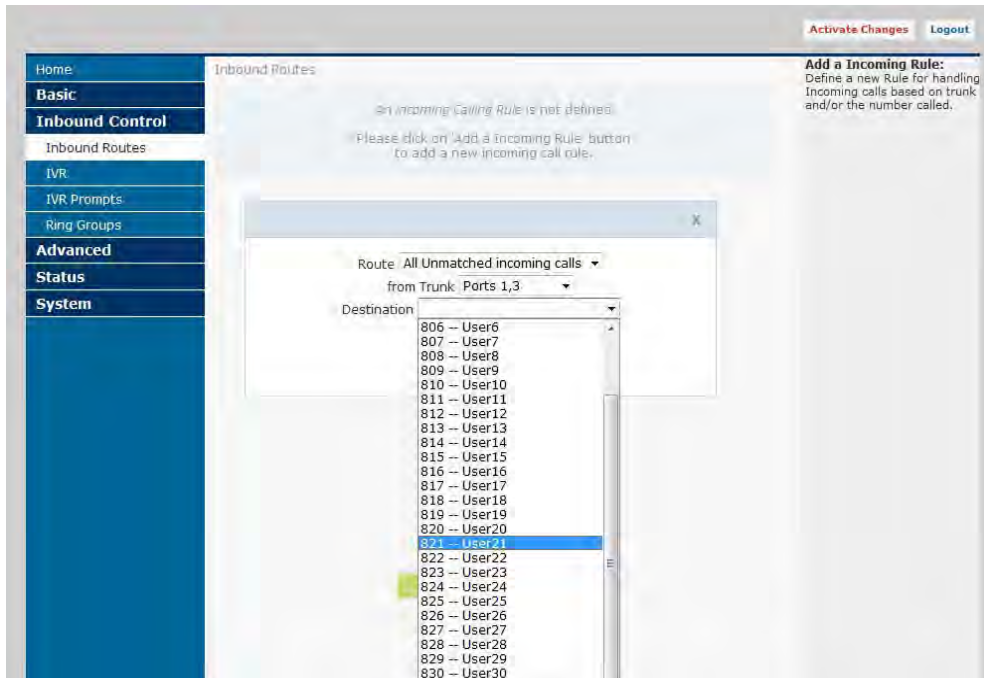
As we can see from the "Out\_VoIP" dialing rule, all numbers start with 0 will be cut the first one digits ('0') and sent to my sip service provider.

The Out\_GSM is in the same DialPlan1. Since we have added this dial plan to the extensions in above, we don't need to add dial plan again.

So when we have added two calling rules, any call start with 9 will be route to GSM, and call starts with 0 will be route to VoIP.

## 10.5 How to make an incoming call

Add an Incoming call.



Select Route “All Unmatched incoming calls”

From provider “Port 1, 3”

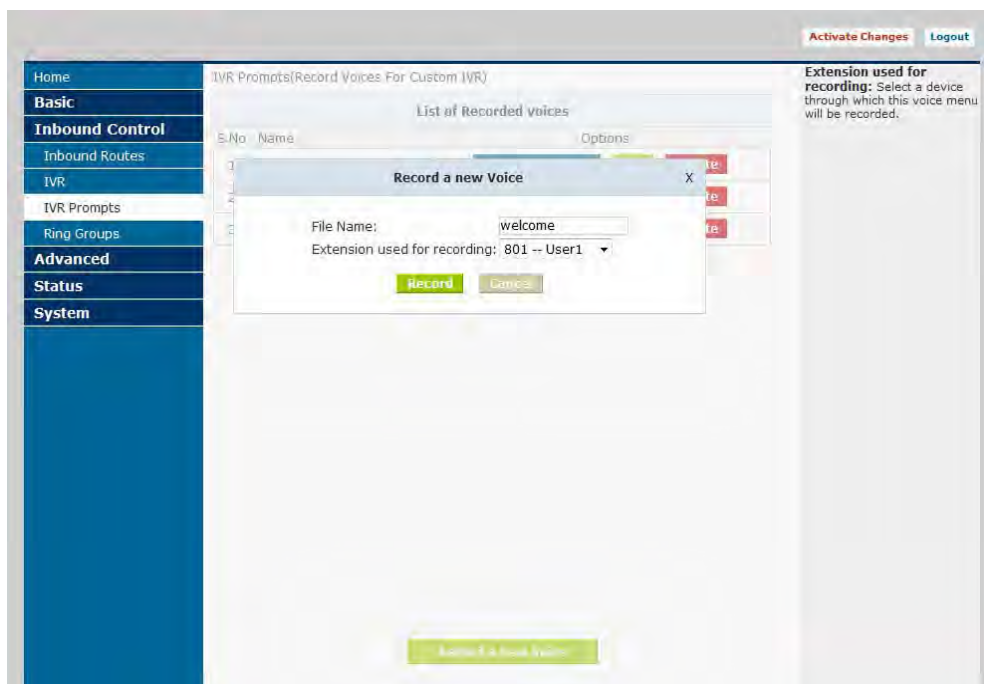
To extension “801 – User1” (here, you can select a extension, a IVR or others)

Then, if there is incoming call from Port1 or port3 channel, the extension 801 will ring.

## 10.6 How to Set an incoming call to IVR based time rule

### Add record a custom voice

Record -> Record a new voice



Set the record name is “Welcome”



