
How to Install AX2G4A/AX4G with Elastix2.0.3/Trixbox2.8.0.4

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1. Install ax2g4a/ax4g driver

If you want to use all of the Digital cards with the Analog cards, Before you install the driver "elastix_ax2g4a_driver-1.2.1.8", you should download the libpri package as the following.

```
[root@localhost ~]# cd /usr/src
```

```
[root@localhost src]# amportal stop
```

```
[root@localhost src]# wget
```

```
http://downloads.asterisk.org/pub/telephony/libpri/releases/libpri-1.4.12.tar.gz
```

```
[root@localhost ~]# tar zxf libpri-1.4.12
```

```
[root@localhost libpri-1.4.12]# make
```

```
[root@localhost libpri-1.4.12]# make install
```

Install the driver with Elastix2.0.3

1) Log into Elastix OS

Please input the username:root and password:what you have set.

2) Download the driver.

As you know, you should download the drivers from ATCOM website . You can use the following commands.

```
[root@localhost ~]#
```

```
[root@localhost ~]# cd /usr/src/
```

```
[root@localhost src]# wget
```

```
http://chinavoipsupply.com:8080/downloads/TelephonyCard/drivers/AX2G4A\_AX4G/elastix\_ax2g4a\_driver-1.2.1.8.tar.gz
```

3) Untar and install the driver

You can untar the package that you have downloaded and install the driver.

```
[root@localhost src]# tar -zxf elastix_ax2g4a_driver-1.2.1.8.tar.gz
```

```
[root@localhost src]# cd elastix_ax2g4a_driver
```

```
[root@localhost elastix_ax2g4a_driver]# ./ax4g_install.sh
```

Then you should do nothing, just wait for it running successfully.

The progress may cost your 10 minutes and you can get the following illustration, if the driver is installed completely.

```
*****
@@          ATCOM AX4G Card Install Script          @@
@@                V1.0.1                          @@
@@                Welcome to Use AX4G              @@
@@                Copyright (c) 2010-2012 ATCOM Co., Ltd.  @@
*****

#####
Finish install Atcom ax4g card driver for elastix-2.0.0-57 !
You can use the list commands to show ax4g card status :

    asterisk -rx dahdi show channels
    dahdi_cfg -vvv
#####

[root@localhost elastix_ax2g4a_driver]# █
```

4) The driver using for ATCOM Telephony card

If you have installed the driver, the driver can compatible with AX400P, AX800P, AX1600P; AX2D, AX4D; AX4B.

Install the driver with Trixbox2.8.0.4

5) Log into Trixbox OS

Please input the username:root and password:what you have set.

6) Download the driver.

As you know, you should download the drivers from ATCOM website . You can use the following commands.

```
[root@localhost ~]#
```

```
[root@localhost ~]# cd /usr/src/
```

```
[root@localhost src]# wget
```

```
http://chinavoipsupply.com:8080/downloads/TelephonyCard/drivers/AX2G4A\_AX4G/trixbox\_ax4g\_driver-1.2.1.8.tar.gz
```

7) Untar and install the driver

You can untar the package that you have downloaded and install the driver.

```
[root@localhost src]# tar -zxf trixbox_ax4g_driver-1.2.1.8.tar.gz
```

```
[root@localhost src]# cd trixbox_ax2g4a_driver
```

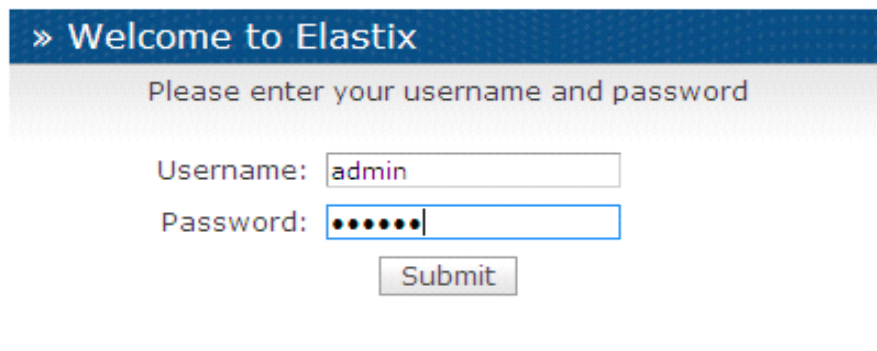
```
[root@localhost trixbox_ax2g4a_driver]# ./ax4g_install.sh
```


2. How to configure your PBX

As you know, the Trixbox2.8.0.4 configure webpage is the same as the Elastix2.0.3 configure webpage

1. Log into your Elastix webpage

Please open your browser and enter the service (PBX) IP address, then input Username: admin; password :what your have set. Then click on submit button in the following screen.

