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Yeastar Technology Co., Ltd



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1. Introduction

MyPBX — IPPBX for Small Office and Home Office

MyPBX is a standalone embedded hybrid PBX for small businesses and remote branch offices of larger organizations (1-36 users per site). MyPBX also offers a hybrid solution (a combination of VoIP applications using legacy telecom equipment) alternative for enterprises who are not yet ready to migrate to a complete VoIP solution.

Auto-provision	• Firewalls
Blind Transfer	• Follow me
BLF Support	Interactive Voice Response (IVR)
• Blacklist	Intercom / Zone Intercom
Call Detail Records(CDR)	Music On Hold
Call Forward	Music On Transfer
Call Parking	Paging / Zone Paging
Call Recording	PIN Users
Call Pickup	• Queue
Call Routing	• QOS
Call Transfer	Ring Group
Call Waiting	Route by Caller ID
Caller ID	Skype Integration (Skype for SIP)
Conference	Three-way Calling
Define Office Time	Voicemail
Direct Inward System Access(DISA)	• VLAN
• DIDs	
Distinctive Ringtone	
Do Not Disturb(DND)	

1.1 Features

Note: the features with indication (*) will be supported in next version.



1.2 Hardware Specification

1.2.1 Exterior Appearance

1) Front Side



Figure 1-1 MyPBX Front Panel Picture

No.	Identifying						
1	Green LED: Indicates the power connection is normal.						
2	Green LED: Indicates the server system is in working order						
3	Green LED: Indicates the system is ready.						
4	Green LED: Indicates the internet interface is in use						
5	Red LED: stands for FXO port						
	Green LED: stands for FXS port						
	LED Dual - Red blink: FXO port isn't connecting PSTN line.						
	LED Dual - Red and Green blink: FXO port receive an incoming call.						
	LED Dual - Red and Green fast blink: FXO port is in talking.						
	LED Dual - Green and Red blink: FXS port is ringing.						
	LED Dual - Green and Red fast blink: FXS port is in talking.						

2) Back Side



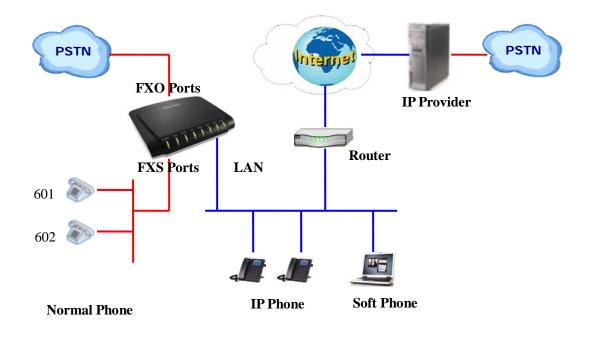


Figure 1-2 MyPBX Back Side Picture



2. System set up

2.1 Connection Drawing



2.2 Connecting Ethernet Line

MyPBX provides two 10/100M Ethernet ports with RJ45 interface and LED indicator. Plug Ethernet line into MyPBX's Ethernet port, and then connect the other end of the Ethernet line with a hub, switch, router, LAN or WAN. Once connected, check the status of the LED indicator. A yellow LED indicates the port is in the connection process, and a green LED indicates the port is properly connected.

2.3 Connecting Power

MyPBX utilizes the high-performance switch power, which supply the enough voltage and electrical energy that required by MyPBX system. AC Input: 100~240V



DC Output: 12V,1A

Please follow the steps below to connect the MyPBX unit to a power outlet:

- 1. Connect the small end of the power cable to the power input port on the MyPBX back panel, and plug the other end of the cable into a 100VAC power outlet.
- 2. Check the Power LED on the front panel. A solid green LED indicates that power is being supplied correctly.



3. Manage MyPBX

3.1 Manager Log in

From your web browser, input the IP address of the MyPBX server.

If this is the first time you are configuring MyPBX, please use the default settings below:

IP Address: http://192.168.5.150 Username: admin Password: password

MyPBX - Embedded Hybrid	IP-PBX for Small Businesses - Microsoft Internet Explorer						
File Edit View Favorites	Tools Help 🥼						
🚱 Back 👻 🕗 👻 💈							
Address http://192.168.5.15	D So Links '						
MyPBX	Embedded Hybrid IP-PBX for Small Businesses						
	MyPBX Configuration Panel						
Yeastar	User Login						
	Username: admin Password:						
	Login Reset						
	Copyright 2008 Yeastar Technology, Co., Ltd. All Rights Reserved.						
) E	Linternet						

Figure 3-1



3.2 Status Monitor

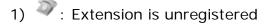
3.2.1 Line Status

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Time Conditions Frank Feature Codes Status Trunk Name Type Username Port/Hostname/IP Paging and Intercom Sigsteind 6096 SIP 6096 192.168.5.99 System Settings pstn1 FXO Port 3 Options pstn2 FXO Port 4	DISA	30(SIP)	31	(SIP)	32(SIP)	<u>601(FXS)</u>	<u>602(FXS)</u>	
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Options pstn2 FXO Port 4 Music On Hold Prompts		-			6096			
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or demins	SIP Settinas							

Figure 3-2

MyPBX Status Description:

Extensions:



- 2) *****: Extension is idle
- 3) 💐: Extension is ringing
- 4) $\overline{\mathbf{v}}$: Extension is busy in a call

Trunks:

VOIP Trunk:

Status

Unregistered: Trunk registration failed. Registered: Succeed registration, trunk is ready for use.



Request Send: Registering. Waiting: Waiting for authentication.

FXO Trunk:

Status

Idle: The port is idle. Busy: The port is in use. Disconnected: The port hasn't connected the PSTN line. More detail message, please refer to the LED identifying of front panel.

Service Provider:

Status

Registered: Succeed registration, trunk is ready for use. Failed: Trunk registration failed.

3.3 Basic

3.3.1 Extension

Extension has two types: normal desk extension (FXS) and VOIP extension.

MyPBX - Embedded Hybrid IPPBX for Small Businesses - Microsoft Internet Explorer						
General and a second secon						
Address 🙆 http://192.168.5.16	64/cgi/WebCGI?10	000			💌 🔁 Go	Links »
My PBX	Embedde	d Hybrid IP-PBX	for Small Businesse		Log	out
Status Monitor 🔹	Extensio	n ¢				^
Line Status	FXS Exte	neione		Extension List		
Basic 🙁	Port	Extension	Full Name	Caller ID		
Extensions	3	601	601	601	😼 Edit 🗴 Delete	
Trunks Outbound Routes	4	602	602	602	S Edit Delete	
Auto Provision	5	603	603	603	S Edit X Delete	
Inbound Call Control	6	604	604	604	😼 Edit 🗴 Delete	
Inbound Call Control 🏾 🖄	VOIP Exte	ensions				
Queues Custom Prompts			Add Multiple Extensions	🐕 Modify Selected Extensions	Celete Selected Extensions	
Ring Groups		Extension	Type Full Nan	ne Caller ID		
Inbound Routes		500	SIP 500	500	🔊 Edit 🗴 Delete	
Blacklist		501	SIP 501	501	🔊 Edit 😕 Delete	
Other Settings 🛛 📚		502	SIP 502	502	🔊 Edit 😕 Delete	
DISA		503	SIP 503	503	🔊 Edit 😕 Delete	
Conferencing Business Hours		504	SIP 504	504	🔊 Edit 🗴 Delete	
Business Hours Feature Codes		505	SIP 505	505	🔊 Edit 🗴 Delete	
Paging Groups		506	SIP 506	506	🔊 Edit 😕 Delete	
		507	SIP 507	507	🔊 Edit 🗴 Delete	
System Settings 🔕		508	SIP 508	508	🔊 Edit 😕 Delete	~
🛃 Done					🧐 Internet	.;

Figure 3-3



3.3.1.1 Analog Extension (FXS)

Edit Analog Extension

On the administration page of FXS extensions, click 'Edit' on the extension that you want to edit, and modify the following information on prompt window

1) General

Extension

The numbered extension, i.e. 1234, that will be associated with this particular User / Phone.

·Port

The extension correspond port.

Name

A character-based name for this user, i.e. 'Bob Jones'.

·Caller ID

The Caller ID (CID) string will be used when this user calls another internal user.

2) Voicemail

•Enable Voicemail

Check this box if the user should have a voicemail account.

•Voicemail Access PIN

Voicemail Password for this extension, i.e. '1234'.

3) Mail Setting

•Enable Send Voicemail

Once enabled, the voicemail will be sending to below email address as an attachment.

Send Voicemail to Email Address

This option defines whether or not voicemails/Fax is sent to the Email address as an attachment.

Note: Please ensure that all voicemail settings are properly configured on the System Settings -> Voicemail Settings page before using this feature.

4) Flash

·Hook Flash Detection

Sets the amount of time, in milliseconds, that must pass since the last hook-flash event received by MyPBX before it will recognize a second event. If a second event occurs in less time than defined by Hook Flash Detection, then MyPBX will ignore the event. The default value of Flash is 1000 ms, and it can be configured in 1ms increments.

5) Group

·Pickup Group

If this extension belongs to a pickup group, any calls that ring this extension can



be picked up by other extensions in the same pickup group by dialing the Call Pickup feature code (default *4).

Note: *4 is the default setting, it can be changed under Feature Codes -> General -> Call Pickup.

6) Follow me (Call Forwarding)

This function sets inbound call forwarding on an extension. An administrator can configure Follow Me for this extension.

7) Other Options

.Call Waiting

Check this option if the extension should have Call Waiting capability. If this option is checked, the 'When busy' follow me options will not be available.

.User Web Interface

Check this option to allow the user to login to the MyPBX User Web interface, which can be used to access voicemail and extension recordings. Users may login to the MyPBX User Web interface by using their extension number and voicemail PIN # as the login and password respectively.

.Ring Out

Check this option if you want to custom the ring time. Tone will stop over the time defined.



t Extension - 6				
General —				
Extens	ion🛈: 601		Port: 6	
Na	me0: 601	C	aller ID🛈: 601	
Voicemail -				
🔽 Enable V	'oicemail 🛈 🛛 Voicemail	I Access PIN #0	601	
 Mail Setting 				
	Send Voicemail①:			
Email Addres				
	ensure that the section operly configured before u	-	or Voicemail'(in the 'Voicen	nail Settings')
Flash ————————————————————————————————————				
Hook Flash D	etection 0: 1000	ms		
Group				
Pickup Group				
Follow me				
	Always		Voicemail	
Follow me:	🔽 No answer	Transfer to:	Number	
	🔽 When Busy		Number	
C Other Optio	ns			
🗖 Call Wait		Web Interface 🛈	Ring Out 🛈: 30	
	•			
		🗸 Save 🛛 🗙 Ca	ncel	

Figure 3-4

3.3.1.2 VOIP Extension

A VOIP extension is an SIP Account that allows an IP Phone or an IP Soft- Phone client to register on MyPBX.

1. Add VOIP Extension

Go to Extensions \rightarrow VOIP Extensions \rightarrow Create New Extension

1) General

∙Туре

Extension type: SIP.

SIP – Identifies whether the extension sends and receives calls using the VoIP protocol SIP.

Extension

The numbered extension, i.e. 1234, that will be associated with this particular User / Phone.

Password



The password for this extension, Ex: '12t3f6'

•Name

A character-based name for this user, EX: 'Bob Jones'

·Caller ID

The Caller ID will be used when this user calls another internal extension. Caller ID will be used when this user calls another internal extension.

·SIP Transport

This will be the transport method used by the Extension. The options are UDP (default) or TCP.

2) Voicemail

·Enable Voicemail

Check this box if the user should hae a voicemail account.

·Voicemail Access PIN

The voicemail Password for this extension, i.e. '1234'.

3) Mail Setting

This option defines whether or not voicemails are sent to an Email Address as attachment.

•Enable Send Voicemail

Once enabled, the voicemail or Fax will be sent to email as an attachment.

·Email Address

Email address use to receive the voicemail or Fax.

Note: Please ensure that the section 'SMTP Settings For Voicemail'(in the 'Voicemail Settings') have been properly configured before using this feature.

4) VoIP Settings

·NAT

This setting should be used when the system is using a public IP address, communicating with devices hidden behind a NAT device (such as a broadband router). If you have one-way audio problems, you usually have problems with your NAT configuration or your firewall's support of SIP and/or RTP ports. •**DTMF Mode** – RFC2833, Info, Inband, Auto.

5) IP Restriction

•Enable IP Restriction

Check this option to enhance the VoIP security for MyPBX. If this option is enabled, only the permitted IP or Subnet mask will be able to register this extension number. In this way, the VoIP security will be enhanced.

Permitted 'IP address/Subnet mask'

The input format should be 'IP address'+'/'+'Subnet mask'. e.g."192.168.5.100/255.255.255.255" means only the device whose IP address is 192.168.5.100 is allowed to register this extension number.



e.g."192.168.5.0/255.255.255.0" means only the device whose IP address is 192.168.5.XXX is allowed to register this extension number.

6) Group

·Pickup Group

If this extension belongs to a pickup group, any calls that ring this extension can be picked up by other extensions in the same pickup group by dialing the Call Pickup feature code (default *4).

Note: *4 is the default setting, it can be changed under Feature Codes -> General -> Call Pickup.

7) Follow me (Call Forwarding)

This function sets inbound call forwarding on an extension. An administrator can configure Follow Me for this extension.

8) Other Options

.Call Waiting

Check this option if the extension should have Call Waiting capability. If this option is checked, the 'When busy' follow me options will not be available.

