



MyPBX and Zoho CRM Integration
Configuration Guide

Version 1.0

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Overview

Zoho is a cloud-based CRM and it provides the add-on called “*PhoneBridge*”. *Zoho PhoneBridge* helps you to connect multiple PBX systems with your Zoho CRM account and execute inbound and outbound calls inside CRM. Additionally, you can log the phone calls and associate with the leads or contacts.

This guide refers to the following links:

<https://www.zoho.com/crm/help/api/phonebridge/getting-started.html>

<https://www.zoho.com/crm/help/zoho-phonebridge/using-zoho-phonebridge.html>

<https://www.zoho.com/crm/help/zoho-phonebridge/asterisk-avaya-elastic.html>

This document guides you to achieve the following features:

1. Click to call: make calls using MyPBX extension by clicking on phone numbers within Zoho.
2. Inbound and outbound call pop-up: it provides notification within Zoho giving details of the caller in contact when a call goes to the user.
3. View call history in Contact menu or Activities menu.

Configuring Zoho CRM

1. Select the phone provider type as Asterisk.

Log in Zoho CRM, Click **Setup**→**Apps & Add-ons**→**Other Apps**→**PhoneBridge**. In the “Zoho PhoneBridge” page, choose “Asterisk” as the telephony provider from the drop-down list.

The screenshot shows the Zoho CRM interface for configuring PhoneBridge. At the top, there are tabs for 'Zoho Apps' and 'Other Apps'. Below this is the 'Zoho PhoneBridge' section with a 'Help' icon. A card titled 'What is Zoho PhoneBridge?' explains its function. Below the card is a 'New Group' button and a 'Read steps involved' link. A table lists existing groups:

Actions	PhoneBridge Name	Group Identification User	Telephony Type
Edit Del	Xtest	Jacson	Asterisk1.4

To the right of the table is a 'Download PBX Adapter' link for 'Asterisk 1.4'.

2. Create a Zoho PhoneBridge group and assign extensions for the Zoho CRM users.

The extension number generally should correspond to the user’s IP phone that it registers.

Apps & Add-ons

Zoho Apps Other Apps

Edit Zoho PhoneBridge Group

PhoneBridge Name: ⓘ

Group Identification User: ⓘ

Associate CRM Group: ⓘ

PBX Dialcode: ⓘ (e.g. ISD:1500;LOCAL:0)

Users & Extensions

Specify the extension numbers for users of the Zoho PhoneBridge group.

	User Name	User Extension	Set as Default?	Default Dialcode
1.	<input type="text" value="Jacson"/>	<input type="text" value="500"/>	<input type="checkbox"/>	<input type="text" value="-None-"/> ⓘ
2.	<input type="text" value="Hardon James"/>	<input type="text" value="501"/>	<input type="checkbox"/>	<input type="text" value="-None-"/> ⓘ

3. Create the PhoneBridge token.

Go to **Setup**→**Developer Space**.

In the “PhoneBridge Token” page, generate an Auth Token.

Developer Space

CRM API Zoho Service Communication (ZSC) Key **PhoneBridge Token** QuickBooks Token Build Custom Apps

PhoneBridge Auth Token

This token is used to configure Zoho PhoneBridge for your PBX system.

Email : 307717 [REDACTED]

Auth Token : 467947590ce [REDACTED] [Regenerate Token](#)

4. Configure dial code as required.

With the PBX dial code, you can make outbound call without adding prefix.

There will be a prompt let you select dial code before you dial out after you configure this option.

Refer to the figure: you can dial out and select the dial code 7, then the dialed numbers will be added a prefix digit 7.

