



# **AX4G Quick Start Guide with Elastix2.4.0**

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## Release note

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# 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:

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

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

# Test Environment

Elastix2.4.0 OS

Asterisk-1.8.20

Dahdi-linux-complete-2.6.2+2.6.2

# 1. Install ax2g4a/ax4g driver

- 1) Download the driver from ATCOM download center

**Notice:**

Users should download the latest drivers for the GSM card from ATCOM download center:

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

For example, users can get the driver with the command.

wget [http://www.atcom.cn/cn/download/cards/ax4g/ax2g4a\\_ax4g\\_elastix2.4.0.tar.gz](http://www.atcom.cn/cn/download/cards/ax4g/ax2g4a_ax4g_elastix2.4.0.tar.gz)

- 2) Load the files via the U-flash

Please plug the U-flash into the system. If the U-flash is detected by the server. Users need just runt the commands to load the U-flash.

```
[root@localhost ~]# mount /media/ ; mount the U-flash
```

```
[root@localhost ~]# cd /media/
```

```
[root@localhost ~]# cp ax2g4a_elastix2.4.0.tar.gz /usr/src/
```

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

```
[root@localhost ~]# umount /media/ ; unmount the U-flash
```

- 3) 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 ax2g4a_elastix2.4.0.tar.gz
```

```
[root@localhost src]# cd ax2g4a_elastix2.4.0
```

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

Notice:

If users install the Elastix2.4.0 version correctly, the progress will cost 10 minutes. After that, users will get the following illustration when the driver is installed completely.