.User Web Interface

Check this option to allow the user to login to the MyPBX User Web interface, which can be used to access voicemail and extension recordings. Users may login to the MyPBX User Web interface by using their extension number and voicemail PIN # as the login and password respectively.

.Ring Out

Check this option if you want to custom the ring time. Tone will stop over the time defined.



Create New VOIP Extension	x
C General	
Type: SIP 🚽 Extension 🛈 : 500 Password 🛈 : pincode 500	
Name 🛈 : 500 Caller ID 🛈 : 500 Transport: UDP 🗸	
C Voicemail	
Concernali Concernali Voicemail Access PIN # : 500	
Mail Setting	
Enable Send Voicemail	
Email Address 10:	
Note: Please ensure that the section 'SMTP Settings For Voicemail'(in the 'Voicemail Settings') have been properly configured before using this feature.	
NAT 1: DTMF Mode 1: RFC2833	
IP Restriction	
Enable IP Restriction 🛈:	
Permitted 'IP address/Subnet mask' 1 🛈:	
Permitted 'IP address/Subnet mask' 2 🛈:	
Permitted 'IP address/Subnet mask' 3 🛈:	
Permitted 'IP address/Subnet mask' 4 🛈:	
Crown	
Group	
Follow me	
Always	
Follow me: No answer Transfer to: Number	
When Busy	
C Other Options	
Call Waiting User Web Interface Ring Out 30	
🗹 Save 🛛 🔀 Cancel	

Figure 3-5

2. Add Multiple Extensions

Go to Extensions \rightarrow VOIP Extensions \rightarrow Add Multiple Extensions.

1) Choose the number of extensions that you would like to create.

- 2) Choose the type of extension that you would like to create.
- 3) Fill in the starting extension number.



Add Multiple Extensions X
Create 5 💌 SIP 💌 extensions starting from: 506
Tip: After pressing the 'Create Extensions' button, you may use the 'Modify Selected Extensions' button to modify the properties for these extensions.
Create Extensions

Figure 3-6

3. Edit VOIP Extension

Click 'Edit' on VOIP Extension administration page or click 'Modify Selected Extensions' to edit extension.

3.3.2 Trunk

There are three types of trunks: Analog trunks (FXO), VOIP and Service Provider trunks.

🕋 MyPBX - Embedded Hybr	id IPPBX for Small Businesses -	Microsoft Inter	net Explorer			
<u>File E</u> dit <u>V</u> iew F <u>a</u> vorites	<u>T</u> ools <u>H</u> elp					-
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MyPBX	Embedded Hybrid IP-PBX	(for Small Bu	usinesses		Logo	• ut
Status Monitor 🔹	🕨 Manage trunks 🔅					_
Line Status			List	Of Trunks		
	Analog Trunk					
Basic 🔹	Trunk Name		Analog Ports			
<u>Extensions</u> Trunks	pstn1		7		🔊 Edit 🗴 Delete	Ξ
Outbound Routes	pstn2		8		🔊 Edit 🗴 Delete	
Inbound Call Control 🚷	VOIP Trunk New VOIP Trunk Provider Name	21	Hostname/IP	Username		
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Other Settings (*) DISA Conferencing	Service Provider New Service Provider Provider Name	Туре	Hostnan	ıe/IP		
TimeConditions	test	SIP	192.168.	5.99	🔊 Edit 🗴 Delete	
FeatureCodes Paging and Intercom						
System Settings 🔹 🍭						
Options						
Music On Hold Prompts						~
🕘 Done					🥑 Internet	

Figure 3-7

3.3.2.1 Analog Trunk (FXO)1. Edit Analog Trunk (FXO)



On the analog Trunk administration page, click 'Edit' on selected trunk and modify information on prompt window:

1) General

•Trunk Name

A unique label used to identify this trunk when listed in outbound rules, incoming rules, etc. Ex: 'Port 1'

Volume Setting

Used to modify the volume level of this trunk. Normally, this setting does not need to be changed.2) Advanced Options

2) Advanced Options

Busy Detection

Busy Detection is used to detect far end hang-up or for detecting a busy signal. Select "Yes" to turn this feature on.

Busy Count

If Busy Detection is enabled, it is also possible to specify how many busy tones to wait for before disconnecting. The default is 4, but better results can be achieved if set to 6 or even 8. Remember, the higher the number, the more time required to release a channel. A higher setting lowers the probability that you will encounter random hang-ups

Busy Pattern

If Busy Detection is enabled, it is also possible to specify the cadence of your busy signal. In many countries, it is 500msec on, 500msec off. Without Busy Pattern specified, MyPBX will accept any regular sound-silence pattern that repeats <Busy Count> times as a busy signal. If you specify Busy Pattern, then MyPBX will further check the length of the tone and silence, which will further reduce the chance of a false positive disconnect.

·Caller ID Start

This option allows you to define the start of a Caller ID signal:

Ring: Start when a ring is received (Caller ID Signaling: Bell_USA, DTMF).

Polarity: Start when a polarity reversal is started (Caller ID Signaling: V23_UK,V23_JP,DTMF).

Before Ring: Start before a ring is received (Caller ID Signaling: DTMF).

·Caller ID Signaling

This option defines the type of Caller ID signaling to use. It can be set to one of the following:

Bell: bell202 as used in the United States

v23_UK: Used in the UK

v23_JP: Used in Japan

DTMF: Used in Denmark, Sweden, and Holland



Edit Analog Trunk:Port1		x					
	Trunk Name 🛈 : pstn1						
	Volume Setting 💽 : 🛛 🔽						
Advanced Options							
Busy Detection 🛈 :	Yes 💌 Busy Count 🛈: 4						
Busy Pattern 🛈 :	Caller ID Start 🛈 : Ring 💌						
Caller ID Signaling 🛈 :	DTMF						
	Save X Cancel						

Figure 3-8

3.3.2.2 VOIP Trunk

1. Add SIP Trunk

Input correct SIP information (provided by VOIP provider). Inaccurate information will prevent the trunk from registering.

∙Туре

SIP – Identifies whether the trunk sends and receives calls using the VoIP protocol SIP.

·Provider Name

A unique label to help you identify this trunk when listed in outbound rules, incoming rules etc. Ex: 'yeastar'.

·Hostname/IP

Service provider's hostname or IP address.5060 is the standard port number used by SIP protocol. Don't change this part if it is not required.

.Domain

VoIP provider's server domain name.

.From User

All outgoing calls from this SIP Trunk will use the From User (In this case the account name for SIP Registration) in From Header of the SIP Invite.

Username

Username of SIP account. Used for SIP trunk registration.

Password

Password of SIP account.

.Authorization name

Used for SIP authentication. Leave this blank if not required.

.Online number

Define the online number that expected by 'Skype Connect' and some other SIP service providers. Leave this field blank if it's no required.

•Maximum Channels

Controls the maximum number of outbound channels (simultaneous calls) that can be used on this trunk. Inbound calls are not counted against the maximum.



Leave blank to specify no maximum.

•Outbound Proxy Server

A proxy that receives requests from a client, even though it may not be the server resolved by the Request-URI.

Transport

This will be the transport method used by the SIP Trunk. This method is given by the SIP trunk provider. The options are UDP (default) or TCP.

Created New VOIP trunk			x
Туре:	SIP 🔽		
Provider Name:			
Hostname/IP:		: 5060	
Domain:			
From User:			
Username:			
Authorization name:			
Online Number 🛈 :			
Password:			
Maximum Channels 🛈 :	1		
	Enable Outbound Proxy Server		
Transport:			
	🖌 Save 🔀 Cancel		

Figure 3-9

3.3.2.3 Service Provider

1. Add Service Provider

To Create the Service provider definition you need to complete the following VoIP fields.

∙Туре

SIP – Identifies whether the trunk sends and receives calls by using the VoIP protocol SIP.

·Provider Name

A unique label would help to you identify this trunk. Ex: 'Provider2'.

·Hostname/IP

Service provider's hostname or IP address.

Note: 5060 is the standard port number used by SIP protocol. Don't change this part if it is not required.

•Maximum Channels

Controls the maximum number of outbound channels (simultaneous calls) that can be used on this trunk. Inbound calls are not counted against the maximum.



Leave blank to specify no maximum.

.DOD Setting

- 1) DOD Direct Outward Dialing Number.
- 2) Bind Extension.

New Service Provider		Х
Туре:	SIP 💌	
Provider Name:	Provider01	
Hostname/IP:	192.168.5.99 : 5060	
Maximum Channels 🛈 :	1	
DOD Setting		
DOD: 5503301 Associate	ed Extension : 501 🛛 🛞	
DOD: 5503302 Associate	d Extension : 502 🛞	
DOD : 5503302	Associated Extension : 502 💌 👔 Add DOD	
	Save X Cancel	

Figure 3-10

3.3.3 Outbound Routes

Outbound routing mainly works for guides outgoing calls to go through trunks.



MvPBX - Embedded Hvb	rid IPPBX for Small Businesses - Microsoft Internet E	xolorer	
File Edit View Favorites		apasa -	
🔾 Back 🔹 🍙 - 💌	👔 🏠 🔎 Search 🤺 Favorites 🚱 - 🎍	3 8	
-			Go Links *
Address 🕘 http://192.168.5.13	6/static/config/index.html		Go Links 🎇
MyPBX	Embedded Hybrid IP-PBX for Small Busine	sses	Logout
Status Monitor 🏾 🛞	🕨 Manage Outbound Routes 💠		
Line Status	+ New Outbound Route	Outbound Routes	
Basic 🛞	Route Name	Dial pattern	
Extensions	pstnout	9.	🔊 Edit 🗴 Delete
<u>Trunks</u>			
Outbound Routes			
Inbound Call Control 🔹			
INR			
IVR Prompts			
Ring Groups			
Inbound Routes			
BlackList			
Other Settings 🙁			
DISA			
Conferencing Time Conditions			
Feature Codes			
Paging and Intercom			
T uging and intercom			
System Settings 🛛 🔕			
Options			
Music On Hold Prompts			
SIP Settinas			×
🛃 Done			🔮 Internet

Figure 3-11

3.3.3.1 New Outbound Route

Click 'New Outbound Route' and fill in the corresponding information in the popup window.

1) General

Route Name

Name of this Outbound Route. Ex: 'Local' or 'Long Distance' etc.

·Dial Pattern

Outbound calls that match this dial pattern will use this outbound route. There are a number of dial pattern characters that have special meanings:

- **X** : Any Digit from 0-9
- **Z** : Any Digit from 1-9
- N : Any Digit from 2-9

[12345-9] : Any digit in the brackets (in this example, 1,2,3,4,5,6,7,8,9)

The '.' Character will match any remaining digits. For example, 9011. will match any phone number that starts with 9011, excluding 9011 itself.

The '!' will match any remaining digits, and causes the matching process to complete as soon as it can be determined that no other matches are possible.

Example 1: **NXXXXXX** will match any 7 digits phone number.

Example 2: **1NXXNXXXXX** will match a phone number starting with a 1, followed by a 3-digit area code, and then 6 digit number.



•Strip digits from front

Allows the user to specify the number of digits that will be stripped from the front of the phone number before the call is placed. For example, if users must press 0 before dialing a phone number, one digit should be stripped from the dial string before the call is placed.

·Prepend these digits before dialing

These digits will be prepended to the phone number before the call is placed. For example, if a trunk requires 10 digit dialing, but users are more comfortable with 7 digit dialing, this field could be used to prepend a 3 digit area code to all 7 digit phone numbers before calls are placed. When using analog trunks, a 'w' character may also be prepended to provide a slight delay before dialing.

Password

The route password can be used to protect this route from being accessed without a password.

·PIN User

A pin number can be used for security, instead of a password, if set here. Select a PIN set to use. About PIN User, more information, please see <u>here</u>. **Note1**: If PIN User is enabled in the route, then the extensions which are selected in the 'Member Extensions' that can make calls via this route without inputting PIN code. While those extensions that haven't been selected should input PIN code when making calls via the route. Please do as the following:

- 1. Input the 'PIN User validate code'.
- 2. Input the PIN code after hearing the prompt.
- 3. Making calls as per the outbound route.

Note2: When a PIN is entered while making a call or during a call, that PIN is included in the call records output by the system. (Each PIN User will have own call records.)

•Member Extensions

Defines the extensions that will be permitted to use this outbound route.

•Member Trunks

Defines the trunks that can be used for this outbound route.



New Outbound Route	x
Route Name Dial Pattern 30:	
Strip ¹	digits from front
Prepend these digits 🛈 :	before dialing
Password:	
PIN User:	~
Member Extensions	
Available Extensions	Selected
5001(SIP) 5002(SIP) 5003(SIP) 5004(SIP) 5005(SIP) 5006(SIP) 5007(SIP) 5008(SIP)	
Member Trunks	
A∨ailable Trunks	Selected
5503301 (FXO) 5503302 (FXO) 5503303 (FXO) 5503305 (FXO) 5503306 (FXO) 5503309 (FXO) pstn7 (FXO) pstn8 (FXO)	
	/ Save X Cancel

Figure 3-12

3.3.3.2 Delete Outbound Route

Click 'Delete' on selected trunk to remove the trunk.

3.3.4 Auto Provision

The Auto Provision sub menu provides users a method to Auto Provision IP Phone after the Express Setup process.

Note: Auto Provision functions fully test with Yealink IP Phone.

3.3.4.1 Phone

Add New Phone have two modes,

Add New phone in webpage and Upload the IP Phone's configure file.