Edit Zoho PhoneBridge Group

PhoneBridge Name: ⓘ

Group Identification User: ⓘ

Associate CRM Group: ⓘ

PBX Dialcode: ⓘ (e.g ISD:1500;LOCAL:0)

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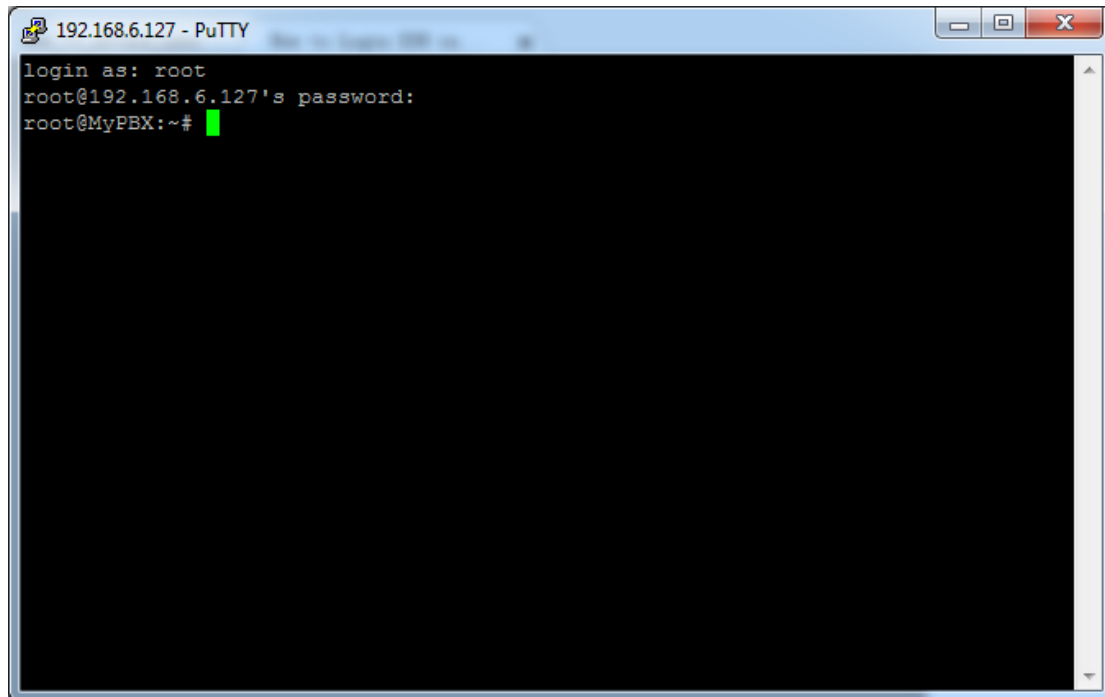
Configuring MyPBX

1. Log in MyPBX via SSH.

Enable the SSH service in LAN settings of MyPBX first.

Then log in SSH with username/password (*root/ys123456*) via PuTTY tool.

PuTTY download link: www.yeastar.com/download/tools/putty.exe



```
192.168.6.127 - PuTTY
login as: root
root@192.168.6.127's password:
root@MyPBX:~#
```

2. Download the Yeastar modified Zoho adapter package.

The connector package is specially modified by Yeastar regarding MyPBX devices.