```

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

#####
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) 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

## 2. How to configure your PBX

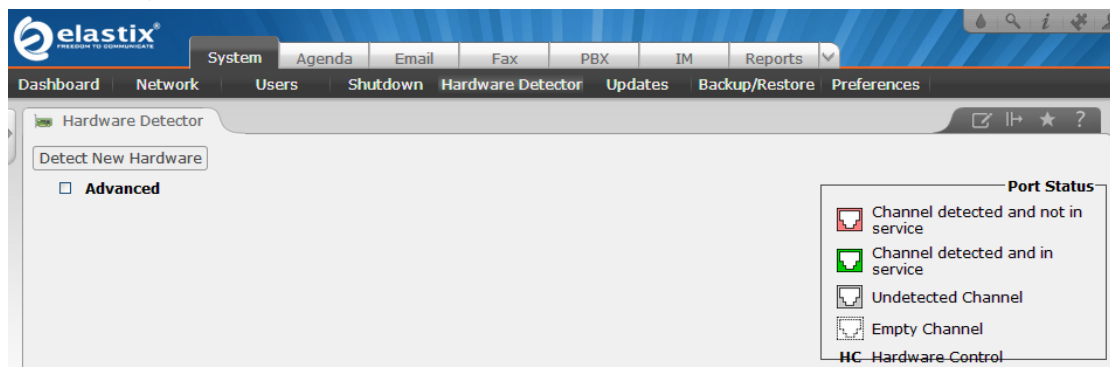
### 2.1. Log into the Elastix webpage

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



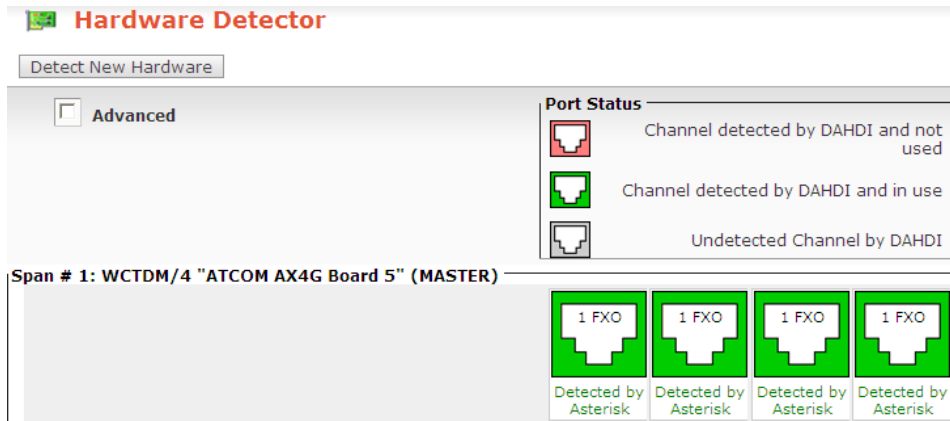
### 2.2. Detect the hardware

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





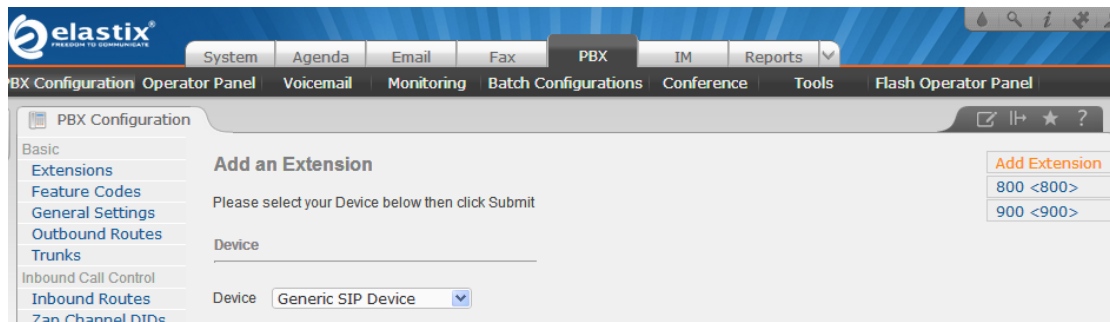
For example, if users have install the drivers for AX4G card firstly, users will get the following illustration.



### 2.3. Configure your PBX

#### 2.3.1 Configure the PBX

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



#### 2.3.2 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

2. 3. 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: 40px; width: 100%;"></div>
	<input type="button" value="Clean &amp; 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"/>	

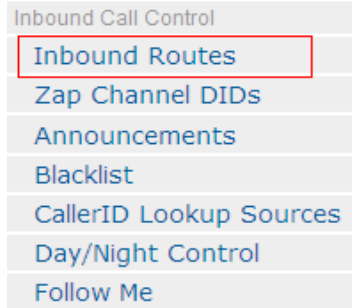
c) Then , Click the “Apply Configuration Changes Here” bar in the top of the screen.

[Apply Configuration Changes Here](#)

2. 3. 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:

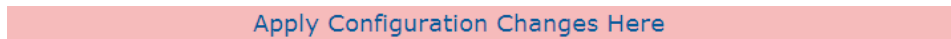
### Add Incoming Route

A screenshot of the 'Add Incoming Route' form. The 'Description' field contains the text 'incoming9' and is highlighted with a red box. Other fields include 'DID Number', 'Caller ID Number', 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 'Extensions' dropdown menu is open, showing a list of extension ranges: <100> 100, <100> 100 (highlighted), <900> 900, <901> 901, <1005> 1005, <3000> 3000, and <6000> 6000. The 'Submit' button is visible.

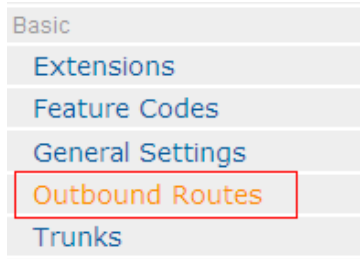
d) Click the “Apply Configuration Changes Here” bar in the top of the screen.



2. 3. 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 (highlighted with a red box)
- 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' field is highlighted with a red box and contains the text "9|.".

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

The 'Trunk Sequence' dropdown menu is highlighted with a red box and is set to "ZAP/g0".

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



### 3. Appendix: the parameter for billing

1. Two kinds of configuration for the billing.

1) If users need the GSM modules for billing, but the FXO needn't, please edit the configuration files like the following:

a. Make sure the parameters is disabled in the “/etc/asterisk/chan\_dahdi.conf” file.

```
;answeronpolarityswitch=yes
```

```
;polarityonanswerdelay= 300
```

b. Add the billing parameters into the “/etc/dahdi-channels.conf” file.

```
-----  
;;; 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 like 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  
-----
```

2) If users need the GSM and FXO billing simultaneously, please edit the billing parameters like the following.

```
[root@centos6 ~]# vi /etc/asterisk/chan_dahdi.conf
```

```
answeronpolarityswitch=yes
```

```
polarityonanswerdelay= 300
```

Notice:

If user need the FXO module billing, please apply for your SP(Server Provider) who will enable the billing signal to FXO module.