1. Add new phone via webpage



Click 'Create New Phone' and fill in the corresponding information in the popup window.

1) General

·MAC

IP Phone's MAC address.

•Name

Name of this Phone.

·Call Waiting

This call feature allows your phone to accept other incoming calls to an extension already in an active call.

·Key As Send

Line

Extension: Selected the extension number for IP Phone.

Label: It is shown on the LCD for users to identify the account.

Line Active: You can choose on/off to enable/disable the account respectively.

Create New	Phone			X
General Key As	Mac: Send : # 		Name:	Call Waiting : Enabled 💌
C Line				
🗖 Line1	Extension:	~	Label:	Line Active:
🗖 Line2	Extension:	~	Label:	Line Active:
🗖 Line3	Extension:	~	Label:	Line Active:
🗖 Line4	Extension:	~	Label:	Line Active:
🗖 Line5	Extension:	~	Label:	Line Active:
🗖 Line6	Extension:	~	Label:	Line Active:
		ء 🍾	Save 🔀 Cancel	

Figure 3-13

2. Upload the IP Phone's configure file to add new phone

Click 'Upload a file' and choose the configure file in the popup window. **Note**: the file format must be .cfg

3.3.4.2 IP Phone

Click 'Scan Yealink Phone', System will scan Yealink's IP phone in the local network, and list IP phone's MAC and IP address in this page.

Click 'MAC address', and fill in the corresponding information in the popup



window. Like 3.3.4.1

3.4 Inbound Call Control

3.4.1 IVR

When there's an inbound call aims at Auto Attendant, MyPBX will play an IVR recording and route the caller to the requested destination (for example, 'Welcome to XX company, for sales press 1, for technical support press 2, for operator press 0, etc'). The system will transfer the call to corresponding extension according to DTMF digits inputted by the user.

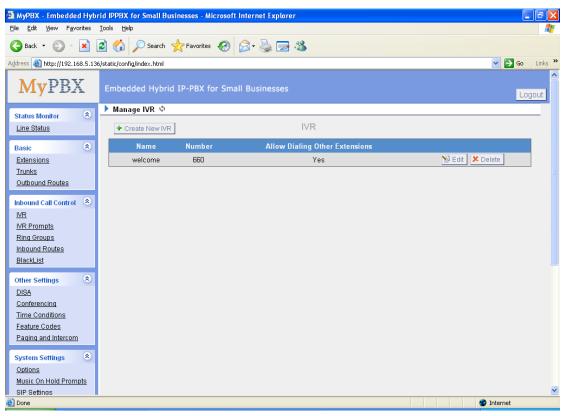


Figure 3-14

3.4.1.1 Create IVR

Click 'Create New IVR'.

1) General

Number

MyPBX treats IVR as an extension; you can dial this extension number to access the IVR.

Name

A name for the IVR

Prompt

The prompt recording that will be played when this IVR is reached.

·Repeat Count



The number of times that the selected IVR prompt will be played.

·Key Timeout

Wait for the user to enter a new extension for a specified number of seconds.

·Allow Dialing of Other Extensions

Allow the caller to dial other extensions other than the ones explicitly defined.

2) Key Press Events

A list of actions that can be performed depending on the digit dialed by the user. •Time Out

Defines the timeout action. A timeout occurs after the IVR prompt has finished playing for the number of times specified by the 'Repeat Count' field.

Invalid

Defines the invalid action. The invalid action is triggered if the user enters a DTMF digit that is not defined for this IVR.



New IVR				×
Number 🛈 : 660				
Name 🛈 : 🛛 welcome				
Prompt 🛈 : 🛛 default 💌	Custom IVR Prompts			
Repeat Count : 🛽 💌				
WaitExten 🛈 : 🔳 💌				
🔽 🛈 Allow Dialin	g Other Extensions			
🔽 🛈 KeyPress Events —				
Кеу	Action		Destination	
O	Connect to Extension	•	User Extension 500]
1	Connect to Extension	•	User Extension 501	1
2	Connect to RingGroup	•	RingGroup ringgroup_defa	1
3	No Action	•		1
4	No Action	•		1
5	No Action	•		1
6	No Action	•]
7	No Action	•		1
8	No Action	•		1
9	No Action	•		1
#	No Action	•		1
*	No Action	•]
TimeOut 🛈	Connect to Extension	•	User Extension 500]
Invalid 🛈	Hangup	•		1
	🗸 Save	🗙 Cancel		

Figure 3-15

3.4.1.2 Delete IVR

Select the item that you would like to remove and press the 'Delete' button.

3.4.2 Queues

Call Queues give users (i.e. call centers) an efficient means to have their calls answered in the order they were received to deliver top tier customer service.

Call queues allow calls to be sequenced to one or more agents.

Note: Dial 'Queue number + '*'' to log in or 'Queue number + '**'' to log out the queue. For example, if the queue number is '680', then agent can dial '680*' to



log in or '680**' to log out.

1) General

•Queue Name

A name for the Queue.

•Queue Number

Use this number to dial into the queue, or transfer callers to this number to put them into the queue.

•Queue Password

You can require agents to enter a password before they can login to this queue.

•Queue Agent Timeout

The number of seconds an agent's phone can ring before we consider it a timeout.

•Queue Max Wait Time

The maximum number of seconds a caller can wait in a queue before being pulled out. (0 for unlimited).

•Queue Ring Strategy

This option sets the Ringing Strategy for this Queue. The options are RingAll: Ring All available Agents simultaneously until one answers.

LeastRecent: Ring the Agent which was least recently called.

<u>FewestCalls</u>: Ring the Agent with the fewest completed calls.

Random: Ring a Random Agent.

<u>RRmemory</u>: Round Robin with Memory, Remembers where it left off in the last ring pass".

2) Agents

This selection shows all users. Selecting a user here makes them a agent of the current queue.

3) Caller Position Announcements

Announce Position

Announce position of caller in the queue

•Announce Hold Time

Enabling this option causes MyPBX to announce the hold time to the caller periodically based on the frequency timer. Either yes or no; hold time will not be announced if <1 minute.

Frequency

How often to announce queue position and estimated hold time.

4) Periodic Announcements

·Prompt

Select a prompt file to play periodically.

Frequency

How often to announce a prompt to the caller.



5) Events

If a caller presses the key while waiting in the queue, this setting selects which action should process the key press.

6) Failover-Destination

Defines the failover action. A failover occurs after the user reach the Queue max wait time.

7) Others

•Music On Hold

Select the 'Music on Hold' Class for this Queue.

·Leave When Empty

This option controls whether callers already on hold are forced out of a queue that has no agents. There are two options.

Yes: Callers are forced out of a queue when no agents are logged in. No: Callers will remain in a queue with no agents.

·Join Empty

This option controls whether callers can join a call queue that has no agents. There are two options,

Yes: Callers can join a call queue with no agents or only unavailable agents No: Callers cannot join a queue with no agents The default option is No.

·Agent Announcement

Announcement played to the Agent prior to bridging in the caller.

·Join Announcement

Announcement played to callers once prior to joining the queue.

Retry

The number of seconds we wait before trying all the phones again.

·Wrap-up time

How many seconds after the completion of a call an Agent will have before the Queue can ring them with a new call. The default is 30.



New Queues	x
Queue Name🛈 :	692
Queue Number🛈 :	692
Queue Password 🛈 :	
Queue Agent Timeout 🛈 :	30
Queue Max Wait Time 🛈 :	1800
Queue Ring Strategy 🛈 :	ringall
Agents Available Agents	Selected
500(SIP) 501(SIP) 502(SIP) 503(SIP) 504(SIP) 505(SIP) 506(SIP) 507(SIP) ▼	
Caller Position Announcements Announce Position Announce Hold Time Frequency	
Periodic Announcements Prompt Frequency	30 seconds 💌
Events Key: Action: Destination:	End Call
- Failover-Destination	
Action: Destination:	End Call
Others	
Music On Hold	
Leave When Empty Join Empty	
Agent Announcement	
Join Announcement	
Retry	
Wrap-up time 🛈	30
Sav	e 🗶 Cancel

Figure 3-16



3.4.3 Custom Prompts

1. Record new Prompt

The administrator can use this screen to record custom prompts by doing the following:

1) Click 'Record New Custom Prompt'

2) Input the desired file name on the popup window and choose an extension to call for recording (such as 500).

3) Click 'Record'. The selected extension will ring and you can pick up the phone to start recording.

Record New Prompt	X
File Name: welcome Dial extension: 500 💌 to record a new voice prompt	
Record X Cancel	

Figure 3-17

2. Upload Prompt

The administrator can also upload prompts by doing the following:

1)) Click 'Upload Prompt'.

2) Click 'Browse' to choose the desired prompt.

3) Click 'Upload' to upload the selected prompt.

Upload Music On Hold Prompt	X
WAV format: GSM 6.10 8kHz, Mono, 1Kb/sThe file size must not be greater than 1.8MB!	
Choose file to upload ^① : 浏览…	
Upload 🔀 Cancel	

Figure 3-18

3.4.4 Ring Groups

Ring groups can be configured to balance the call traffic for multiple users and give callers a higher level of availability for incoming calls. Multiple ring methods and voicemail are supported.



X		100 - ALL - AM - A		
Ele Edit View Figurites		s - Microsoft Internet Explore	r	
				-
		contes 🤣 🔗 🦓 🗔	45	
Agdross 🙆 http://192.105.5.03	(/static/config/index.html			💌 🛃 So 🛛 Links 🍟
My PBX	Embedded Hybrid IP-P	BX for Small Businesses		Logaut
Status Montor	🕨 Manage Ring Groups 🤤)		and a set
Status Monitor 8 Line Status	 New Sing Group 	Manag	e Ring Groups	
Basic 🛞	Number Na	me	Members	
Extensions	520 ringgrou	p_delault 501 (SIP), š	602(SIP), 503(SIP), 504(SIP), 505(SIP)	🐕 Esti 😕 De ete
<u>Trunks</u>				-
Outbound Roules				
Inbound Call Control 🛛 🙁				
ME				
MR Prompts				
<u>Ring Groups</u> Inbound Routes				
EleckList				
Other Settings 💿				
<u>DISA</u> Conferencing				
Time Conditions				
Festure Codes				
Paging and Intercom				
System Settings 🛞				
Dottone				
Music On Hold Prompts				
SIP Setinos				M
🔕 Done				Internet

Figure 3-19

3.4.4.1 Create Ring Group

Click 'New Ring Group' to enter into the Manage Ring Groups page

1) General

•Ring Group Name

This option defines a name for this group, i.e. 'Sales'. 'Ring Group Name' is a label to help you identify this group in the group list.

·Ring Group Number

This option defines the numbered extension that can be dialed to reach this group.

Strategy

This option sets the Ringing Strategy for this Group. The options are as follows:

- 1. Ring All Simultaneously: Ring all available Extensions simultaneously.
- 2. Ring Sequentially: Ring each extension in the group one at a time.

Seconds to ring each member

1. If the strategy is 'Ring All Simultaneously', it means set the number of seconds to ring this group before routing the call according to the 'Destination if No Answer' settings.

2. If the strategy is 'Ring Sequentially', it means set the number of seconds to ring a single extension before moving onto the next one.

2) Ring Group Members

An extension can be made a member of this ring group by moving it into the



'Selected' box.

3) Destination If No Answer

When all members on this group fail to answer the call, system will handle the call according to the selected destination.

New Ring Group			х
Ring Group Na	me🛈: 625		
Ring Group Num	ber00: 625		
Strate	egy 🛈 : 🛛 Ring all simultaneou	isly 💌	
Seconds to ring each memb	oer 🛈 : 60		
Ring Group members 0			
Available Extensions		Selected	
5001(SIP) 5002(SIP) 5003(SIP) 5004(SIP) 5005(SIP) 5007(SIP) 5007(SIP) 5008(SIP) Destination If No Answer:	 >>> → ← ≪ Call Call Call Content Content 	Extension 5001	
Destination:	C IVR RingGroup C Conference Room	IVR welcome	
	Save 🗶 Cancel		

Figure 3-20

3.4.3.2 Delete Ring Group

Select the item you'd like to remove and press the 'Delete' button.

3.4.5 Inbound Routes

Inbound routing processes incoming call traffic to destination extensions during office hours or outside office hours.



MvPBX - Embedded Hvb	rid IPPBX for Small Businesses - Microsoft Internet Explorer		
<u>File Edit View Favorites</u>	Iools Help		
🚱 Back 🝷 💮 🕤 🔀	🖻 🏠 🔎 Search 🤺 Favorites 🤣 🍃 🍇		
Address 🙆 http://192.168.5.13	6/static/config/index.html		🖌 🔁 Go 🛛 Links 🎽
MyPBX	Embedded Hybrid IP-PBX for Small Businesses		Logout
Status Monitor 🔹	▶ Manage Inbound Routes ゆ		
Line Status	New Inbound Route Manage Inbound Routes		
Basic 🙁	Route Name Pattern		
Extensions	pstnin	🔊 Edit 🔰 Delete	
Trunks			
Outbound Routes			
Inbound Call Control 🔹			
<u>IVR</u>			
IVR Prompts Ring Groups			
Inbound Routes			
BlackList			
Other Settings			
DISA			
Conferencing			
Time Conditions			
Feature Codes			
Paging and Intercom			
System Settings 🏾 🎗			
Options			
Music On Hold Prompts			~
SIP Settinas			Internet

Figure 3-21

3.4.5.1 Create Inbound Route

Click 'New Inbound Route' to enter to the Manage Inbound Routes page.