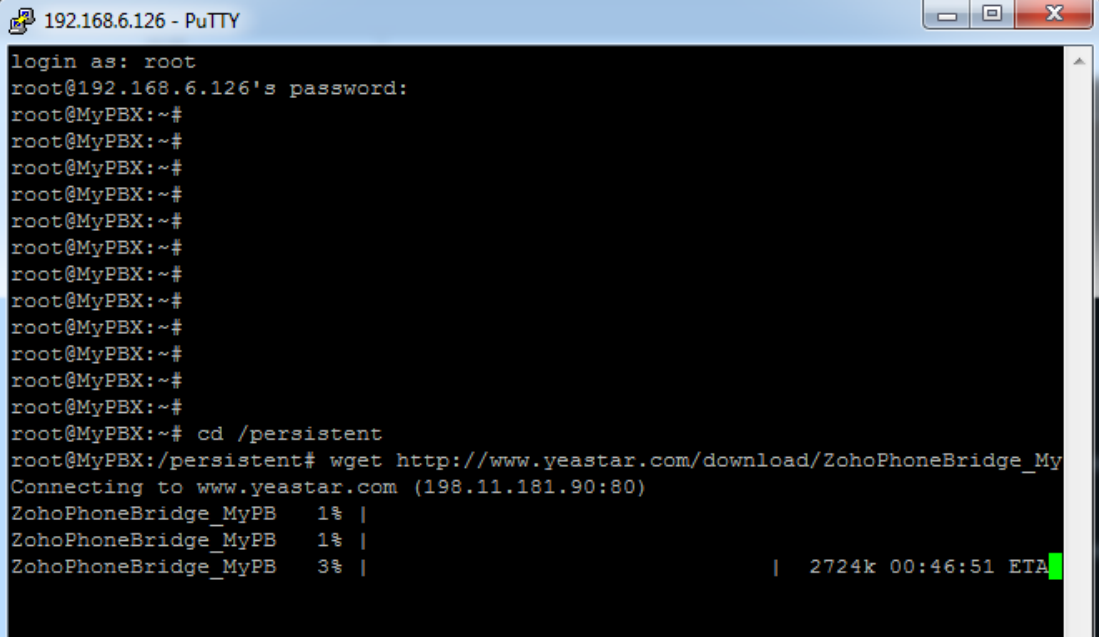
You have 2 ways to download the file to MyPBX:

1) Download in MyPBX directly if MyPBX has Internet access.

Execute the commands:

```
cd /persistent
```

```
wget http://www.yeastar.com/download/ZohoPhoneBridge_MyPBX.zip
```



```
192.168.6.126 - PuTTY
login as: root
root@192.168.6.126's password:
root@MyPBX:~#
root@MyPBX:~#
root@MyPBX:~#
root@MyPBX:~#
root@MyPBX:~#
root@MyPBX:~#
root@MyPBX:~#
root@MyPBX:~#
root@MyPBX:~#
root@MyPBX:~#
root@MyPBX:~#
root@MyPBX:~#
root@MyPBX:~#
root@MyPBX:~#
root@MyPBX:~#
root@MyPBX:~#
root@MyPBX:~# cd /persistent
root@MyPBX:/persistent# wget http://www.yeastar.com/download/ZohoPhoneBridge_MyPBX.zip
Connecting to www.yeastar.com (198.11.181.90:80)
ZohoPhoneBridge_MyPB  1% |
ZohoPhoneBridge_MyPB  1% |
ZohoPhoneBridge_MyPB  3% | | 2724k 00:46:51 ETA
```

2) Download the package to PC, then copy it to MyPBX via FTP service.

Enable the FTP service first in the LAN settings of MyPBX.

Enter the http://www.yeastar.com/download/ZohoPhoneBridge_MyPBX.zip directly in the browser's address bar.

3. Extract the files in the path */persistent*

The package contains 5 files:

Javaenv

HelloWorld.class

add.sh

Zoho (folder)

jdk1.7.0_60 (folder)

You have 2 ways to extract the file to MyPBX.

1) Extract the file by the commands.