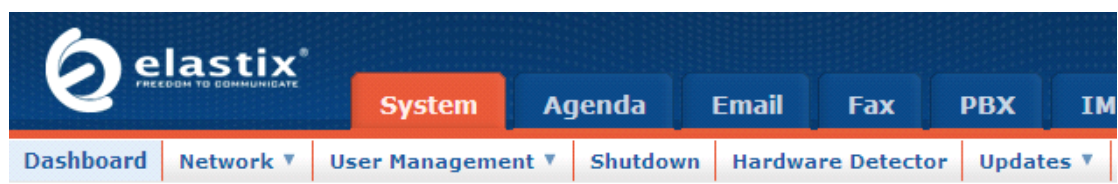


The screenshot shows the Elastix login interface. At the top, there is a blue header with the text "» Welcome to Elastix". Below this, a grey box contains the instruction "Please enter your username and password". There are two input fields: "Username:" with the text "admin" entered, and "Password:" with six dots representing a masked password. A "Submit" button is located below the password field.

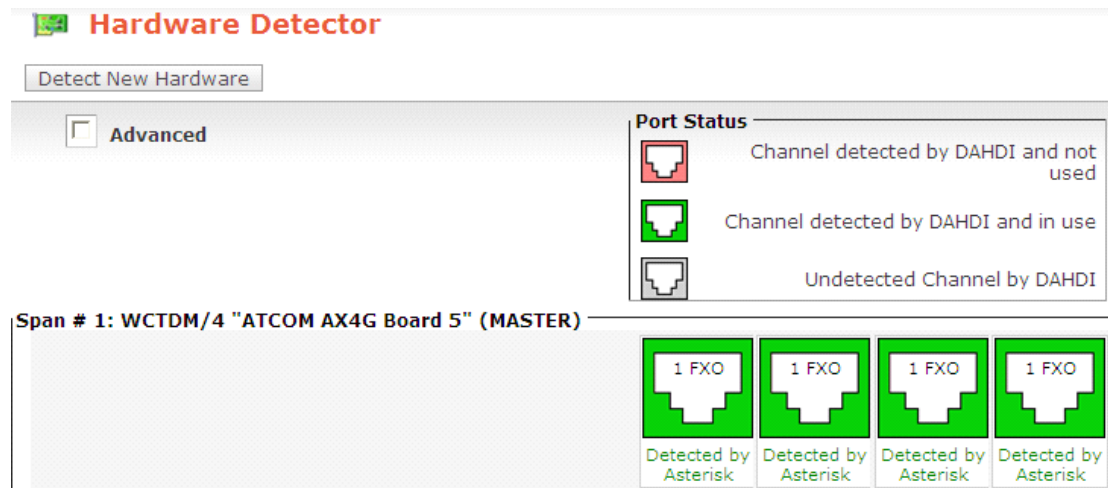
[Elastix](#) is licensed under [GPL](#) by [PaloSanto Solutions](#). 2006 - 2011.

2. Detect your hardware

You can use the "Hardware Detector" function of Elastix to check the modules.



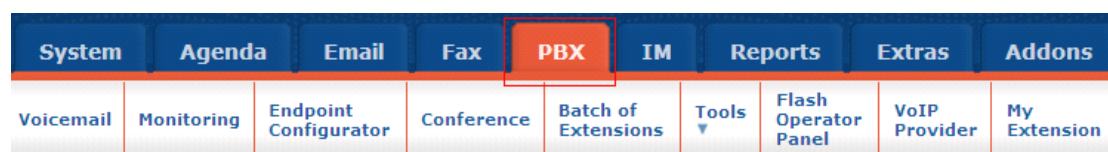
For example, you can get the following graphic by "Hardware Detector" AX4G card with Elastix2.0.3. If you have detected your card's modules correctly, you will get the following messages.