1) General

Route Name

A name for this inbound route. Ex: 'pstncallin' etc.

·DID Number

Define the expected DID Number if this trunk passes DID on incoming calls. Leave this field blank to match calls with any or no DID info. Only service provider or E1 trunks need to be configured with this setting.

You can also use pattern matching to match a range of numbers. The following patterns may be used:

- X : Any Digit from 0-9
- Z : Any Digit from 1-9
- **N** : Any Digit from 2-9

[12345-9] : Any digit in the brackets (in this example, 1,2,3,4,5,6,7,8,9) The '.' Character will match any remaining digits. For example, 9011. will match any phone number that starts with 9011, excluding 9011 itself.

The '!' will match any remaining digits, and causes the matching process to complete as soon as it can be determined that no other matches are possible.

Example 1: **NXXXXXX** will match any 7 digits phone number.

Example 2: **1NXXNXXXXX** will match a phone number starting with a 1, followed by a 3-digit area code, and then 6 digit number.



·Caller ID Number

Define the Caller ID Number to be matched on incoming calls. Leave this field blank to match any or no DID info.

You can also use a pattern match (e.g. 2[345]X) to match a range of numbers. The following patterns may be used:

X : Any Digit from 0-9

- **Z** : Any Digit from 1-9
- **N** : Any Digit from 2-9

[12345-9] : Any digit in the brackets (in this example, 1,2,3,4,5,6,7,8,9) The '.' Character will match any remaining digits. For example, 9011. will match any phone number that starts with 9011, excluding 9011 itself.

The '!' will match any remaining digits, and causes the matching process to complete as soon as it can be determined that no other matches are possible.

Example 1: **NXXXXXX** will match any 7 digits phone number.

Example 2: **1NXXNXXXXX** will match a phone number starting with a 1, followed by a 3-digit area code, and then 6 digit number.

·Distinctive Ringtone

MyPBX support mapping to custom ring tone files. For example, if you configure the distinctive ringing for custom ring tone to '**Family**', the ring tone will be played if the phone receives the incoming call.

How do I configure distinctive ring tones? Please see <u>APPENDIX E</u>.

2) Member Trunks

This area allows you to select which trunks will be member trunks for this route. To make a trunk a member of this route, please move it to the 'Selected' box.

3) During Office Hours

You can choose how to route incoming calls during office hours.

•End Calls

Route the incoming calls to end calls, System will auto hang-up the call.

Extension

Route the incoming calls to a specific extension.

Voicemail

Route the incoming calls to extension's voicemail.

٠IVR

Route the incoming calls to a specific IVR.

·Ring Group

Route the incoming calls to a specific Ring Group.

·Conference Room

Route the incoming calls to a specific Conference Room.



·DI SA

Route the incoming calls to a specific DISA.

Queues

Route the incoming calls to a specific Queue.

Outbound Routes

Route the incoming calls to a specific outbound route.

Note: This function can only be used after the configuration of SIP Trunk in Service Provider.

This function is mainly used for the connection of two branches.

For example: Company A locates headquarters in the USA with a branch B in China. A and B both have MyPBX phone systems.

Now if staff of A would like to make a call to a telephone or mobile phone in China from the extension of A but via the FXS line of B, that can be done by this configuration.

4) Outside Office Hours

You can choose how to route incoming calls outside office hours.



eneral			
Route Nam			
DID Numbe			
Caller ID Numbe	er 🛈 :		
Distinctive Rington	e 🛈 :		
lember Trunks			
Available Trunks		Selected	
pstn5(FXO)	>>		
pstn6(FXO) pstn7(FXO)			
pstn8(FXO)	\rightarrow		
to171(SIP) VOIP2320(SIP)	←		
	**		
uring Office Hours			
	End Call		
	C Extension	Extension 500 🗸	
	C Voicemail	Voicemail 500 🗸 🗸	·
Destination:	C IVR	IVR welcome 🗸 🗸	·
	C RingGroup	RingGroup ringgroup_de 🗸	•
	C Conference Room	Conference Room 640 🗸	•
	C DISA	DISA	
	C Queues	Queues 💌	•
	C Outbound Routes	Route Name pstnout 🗸 🗸	٢
outside Office Hours			
	End Call		
	C Extension	Extension 500 🗸 🗸	٢
	C Voicemail	Voicemail 500 🛛 👻	٢
Destination:	CIVR	IVR welcome 🗸 🗸	•
	C RingGroup	RingGroup ringgroup_de 💙	٢
	C Conference Room	Conference Room 640 🗸	٢
	C DISA	DISA	•
	C Queues	Queues 👻	٢
	Outbound Routes	Route Name pstnout 🛛 👻	٢
	🖌 Save 🔀 Cancel		

3.4.5.2 Delete Routes

Select the item you'd like to remove and click 'Delete' key.



3.4.6 Blacklist

Number Blacklist is used to block an incoming call you do not want to answer. If the incoming call number is registered in the number blacklist, the caller will hear the following: "The number you have dialed is not in service. Please check the number and try again". The system will then disconnect the call.

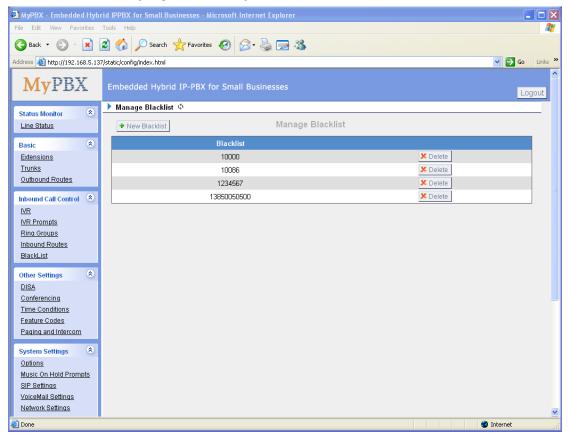


Figure 3-23

3.4.6.1 Create Blacklist

Click 'New Blacklist' to create a new number blacklist.

Ne	w Blacklist	×
	Blacklist Number 🛈 :	
	Save X Cancel	

Figure 3-24

·Blacklist number

Enter the number you would like to block.



3.5 Other Settings

3.5.1 DISA

DISA (Direct Inward System Access) allows someone calling in from outside the telephone switch (PBX) to obtain an 'internal' system dial tone and make calls as if they were using one of the extensions attached to the telephone switch. To use DISA, a user calls a DISA number, which invokes the DISA application. The DISA application in turn requires the user to enter a PIN number, followed by the pound sign (#). If the PIN number is correct, the user will hear dial tone on which a call may be placed. Obviously, this type of access has serious security implications, and great care must be taken not to compromise your security.

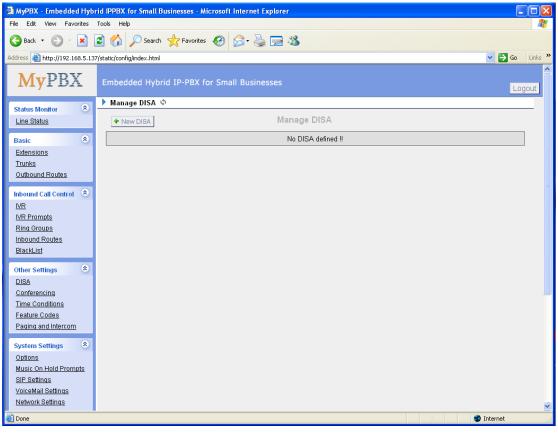


Figure 3-25

To add a new DISA application, click the New DISA button.



New DISA		X
General		
Na	me🛈 :	
119	↓ #① :	
Response Time	out 🛈 : 10	
Digit Time	out 🛈 : 5	
Member Outbound Routes		
Available Outbound Routes		Selected Outbound Routes
pstnout	»»	
	_→	
	<u>_</u>	
	**	
	1	
	🗸 Save 🔀 Cancel	

Figure 3-26

1) General

·DISA Name

Give this DISA application a name to help you identify it.

•PIN

The password for this DISA.

·Response Timeout

The maximum amount of time the system will wait before hanging up the call if the user has dialed an incomplete or invalid number. Default is 10 seconds.

·Digit Timeout

The maximum amount of time permitted between each digit when the user is dialing an extension number. Default is 5 seconds.

2) Member Outbound Routes

Used to set the outbound routes that can be accessed from this DISA.

3.5.2 Conferencing

Conference Calls increase employee efficiency and productivity, and provide a more cost-effective way to hold meetings.

Extension

This is the number dialed to reach this Conference Room.

•Pin #

Set a PIN # that must be entered in order to access this conference room (i.e.



1234).

New Conference Room	X
Extension 🛈 Pin Code 🛈	640 somepincode
🗸 Save	× Cancel

Figure 3-27

3.5.3 Business Hours

You can setup the business hours here.

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Outbound Routes	Define Office Hour	S			
Auto Provision		Morning	Afternoon	overtime	
Inbound Call Control 🙁	Monday	08:30 🗸 - 12:00 🗸	14:00 💙 - 18:00 💙	19:00 💙 - 22:00 💙	
Queues	Tuesday	08:30 🔽 - 12:00 🔽	14:00 💙 - 18:00 💙	19:00 💟 - 22:00 💟	
Custom Prompts Ring Groups Inbound Routes	Wednesday	08:30 🗸 - 12:00 🗸	14:00 🗸 - 18:00 🗸	19:00 💌 - 22:00 💌	
Blacklist	Thursday	08:30 🖌 - 12:00 🖌	14:00 🛩 - 18:00 🛩	19:00 💌 - 22:00 💌	
Other Settings 🔹	Friday	08:30 🗸 - 12:00 🗸	14:00 🗸 - 18:00 🗸	19:00 🗸 - 22:00 🗸	
Conferencing	Saturday	08:30 💙 - 12:00 💙	00:00 🗸 - 00:00 🗸	00:00 🔽 - 00:00 🔽	
Business Hours Feature Codes	Sunday	00:00 💙 - 00:00 🌱	00:00 🗸 - 00:00 🗸	00:00 💙 - 00:00 💙	
Paging Groups System Settings			Save X Cancel		~
Attp://192.168.5.164/cgi/Web	CGI?1131			🥝 Internet	

Figure 3-28

3.5.4 Feature Codes

- 1. General
- **•One Touch Record**

A user may initiate or stop call recording by dialing *1 during a call. (*1 is



default setting)

·Extension for Checking Voicemail

Users can check their Voicemail by dialing *2 on their phone (*2 is default setting).

·Attended Transfer

Users may transfer an incoming call by dialing *3 on their phone (*3 is default setting).

·Blind Transfer

Users may blind transfer an incoming call by dialing *03 on their phone (*03 is default setting).

·Call Pickup

Users may pick up an incoming call by dialing *4 on their phone (*4 is default setting)

•Extension Pickup

Users may pick up a specific extension's incoming call by dialing *04+extension number on their phone (*04 is default setting)

Intercom

Define the feature code that is used to dial an extension in intercom mode. For instance setting this value to *5 would allow you to initiate an intercom call with extension 501 by dialing *5501.

2. Call Park Preferences

·Call Parking

User may park an incoming call on his own telephone by pressing '*6' (*6 is default setting)

·Extension range used to park calls

User may park an incoming call on a designated extension at first and then pick up the call again on any other extension.

Number of seconds a call can be parked before it is recalled.

Defines the number of seconds that a call can be parked before it is recalled to the station that parked it.

3. Call Forwarding Preferences

Reset to Defaults

Users may reset all call forward defaults by calling *70 on their phone (*70 is default setting).

Note: When reset to defaults. The call forwarding settings will be configured as follows:

Always forward: Disabled

Busy forward to Voicemail: Enabled

No answer forward to Voicemail: Enabled

Do not disturb: Disabled

•Enable Forward All Calls



Users may enable always forward by calling *71 on their phone (*71 is default setting)

·Disable Forward All Calls

Users may disable always forward by calling *071 on their phone (*071 is default setting)

•Enable Forward When Busy

Users may enable busy forward by dialing *72 on their phone (*72 is default setting)

·Disable Forward When Busy

Users may disable busy forward by calling *072 on their phone (*072 is default setting)

•Enable Forward No Answer

Users may enable no answer forward by calling *73 on their phone (*73 is default setting)

·Disable Forward No Answer

Users may disable no answer forward by calling *073 on their phone (*072 is default setting)

·Forward to number

Users may activate call forwarding by dialing this feature code, followed by the extension or phone number to forward all calls to.

Note: Users may activate Forward to number by dialing *74 + phone number. e.g.: by dialing *74501, all calls will be forwarded to extension 501.

•Forward to Voicemail

Users may forward the call to Voicemail by calling *074 on their phone (*074 is default setting)

•Enable Do Not Disturb

Users may enable do not disturb by calling *75 on their phone (*75 is default setting)

·Disable Do Not Disturb

Users may disable do not disturb by calling *075 on their phone (*075 is default setting)



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Other Settings (*) DS5 Conference TimeConcilions FeatureContes Baging and Intercom	Call Parking Preferences Coll parking Preferences	
a Cone		🔮 Internet

Figure 3-29

3.5.5 Paging Groups

Paging is used to make an announcement over the speakerphone to a phone or group of phones. Targeted phones will not ring, but instead answer immediately into speakerphone mode. Please note that this section is for configuring paging groups. If you would like to configure Intercom settings, please open the Other Settings -> Feature Codes screen.

This feature is supported by the following SIP phones:

Yealink's T28,T26,T22,T20,T10T,T9CM. Other SIP devices may also work with this feature but are not officially supported.