Choose a extension used for recording, here we use EXT 801

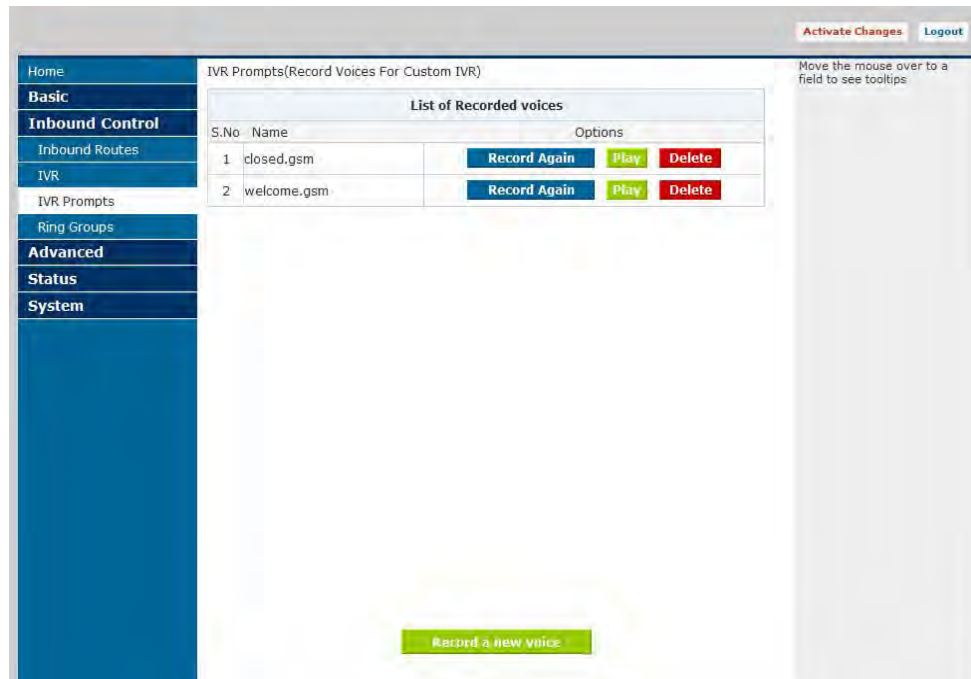
Click Record button

Then, the extension 801 will ring

Pick up the phone record “Welcome” message

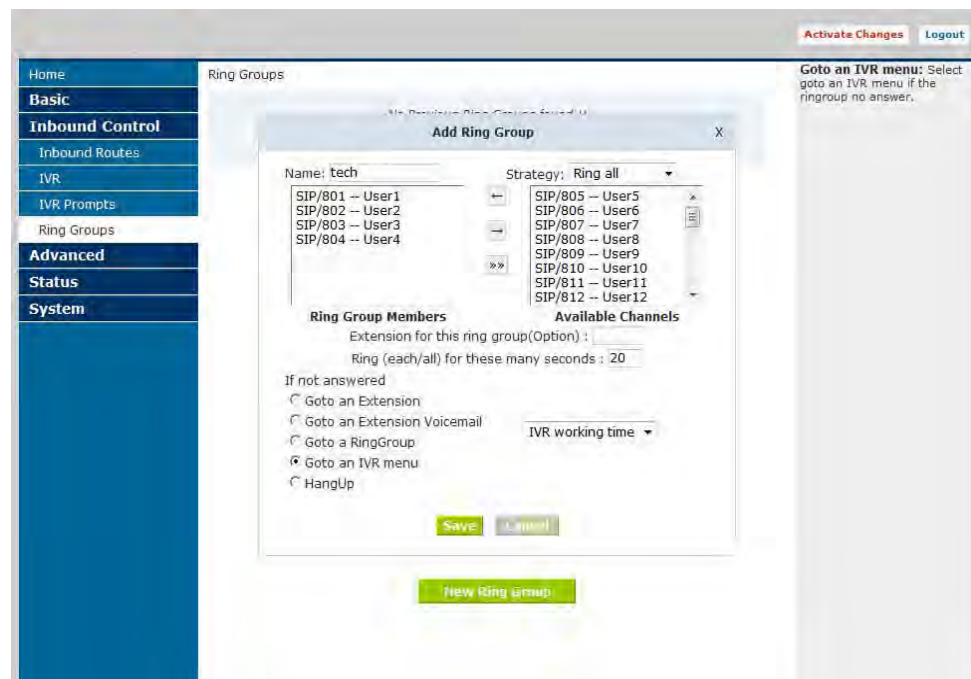
Then hangup and finish the record .

Use the same way to record “Closing” message



### Add a Ring Group

Ring Group -> New Ring Group



Example:

Name the ring group “tech”

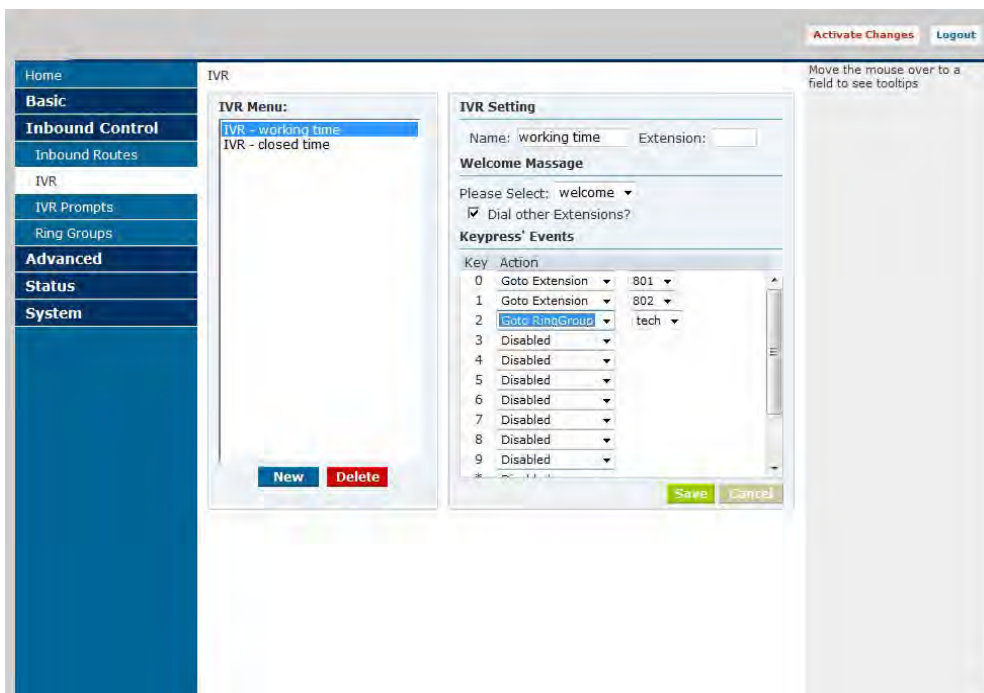
Choose the group members whose extensions are “801, 802, 803, 804”

“if no answered”, choose “goto IVR”-- “working time”

Click “Save” button

**Set IVR**

IVR



Select IVR-working time, Set welcome message is “Welcome”

