

Actually, in the system, asterisk and zaptel have built in, but I still can not run it. If so, please recompile asterisk, zaptel and mISDN. Go to asterisk.org to get those packages. Some packages I use for this system:

```
voyage:/usr/src# ls -l
total 59312
drwxr-xr-x 24 root root    4096 Jul 11 03:56 asterisk-1.4.21.1
-rw-r--r--  1 root src   11528154 Jul 10 10:23 asterisk-1.4.21.1.tar.gz
drwxr-xr-x  3 root root    4096 Nov  9  2007 chan_misdn
-rw-r--r--  1 root src    90838 Nov  9  2007 chan_misdn.tar.gz
-rw-r--r--  1 root src   58429 May 21 15:28 config-2.6.23-486-voyage_5.0-2
drwxr-xr-x 21 root root    4096 Jul 10 08:53 linux-source-2.6.23-voyage
-rw-r--r--  1 root root 46419776 Jun 22 17:52 linux-source-2.6.23-voyage.tar.bz2
drwxr-xr-x  5 root root    4096 Jun 18 08:41 mISDN-1_1_8
-rw-r--r--  1 root src   498226 Jun 18 08:23 mISDN-1_1_8.tar.gz
drwxr-xr-x 12 root root    4096 Jun 18 08:42 mISDNUser-1_1_8
-rw-r--r--  1 root src   330147 Jun 18 08:23 mISDNUser-1_1_8.tar.gz
drwxr-sr-x  8 root root    4096 Jul 11 05:42 zaptel-1.4.11
-rw-r--r--  1 root src  1681384 Jul 11 02:14 zaptel-1.4.11.tar.gz
voyage:/usr/src#
```

Before compiling those packages, please install some support packages

apt-get install:

```
bison openssl libssl-dev libeditline0 libeditline-dev libedit-dev,
```

```
gcc make g++ php5-cli mysql-common libmysqlclient15-dev libnet-dev flex
```

you also need a linux source, please go to voyage-linux to get right version of linux source.

Make a link with kernel source:

```
voyage:/usr/src# ln -s linux-source-2.6.23-voyage /lib/modules/2.6.23-486-voyage/build
```

Then you can compile: zaptel, mISDNUser, mISDN and asterisk.

If all are done properly, the system should be able to start up successfully. Before making calls, please check the status of misdn channels and zap channels from asterisk console, make sure those channels can be shown.

```
voyage*CLI> misdn show stacks
BEGIN STACK LIST:
 * Port 1 Type TE Prot. PMP L2Link DOWN L1Link:UP Blocked:0 Debug:0
 * Port 2 Type TE Prot. PMP L2Link DOWN L1Link:DOWN Blocked:0 Debug:0
voyage*CLI> zap show channels
  Chan Extension Context Language MOH Interpret
pseudo          default          default
 1              demo           default
 2              demo           default
 3              from-internal default
 4              from-internal default
voyage*CLI>
```

4. Download and install Asterisk-GUI:

```
cd /usr/src
svn checkout http://svn.digium.com/svn/asterisk-gui/trunk asterisk-gui
cd /usr/src/asterisk-gui
./configure && make && make install
make samples
```

Edit the configuration files...

```
in /etc/asterisk/http.conf
[general]
enabled=yes
enablestatic=yes
```

```
in /etc/asterisk/manager.conf
[general]
displaysystemname = yes
enabled = yes
webenabled = yes
port = 5038
;httptimeout = 60
bindaddr = 0.0.0.0
```