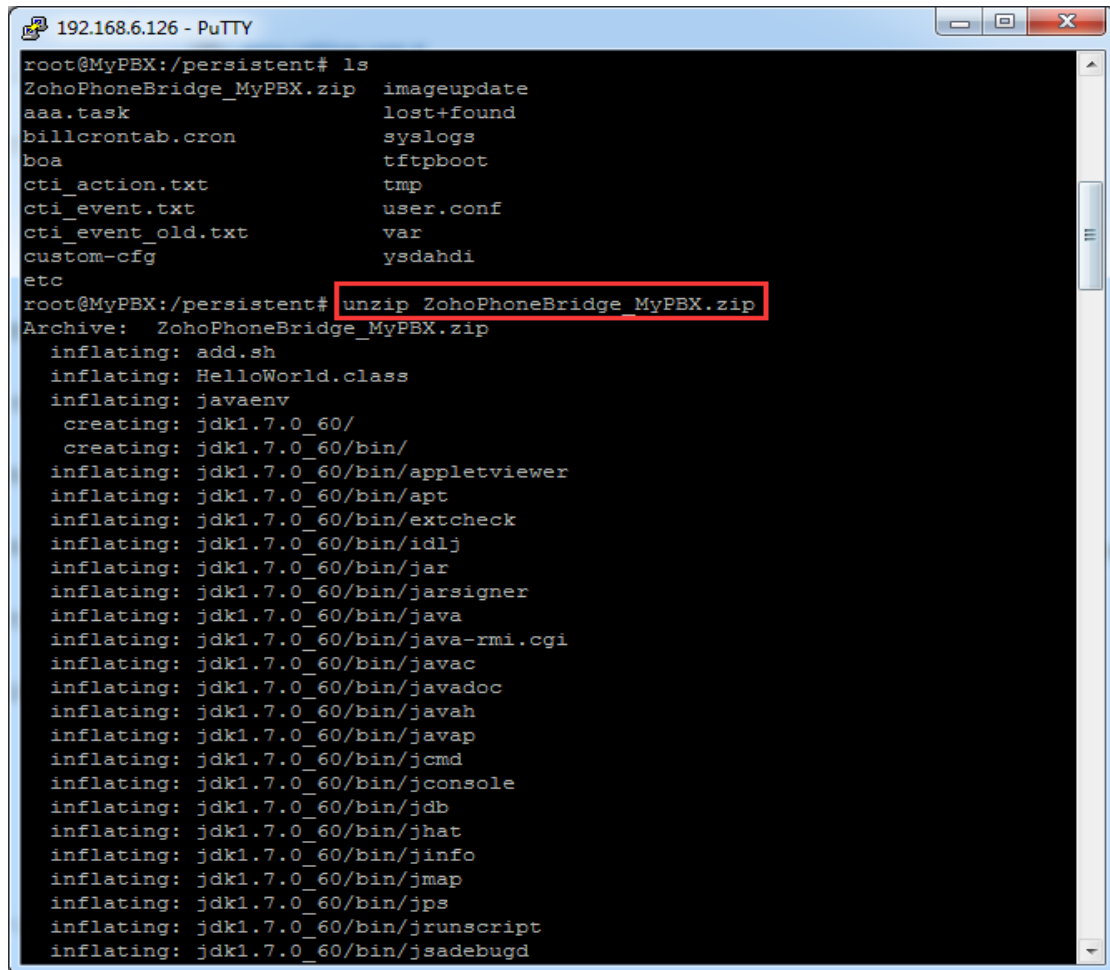
cd /persistent

unzip ZohoPhoneBridge_MyPBX.zip

It will take about 1-2 minutes to extract all files.

After extracting the files, please remove the package by the command to save flash space:

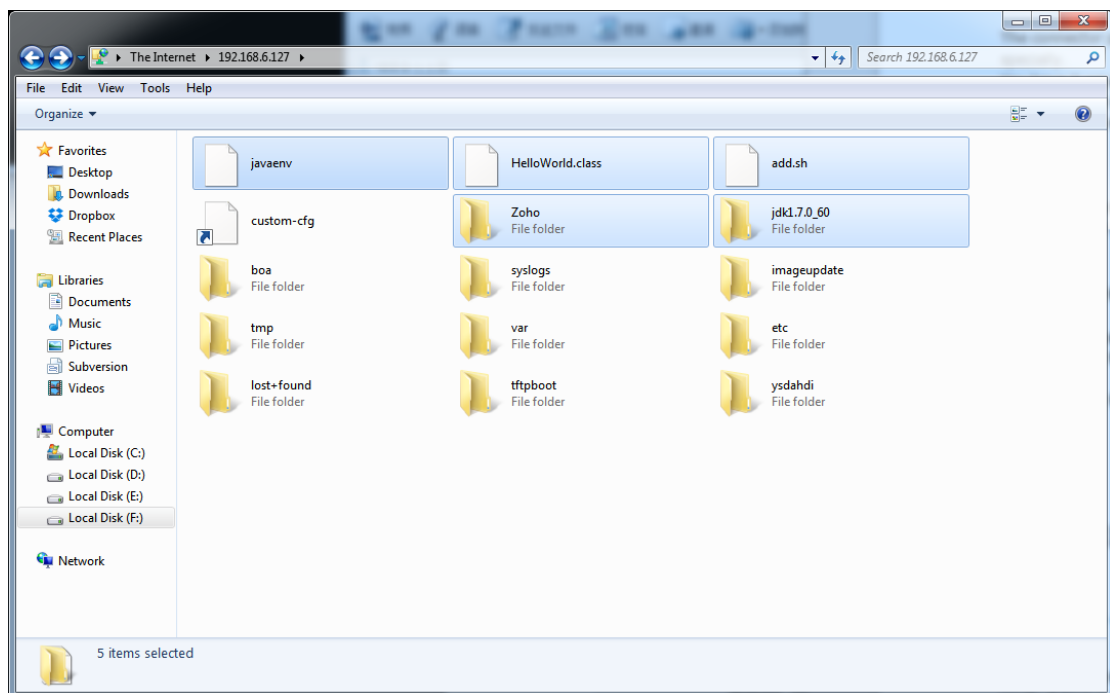
rm /persistent/ZohoPhoneBridge_MyPBX.zip



```
192.168.6.126 - PuTTY
root@MyPBX:/persistent# ls
ZohoPhoneBridge_MyPBX.zip  imageupdate
aaa.task                  lost+found
billcrontab.cron          syslogs
boa                       tftpboot
cti_action.txt            tmp
cti_event.txt             user.conf
cti_event_old.txt         var
custom-cfg                ysdahdi
etc

root@MyPBX:/persistent# unzip ZohoPhoneBridge_MyPBX.zip
Archive:  ZohoPhoneBridge_MyPBX.zip
  inflating: add.sh
  inflating: HelloWorld.class
  inflating: javaenv
    creating: jdk1.7.0_60/
    creating: jdk1.7.0_60/bin/
  inflating: jdk1.7.0_60/bin/appletviewer
  inflating: jdk1.7.0_60/bin/apt
  inflating: jdk1.7.0_60/bin/extcheck
  inflating: jdk1.7.0_60/bin/idlj
  inflating: jdk1.7.0_60/bin/jar
  inflating: jdk1.7.0_60/bin/jarsigner
  inflating: jdk1.7.0_60/bin/java
  inflating: jdk1.7.0_60/bin/java-rmi.cgi
  inflating: jdk1.7.0_60/bin/javac
  inflating: jdk1.7.0_60/bin/javadoc
  inflating: jdk1.7.0_60/bin/javah
  inflating: jdk1.7.0_60/bin/javap
  inflating: jdk1.7.0_60/bin/jcmd
  inflating: jdk1.7.0_60/bin/jconsole
  inflating: jdk1.7.0_60/bin/jdb
  inflating: jdk1.7.0_60/bin/jhat
  inflating: jdk1.7.0_60/bin/jinfo
  inflating: jdk1.7.0_60/bin/jmap
  inflating: jdk1.7.0_60/bin/jps
  inflating: jdk1.7.0_60/bin/jrunscript
  inflating: jdk1.7.0_60/bin/jsadebugd
```

2) Extract the file in PC, then copy to MyPBX via FTP



4. Assign authority to add.sh and Java application

Execute commands:

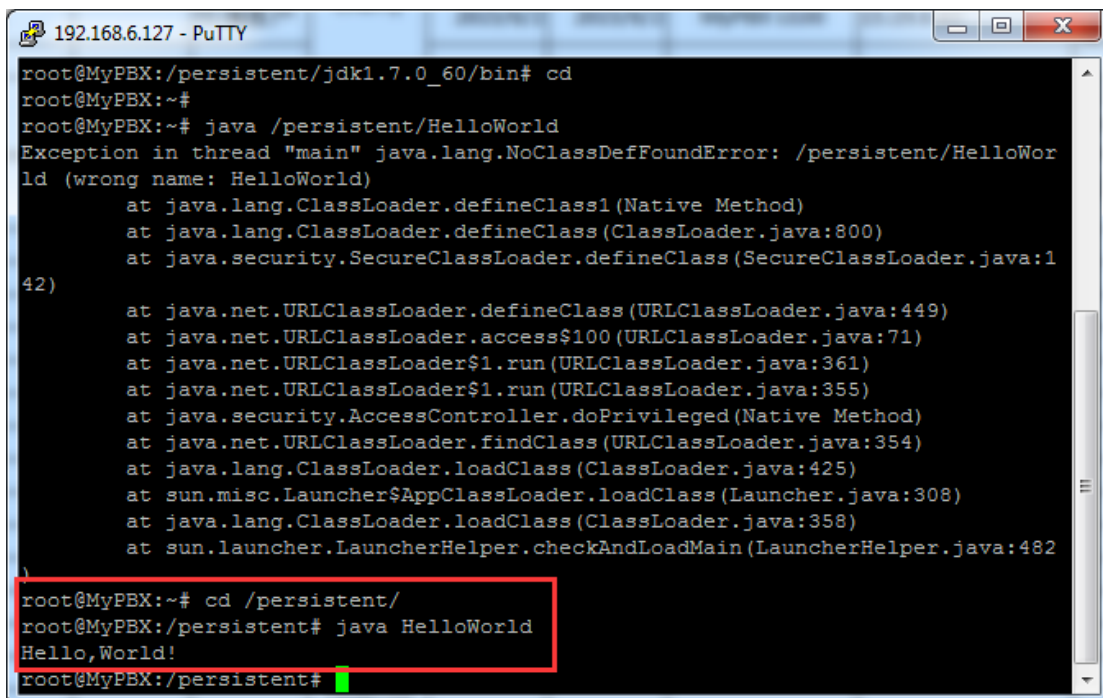
```
chmod 777 /persistent/add.sh
chmod 777 /persistent/jdk1.7.0_60/bin/java
```

* Reboot the MyPBX for Java environment taking effect.

After system up verify if Java works fine by commands:

```
cd /persistent
java HelloWorld
```

If it works fine, it will show like the figure below:



```
192.168.6.127 - PuTTY
root@MyPBX:/persistent/jdk1.7.0_60/bin# cd
root@MyPBX:~#
root@MyPBX:~# java /persistent/HelloWorld
Exception in thread "main" java.lang.NoClassDefFoundError: /persistent/HelloWorld (wrong name: HelloWorld)
    at java.lang.ClassLoader.defineClass1(Native Method)
    at java.lang.ClassLoader.defineClass(ClassLoader.java:800)
    at java.security.SecureClassLoader.defineClass(SecureClassLoader.java:142)
    at java.net.URLClassLoader.defineClass(URLClassLoader.java:449)
    at java.net.URLClassLoader.access$100(URLClassLoader.java:71)
    at java.net.URLClassLoader$1.run(URLClassLoader.java:361)
    at java.net.URLClassLoader$1.run(URLClassLoader.java:355)
    at java.security.AccessController.doPrivileged(Native Method)
    at java.net.URLClassLoader.findClass(URLClassLoader.java:354)
    at java.lang.ClassLoader.loadClass(ClassLoader.java:425)
    at sun.misc.Launcher$AppClassLoader.loadClass(Launcher.java:308)
    at java.lang.ClassLoader.loadClass(ClassLoader.java:358)
    at sun.launcher.LauncherHelper.checkAndLoadMain(LauncherHelper.java:482)
)
root@MyPBX:~# cd /persistent/
root@MyPBX:/persistent# java HelloWorld
Hello, World!
root@MyPBX:/persistent#
```

5. Configure the *zti.conf* configuration file.

Execute the command : `cd /persistent/Zoho/ztiadapter/conf/` and find the configuration file `zti.conf`.