3. Configure your PBX

1) Configure the PBX

Click on PBX button in the following illustration.



2) Add an SIP Extension

Click on "Add an extension" button, then choose Device "Generic sip Device", click on submit in the following illustration.

Add an Extension

Please select your Device below then click Submit

Device

Device

- Generic SIP Device
- Generic IAX2 Device
- Generic ZAP Device
- Other (Custom) Device
- None (virtual exten)

Please input the Users Extension, the Display Name, and secret;
Click on submit in the following illustration.

Add SIP Extension

Add Extension

User Extension	<input type="text" value="300"/>
Display Name	<input type="text" value="300"/>
CID Num Alias	<input type="text"/>
SIP Alias	<input type="text"/>

Extension Options

Outbound CID	<input type="text"/>
Ring Time	<input type="text" value="Default"/>
Call Waiting	<input type="text" value="Disable"/>
Call Screening	<input type="text" value="Disable"/>
Pinless Dialing	<input type="text" value="Disable"/>
Emergency CID	<input type="text"/>

Assigned DID/CID

DID Description	<input type="text"/>
Add Inbound DID	<input type="text"/>
Add Inbound CID	<input type="text"/>

Device Options

This device uses sip technology.

secret	<input type="text" value="300"/>
dtmfmode	<input type="text" value="rfc2833"/>

Then , Click the “Apply Configuration Changes Here” bar in the top of the screen.

Apply Configuration Changes Here

3) Add a ZAP/DAHDI Trunk

- a. Choose the “Add Zap Trunk (DAHDI compatibility)” button.

Add a Trunk

- Add Zap Trunk (DAHDI compatibility mode)
- Add SIP Trunk
- Add IAX2 Trunk
- Add ENUM Trunk
- Add DUNDi Trunk
- Add Custom Trunk

- b. Set the Trunk Description: enter the name what you have set.
Then choose the Dial Rules Identifier: g0. click on submit in the following illustration.

Add ZAP Trunk (DAHDI compatibility mode)

General Settings

Trunk Description:	<input type="text" value="trunk9"/>
Outbound Caller ID:	<input type="text"/>
CID Options:	<input type="text" value="Allow Any CID"/>
Maximum Channels:	<input type="text"/>
Disable Trunk:	<input type="checkbox"/> Disable
Monitor Trunk Failures:	<input type="checkbox"/> Enable

Outgoing Dial Rules

Dial Rules:	<div style="border: 1px solid #ccc; height: 60px; width: 100%;"></div> <input type="button" value="Clean & Remove duplicates"/>
Dial Rules Wizards:	<input type="text" value="(pick one)"/>
Outbound Dial Prefix:	<input type="text"/>

Outgoing Settings

Zap Identifier (trunk name):	<input type="text" value="g0"/>
<input type="button" value="Submit Changes"/>	

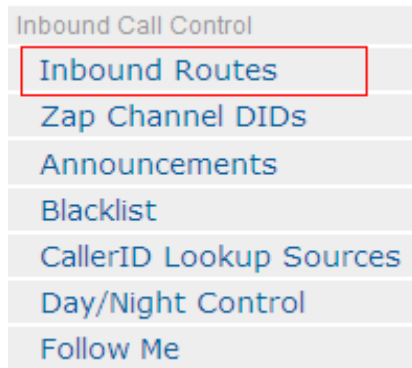
- c. Then , Click the “Apply Configuration Changes Here” bar in the top of the screen.

[Apply Configuration Changes Here](#)

4) Add an Incoming Route

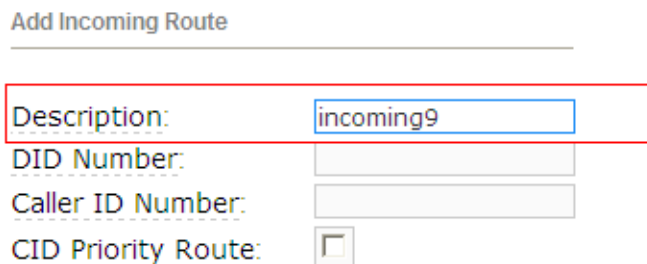
Add an incoming route, it will help you get incoming calls.

a) Click on “Inbound Routes” bar.