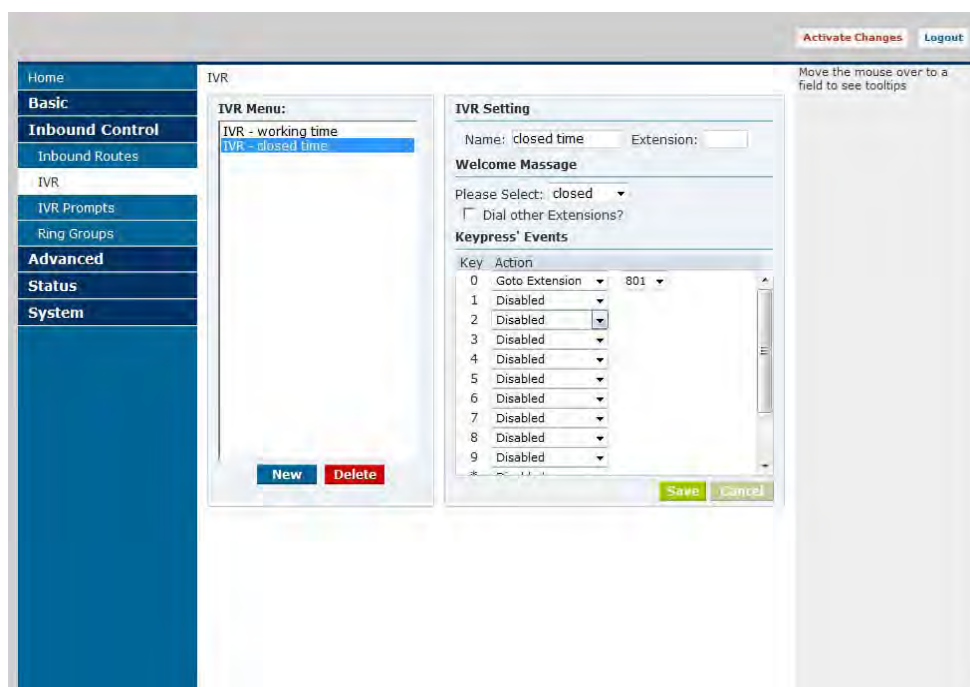
Set keypress' Events

Dial “0” go to extension 805

Dial “1” go to extension 806

Dial “2” go to ringgroup tech

Click Save button

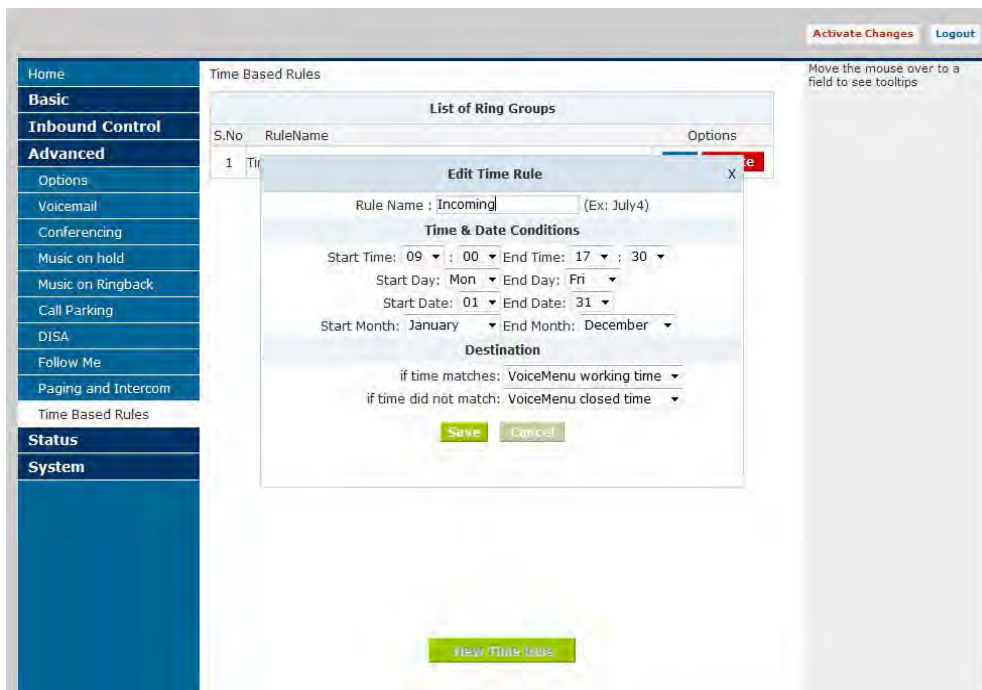


Then set IVR-closed time

Set welcome message is “Closing”

**Add a Time Rule**

Time Based Rules -> New Time Rule



Set a Rule Name, eg: incoming

Set the Time & Date Conditions

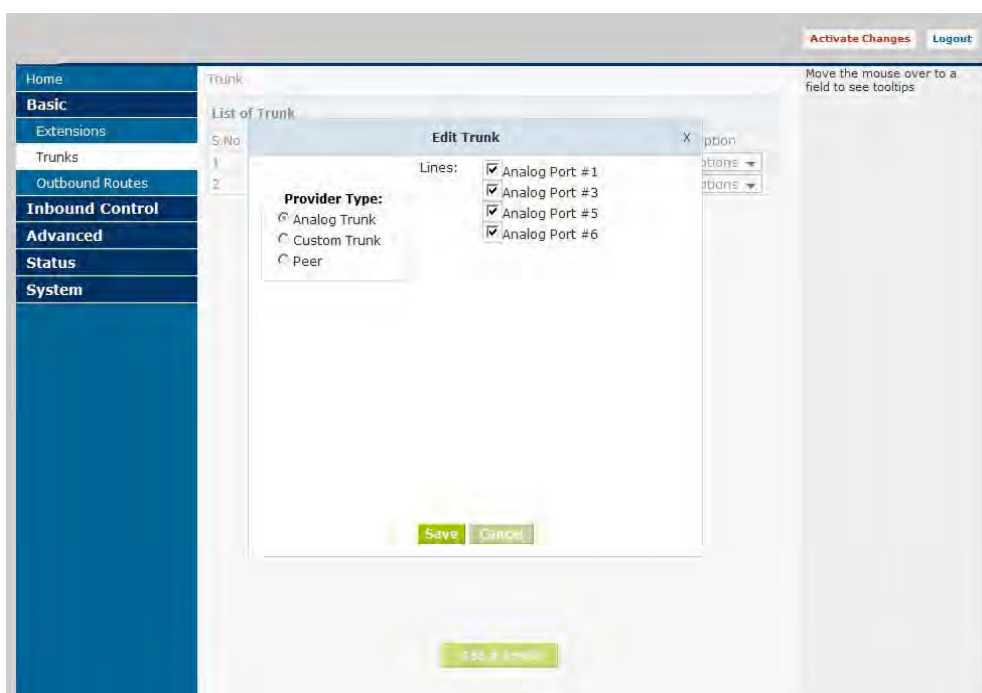
“If time matches” --- go to “working time”

“If time not match” --- go to “closed time”

