



# **AX4G Quick Start Guide with Elastix2.0.3**

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## Release note

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# Content

- CONTACT ATCOM..... 2
- 1. INSTALL AX2G4A/AX4G DRIVER ..... 1
  - Install the driver with Elastix2.0.3* ..... 1
    - 1) Download the driver..... 1
    - 2) Install the driver ..... 1
    - 3) Compatibility with the driver..... 2
  - Install the driver with Trixbox2.8.0.4* ..... 3
    - 1) Download the driver..... 3
    - 2) Install the driver ..... 3
    - 3) Compatibility with the driver..... 3
- 2. HOW TO CONFIGURE YOUR PBX..... 4
  - 2.1. Log into the Elastix webpage ..... 4
  - 2.2. Detect the hardware..... 4
  - 2.3. Configure your PBX..... 5
    - 1) CONFIGURE THE PBX..... 5
    - 2) ADD AN SIP EXTENSION ..... 5
    - 3) ADD A ZAP/DAHDI TRUNK..... 7
    - 4) ADD AN INCOMING ROUTE ..... 8
    - 5) ADD OUTBOUND ROUTE..... 8
- 3. APPENDIX ONE: THE BILLING PARAMETERS..... 10

# Contact ATCOM

## The Introduction of ATCOM

ATCOM is the leading VoIP hardware manufacturer in global market. We have been keeping innovating with customer's needs oriented , working with partners to establish a total solution for SMB VoIP with IP phone , IP PBX and Asterisk cards.

With over 10 years' experience of R&D , manufacturing and service in network and VoIP filed ; mission of creating the biggest value for IP terminals , we commit ourselves in supplying the competitive IP phone and other terminals for IP PBX , softswitch , IMS , NGN providers and carriers; supplying the competitive total VoIP solution for SMB market. We keep improving the customer's experience and creating the bigger value with our reliable products. Until now , our VoIP products has been sold to over 60 countries and used by millions of end users.

## Contact sales:

Address	District C, east of 2nd floor, #3, Crown industry buildings, Chegongmiao Industry area, Futian district, Shenzhen, China
Tel	+(86)755-23487618
Fax	+(86)755-23485319
E-mail	<a href="mailto:sales@atcomemail.com">sales@atcomemail.com</a>

## Contact Technical Support:

Tel	+(86)755-23481119
E-mail	<a href="mailto:Support@atcomemail.com">Support@atcomemail.com</a>

Website address: <http://www.atcom.cn/>

Download Center: <http://www.atcom.cn/download.html>

# 1. Install ax2g4a/ax4g driver

If users want to use some Digital cards with the ax4g or ax2g4a, please make sure users have installed the libpri package in the system.

How to get the latest libpri package, please access the Asterisk website:

<http://downloads.asterisk.org/pub/telephony/libpri/libpri-1.4-current.tar.gz>

```
[root@localhost libpri-1.4.12]# tar zxvf libpri-xxx
```

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

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

## *Install the driver with Elastix2.0.3*

- 1) Download the driver.

Users should download the drivers for the GSM card from ATCOM website. And we will release the latest version in the atcom download center: <http://www.atcom.cn/download.html>

For example, users can get the driver as the following link:

[http://www.atcom.cn/cn/download/cards/ax4g/ax2g4a\\_ax4g\\_elastix2.0.3.tar.gz](http://www.atcom.cn/cn/download/cards/ax4g/ax2g4a_ax4g_elastix2.0.3.tar.gz)

- 2) Install the driver

When users install the driver with elastix, users need just tar the package and run the script.

Normally, the script will install the driver automatically.

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

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

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

Notice:

If users install the Elastix2.0.3 version correctly, the progress will cost 10 minutes. After that, users will get the following illustration when 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]# █

```

3) Compatibility with the driver

When users install the driver correctly, it will be compatible with all the atcom asterisk cards. It means users need not install drivers for other atcom cards. For examples:

Card named	Module named
ax400p/axe400p	wctdm
ax800/axe800p	ax1600p
ax1600p/axe1600p	ax1600p
ax4g/ax2g4a	ax4g
ax1d/axe1d/axe1dl	AX1D
ax2d/axe2d/axe2dl	wct4xxp
ax4d/axe4d/axe4dl	wct4xxp
ax4b/axe4bl/axe2bl	wcb4xxp

## *Install the driver with Trixbox2.8.0.4*

- 1) Download the driver.

How to install the driver with Trixbox2.8.0.4, please download the drivers from ATCOM website.

And we will release the latest version in the atcom download center:

<http://www.atcom.cn/download.html>.

For example, users can get the driver as the following link:

[http://www.atcom.cn/cn/download/cards/ax4g/ax2g4a\\_ax4g\\_elastix2.0.3.tar.gz](http://www.atcom.cn/cn/download/cards/ax4g/ax2g4a_ax4g_elastix2.0.3.tar.gz)

- 2) Install the driver

When users install the driver with elastix, users need just tar the package and run the script.

```
[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
```

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 you to use @
@ Copyright (c) 2010-2012 Atcom Co., Ltd. @
*****
Finish install Atcom ax4g card driver for 2.8.0.4 !
You can use the list commands to show ax4g card status :

    asterisk -rx dahdi show channels
    dahdi_cfg -vvv
*****
[trixbox1.localdomain trixbox_ax4g_driver]#
```

- 3) Compatibility with the driver

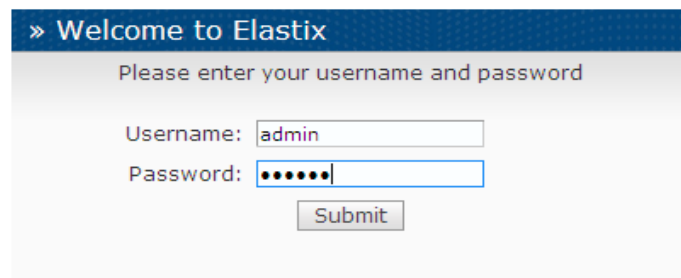
When users have installed the driver, it could be the same compatibility with most of atcom asterisk card. It means users need not install drivers for other atcom cards.