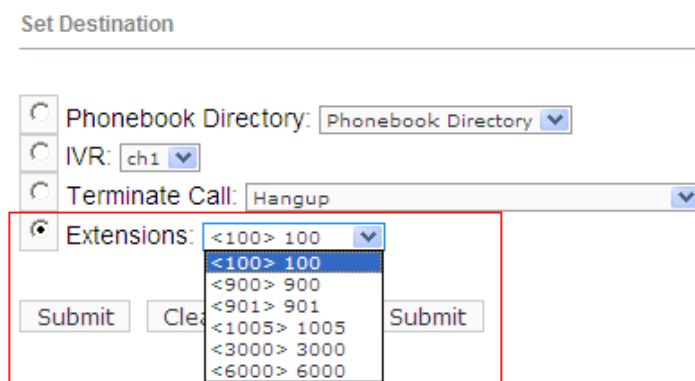
b) Input incom9 in the textbox of Description as the following screen:

Add Incoming Route



A screenshot of the "Add Incoming Route" form. The form has a title "Add Incoming Route" and a horizontal line below it. The fields are: "Description:" with the value "incom9" entered and highlighted by a red box; "DID Number:" with an empty text box; "Caller ID Number:" with an empty text box; and "CID Priority Route:" with an unchecked checkbox.

c) Click the Extensions textbox, choose an extension number from the drop down selection box. Then click submit. Please refer to the following illustration:



A screenshot of the "Set Destination" form. The form has a title "Set Destination" and a horizontal line below it. The fields are: "Phonebook Directory:" with a dropdown menu showing "Phonebook Directory"; "IVR:" with a dropdown menu showing "ch1"; "Terminate Call:" with a dropdown menu showing "Hangup"; and "Extensions:" with a dropdown menu open, showing a list of extension numbers: "<100> 100", "<900> 900", "<901> 901", "<1005> 1005", "<3000> 3000", and "<6000> 6000". The first option, "<100> 100", is selected and highlighted. Below the "Extensions:" field are two "Submit" buttons and a "Clear" button.

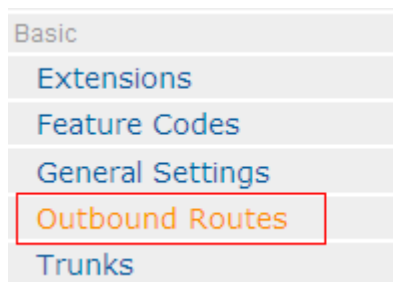
d) Click the “Apply Configuration Changes Here” bar in the top of the screen.



5) Add outbound route

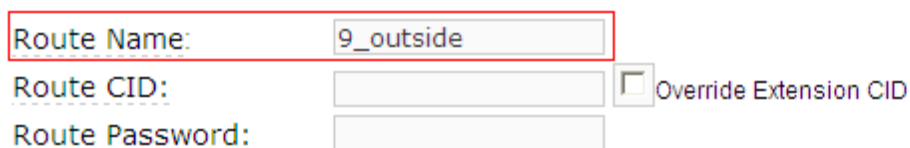
Add an outbound route, it will help you get outbound calls.

a) Click on “outbound Routes” bar.



b) Input out_route9 in the textbox of Description as the following screen:

Add Route



Route Name: 9_outside
Route CID: Override Extension CID
Route Password:

c) In the Dial Patterns , please input 9|. , it will help you get calls before you called number. Please refer to the following illustration:

Music On Hold?