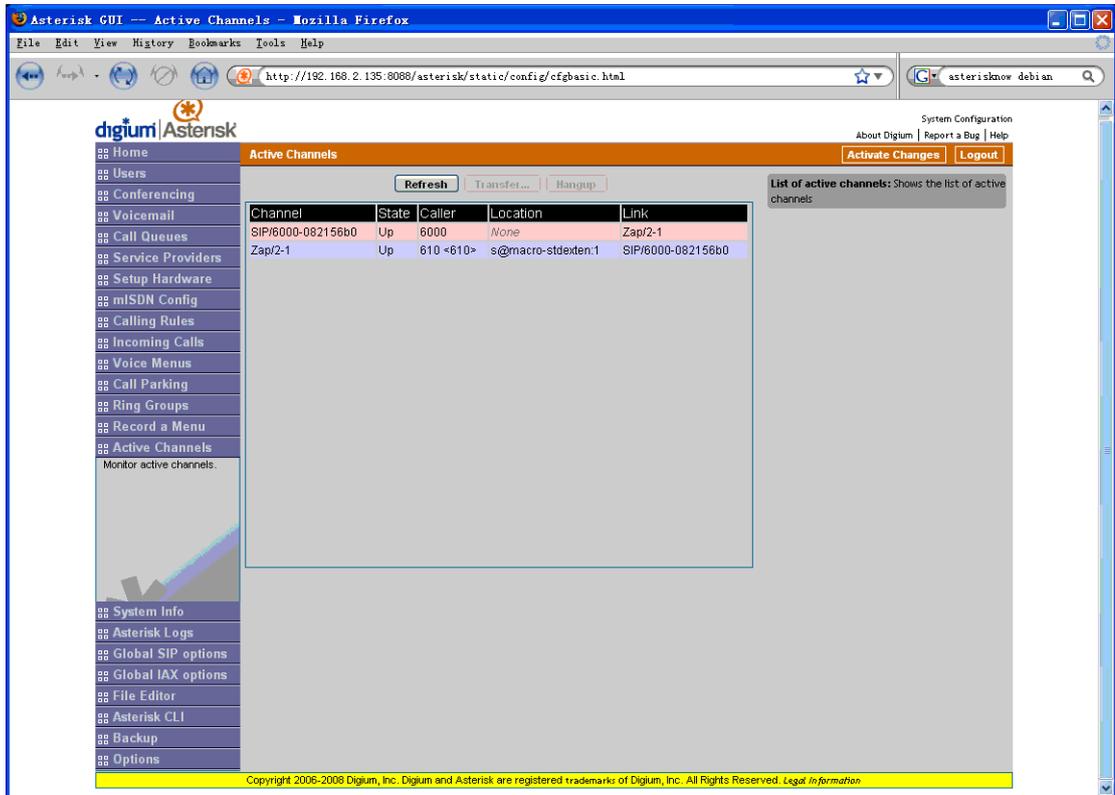
```
[admin]
secret = admin
read = system, call, log, verbose, command, agent, config
write = system, call, log, verbose, command, agent, config
```

Under the directory, run the commands:

```
make checkconfig
asterisk -r
reload
exit
```

Go to the URL to access the GUIs:

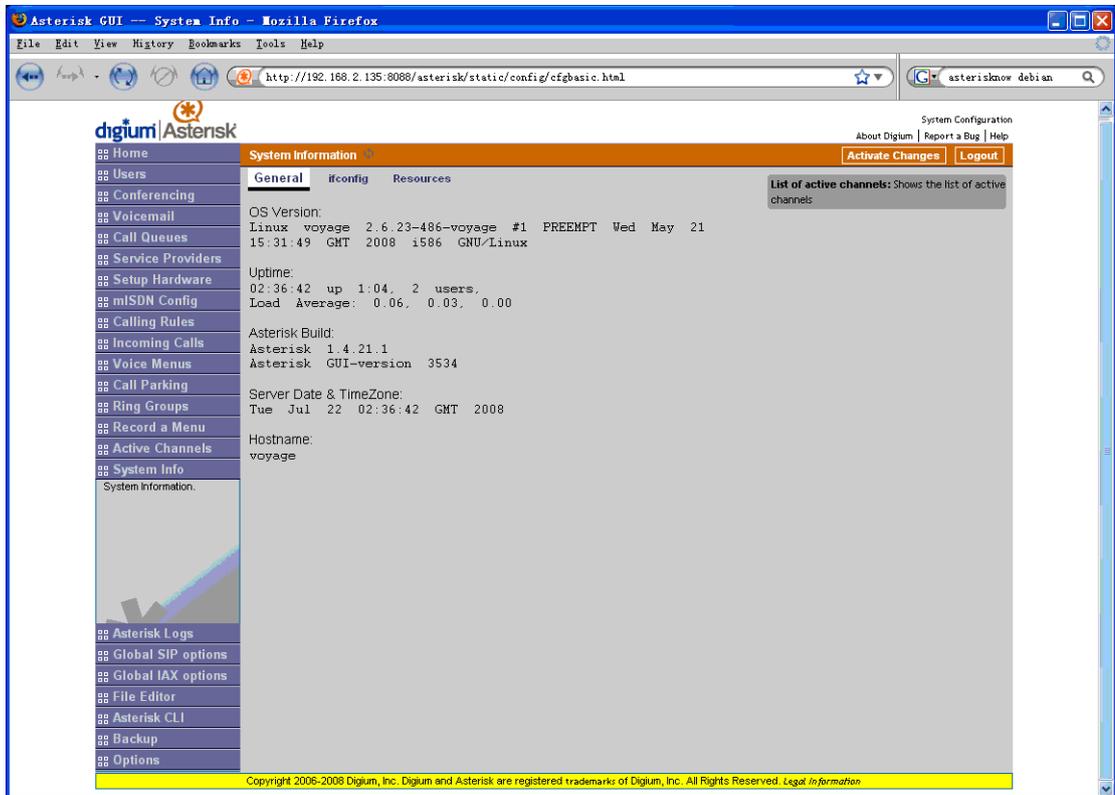
<http://IP:8088/asterisk/static/config/cfgbasic.html#>