Note: A paging group can have a maximum of 20 members.



Paging and Intercom - M	listeren Distancent Evolution	
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MyPBX	Embedded Hybrid IP-PBX for Small Businesses	ے د
Status Montor 8	Paging and Intercom (0)	
Line Status	Paging and Intercom	
Basic (8) Estensions Trucks Duthound Routes	Peging and Intercom is for specific phones that are capable of Peging or Intercom. It can be used to make an announcement over the speakerphone on a phone or a group of phones. Targeted prones will not ring, but answer immediately into speakerphone more. This section is for configuring group osging, intercom is configured through Feature Choise. This feature should work with Yealink's T28,T26,T22,T20,T10T,T9CM and possibly other manufacturer's SIP phones(not ATAe). Any phone that is chose set to avia answer should also work.	
Inhound Call Control 8	If the main is the approximation of the antices and work. If New Paging Group	
MR Prompts	No Paging Group defined !!	
<u>Ring Groups</u> Inbound Routes		
EleckList		
Other Settings 🔅		
<u>D/SA</u>		
<u>Conferencing</u>		
Time Conditions Feature Cortes		
Paging and Intercom		
System Settings 🛛 🔊		
<u>Dottone</u>		
<u>Music Dri Hold Prompts</u> SIP Settings		~
Done	Internet	

Figure 3-30

·Paging Group Number

Defines the numbered extension that may be dialed to reach this group.

Duplex

Paging is typically one way for announcements only. Checking this will make paging duplex, allowing all users in the group to talk and be heard by all.

New Paging Group	X		
	ber①: 630 lex①: 🔽		
Paging Group members			
Available Extensions	Selected		
500(SIP) 501(SIP) 502(SIP) 503(SIP) 504(SIP) 505(SIP) 506(SIP) 507(SIP)			
Save X Cancel			
	Figure 3-31		



3.6 System Settings

3.6.1 Options

1) General

·Ring Timeout

Number of seconds to ring a device before handling the call as per the extension's Follow Me settings. Default value is 30s.

MAX call duration

The absolute maximum amount of time permitted for a call. A setting of 0 disables the timeout. Default value is 6000s.

•Music on hold

Used to set hold music for the system.

•Tone Region

Please choose your country or you nearest neighboring country for default Tones (Ex: dial tone, busy tone, ring tone etc.) **Note**: please reboot the system to take it effect.

•HTTP bind port/Web Access Port

Port to use for HTTP sessions. Default: 80 **Note**: please reboot the system to take it effect.

·FXO Mode

FXO port's opermode.

2) Extension Preferences
•User Extensions
The default value is 500 to 616

•Paging Group Extensions The default value is 620 to 629

•Ring Group Extensions

The default value is 630 to 639

•Conference Extensions The default value is 640 to 659

·IVR Extensions

The default value is 660 to 679



Queue Extensions

The default value is 680 to 689

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My PBX	Embedded Hybrid IP-PBX for Small Businesses	Logout
Status Monitor 🔹	► General Preferences 🖏	
Line Status	General Preferences	
Basic	Ring Timeout 🛈: 30 s	
Extensions	MAX Call Duration 🛈 : 6000 s	
Trunks	Music On Hold: 🛛 calmriver 💙	Ξ
Outbound Routes Auto Provision	Tone Region 🛈 : United States/North America 🛛 🗸	
	HTTP bind port 1: 80	
Inbound Call Control 🙁	FXO Mode 🛈 : FCC	
IVR Queues	C Extension Preferences:	
Custom Prompts	User Extensions : 500 to 616	
Ring Groups	Ring Group Extensions: 620 to 629	
Inbound Routes	Paging Group Extensions: 630 to 639	
Blacklist	Conference Extensions : 640 to 659	
Other Settings 🙁		
DISA	IVR Extensions : 660 to 679	
Conferencing	Queue Extensions: 680 to 689	
Business Hours Feature Codes	Reset to Defaults	
Paging Groups		
System Settings		
Options Firewall	🖌 Save 🛛 🗙 Cancel	
		<u>∼</u>
🙋 Done	🔮 Inter	net 🦼

Figure 3-32

3.6.2 Firewall

Firewalls are used to prevent unauthorized Internet users from accessing private networks connected to the Internet, especially intranets. All messages entering or leaving the intranet pass through the firewall, which examines each message and blocks those that do not meet the specified security criteria.

1) Enable Firewall

Enable the firewall to protect the device.

2) Common Rules

•Name

A name for this rule, e.g. 'HTTP'.

Description

Simple description for this rule. eg: Accept the specific host to access the web interface for configuration.



Protocol

The protocols for this rule.

·Port

Initial port should be on the left and end port should be on the right. The end port must be equal to or greater than start port.

٠IP

The IP address for this rule. The format of IP address is: IP/mask Ex: 192.168.5.100/255.255.255.255 for ip 192.168.5.100 Ex: 216.207.245.47/255.255.255.255 for ip 216.207.245.47 Ex: 192.168.5.0/255.255.255.0 for ip from 192.168.5.0 to 192.168.5.255.

·MAC Address

The format of MAC Address is XX: XX: XX: XX: XX: XX, X means $0 \sim 9$ or $A \sim F$ in hex, the $A \sim F$ are not case sensitive.

Action

Accept: Accept the access from remote hosts. Drop: Drop the access from remote hosts. Ignore: Ignore the access.

New firewall rule	X
Name():	
Description 🛈 :	
	×
Protocol 🤨 :	TCP 💌
Port🤨 :	0 : 0
IP 🛈 :	
MAC Address0:	
Action 🛈 :	Drop 🔽
	Save Cancel

Figure 3-33

3) Auto Defense

Port

Auto defense port, e.g.: 8022.

Protocol

Auto defense protocol, TCP or UDP.



·Rate

The maximum packets or connections can be handled per unit time.

E.g.: (Port: 8022 Protocol: TCP Rate: 10/minute) means maximum 10 TCP connection to port 8022 can be handled per minute, the eleventh connection will be refused directly.

New auto defense rule	X
Port ¹ : 0	
Protocol 🛈 : TCP 💌	
Rate 🛈 : 🛛 🗸 Second 💌	
Save Save	

Figure 3-34

4) SIP Defense•PortThe port used for SIP protocol.

Protocol

Choose the protocol need to be protect, etc: UDP.

·SIP Packets

The SIP packets allowed in specific time interval.

·Time Interval

The time interval to receive SIP packets.

For example, SIP packets 90, time interval 60 means 90 SIP packets are allowed in 60 seconds.

New SIP defense rule	X
Port: 5060	
Protocol 🛈: UDP 💌	
SIP packets 0: 0	
Time interval 0: 0 seconds	
🖌 Save 🔀 Cancel	

Figure 3-35

5) Other Settings

·Disable Ping

Enable this item, net ping from remote hosts will be dropped.

·Drop All



When you enable 'Drop All' feature, system will drop all packets or connection from other hosts if there are no other rules defined. To avoid locking the devices, at least one 'TCP' accept common rule must be created for port used for SSH access, port used for HTTP access and port sued for CGI access.

3.6.3 Music on Hold Prompts

The administrator can upload on hold music as follows:

- 1) Click 'Upload Music on Prompt '
- 2) Click 'Browse' to choose the desired audio file.
- 3) Click 'Upload' to upload the selected file.

Note: The sound file format should be as follows: GSM 6.10, 8.000kHz, Mono, 1kb/sec, The file size must not be greater than 1.8MB.

X
no, 1Kb/sThe file size must not be greater than 1.8MB!
浏览
X Cancel

Figure 3-36

3.6.4 SIP Settings

1) General

·UDP Port

Port use for sip registrations, Default is 5060.

•TCP Port

Port use for sip registrations, Default is 5060.

·RTP Port Start

Beginning of RTP port range

•RTP Port End

End of RTP port range

·DTMF Mode

Set default mode for sending DTMF. Default setting: rfc2833

•Max Registration/Subscription Time

Maximum duration (in seconds) of a SIP registration. Default is 3600 seconds.

·Min Registration/Subscription Time

Minimum duration (in seconds) of a SIP registration. Default is 60 seconds.



·Default Incoming/Outgoing Registration Time

Default Incoming/Outgoing Registration Time: Default duration (in seconds) of incoming/outgoing registration.

•Register Attempts

The number of SIP REGISTER messages to send to a SIP Registrar before giving up. Default is 8.

·Register Timeout

Number of seconds to wait for a response from a SIP Registrar before timed out. Default is 20 seconds.

·Video Support

Support for SIP video or no. Default is yes.

2) NAT

Note: Configuration of this section is only required when using remote extensions.

·Enable STUN

STUN (Simple Traversal of UDP through NATs) is a protocol for assisting devices behind a NAT firewall or router with their packet routing.

•STUN Address

The STUN server allows clients to find out their public address, the type of NAT they are behind and the internet side port associated by the NAT with a particular local port. This information is used to set up UDP communication between the client and the VOIP provider and so establish a call.

•External IP Address

The IP address that will be associated with outbound SIP messages if the system is in a NAT environment.

·External Host

Alternatively you can specify an external host, and the system will perform DNS queries periodically.

This setting is only required when your public IP address is not static. It is recommended that a static public IP address be used with this system. Please contact your ISP for more information.

•External Refresh Interval

If an external host has been supplied, you may specify how often the system will perform a DNS query on this host. This value is specified in seconds.



·Local Network Identification

Used to identify the local network using a network number/subnet mask pair when the system is behind a NAT or firewall.

Some examples of this are as follows:

'192.168.0.0/255.255.0.0' : All RFC 1918 addresses are local networks;

'10.0.0/255.0.0.0' : Also RFC1918;

'172.16.0.0/12': Another RFC1918 with CIDR notation;

'169.254.0.0/255.255.0.0' : Zero conf local network.

Please refer to RFC1918 for more information.

·NAT Mode

Global NAT configuration for the system. The options for this setting are as follows:

Yes = Use NAT. Ignore address information in the SIP/SDP headers and reply to the sender's IP address/port.

No = Use NAT mode only according to RFC3581.

Never = Never attempt NAT mode or RFC3581 support.

Route = Use NAT but do not include rport in headers.

Allow RTP Reinvite

By default, the system will route media steams from SIP endpoints through itself. Enabling this option causes the system to attempt to negotiate the endpoints to route packets to each other directly, bypassing the system. It is not always possible for the system to negotiate endpoint-to-endpoint media routing.

3) QOS

QoS (Quality of Service) is a major issue in VOIP implementations. The issue is how to guarantee that packet traffic for a voice or other media connection will not be delayed or dropped due interference from other lower priority traffic.

When the network capacity is insufficient, QoS could provide priority to users by setting the value.

4) Codecs

A codec is a compression or decompression algorithm that used in the transmission of voice packets over a network or the Internet.

u-law: A PSTN standard codec, used in North America, that provides very good voice quality and consumes 64kbit/s in each direction (receiving and transmitting) of a VoIP call.

a-law: A PSTN standard codec, used outside of North America, that provides very good voice quality and consumes 64kbit/s in each direction (receiving and transmitting) of a VoIP call.



GSM: A wireless standard codec, used worldwide, that provides adequate voice quality and consumes 13.3kbit/s in each direction (receiving and transmitting) of a VoIP call. GSM is supported by many VoIP phones.

SPEEX: Speex is an Open Source/Free Software patent-free audio compression format designed for speech. The Speex Project aims to lower the barrier of entry for voice applications by providing a free alternative to expensive proprietary speech codecs. Moreover, Speex is well-adapted to Internet applications and provides useful features that are not present in most other codecs.

G.726: A PSTN codec, used worldwide, that provides good voice quality and consumes 32kbit/s in each direction (receiving and transmitting) of a VoIP call. G.726 is supported by some VoIP phones.

ADPCM, G.729, H261, H263, H263p, H264, MPEG4.

Note: If you would like to use G.729, please enter your license.

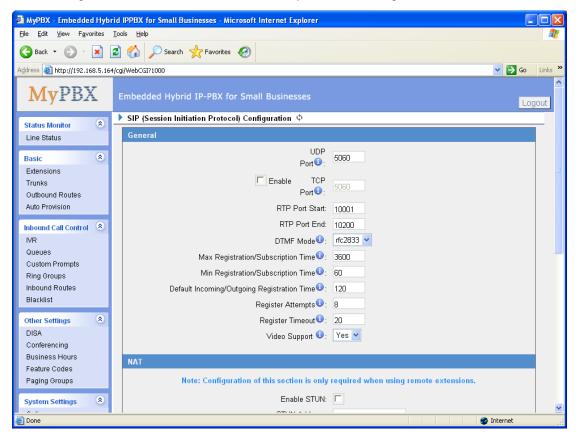


Figure 3-37

3.6.5 Voicemail Settings

1) General Voicemail Settings

·Max Messages per Folder

Sets the maximum number of messages that can be stored in a single voicemail



box.

·Max Message Time

Set the maximum length of a single voicemail message.

•Min Message Time

Set the minimum length of a single voicemail message. Messages below this threshold will be automatically deleted.

Ask Caller to Dial 5

If this option is set, the caller will be prompted to press 5 before leaving a message.

·Announce Message Caller ID

If this option is enabled, the Caller ID of the party that left the message will be played back before the voicemail message begins playing.

Announce Message Duration

If this option is set, the duration of the message in minutes will be played back before the voicemail message begins playing.

. Announce Message Arrival Time

If this option is set, the arrival time of the message will be played back before the voicemail message begins playing.