## 2. How to configure your PBX

The Trixbox2.8.0.4 configuration webpage is the same as the Elastix2.0.3 configure webpage. So the following instruction will be an example to Elastix OS.

### 2.1. Log into the Elastix webpage

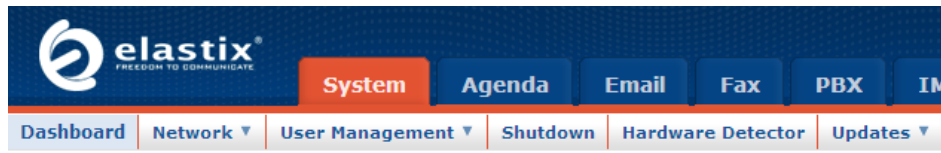
Please open the browser and input the server IP address, And then click on the submit button as the following illustration.



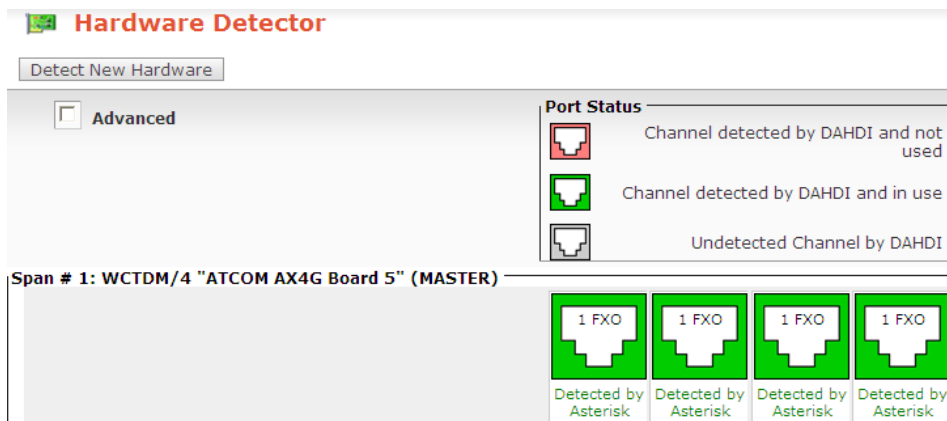
[Elastix](#) is licensed under [GPL](#) by [PaloSanto Solutions](#). 2006 - 2011.

### 2.2. Detect the hardware

Users can click the “Hardware Detection” button to detect the hardware by the system automatically.



For example, if users have install the drivers for AX4G card firstly, users will get the following illustration.





### 2.3. Configure your PBX

#### 1) Configure the PBX

Click the PBX button to jump into the pbx configuration page.



#### 2) Add an SIP Extension

Click the “Add an extension --> Generic sip Device”. And then input the “Users Extension”, the “Display Name”, and “Secret”; Click the submit in the following illustration.

### Add an Extension

Please select your Device below then click Submit

Device

---

Device

Generic SIP Device ▾

Generic SIP Device

Generic IAX2 Device

Generic ZAP Device

Other (Custom) Device

None (virtual exten)

## 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:

Outbound Caller ID:

CID Options:

Maximum Channels:

Disable Trunk:  Disable

Monitor Trunk Failures:  Enable

**Outgoing Dial Rules**

Dial Rules:

Clean & Remove duplicates

Dial Rules Wizards:

Outbound Dial Prefix:

**Outgoing Settings**

Zap Identifier (trunk name):

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

Add Incoming Route

---

Description:

DID Number:

Caller ID Number:

CID Priority Route:

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

Set Destination

---

Phonebook Directory:

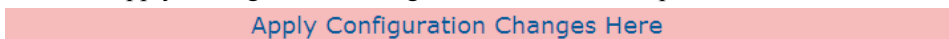
IVR:

Terminate Call:

Extensions: 

- <100> 100
- <900> 900
- <901> 901
- <1005> 1005
- <3000> 3000
- <6000> 6000

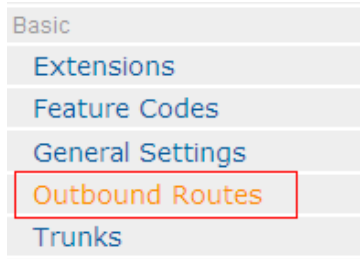
d) Click the “Apply Configuration Changes Here” bar in the top of the screen.



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

The 'Add Route' form contains the following fields:
 

- Route Name: 9\_outside
- Route CID: [empty]
- Route Password: [empty]
- Override Extension CID:

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

The 'Dial Patterns' section shows a dropdown menu for 'Music On Hold?' set to 'default'. Below it, a text input field contains the text '9|.'.

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

The 'Dial patterns wizards' dropdown is set to '(pick one)'. Below it, the 'Trunk Sequence' dropdown menu is open and set to 'ZAP/g0'.

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



### 3. Appendix one: the billing parameters

1. Download the driver from ATCOM website.

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

[http://www.atcom.cn/cn/download/cards/ax4g/ax2g4a\\_ax4g\\_elastix2.0.3.tar.gz](http://www.atcom.cn/cn/download/cards/ax4g/ax2g4a_ax4g_elastix2.0.3.tar.gz)

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/daohi-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.