Edit the file by command: `vi zti.conf`, add the PhoneBridge token in the file and save the file.

7. Create the outbound route for the Zoho dummy extension.

Add Outbound Route
X

Route Name i:

Password: [PIN Settings](#)

T.38 Support i:

Rmemory Hunt i:

Office Hours:

Dial Patterns i

Dial Pattern	Strip	Prepend
<input type="text" value="7."/>	<input type="text" value="1"/>	<input type="text" value="Prepend"/> X

+ Add

Member Extensions i

Available Extensions		Selected
<div style="border: 1px solid #ccc; padding: 5px; min-height: 100px;"> 301(SIP) 303(SIP) 304(SIP) 305(SIP) 500(SIP) 501(SIP) 504(SIP) 601(FXS) </div>	»» → ← ««	<div style="border: 1px solid #ccc; padding: 5px; min-height: 100px;"> <div style="border: 2px solid red; padding: 2px; display: inline-block;">503(SIP)</div> </div>

Member Trunks i

Available Trunks		Selected
<div style="border: 1px solid #ccc; padding: 5px; min-height: 100px;"> pstn10(FXO) GSM7(GSM) U100(SPS) </div>	»» → ← ««	<div style="border: 1px solid #ccc; padding: 5px; min-height: 100px;"> <div style="border: 2px solid red; padding: 2px; display: inline-block;">GSM1(GSM)</div> </div>

8. Enable AMI settings in MyPBX

Log in MyPBX web user interface and go to **System**→**System Preference**→ **AMI Settings**, enable AMI, and configure the AMI settings.

AMI Settings

Enable AMI

User Name :

Password :

-IP Restriction

Permitted 'IP address/Subnet mask' : 192.168.6.0/255.255.255.0
--

Permitted 'IP address/Subnet mask' :

Enable AMI: **Checked** //Enable API, the default API port is 5038
 User Name: **admin** // Enter the user name according to your preference
 Password: **password** //Enter the password according to your preference
 Permitted 'IP address/Subnet mask': **192.168.6.0/255.255.255.0**
 // Only the input IP address range can connect MyPBX via AMI

9. Configure the *asterisk14.properties*.

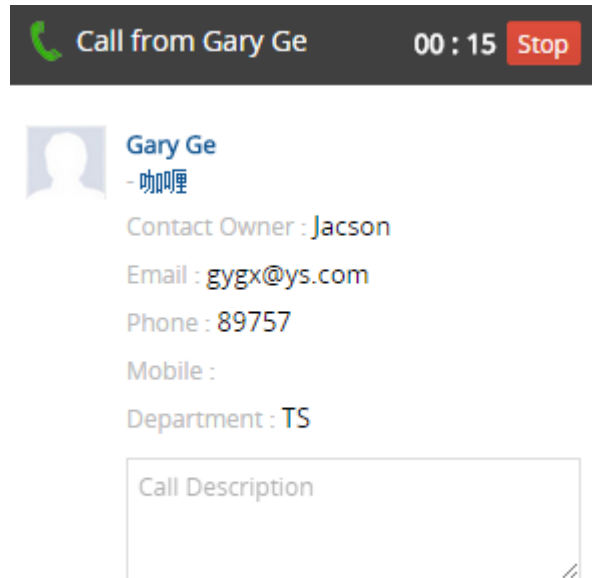
Path: *persistent/Zoho/ztiadapter/teleadapters/asterisk14/conf/*