. Allow Users to Review Messages

Allow callers to review their recorded message before sending it to voicemail.

2) SMTP Settings for Voicemail

Note: If you want to send voicemail messages as email attachments, please configure this section.

·E-mail Address

The E-mail Address that MyPBX will use to send voicemail.

Password

The password for the email address used above

·SMTP Server

The IP address or hostname of an SMTP server that the MyPBX will connect to in order to send voicemail messages via email, i.e. mail.yourcompany.com.

·Port

SMTP Port: the default value is 25.



·Use SSL/TLS to send secure message to server

If the server of sending email needs to authenticate the sender, you need to select the check box.

Note: Must be selected for Gmail or exchange server.

After filling out the above information, you can click on the 'Test Account Settings' button to check whether the setup is OK.

1) If the test is successful, you can use the email safely.

2) If test failed, please check the above information is correct or network is proper.

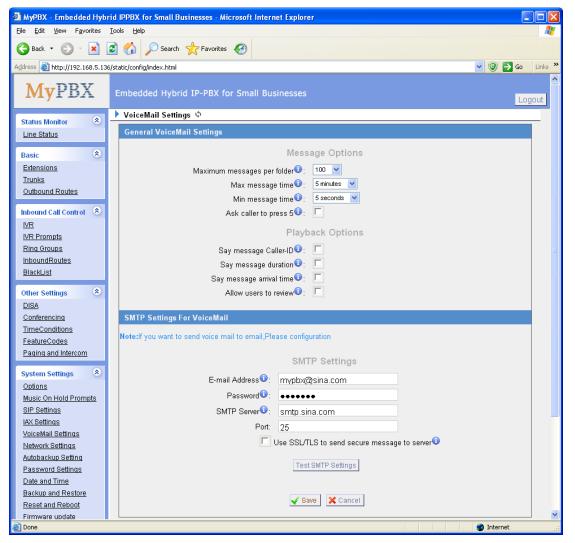


Figure 3-38

3.6.6 Network Setting

1) LAN •**DHCP**



If this option is set, MyPBX will use DHCP to get an available IP address from your local network. Not recommended.

·Enable SSH

This is the advance way to access the device, you can use the putty software to access the device. In the SSH access, you can do more advance setting and debug.

·Port: the default is 8022,

•Hostname Set the host name for MyPBX.

•IP Address Set the IP Address for MyPBX.

•Subnet Mask Set the subnet mask for MyPBX.

•Gateway Set the gateway for MyPBX.

•Primary DNS

Set the primary DNS for MyPBX.

Secondary DNS

Set the secondary DNS for MyPBX.

2) Advanced Settings

A VLAN is a logical local area network (or LAN) that extends beyond a single traditional LAN to a group of LAN segments, given specific configurations.

•IP Address2 and Subnet Mask2

.Configure second IP Address and Mask in this text, MyPBX can use this ip address access to another network.

VLAN Number

.The VLAN Number is a unique value you assign to each VLAN on a single device.

VLAN IP Address

Set the IP Address for MyPBX VLAN.

·VLAN Subnet Mask

Set the Subnet Mask for MyPBX VLAN.



VLAN Gateway

Set the Gateway for MyPBX VLAN.

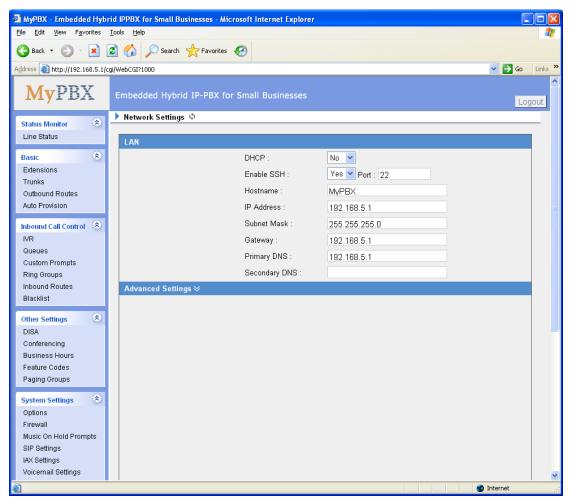


Figure 3-39

3.6.7 DHCP Server

Dynamic Host Configuration Protocol (DHCP) is a network protocol that enables a server to automatically assign an IP address to a computer from a defined range of numbers (i.e., a scope) configured for a given network.



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Address 🙆 http://192.166.5.13	4)/static/config/index.html	💌 🞯 📑 Sc 🛛 Links 🐣
MyPBX	Embedded Hybrid 1P-PBX for Small Businesses	
Status Monitor 🔹	DIICP Server 🕸	
Line Status	DHCP Ser	ver
Basic 8	DHCP is no	t running !
Extensions Trunks	Enable	
Dutbound Roules	Gateway : 192.1	
Auto Provision	Subret Mask : 265.2	
Inhound Call Control 🛞	Primary DNS : 192.1	
<u>MB</u>		54 D.1
I-H Prompts	Secondary DNS :	
Ring Croups	Allow IP Address From: 192.1	
InhoundRoutes ElackList	Te: <u>192.1</u>	33.5.254
	√ 2a-a	K Cancel
Other Settings 🛞	·	
<u>DISA</u> Conferencing		
TimeConditions		
FeetureCodes		
Eaging and Intercom		
System Settings 🛞		
Dottons		
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a) Done		Internet

Figure 3-40

3.6.8 PIN User

PIN User are used to manage lists of PINs that can be used to access restricted features such as Outbound Routes. If user use PIN User call out, system will auto record the PIN in the call detail records.

1) Options

·Access Code

.Dial this code to access PIN.

Prompt for Entry

Prompt caller enter the PIN Number.

Prompt for Entry Failure

Prompt the caller when an invalid PIN is entered.

2) PIN User

MyPBX can store a number of PIN Users. PIN Users may be used to keep track of calls in relation to particular activities or clients. They can also be used to keep track of calls by particular users or sets of users.

• When a PIN is entered while making a call or during a call, that PIN is included



in the call records output by the system.

• PIN entered are checked against those stored by the system. If an invalid PIN is entered, the PIN is requested again.

• The system administrator can configure certain numbers or types of numbers to require entry of a PIN before you can continue making a call to such a number.

• The system administrator can also configure you to have to enter a PIN before making any external call.

Name

A character-based name for this PIN list, i.e. 'YeastarPIN'

·PIN List

Enter a list of one or more PINs, One PIN per line.

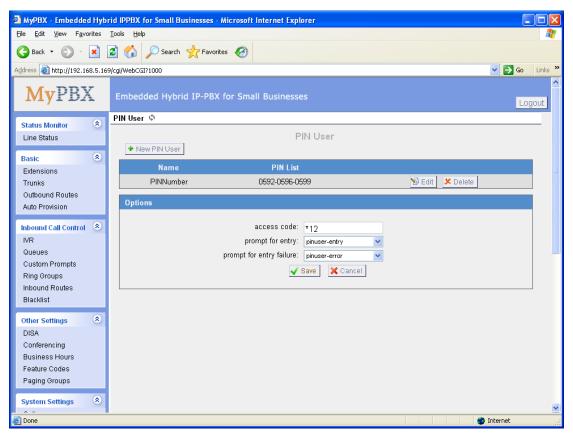


Figure 3-41

3.6.9 External Storage

The External Storage feature is used to extend storage space. Once configured, the files (voicemail, call recording files, CDR files) created before the configured days will be moved to the Net-Disk.

Auto-Backup extends the allocated disk space for backing up critical files. When



properly configured, MyPBX will move all qualified files to a Windows PC every 30 minutes. For the voicemail files and recoding files, they must be created before Auto-Backup has been configured.

MyPBX - Embedded Hyb	id IP-PDX for Small Businesses - Microsoft Internet Explorer 📃 🗖 🔯
Elle Edik Vjew Favorikes	Tous Fab
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Address 🚵 http://192.168.5.13	()staticion tilgi ndevu html 🛛 🕑 Gar 🖉 🔁
MyPBX	Embedded Hybrid IP-PBX for Small Businesses
Status Monitor	External Storage Settings ©
Line Status	External Storage Settings
Rask 8 Edansions <u>Tranks</u> Outhound Routes	The External Storage feature is used to extend storage space. Once configured, the files(voicemail, call recording files, CDR files) created before the configured days will be moved to the Net-Disk.
	Step 1: Create a Net-Disk on a chosen computer
Inbound Call Control 🙁	Step 2: Input the Net-Disk properties
MB MB Frompts	Net-Disk Host/IP:
Ring Groups	Net-Disk Share Name:
Inbound Routes	
Elaski ist	Net-Disk Access Username:
Other Settings 🔹	Net-Disk Access Password:
DISA	Move files created before: 5 💌 days ago
Conferencing	
Time DandBlans	Save X Cancel
Easture Codes	Step 3: Save Net-Disk settings
Fagino and intercom	Step 4: Make sure the settings are successfully completed
System Settings 🛛 🛞	step 4; make sure me senings are successing completes
Dotone	×
4	🖉 Ditemet 🔐

How to configure External Storage, please see.

Figure 3-42

3.6.10 Password Settings

The default password is '**password**'. To change the password, enter the new password and click update. The system will then prompt you re-login using your new password.



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<u>Trunks</u>		
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Done		Internet

Figure 3-43

3.6.11 Date and Time

Set the date and time for MyPBX.



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Inbound Call Control 🙁	Automatically Synchronize With An Internet Time Server	
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MR Prompts		
Rina Groups	C Set New Date & Time Manually	
Inbourd Routes		
<u>BlackList</u>	Date	
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<u>D/SA</u>		
<u>Conferencing</u>	🖌 Eara	
Time Conditions		
Essture Codes Region and Intercom		
Paging and Intercom		
System Settings 🛛 🛞		
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Music On Hold Prompts		
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Figure 3-44



3.6.12 Backup and Restore

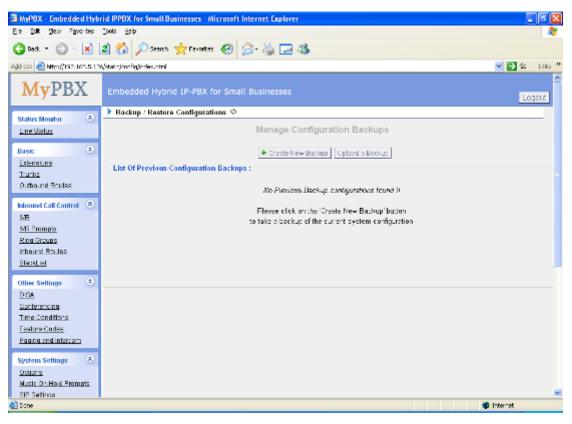


Figure 3-45

3.6.13 Reset and Reboot

·Reboot System

Warning: Rebooting the system will terminate all active calls!

·Reset to Factory Defaults

Warning: A factory reset will erase all configuration data on the system. Please do not turn off the system until the RUN light begins blinking. Any power interruption during this time could cause damage to the system.



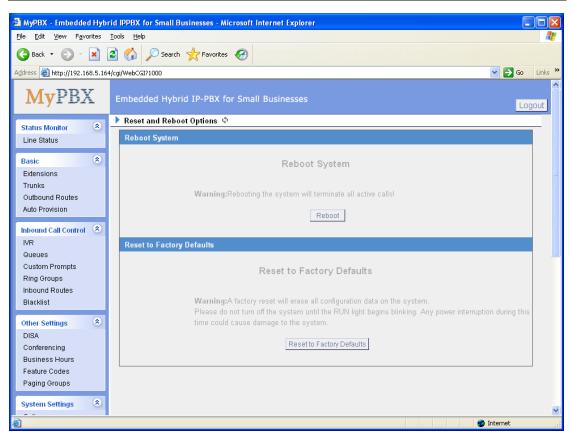


Figure 3-46

3.6.14 Firmware Update

Upgrading of the firmware is possible through the Administrator web interface using a TFTP Server or an HTTP URL.

Enter your TFTP Server IP address and firmware file location, then click start to update the firmware.

More Information, please see http://www.yeastar.com/download/MyPBX/

Note:

1. If enabled 'Reset configuration to Factory Defaults', System will restore to factory default settings.

2. When update the firmware, please don't turn off the power.



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Ring Groups	
inbound Roules	
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Figure 3-47

3.7 Reports

3.7.1 Call Logs

The call Log captures all call details, including call time, caller number, callee number, call type, call duration, etc. An administrator can search and filter call data by call time, call type and call duration and can also export CDR data to a CSV file.



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Line Status		ewin lost i	g1-3 recent fi	irst)	Call Log Fil	e: Master.csv 💌	🟶 Download	Selected CDR	🗴 Delete Select	ed CDR X Delete All CDR]
Basic 🔹		ID S	Source	Destination	Start time	End Time	Duration	Billable Duration	Disposition	Communication Type	
<u>Trunks</u> Outbound Routes		1	500	9802	2010-08-31 04:19:48	2010-08-31 04:20:06	18	16	ANSWERED	Outbound	
Inbound Call Control 🔹		2	513	500	2010-08-31 04:19:36	2010-08-31 04:19:39	3	0	NO ANSWER	Internal	
IVR IVR Prompts		3	500	513	2010-08-31 04:19:26	2010-08-31 04:19:32	6	0	NO ANSWER	Internal	
Ring Groups Inbound Routes BlackList								Totle	:3 <u>«Previous I</u>	lext≫ View: 25 💌	
Other Settings 📀	E										
Conferencing											
Time Conditions											
Feature Codes											
Paging and Intercom											
System Settings 🔹 🔕											
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Figure 3-48

3.7.2 System Info

General:

Information about hardware version, firmware version and system uptime.