The screenshot shows the Asterisk GUI interface in Mozilla Firefox. The browser address bar displays `http://192.168.2.135:8088/asterisk/static/config/cfgbasic.html`. The page title is "Asterisk GUI -- Active Channels - Mozilla Firefox". The main content area is titled "Active Channels" and features a table with the following data:

Channel	State	Caller	Location	Link
SIP/600-082156b0	Up	6000	None	Zap/2-1
Zap/2-1	Up	610 <610>	s@macro-stdexten:1	SIP/6000-082156b0

Below the table are buttons for "Refresh", "Transfer...", and "Hangup". To the right, there is a "List of active channels" section with a description: "Shows the list of active channels". The left sidebar contains a navigation menu with items like Home, Users, Conferencing, Voicemail, Call Queues, Service Providers, Setup Hardware, mISDN Config, Calling Rules, Incoming Calls, Voice Menus, Call Parking, Ring Groups, Record a Menu, Active Channels, System Info, Asterisk Logs, Global SIP options, Global IAX options, File Editor, Asterisk CLI, Backup, and Options. The footer contains the copyright notice: "Copyright 2006-2008 Digium, Inc. Digium and Asterisk are registered trademarks of Digium, Inc. All Rights Reserved. Legal Information".



The screenshot shows the Asterisk GUI interface in Mozilla Firefox. The browser address bar displays `http://192.168.2.135:8088/asterisk/static/config/cfgbasic.html`. The page title is "Asterisk GUI -- System Info - Mozilla Firefox". The main content area is titled "System Information" and is divided into three tabs: "General", "#config", and "Resources". The "General" tab is active and displays the following system information:

OS Version:
Linux voyage 2.6.23-486-voyage #1 PREEMPT Wed May 21
15:31:49 GMT 2008 i586 GNU/Linux

Uptime:
02:36:42 up 1:04, 2 users,
Load Average: 0.06, 0.03, 0.00

Asterisk Build:
Asterisk 1.4.21.1
Asterisk GUI-version 3534

Server Date & TimeZone:
Tue Jul 22 02:36:42 GMT 2008

Hostname:
voyage

The left sidebar contains a navigation menu with items like Home, Users, Conferencing, Voicemail, Call Queues, Service Providers, Setup Hardware, mISDN Config, Calling Rules, Incoming Calls, Voice Menus, Call Parking, Ring Groups, Record a Menu, Active Channels, System Info, Asterisk Logs, Global SIP options, Global IAX options, File Editor, Asterisk CLI, Backup, and Options. The footer contains the copyright notice: "Copyright 2006-2008 Digium, Inc. Digium and Asterisk are registered trademarks of Digium, Inc. All Rights Reserved. Legal Information".

The screenshot shows the Asterisk GUI 'System Info' page. The 'Resources' tab is active, displaying disk and memory usage information.

Disk Usage:

Filesystem	Size	Used	Avail	Use%	Mounted on
rootfs	7.4G	1010M	6.0G	15%	/
udev	10M	20K	10M	1%	/dev
/dev/disk/by-label/ROOT_FS	7.4G	1010M	6.0G	15%	/
/dev/disk/by-label/ROOT_FS	7.4G	1010M	6.0G	15%	/dev/.static/dev
tmpfs	126M	0	126M	0%	/lib/init/rw
tmpfs	126M	0	126M	0%	/dev/shm
tmpfs	8.0M	404K	7.7M	5%	/rw

Memory Usage:

	total	used	free	shared	buffers	cached
Mem:	256836	42948	213888	0	1304	23584
-/+ buffers/cache:	18060	238776				
Swap:	0	0	0			