Fill the right context of the dummy extension you create. In the figure, we fill extension 503's context, and find fill the MyPBX's AMI server IP& credentials.
 The context format will be: *DLPN_DialPlanXXX* (XXX is the extension number).
 asterisk.server=**192.168.6.127** //MyPBX's IP
 asterisk.manager.username=**admin** //AMI user name
 asterisk.manager.password=**password** //AMI password

Call Test

1. Inbound call

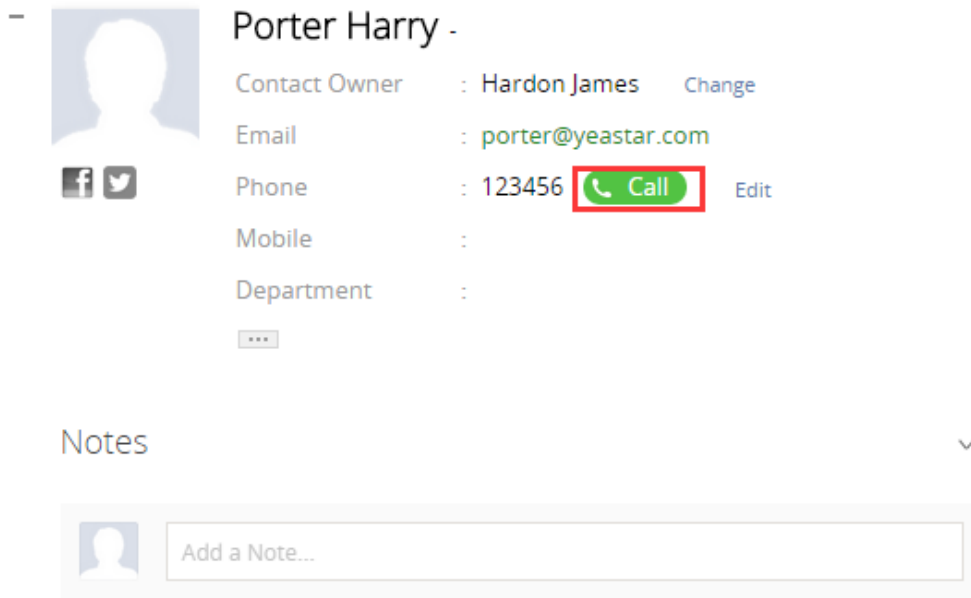
When there is an incoming call to the user's extension, a windows pops up showing the caller's info.



The screenshot shows a call notification window at the top with a green phone icon, the text "Call from Gary Ge", a timer "00 : 15", and a red "Stop" button. Below this is a contact card for "Gary Ge" with a profile picture icon, the name "Gary Ge", and the Chinese characters "- 咖喱". The contact details listed are: "Contact Owner : Jacson", "Email : gygx@ys.com", "Phone : 89757", "Mobile :", and "Department : TS". At the bottom of the contact card is a text input field labeled "Call Description".

2. Outbound call

Click the "Call" button in Contact menu



The screenshot shows a contact card for "Porter Harry" with a profile picture icon and social media icons for Facebook and Twitter. The contact details listed are: "Contact Owner : Hardon James" with a "Change" link, "Email : porter@yeastar.com", "Phone : 123456" with a green "Call" button highlighted by a red box and an "Edit" link, "Mobile :", and "Department :". Below the contact card is a "Notes" section with a dropdown arrow and a text input field labeled "Add a Note..." with a profile picture icon to its left.

Then select the Dial code to make the call.

Make the call

Extn code: 500 ▾


Dial code: LOCAL(7) ▾


PBX Type: Asterisk1.4

Phone: 7-123456

Make a call Close

A window pops up, showing the call status.

 **Call to Porter Harry**

 **Porter Harry**
Contact Owner : Hardon James
Email : porter@yeastar.com
Phone : 123456
Mobile :
Department :

Close

[The End]