Network:

Information about hostname, MAC address, IP address, subnet mask, gateway, Primary DNS and Secondary DNS.

Disk Usage:

Disk usage information.

Memory Usage:

Memory usage information.



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Status Monitor	System Information IP	^
Line Status	General A	
Basse (8) Estensions Trucks Duthound Roules	Hardware Version: EUL Finnware Version: 1. 0. 1. 7	
Information Call Control (*) MR MR Promps Ring Groups Information Routes	Uptime: 15:00:34 up 1 day, 5:23, Lood Average: 1.15, 1.20, 1.10 Natwork ☆ Hostname:	_
<u>ElackList</u>	KyFBX	
Other Settings DSA Domercong Time Conditions	MAC: CD:15:65:11:3D:E2	
Essture Codes	192.160.5.196	
Easing and intercom System Settings Dations Music On Heid Prompts	Marsok : 255 255 255 0 Gateway: 192 166 5 1	
SIP Setinos	1.72 - 186 - 3 - 1	 Internet

Figure 3-49



4. Access MRI

MRI (MyPBX Recording Interface: Check Voice Mail).Users may access MRI by logging into the MRI web interface with their username (extension number) and voicemail password.

4.1 Allow users to access MRI

The extension's hasmanager (web access) option must be checked before the associated user can log into MRI.



Edit Extension - 501 X
General Type: SP Extension ¹ : 501 Password ¹ : pincode501 Name ¹ : 501 Caller ID ¹ : 501 501
Voicemail Voicemail Image: Second state Image: Second sta
Mail Setting Enable Send Voicemail Email Address
Note: Please ensure that the section 'SMTP Settings For Voicemail'(in the 'Voicemail Settings') have been properly configured before using this feature.
VoIP Settings NAT ⁽¹⁾ : DTMF Mode ⁽¹⁾ : RFC2833
IP Restriction
Permitted 'IP address/Subnet mask' 1 🛈: Permitted 'IP address/Subnet mask' 2 🔃
Permitted 'IP address/Subnet mask' 3 🛈: Permitted 'IP address/Subnet mask' 4 🛈:
Group
Pickup Group 🛈 : 💽
Follow me
Follow me: Image: No answer Transfer to: Image: Number Image: When Busy Number
Other Options Call Waiting User Web Interface Ring Out : 30
Save Save

Figure 4-1

4.2 User login

Users can access the MRI web interface by navigating to the MyPBX IP address using a web browser. If you are unsure of this address, please contact your network administrator.



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Address 🙆 http://192.168.5.150/static/config/index.html 🗾 🔁 Go 🛛 Links 🌺								
MyPBX	Embedded Hybrid IP-PBX for Small Businesses	Logout						
	MyPBX Configuration Panel							
Yeastar	User Login							
	Username: 501							
	Password: •••							
	Login Reset							
Copyright 2008 Yeastar Technology, Co., Ltd. All Rights Reserved.								
Done	-							

Figure 4-2

4.3 Voicemail

Users can check, delete, move and download voicemail files here.



MyPBX - Embedded Hybr	id IPPBX for Small Businesses - Microsoft Internet Explorer		
<u>File E</u> dit <u>V</u> iew F <u>a</u> vorites	Iools Help		- 1
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	🕨 Voicemail 🔅		
<u>Voicemail</u> <u>Call Recordings</u>	Folder: New Viewing 1-1 Selete Folder: New		
<u>Settings</u>	Caller ID Date Duration	Options	
Eollow Me			
			>
🕘 Done		🌍 Internet	

Figure 4-3

4.4 Record

Users can play, delete and download record files here.



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<u>File E</u> dit <u>V</u> iew F <u>a</u> vorites	<u>T</u> ools <u>H</u> elp					.
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Address 🕘 http://192.168.5.164	ŧ/cgi/WebCGI?1000				💌 🄁 Go	Links »
MyPBX	Embedded Hybrid IF	P-PBX for Small I	Businesses		Log	jout.
	🕨 Call Recordings 🗘					
<u>Voicemail</u> Call Recordings	X Delete					
Settings		Caller ID	Time	Duration	Options	
Follow Me						
						=
🗃 Done					😮 Internet	~

Figure 4-4

4.5 settings

•Voicemail password: new voicemail box password.

•Enter again to confirm: confirm new voicemail box password.

•Email Address: Email address use to receive the voicemail or Fax.

Note: Please ensure that the section 'SMTP Settings For Voicemail'(in the

'Voicemail Settings') have been properly configured before using this feature.

·Enable Voicemail

Check this box if the user should hae a voicemail account.

·Enable Send Voicemail

Once enabled, the voicemail or Faxex will be sent to email as an attachment. **.Ring Out**

Check this option if you want to custom the ring time. Tone will stop over the time defined.



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My PBX	Embedded Hybrid IP-PBX for Small Businesses	▲ Logout
	▶ Settings Φ	
Voicemail	Voicemail Settings	
Call Recordings		
<u>Settinas</u>		
Follow Me	Voicemail Password:	•••
	Enter again to confirm:	•••
	Email Address 0 :	
	Enable Voicemail 🛈 :	
	Enable Send Voicemail 🛈 :	
	Ring Out 🛈 :	30
	Save 🗶 Cancel	
		×
🙆 Done		S Internet

Figure 4-5

4.6 Follow me

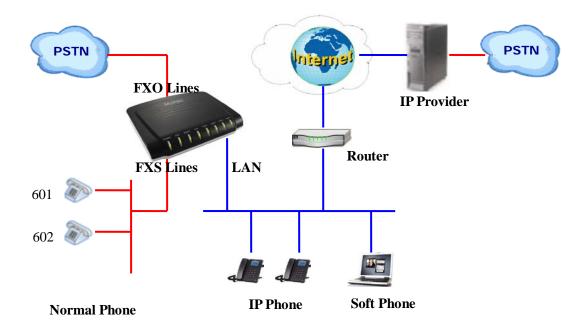
Set the mode of call forwarding when there's incoming call on this extension.

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Eile Edit View Favorites	Iools Help	
	🗟 🏠 🔎 Search 👷 Favorites 🧐	
Address 🕘 http://192.168.5.16	/cg//WebCGI?1000	💙 🛃 Go 🛛 Links 🎽
MyPBX	Embedded Hybrid IP-PBX for Small Businesses	Logout
	Follow Me Φ	
Voicemail	Settings	
<u>Call Recordings</u> <u>Settings</u> Follow Me	Call Waiting € Cancel	
		×
🙆 Done		Internet

Figure 4-6



5. Use MyPBX



5.1 Make outbound call

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

•Analog Trunk: FXO ports of MyPBX, connected to a local PSTN.

• **Vol P Trunk:** Connected to remote VOIP service server.

•Service Provider: Connected to service provider server.

What are FXO and FXS?

FXS (Foreign exchange Station) is an interface which drives an analog telephone or FAX machine. FXS interfaces deliver power, provide ringing, and use FXO signaling. FXS interfaces are what allow you to hook telephones and other analog devices to your PBX

FXO (Foreign exchange Office) is an interface that connects to a phone line to supply your PBX with access to a public telephone network. FXO interfaces use FXS signaling. FXO interfaces allow you to connect your PBX to real analog phone lines.



5.1.1 Sample Routing via PSTN Trunk

Let's route all inside extensions through an analog trunk by dialing 9. In Outbound Routes, add a new outbound route as below.

Edit Outboud Route	×
Route Name 🛈 :	pstnout
Dial pattern 🛈 :	9.
Strip 🛈	1 digits from front
Prepend these digits 🛈	before dialing
Password:	
PIN User:	~
Calls From Extension(s)	
Available Extensions	Selected
	>>> 500(SIP) 501(SIP) 502(SIP) 503(SIP) 504(SIP) € 505(SIP) 506(SIP) 507(SIP) ≪
Make Outbound Calls On 🛈	
Available Trunks	Selected
6096(SIP)	>>> pstn1(Analog FXO) pstn2(Analog FXO) ← ≪
	✓ Save X Cancel

Figure 5-1

As we can see from the outbound route of 'pstnout', all phone numbers starting with 9 will have their first digit stripped off (digit 9) and will be sent to the PSTN (port 1-2).

After we have configured the above, we can dial 9 + local number to dial out via a PSTN line.

Note: Setting number prefix to wild card X and setting Strip to 0 digits from the front will allow all calls to go through this outbound route.



5.1.2 Sample Routing via VoIP Trunk

Let's configure all inside extensions to dial '0' through the VoIP Trunk.

1. Add VoIP service provider

Before we do add this, please make sure you have a VoIP Trunk account. Trunks \rightarrow VoIP Trunk \rightarrow SIP Trunk

Enter your account information on this page, and click Save.

Create New SIP Trunk		>	κ.
Provider Name :	voipprovider		
Hostname/IP :	voip.6699.org	: 5060	
Domain :	voip.6699.org		
Username :	16885885		
Authorization name :	16885885		
Password :	somepassword		
	✓ Save X Cancel		

Figure 5-2

2. Add Outbound Routes

As we can see from the Outbound Route of 'voipout', all phone numbers starting with 0 will have their first digit stripped off (digit 0) and will be sent to the SIP service provider.



New Outbound Route					X
Route Name	voipou	t			
Dial pattern 🛈 :	0.				
Strip 🛈	1	digits fron	n front		
Prepend these digits 🛈			before diali	ng	
Calls From Extension(s)					
Available Extensions	_			Selected	
		→ ←	500(SIP) 501(SIP) 502(SIP) 503(SIP) 504(SIP) 505(SIP) 506(SIP) 507(SIP)		
Make Outbound Calls On					
Available Trunks pstn1(Analog FXO) pstn2(Analog FXO)			voipprovider(S yeastar(SIP)	Selected	
<u>-</u>	🗸 Save	🔀 Cano	el		

Figure 5-3

Now that we have added two outbound dialing rules, any call starting with 9 will be routed to the PSTN, and any number starting with 0 will be routed to the SIP Trunk.



5.2 Incoming call

5.2.1 Sample Routing to an IVR

Let's configure an incoming call to route to the IVR. In the IVR itself, let's configure digit 0 to route the call to extension 500, and digit 1 to route the call to extension 501.

1. Add IVR

To add a new IVR, go to IVR→ Create New IVR

Edit IVR welcome				×
Number 🛈 : 660				
Name 🛈 : 🛛 welcome				
Prompt 🛈 : 🛛 default 💌	Custom IVR Prompts			
Play times 🛈 : 🛐				
WaitExten 🛈 : 🛐 🔽				
🔽 🛈 Allow Dialing	g Other Extensions			
🚺 KeyPress Events —				
Кеу	Action		Destination	
0	Connect to Extension	T	User Extension 500	•
1	Connect to Extension	•	User Extension 501	•
2	No Action	•		Y
3	No Action	•		V
4	No Action	•		V
5	No Action	•		V
6	No Action	•	<u></u>	v
7	No Action	•	[v
8	No Action	•		7
9	No Action	•		V
#	No Action	•	<u></u>	v
*	No Action	•	[v
TimeOut 🛈	Connect to Extension	•	User Extension 500	•
Invalid 🛈	Connect to Extension	•	User Extension 500	•
	🖌 Save	X Cancel		

Figure 5-4



2. Add Inbound Routes

As we can see from the Inbound Route of 'allin', all incoming calls will be sent to the IVR.

Edit Inbound Route		2
General		
Route Nam	e0 : allin	
DID Numbe	r 🛈 :	
Caller ID Numbe	r 🛈 :	
Trunk Sequence		
Available Trunks		Selected
		nalog FXO) nalog FXO) unk(E1)
C During Office Hours		
	C End Call	
	C Extension	User Extension 500
	O VoiceMail	VoiceMail 500 💌
Destination:	IVR	IVR welcome
	C RingGroup	RingGroup ringgroup_def: 🗸
	C Conference Room	Conference Room 640
	C DISA	~
C Outside Office Hours		
	C End Call	
	C Extension	User Extension 500
	C VoiceMail	VoiceMail 500
Destination:	IVR	IVR welcome
	C RingGroup	RingGroup ringgroup_def
	C Conference Room	Conference Room 640
	C DISA	~
	🖌 Save 🔀 Cancel	

Figure 5-5



APPENDIX A FAQ

Q1. How to Register SIP device?

A1:

1) Register SIP soft phone

Download the x-lite softphone from counterpath website

www.counterpath.com

After install the x-lite, right click the panel and select the SIP Account setting and then configure it.

Display Name: 500 User Name: 500 Password: 500 Authorization Name: 500 Domain: 192.168.5.150

2) Register IP Phone (for example, Yealink's T28 IP Phone)
a) Connect the T28's Internet port to the switch. And it can get the IP from your route.
b) Press the 'OK' key on T28 to get the IP of T28.
c) Put the IP on web browser then you can enter the T28 configure page through this IP.
d) Put the SIP extensions info on the T28 IP phones.
Display Name: 501
User Name: 501
Register Name: 501
Password: 501
SIP Server: 192.168.5.150

Use the same method register another T28 to other extension.

Q2. How do I reset MyPBX back to the factory default settings?

A2: To perform a reset, please follow steps below:

Step 1: Hold down the 'Reset' button on the back of the unit for 5 seconds and watch the LEDs on the front of the MyPBX. When the status LED turns red, let go of the reset button.