Click the save button, saved the configuration

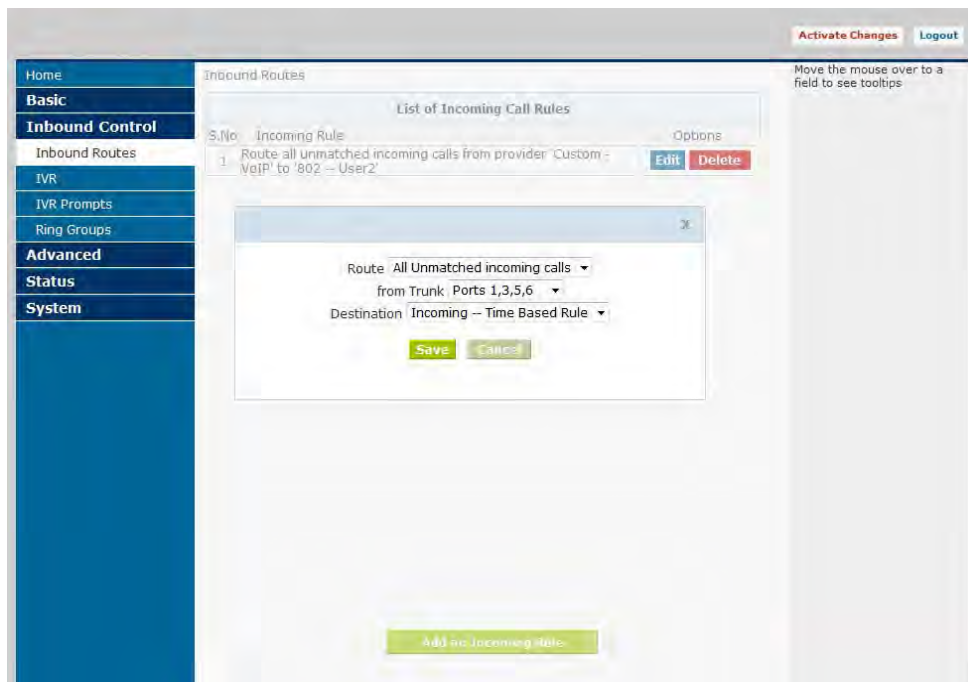
**Add a Trunk**

Trunks -> add a Trunk



### Add an incoming router

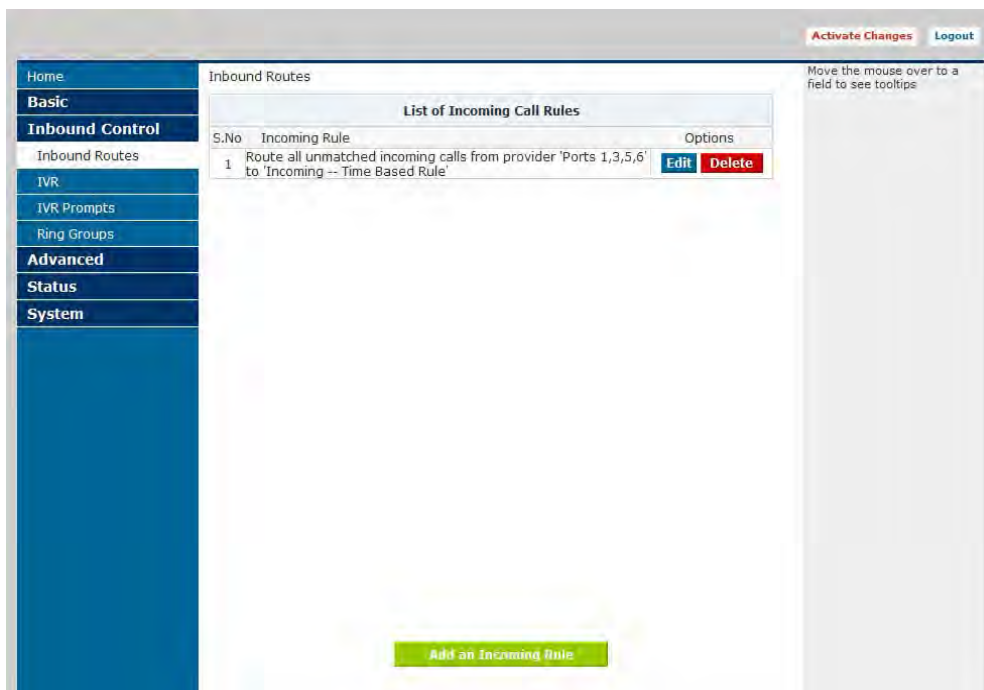
Inbound routers -> add an incoming rule



Select Route: All Unmatched incoming calls

From provider: Ports 3, 4

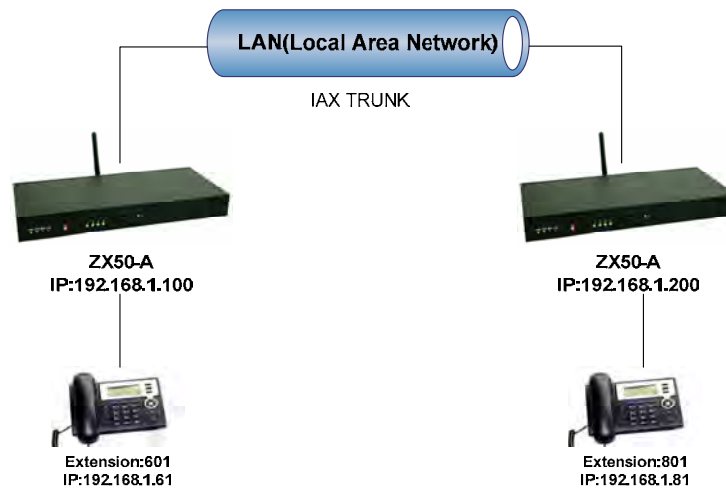
To extension: incoming—Time Based Rule



Then click Activate Changes, Made the change active for the current configuration

### **10.7 How to link two ZX30x IPPBX in the same network**

We start from linking two the IP PBX in the same network and then try to expand to different network. Below is the structure of how to link two IPPBX in the same LAN:



Register the ZX30xA as a peer in ZX30xB (via IAX2 trunk), so the extensions in ZX30xA can make calls to ZX30xB's extensions via this "special" trunk.

In above structure:

1. ZP302A registers ZX30x A as an extension 601.
2. ZP302B registers to ZX30xB as an extension 801.
3. All the extensions under ZX30xA are in the format 6XX.
4. All the extensions under ZX30xB are in the format 8XX.
5. Extensions under ZX30xA can make calls to extension under ZX30xB use format 8XX.
6. Extensions under ZX30xB can make calls to extension ZX30x A use format 6XX.