Dial Patterns

9 | .

d) Choose the Trunk Sequence: ZAP/g0 ,Then click submit. Please refer to the following illustration:

Dial patterns wizards:

Trunk Sequence

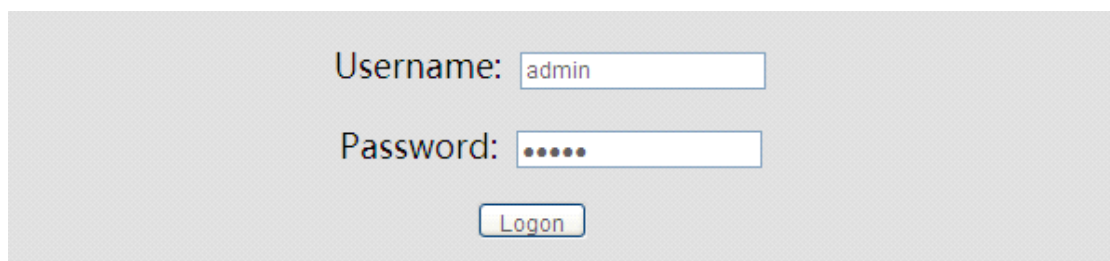
ZAP/g0

e) Click the “Apply Configuration Changes Here” bar in the top of the screen.

Apply Configuration Changes Here

3. How to configure IP phone

- 1) Please open your browser and enter the telephone IP address, then input Username: admin; password :what your have set. Then click on Logon button in the following screen.



Username:

Password:

- 2) Choose the SIP2 page tab under the VOIP tab page.



IP Phone

ATCOM

Current Status Network **VOIP** Advanced Dial-peer Config Manage Update System Manage

SIP 1
SIP 2
 IAX 2

SIP2 Configuration

Basic Setting			
Register status	Registered	Proxy Server Address	<input type="text"/>
Server Name	<input type="text"/>	Proxy Server Port	<input type="text"/>
Server Address	172.16.0.165	Proxy Username	<input type="text"/>
Server Port	5060	Proxy Password	<input type="text"/>
Account Name	900	Domain Realm	<input type="text"/>
Password	...	Enable Register	<input checked="" type="checkbox"/>
Phone Number	900	Display Name	900

- 3) Then input the Server Address: what you have set; Server Port: 5060; Account Name, Password, Phone Number : those three tab

please input your extension number. And then, Click the APPLY button, in the following illustration:

Basic Setting			
Register status	Registered	Proxy Server Address	<input type="text"/>
Server Name	<input type="text"/>	Proxy Server Port	<input type="text"/>
Server Address	172.16.0.165	Proxy Username	<input type="text"/>
Server Port	5060	Proxy Password	<input type="text"/>
Account Name	900	Domain Realm	<input type="text"/>
Password	•••	Enable Register	<input checked="" type="checkbox"/>
Phone Number	900	Display Name	900

4. Appendix one: The GSM module and FXO module billing

1. Download the driver from ATCOM website.

If you use the AX2G4A, and download the driver as the following link:

http://chinavoipsupply.com:8080/downloads/TelephonyCard/d_rivers/AX2G4A_AX4G/

2. There are two kinds of configuration about the billing.

1) If you just need the GSM billing, but you needn't the FXO billing, you can modify some configuration as the following:

① vi /etc/asterisk/chan_dahdi.conf

make sure annotate the two parameter as the following:

```
;answeronpolarityswitch=yes
```

```
;polarityonanswerdelay= 300
```

② vi /etc/asterisk/dahdi-channels.conf

Please add the parameters to the GSM module channels as the following:

```
-----  
;;; line="1 WCTDM/6/0 FXSKS (In use) (SWEC: MG2)"
```

signalling=fxs_ks

answeronpolarityswitch=yes

polarityonanswerdelay= 300

callerid=asreceived

group=0

context=from-pstn

channel => 1

callerid=

group=

context=default

Please add the parameters to the FXO module channels as the following:

;;; line="5 WCTDM/6/4 FXOKS (In use) (SWEC: MG2)"

signalling=fxo_ks

answeronpolarityswitch=no

callerid="Channel 5" <4005>

mailbox=4005

group=5

context=from-internal

channel => 5

callerid=

mailbox=

group=

context=default

1) If you need the GSM and FXO billing, you can modify some configuration as the following:

`vi /etc/asterisk/chan_dahdi.conf`

please make sure modify the two parameter as the following:

`answeronpolarityswitch=yes`

`polarityonanswerdelay= 300`

BTW, if you want the FXO module bill, you should apply for your Server Provider who will send the billing signal to FXO module.