Step 2: When the RUN status LED starts blinking, MyPBX will be set back to factory defaults.

Step 3: To access the configuration page, navigate to 192.168.5.150 using a web browser. Make sure that you are on the 192.168.5.0 subnet before doing this.

Step 4: Login to the device with the username 'admin' and the password 'password', in order to begin reconfiguring the device.



APPENDIX B How to configure autobackup

Before Autobackup can be properly configured, an SMB share folder accessible from MyPBX must be set up on a Windows based machine. Once that has been set up, please follow the steps below.

Step 1 Add a new folder, rename it, and set this new folder's share Properties according to Figure B-1

share	share Properties 🛛 💽 🔀					
	General Sharing Customize					
	Local sharing and security To share this folder with other users of this computer only, drag it to the <u>Shared Documents</u> folder.					
	To make this folder and its subfolders private so that only you have access, select the following check box.					
	Network sharing and security To share this folder with both network users and other users of this computer, select the first check box below and type a share name.					
	Share this folder on the network					
	Share name: share					
	Allow network users to change my files Learn more about <u>sharing and security</u> .					
	 Windows Firewall is configured to allow this folder to be shared with other computers on the network. <u>View your Windows Firewall settings</u> 					
	OK Cancel Apply					

Figure B-1 Set up share Properties

Step 2 Enter the new folder and create a new text file, then rename this file to status.txt. This step is very important, DO NOT forget to create the status.txt file.

Step 3 Configure Autobackup settings on MyPBX to Figure B-2



External Storage Settings				
The External Storage feature is used to extend storage space. Once configured, the files(voicemail, call recording files, CDR files) created before the configured days will be moved to the Net-Disk.				
Step 1: Create a Net-Disk on a chosen computer				
Step 2: Input the Net-Disk properties				
Net-Disk Host/IP:	192.168.5.222			
Net-Disk Share Name:	share			
Net-Disk Access Username:				
Net-Disk Access Password:				
Move files created before: 1 💌 days ago				
Save Save				
Step 3: Save Net-Disk settings				
Step 4: Make sure the settings are successfully complete	ed			

Figure B-2 Autobackup Setting

Net-Disk Host/IP: Change this to the IP address of the computer where backup files will be stored.

Net-Disk Share Name: Change this to the name of the shared folder where backups will be stored.

Net-Disk Share Username: The user name used to log into the network share. Leave this blank if it is not required

Net-Disk Share Password: The password used to log into the network share. Leave this blank if it is not required

If configuring is correctly, open your Windows share folder to see if the MyPBX backup files and folders has been created. If the contents of the backup folder look similar to Figure B-3, then you have successfully configured Autobackup on the MyPBX unit.

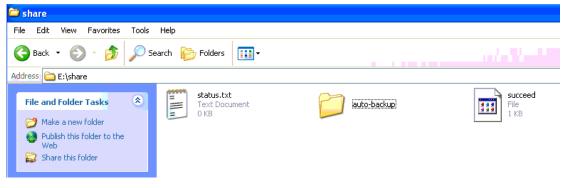


Figure B-3 Autobackup setting succeed



APPENDIX C How to configure NAT setting

When MyPBX is behind a NAT(firewall), you need to configure NAT setting on MyPBX if you want to use a remote extension. Please follow section **1** or **2** below depending on your network configuration.

1. If MyPBX is connected to a local network, you must set up port forwarding on your router. Specifically, you must map port 5060 (default SIP port) and port 10001-10200 (default RTP port range) as UDP ports.

Next, go to the MyPBX web interface and configure the SIP settings according to Figure C-1:

External IP Address: your router's public IP address

External Host: your router's domain

External Refresh Interval: 20 seconds

Local Network Identification: 192.168.5.0/255.255.255.0 (change this according to your network configuration)

NAT mode: Yes

Allow RTP Reinvite: No

NAT	
Note: Configuration of this section is only	required when using remote extensions.
Enable STUN:	
STUN Address:	
STUN Port:	
External IP Address	
External Host 🧿 :	yeastar.3322.org
External Refresh Interval 🛈 :	20
Local Network Identification $oldsymbol{0}$:	192.168.5.0/255.25
NAT Mode 🛈 :	yes 🗸
Allow RTP Reinvite 🛈 :	yes 💌

Figure C-1

Assuming that your router's host address is yeastar.3322.org, your local network is from 192.168.5.1-192.168.5.254, and the subnet Mask is 255.255.255.0, the MyPBX network settings should configured like Figure C-2



LAN	
DHCP :	No 💌
Enable SSH :	No 💌 Port : 8022
Hostname :	MyPBX
IP Address :	192.168.5.101
Subnet Mask :	255.255.255.0
Gateway :	192.168.5.1
Primary DNS :	192.168.5.1
Secondary DN	IS :

Figure C-2 MyPBX Network setting

2. MyPBX has a public IP, it means you configure MyPBX Network setting as Figure C-3:

LAN			
DHCP :	Ν	No 💌	
Enable S	SH:	Yes 💙 Port : 8022	
Hostnam	e: N	/vPBX	
IP Addres	ss : 2	221.245.25.117	
Subnet M	1ask: 2	255.255.255.0	
Gateway	: 2	221.245.25.1	
Primary [DNS : 2	202.101.103.54	
Seconda	ry DNS : 2	202.101.103.55	

Figure C-3

Next, you should configure the NAT settings according to Figure C-4

Note: Configuration of this section is only required when using remote extensions.
Enable STUN:
STUN Address:
STUN Port:
External IP Address 0: 221.245.25.117
External Host 🛈 :
External Refresh Interval 🛈:
Local Network Identification 🛈:
NAT Mode 🛈 : 🛛 yes 🔤
Allow RTP Reinvite 🛈 : 🛛 no 🛛 💌



External IP Address: The public IP address of MyPBX External Host: Leave this blank if no domain has been configured External Refresh Interval: Leave this blank



Local Network Identification: Leave this blank NAT mode: Yes Allow RTP Reinvite: No



APPENDIX D How to Use Auto Provision

Step 1. Disable DHCP Server on your local network. E.g. Disable DHCP Server on Linksys Router.

LINKSYS [®] A Division of Cisco Systems, Inc.						Firmware Version: 1.04.08
Ostrus				Etherfast® Ca	ble/DSL Router	BEFSR41
Setup	Setup	Security	Applications & Gaming	Administration	Status	
	Basic Setup	DDNS	MAC Addres	ss Clone Adva	nced Routing	
Internet Setup					Basic S	Setup
Internet Connection Type	Obtain an IP a	utomatically 💌	•		The Basic	Setup screen is
Optional Settings (required by some ISPs)	Host Name: Domain Name: MTU:	C Enable (Disable Size: 15	:00	where bas performed. Service Pro that you em in formation be obtained you have o	ic configuration is Some ISPs (Internet oviders) will require ter the DNS These settings can d from your ISP. After configured these
Network Setup					password	ou should set a router from the <i>tion->Management</i>
Router IP	Local IP Address:	192.168	. 1 . 1		screen.	uon->management
	Subnet Mask:	255.255.2	55.0 💌		Completing	the Internet Setup
Network Address Server Settings (DHCP)	Local DHCP Serve	r: OEnable 🧿	Disable		set up for y	Il that is required to your specific ISP. at the table below to
	Start IP Address:	192.168.1. 1	00		configure t Internet co	he Router for your nnection.
	Number of Address:	50				
	DHCP Address Range:	192.168.1.100	to 192.168.1.149		More	
	Client Lease Time:	0 minu	utes (0 means one day	y)		
	Static DNS 1:	0.0	. 0 . 0			
	Static DNS 2:	0.0	.0.0			
	Static DNS 3:	0.0	.0.0			
	WINS:	0.0	. 0 . 0			
						CISCO SYSTEMS
			Save Settings	Cancel Changes		ավիստովիստ

Figure D-1

Step 2. Enable DHCP Server on MyPBX.

Login MyPBX web interface, System Settings \rightarrow DHCP Server \rightarrow Enable DHCP Server.



My PBX	Embedded Hybrid IP-PBX for Small Businesses	Logout
Status Monitor	DHCP Server &	
Basic Extensions Trunks Outbound Routes Auto Provision	DHCP is not running ! Enable Gateway : 192.168.5.1 Subnet Mask : 255.255.255.0	
Inbound Call Control WR WR Prompts Ring Groups InboundRoutes BlackList		
Other Settings Image: Conferencing DISA Conferencing TimeConditions FeatureCodes Paging and Intercom	✔ Save 🔀 Cancel	
System Settings Options Music On Hold Prompts SIP Settings HXX Settings VoiceMail Settings Network Settings DHCP Server Autobackup Setting Password Settings Date and Time Backup and Restore Reset and Reboot		

Figure D-2

Step 3. Configure phones on MyPBX auto-provision page.

1. Login MyPBX web interface, Basic \rightarrow Auto Provision \rightarrow Create New Phone.

MyPBX	Embedded Hybrid IP-PBX for Small Businesses	Logout
Status Monitor 🔹	Auto Provision \$	
Line Status	+ Create New Phone	ision
Basic (*) Extensions Trunks Outbound Routes	Mac Name	Extension
Auto Provision		
<u>IVR</u> I <u>VR Prompts</u> Ring Groups InboundRoutes BlackList		
Disk Image: Conferencing Conferencing TimeConditions FeatureCodes Paging and Intercom		



2. Fill in the phone detail message on the pop-up windows.

Input IP Phone's MAC address, configure Name, Call waiting, Line, Extension, Label, Line active for the phone.

Create New	Phone		X
General - Key As :	Mac: 00156511189E	Name: Michael Ca	all Waiting : Enabled 💌
C Line			
💌 Line1	Extension: 500 💌	Label: 500	Line Active: 🔽
🗖 Line2	Extension:	Label:	Line Active: 📁
🗖 Line3	Extension:	Label:	Line Active: 📁
🗖 Line4	Extension:	Label:	Line Active: 📁
🗖 Line5	Extension:	Label:	Line Active: 📁
🗖 Line6	Extension:	Label:	Line Active: 🗖
		Save X Cancel	

Figure D-4

Step 4. Turn on the power and connect the network cable to IP Phone.

Remark: The factory default setting of DHCP for IP Phone is enable, so you can skip this step to step 5.

If the DHCP is disable, please follow below step to enable it. (e.g.: Yealink's IP Phone).

- 1. Login IP phone's web page.
- 2. Enable DHCP.

Yealink								
Easy vop	Status	Account	Network	Phone	Contacts	Upgrade	Security	
		Internet F	Port (WAN)	PC Port /	Advanced			
	IP Sul De Prir Sei Use	atic IP Address Address onet Mask fault Gateway nary DNS condary DNS		Cancel		addres server Set th Mask, I addres Secon manua PPPoE		t

Figure D-5

Step 5. Finish.



APPENDIX E How do I configure distinctive ring tones

Step1: On your IP phone, navigate to the Phone settings web configuration page and find the Distinctive Ring Tone section.

For each custom ring tone, enter the Internal Ringer Text (can be digits or text) to trigger the ring tone. For example, you may enter "Family".

e.g.: Yealink's IP phone.

Yealink							
EBSY VOP	Status	Account	Network	Phone	Contacts	Upgrade	Security
	Preferen	ce Features DSS	Key 📔 EXT Key	Voice Ring	Tones Dial Plan	n SMS	
	1	Internal Ringer Text		amily	0		
		Internal Ringer File	F	ting1.wav 🛛 👻			
	2	Internal Ringer Text					
		Internal Ringer File	F	ting2.wav 💌			
	3	Internal Ringer Text					
		Internal Ringer File	F	ting3.wav 💌			
	4	Internal Ringer Text]		
	_	Internal Ringer File	H	ting4.wav 💌			
	5	Internal Ringer Text					
		Internal Ringer File	h	ling5.wav 🔽			
	6	Internal Ringer Text Internal Ringer File		ling6.way]		
	7	Internal Ringer Text	1	ling6.wav 💌			
		Internal Ringer File		ting7.wav 🔽			
	8	Internal Ringer Text		ang/.wav]		
	0	Internal Ringer File		ting8.wav 🗸]		
	9	Internal Ringer Text			<u>י</u> ר		
	5	Internal Ringer File	5	ling1.wav 🗸			
	10	Internal Ringer Text			<u>"</u>		
		Internal Ringer File	F	ting1.wav 🗸			
		Confirm	Ŀ	Cancel			
		Confirm		Caricer		-	

Figure E-1

Step2. Configure the 'Distinctive Ringtone' on MyPBX.

MyPBX web interface, Inbound Routes \rightarrow Edit Inbound Route, fill in the Internal Ringer Text on 'Distinctive Ringtone'.



Edit Inbound Route: pstnin)
General					
Route Name):	ostnin			
DID Number 🤇	:				
Caller ID Number 🤇	:				
Distinctive Ringtone 🔇) : E	Family			
Member Trunks				-	
Available Trunks				Selected	
T.38(SPS) ▲ cjhtest(SPS) ≤ cjqtest(SPS) ≤ 5503301(FXO) ≤ 5503302(FXO) ≤ 5503309(FXO) ≤ 192.168.5.44(SPS) ▼		»» → ←	pstn7(FXO) pstn8(FXO)		
During Office Hours	0				
		End Call			
	0	Extension		Extension 5001	*
	0	Voicemail		Voicemail 5001	*
Destination:	6	IVR		IVR welcome	~
	0	RingGroup		RingGroup NationalServi	*
	0	Conference	Room	Conference Room 640	•

Figure E-2

Step3. Finish.

<Finish>