**Step 1:** Set up a peer 699 in ZX30xA

In the page Trunks → Add a Trunk

**Add Trunk** X

**Provider Type:**

Analog Trunk

Custom Trunk

Peer

Peer Name:

Protocol:

DialPlan:

Host:

Without Authentication

Username:

Password:

Peer Name: ZX30xB ;  
Peer Username: 699 Account of this Peer  
Password: 699 IAX2 Log on password

Advance Options: Select IAX protocol

**Step 2:** Set up an IAX trunk in ZX30xB to link to ZX30xA via this ZX30x Peer.

In the page Trunks → Add a Trunk

**Add Trunk** X

**Provider Type:**

Analog Trunk

Custom Trunk

Peer

Description:

Protocol:

DialPlan:

Register:

Host:

Without Authentication

Username:

Password:

**Step 3:** Set Dial Rule in ZX30xB, all calls start with 6 will be sent to ZX30xA.  
In the page: Outbound Routers --> Add a Dial Rule

**Add Dial Rule** X

Rule Name:

Place this call through :

Failover :

PIN Set:

Dialing Rules : If the number begins with  and followed by ( more than)  digits (define a custom pattern)

Delete  digits from the front and auto-add digit  before dialing

**Step 4:** Set the user 601 and Dial Plan in ZX30xA.  
In the page: Extensions → Dial Plan

**Extensions Setting:**

Extension:

Name:

Password:

Caller ID:

VM Password:

E-mail:

Analog Phone:

Dial Plan:

Active the change and apply the test:

1. Register an IP phone ZP302B to ZX30xB with 801 extension.
  2. Register an IP phone ZP302A to ZX30xA with 601 extension.
  3. Use 801 to dial 601. And you can see 601 will ring and you can pick up the calls.
- Above is the way to router ZX30xB's call to ZX30xA,

Accordingly, if you want to call from ZX30xA to ZX30xB, continue as follow:

**Step 5:** Set Dial Rule in ZX30xA all calls start with 8 will be sent to ZX30xB.

X

Rule Name:

Place this call through :

Failover :

PIN Set:

Dialing Rules : If the number begins with  and followed by ( more than)  digits (define a custom pattern)

Delete  digits from the front and auto-add digit  before dialing

**Step 6:** Set the user 801 and Dial Plan in ZX30xB

**Extensions Setting:**

Extension:

Name:

Password:

Caller ID:

VM Password:

E-mail:

Analog Phone:

Dial Plan:

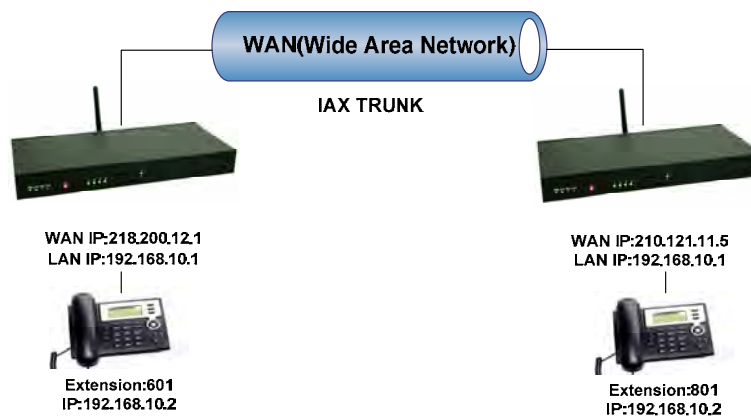
DialPlan1

Active the change and apply the test:

Use 601 to dial 801, and you can see 801 will ring and you can pick up the calls.

### 10.8 How to link two IPPBX in different network

The generally environment for two ZX30x in different location is: two the ZX30x IP PBX are both in the internet and using the public IP.

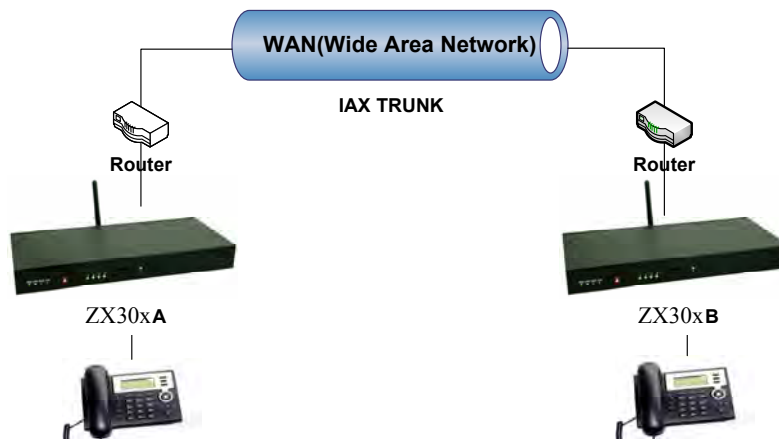


The configuration is same with above guide (10.7) "Link two ZX30x IP pbx in the same network but use the public IP address as the "HOST" settings, like the bellow:

In the page Trunks of ZX30xB--> Add a Trunk

<p><b>Provider Type:</b></p> <p><input type="radio"/> Analog Trunk</p> <p><input checked="" type="radio"/> Custom Trunk</p> <p><input type="radio"/> Peer</p>	<p>Description: <input type="text" value="Call_ZX1"/></p> <p>Protocol: <input type="text" value="IAX"/></p> <p>DialPlan: <input type="text" value="default"/></p> <p>Register: <input checked="" type="checkbox"/></p> <p>Host: <input type="text" value="218.200.12.1"/></p> <p><input type="checkbox"/> Without Authentication</p> <p>Username: <input type="text" value="699"/></p> <p>Password: <input type="text" value="●●●"/></p>
---	--