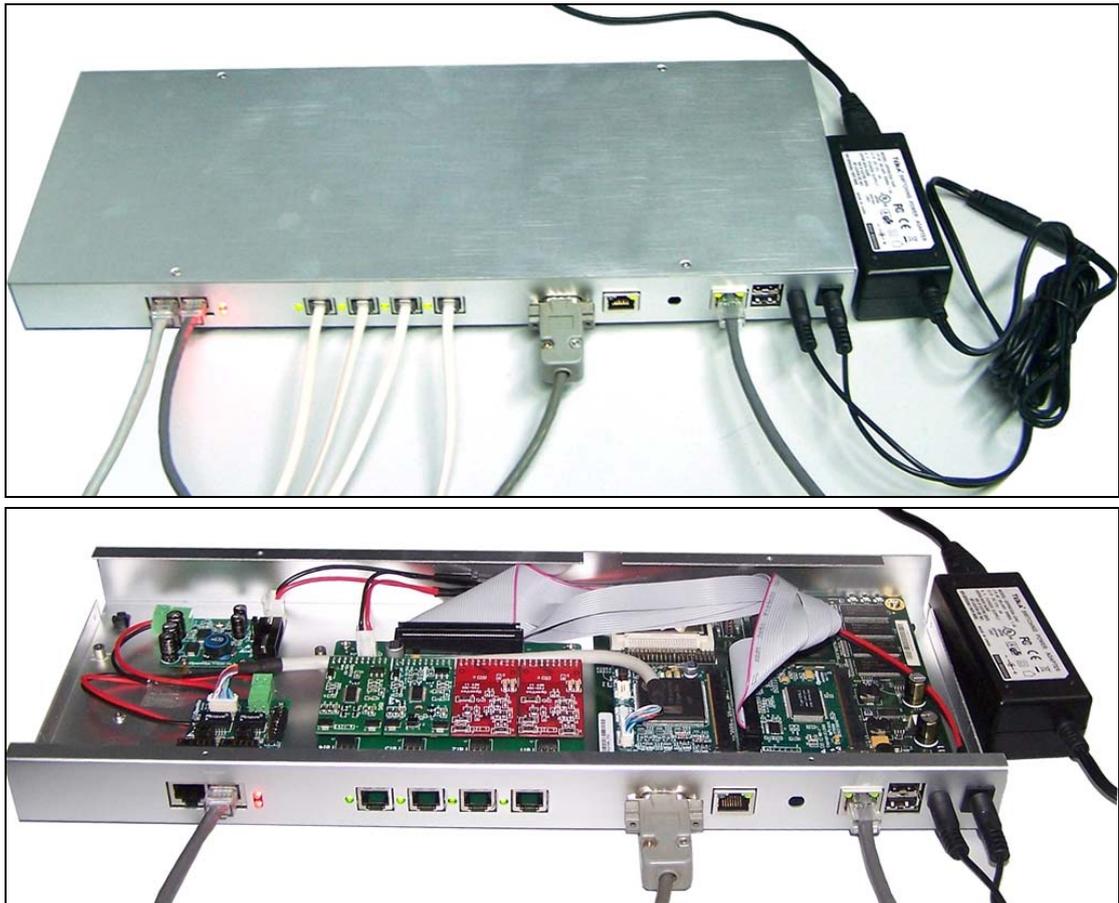
Asterisk Console:

```

voyage*CLI>
voyage*CLI> P[ 1] channel with stdid:0 for one second still in use!
== Starting mISDN/2-u7 at demo,,1 failed so falling back to exten 's'
-- Executing [s@demo:1] Answer("mISDN/2-u7", "") in new stack
-- Executing [s@demo:2] Dial("mISDN/2-u7", "ZAP/4") in new stack
-- Called 4
P[ 1] channel with stdid:0 for one second still in use!
== Starting mISDN/2-u7 at demo,,1 failed so falling back to exten 's'
-- Executing [s@demo:1] Answer("mISDN/2-u7", "") in new stack
-- Executing [s@demo:2] Dial("mISDN/2-u7", "ZAP/4") in new stack
-- Called 4
-- Zap/4-1 is ringing
-- Zap/4-1 is ringing
voyage*CLI> -- Zap/4-1 is ringing
-- Zap/4-1 is ringing
voyage*CLI> -- Zap/4-1 answered mISDN/2-u7
-- Zap/4-1 answered mISDN/2-u7

```

Physical layout:



Test environments:

OS-Voyage-linux Version: 0.5 (Build Date 20080622)

OpenVox cards: B200M, A400M

OpenVox IX100 with Alix 2c2

CF card: Kingston compact flash 8 GB

AsteriskGUI

Drivers: asterisk-1.4.21.1, zaptel-1.4.11 and mISDN-1_1_8

If you only install A400M, you do not need to install mISDN.

Bristuff should be ok under Voyage-linux.

References:

<http://linux.voyage.hk/>

www.asterisk.org

www.openvox.com.cn

<http://www.debian.org/>

www.misdn.org

<http://www.pcengines.ch/alix2c2.htm>