



## 2. Install voyage-linux tools and kernel

Once you login the system please run the follow commands to install linux tools and kernel sources.

```
remountrw
apt-get update
apt-get install:
kernel-package ncurses-dev fakeroot wget bzip2 sharutils
deb http://www.voyage.hk/dists/experimental ./
apt-get install build-essential
apt-get install linux-source-2.6.23-voyage
cd /usr/src
tar -jxf linux-source-2.6.23-voyage.tar.bz2
cd linux-source-2.6.23-voyage
edit Makefile and change this line:
EXTRAVERSION to EXTRAVERSION = -486-voyage
cp /boot/config-2.6.23-486-voyage /usr/src/linux-source-2.6.23-voyage/.config
make; it will take much time
ln -s /usr/src/linux-source-2.6.23-voyage/lib/modules/2.6.23-486-voyage/build
```

## 3. Install Asterisk, zaptel, mISDN and compile the packages.

If you do not know how to install asterisk, mISDN and zaptel, please refer other references. Before installing those packages, please run:

```
apt-get install bison openssl libssl-dev libeditline0
libeditline-dev libedit-dev
apt-get install gcc make g++ php5-cli mysql-common lib
mysqlclient15-dev libnewt-dev flex xsltproc
```

Some packages in my system are:

```
asterisk-1.4.21.1, linux-source-2.6.23-voyage, mISDN-1_1_8, zaptel-1.4.12.1
mISDNUser-1_1_8 zaptel-1.4.12.1
```

Note: make sure your asterisk compiled with chan\_misdn, otherwise, you will get error to run mISDN channels.

## 4. Configure mISDN, zaptel, asterisk

Edit mISDN file under /usr/sbin to make sure mISDN can detect B200M.

Please edit the file and find out the code like what the picture shows:

```
08b4*)
..
if ${LSPCI} -n -v -s "${line:5}" | ${GREP} "Subsystem" | ${GREP} "1397:b567" > /dev/null ; then
    addcard "BN150" "" 1 'mode="te" link="ptmp"'
elif ${LSPCI} -n -v -s "${line:5}" | ${GREP} "Subsystem" | ${GREP} "1397:b566\|1397:b569" > /dev/null ;
    addcard "BN250" "" 2 'mode="te" link="ptmp"'
else
    addcard "BN450" "" 4 'mode="te" link="ptmp"'
fi
..
```

please change  
b569 to e884

Change b569 to e884. It will detect B200M; otherwise, the card will be detected as B400M.

To make sure the BRI card boots automatically when the system boots up, please edit the mISDN file like this:

```
}  
function run_start_commands  
{  
    local i=0  
    sleep 15  
    echo "-- Load mISDN module --"  
    while [ ! -z to wait and make sure ] do the system resource is  
        echo ready, then auto starts  
        eval BRI card.  
        let " Otherwise, when system  
    done boots up, the card can  
} not boot during the boot
```

Run: /usr/sbin/update-rc.d mISDN defaults 15 30: to make B200M/B400M boots up when system boots.

Run the command: ./genzaptelconfig -sdvM to set zaptel.conf and Zapata.conf for A400M

Run these commands to set B200M/B400M under /usr/sbin:

./mISDN scan ; will detect BRI card, it will show BN2S0 if it is B200M

./mISDN config; set /etc/mISDN.conf

./mISDN start ; start driver

Note, if you have a combination of BRI card+A400M, please disable the netjetpci in mISDN or add blacklist in system booting, more details, please check with this link: <http://www.openvox.com.cn/bbs/viewtopic.php?t=407>.. Please add chan\_misdn.so in modules.conf under /etc/asterisk before starting asterisk.

## 5. Samples files.

mISDN.conf under /etc

```
-----  
Module: mISDN_dsp  
Options: debug=<number>, options=<number>, poll=<number>,  
        dtmfthreshold=<number>  
-----  
-->  
<mISDNconf>  
    <module poll="128" debug="0" timer="no">hfcmulti</module>  
    <module debug="0" options="0">mISDN_dsp</module>  
    <devnode user="root" group="root" mode="644">mISDN</devnode>  
    <card type="BN2S0">  
        <port mode="te" link="ptmp">1</port>  
        <port mode="te" link="ptmp">2</port>  
    </card>  
</mISDNconf>
```

```

; defines the maximum amount of outgoing calls per port for this group
; exceeding calls will be rejected
;
max_outgoing=-1

[intern]
; define your ports, e.g. 1,2 (depends on mISDN-driver loading order)
ports=1,2
; context where to go to when incoming Call on one of the above ports
context=demo
~

```

Misdn.conf under /etc/asterisk

```

[demo]
;
; We start with what t inbound calls coming == in.
; from misd n or zaptel
;
exten => s,1,Wait(1) ; second, just for fun
exten => s,n,Answer ; Answer the line
exten => s,n,Set(TIMEOUT(digit)=5) ; Set Digit Timeout to 5 seconds
exten => s,n,Set(TIMEOUT(response)=10) ; Set Response Timeout to 10 seconds
exten => s,n(restart),BackGround(demo-congrats) ; Play a congratulatory message
exten => s,n(instruct),BackGround(demo-instruct) ; Play some instructions
exten => s,n,WaitExten ; Wait for an extension to be dialed.

exten => 2,1,BackGround(demo-moreinfo) ; Give some more information.
exten => 2,n,Goto(s,instruct)

```

extensions.conf under /etc/asterisk

Here, the example is given to let customers know that how B200M works as a TE mode. Our website provides much more information about how to configure A400M. The setting of A400M should be much easier and very straightforward. If you follow all steps successfully, you should be able to see the misd n channels under asterisk console. If you have any problem, please report to us.

#### References:

<http://www.howtoforge.com/asterisk-zaptel-libpri-misd n-asterisk-a-ddons-asterisk-gui-on-debian-etch>

openvox.com.cn

asterisk.org

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

#### Test environments:

OS: Voyage-linux-0.5.2

OpenVox B200M

Asterisk-1.4.21.1

Zaptel-1.4.12.1

mISDN-1.1.8

CF card: Kingston 8GB

Hardware: OpenVox IX100