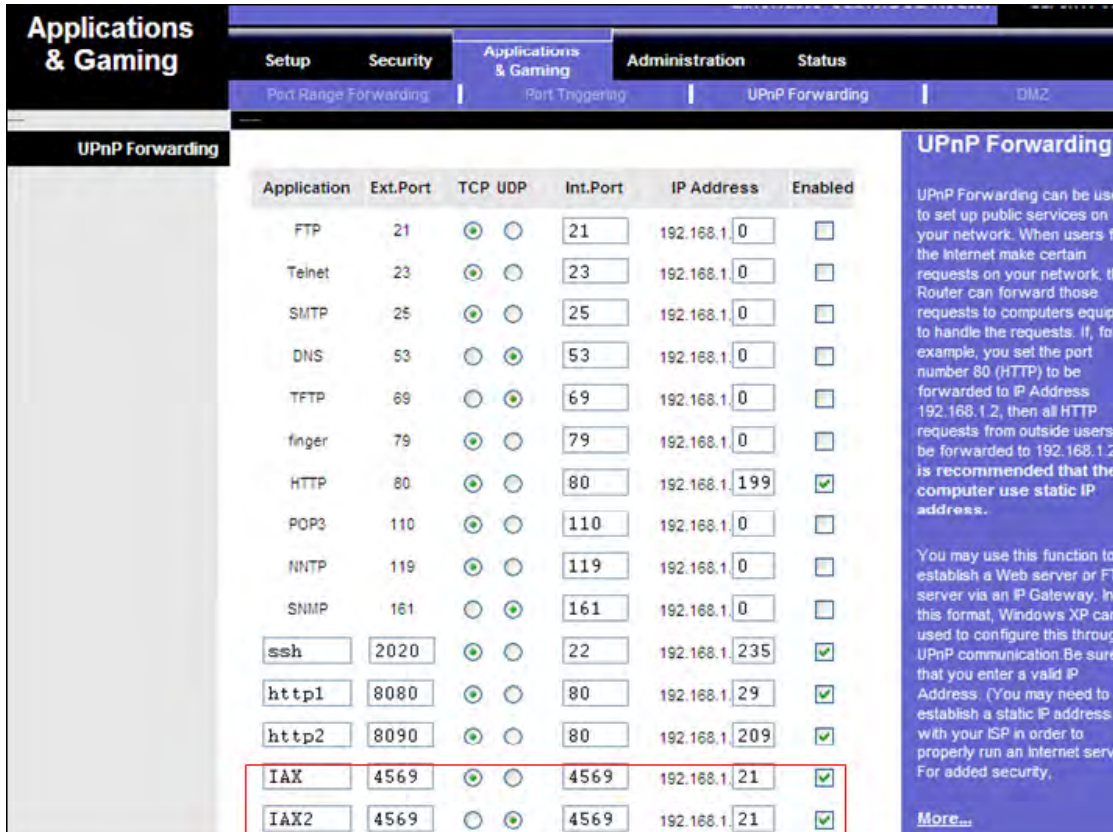
The generally environment for two ZPX30x IP PBX in different location and one or both two are both behind router and using the private IP. So, we need to do port forwarding in the router and make ZX30x IP PBX can reach to each other.



**Step 1:** Set port forwarding in the router for ZX30xA

For the ZX30xA is behind the router, you need to forward the IAX2 port in your router, so all the packets received on the router WAN port (210.11.25.127:4569) will be forwarded to the ZX30xA (192.168.1.21:4569). Below is the setting page in a linksys router:





Application	Ext.Port	TCP	UDP	Int.Port	IP Address	Enabled
FTP	21	<input checked="" type="radio"/>	<input type="radio"/>	21	192.168.1.0	<input type="checkbox"/>
Telnet	23	<input checked="" type="radio"/>	<input type="radio"/>	23	192.168.1.0	<input type="checkbox"/>
SMTP	25	<input checked="" type="radio"/>	<input type="radio"/>	25	192.168.1.0	<input type="checkbox"/>
DNS	53	<input type="radio"/>	<input checked="" type="radio"/>	53	192.168.1.0	<input type="checkbox"/>
TFTP	69	<input type="radio"/>	<input checked="" type="radio"/>	69	192.168.1.0	<input type="checkbox"/>
finger	79	<input checked="" type="radio"/>	<input type="radio"/>	79	192.168.1.0	<input type="checkbox"/>
HTTP	80	<input checked="" type="radio"/>	<input type="radio"/>	80	192.168.1.199	<input checked="" type="checkbox"/>
POP3	110	<input checked="" type="radio"/>	<input type="radio"/>	110	192.168.1.0	<input type="checkbox"/>
NNTP	119	<input checked="" type="radio"/>	<input type="radio"/>	119	192.168.1.0	<input type="checkbox"/>
SNMP	161	<input type="radio"/>	<input checked="" type="radio"/>	161	192.168.1.0	<input type="checkbox"/>
ssh	2020	<input checked="" type="radio"/>	<input type="radio"/>	22	192.168.1.235	<input checked="" type="checkbox"/>
http1	8080	<input checked="" type="radio"/>	<input type="radio"/>	80	192.168.1.29	<input checked="" type="checkbox"/>
http2	8090	<input checked="" type="radio"/>	<input type="radio"/>	80	192.168.1.209	<input checked="" type="checkbox"/>
IAX	4569	<input checked="" type="radio"/>	<input type="radio"/>	4569	192.168.1.21	<input checked="" type="checkbox"/>
IAX2	4569	<input type="radio"/>	<input checked="" type="radio"/>	4569	192.168.1.21	<input checked="" type="checkbox"/>

### **Step 2:** Set up the Provider Host in ZX30xB

Set up the service provider and calling rule in ZX30-B to make it register to ZX30x A. This method is almost the same as above, EXCEPT you need to use the 210.11.25.127 as the service provider instead of 192.168.1.21.

### **Step 3:** Set port forwarding in the router for ZX30xB

Use the same method as Step 1 do port forwarding in router-B for ZX30xB as above.

### **Setp4:** Link two ZX30x and make calls

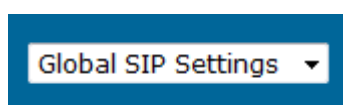
Accordingly, set the 601 users in ZX30xA and 801 users in ZX30xB, and build the correct dial rules as above, you can make calls between two the ZX30x IP PBX.

**Noted:** You can also apply a DDNS to get one fixed domain for both ZX30x IP PBX and connect to each other rather than use the Port Forwarding in the router.

## **10.9 How to resolve problems about hearing only on one side**

If your IPPBX behind the Router, you should build a IP Address Map to resolve this problem as follow:

Management---->Show Advanced Options ----> Global SIP Settings



--->NAT Support

**NAT Support**

Extern ip:

Extern Host:

Extern Refresh:

Local Network Address:

NAT mode:

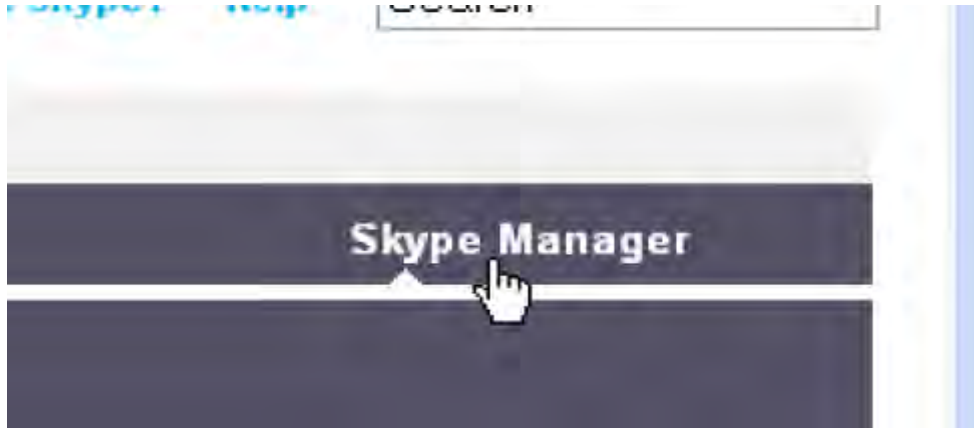
Allow RTP Reinvite:

- [Extern IP](#) Replace with your external IP address this your public IP or domain
- [Extern Host](#) Replace with your external IP address this your public IP or domain
- [Extern Refresh](#) Set time for fresh, default 10
- [Local Network Address](#) Replace with your local network address and mask
- [NAT mode](#) If your IPPBX behind the Router, set default yes

## Chapter11 How to use Skype account in ZX30x

### 11.1 Register for Skype Manager

1. Visit [skype.com/business](http://skype.com/business) and click **Skype Manager**

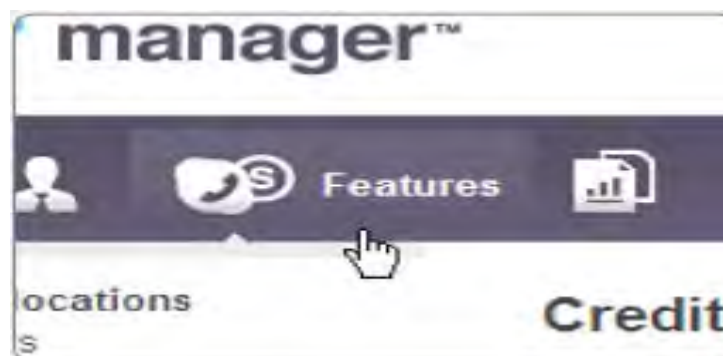


2. Complete the on-screen instructions to register for Skype Manager. You can either use your existing personal account or create a new one specifically for your Skype Manager.
7. Please bear in mind that the account you use to register will be used to administer products and credit throughout your business. We therefore recommend that you create a new Skype account using your business name.

### 11.2 Create a SIP Profile and buy a Channel Subscription


**Note:** You need to be signed into Skype Manager to access the Skype for SIP settings.

1. Click **Features** in the toolbar



2. In the **Features** menu on the left, click **Skype for SIP**.
3. Click **Create a new profile**.
4. Give your SIP Profile a friendly name so it's easier to remember and click on **Next**. Your Profile's registration details, including its username and password are displayed. Make a note of these details so that you can set up and configure your PBX.

### Authentication details



Please choose the method of authentication needed for your PBX.

**Registration**  
(Username/password)  **or, IP Authentication**

SIP User	99050000015459
Password	4j9x7i7Ybggv8g <a href="#">Generate a new password</a>
Skype for SIP address	sip.skype.com
UDP Port	5060

5. Click **Profile settings**.
6. Click **Buy a channel subscription to activate this profile**.
7. Enter the number of channels you require and click **Buy now**.
8. Channel subscriptions are the amount of concurrent calls you would like to use with your SIP Profile. These channels are charged on a monthly basis.
9. If you don't want to make outbound calls with Skype for SIP, please proceed to step 6.

### 11.3 Allocate Skype Credit to the SIP Profile

1. Click **View profile** next to the name of the SIP Profile to which you want to allocate credit.
2. Click **Set up outgoing calls**.
3. Enter the amount of Skype Credit you want to allocate to the SIP Profile and click **Add credit**.

## Profile settings

---


Profile name Profile 5

---


Calling channels [Buy a channel subscription to activate this profile](#)

---

Outgoing calls [Set up outgoing calls](#)



---

Caller ID  [Set up Caller ID](#)

---

Incoming calls [Add a number or business account](#)

4. If you want to enable **auto-recharging**, click on the Auto-Recharge settings tab, enter the recharge amount and the minimum balance required before recharging, then click **Save changes**.

### 11.4 Configure your Skype for SIP certified PBX for outbound calls

In the trunk of our IPPBX setting:

**Provider Type:**

Analog Trunk

Custom Trunk

Peer

Description:

Protocol:

DialPlan:

Register:

Host:

Without Authentication

Username:

Password:

Outbound setting of our IPPBX:

X

Rule Name:

Place this call through :

Failover :

PIN Set:

Dialing Rules : If the number begins with  and followed by ( more than)  digits (define a custom pattern)

Delete  digits from the front and auto-add digit  before dialing

### 11.5 Make an outbound call

After we have done above, in the extension we can dial 00 + Country Code + City Area Code + local number to dial out via skype line

For example: Dial number 00862885337096 will contact our company.

### 11.6 Configure your Skype for SIP certified PBX for inbound calling

Inbound Routing of our IPPBX:

X

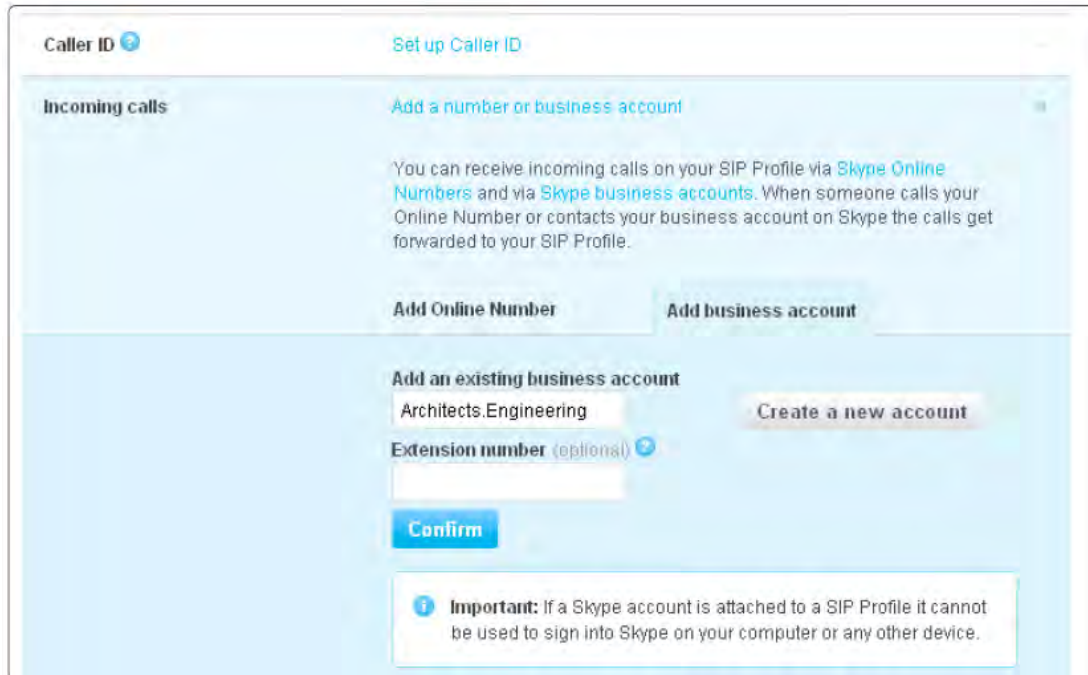
Route

from Trunk

Destination

### 11.7 Set up a business account to test inbound calls from people with Skype

1. Create a new business account in Skype Manager. For more information on creating a new business account, please see the [Skype Manager User Guide](#).
2. Click **View profile** next to the name of the SIP Profile to which you want to add the business account.
3. Click **Add a number or business account**.
4. In the **Add business account** tab, enter the newly created business.



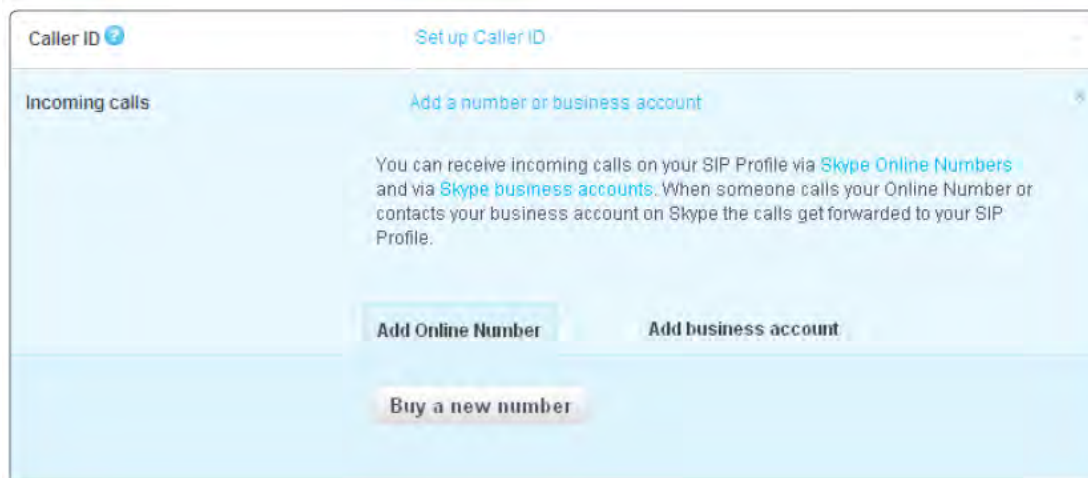
5. Click **Confirm**.

### 11.8 Make a test inbound call from Skype

Call the business account's Skype Name you created in step 7 from Skype.

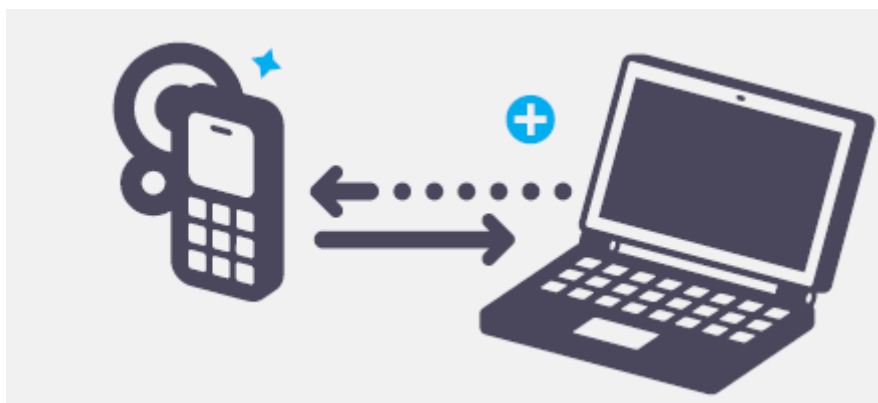
### 11.9 Assign an Online Number to receive calls from landlines and mobile phones

1. Click **View profile** next to the name of the SIP Profile to which you want to assign an Online Number.
2. Click **Add a number or business account**.
3. Click **Buy a new number**



### 11.10 Make a test inbound call from a landline or mobile phone

Call the Online Number associated with the SIP Profile from a landline or mobile phone.



You have now successfully set up Skype for SIP for use with your Skype for SIP certified PBX.

For more help with setting up and using Skype for SIP, please see [support.skype.com](http://support.skype.com) or check the [skype for sip user guide](#)

## Appendix A

### Model with E1 port and 2FXS/2FXO

Activate Changes Logout

Home
Home
Move the mouse over to a field to see tooltips

- Basic
- Inbound Control
- Advanced
- Status
- System

System Info

<b>Network</b>															
WAN IP			192.168.1.76												
LAN IP			192.168.10.100												
<b>Storage</b>															
Flash	Total:	1016.0M	Used: 19.6M												
Ext Disk	Total:	N/A	Used: N/A												
<b>E1 Channels</b>															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PRI	PRI	PRI	PRI	PRI	PRI	PRI	PRI	PRI	PRI	PRI	PRI	PRI	PRI	PRI	PRI
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
PRI	PRI	PRI	PRI	PRI	PRI	PRI	PRI	PRI	PRI	PRI	PRI	PRI	PRI	PRI	
<b>Analog Channels</b>															
32	33	34	35												
FXO	FXO	FXS	FXS												

Device Info

Model No.:	ZX-304	System Version:	v3.0
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Run Time: 6 min
Refresh
Reboot
Factory Defaults



# E1 trunks configuration

The screenshot displays the Zycoo web interface for configuring E1 trunks. On the left is a navigation menu with the following items: Home, Basic, Extensions, Trunks, Outbound Routes, Inbound Control, Advanced, Status, and System. The main content area is titled 'Trunks' and contains a table with two rows:

S.No	
1	
2	

An 'Add a Trunk' dialog box is open over the table. The dialog has a title bar 'List of Trunk' and a close button 'X'. It contains the following fields and options:

- Description:** A text input field.
- Lines:** A list of checkboxes for E1 channels: E1 Channel #1, E1 Channel #2, E1 Channel #3, E1 Channel #4, E1 Channel #5, E1 Channel #6, E1 Channel #7, E1 Channel #8, and a 'Select All' option.
- Provider Type:** A group of radio buttons with the following options:
  - Analog
  - E1 Trunk** (selected)
  - VoIP Trunk
  - Peer

At the bottom of the dialog are 'Save' and 'Cancel' buttons.