# Quickstart

## Installation

### Install Asterisk

We provide a free and compiled Asterisk installation package. The install package contains a minimal amount of default configuration files to get started, and provides an efficient way to get your Asterisk system up and running.

First, unzip/untar the Asterisk package by using the command:

```
# tar xvzf asterisk_Vx.x.x_date.tar.gz
```

Next, go to the directory of the Asterisk package generated and type the following command:

```
host:~# cd asterisk_Vx.x.x_date
host:~/asterisk_Vx.x.x_date# ./install.sh
--- Asterisk IP/PABX Vx-x-x Installation ---
Creating directories...
Installing asterisk binary...
Installing configuration files...
Installing sounds...
Installing modules...
--- Asterisk IP/PABX Vx-x-x installation has finished ---
host:~/asterisk_Vx.x.x_date#
```

NOTE:

If your Asterisk is already installed or you are installing from sources please check your are using:

- Asterisk 1.2 Vxi 1.4 packages (discontinued)
- Asterisk 1.4 Vxi 3.X, 4.X, 5.X, 6.X packages
- Asterisk 1.6 Vxi 3.X, 4.X, 5.X, 6.X, 7.X, 8.X packages
- Asterisk 1.8 Vxi 6.X, 7.X, 8.X packages (stable)

### Install Dahdi (optional)

If you don't use a TDM board, please skip this section.

If your system use a TDM card, you must install first Dadhi drivers to manage T1/E1 interface. The Dadhi drivers and tools should be compiled in the server. You need to install a building environment (compiler, binutils and kernel headers). For the Debian distribution, install the packages : linux-headers-`uname -r`, make, gcc.

Example:

```
apt-get install linux-headers-`uname -r`
```

(Packages to be able to compile : binutils, make, gcc)

This Dahdi packages associated to the i6net Asterisk package or in the Asterisk installation directory. You can download the latest Dadhi sources files (from www.asterisk.org</font> ) (take care with the compatibility with the Asterisk binaries build by i6net):

- dahdi-linux-x.x.x.x.tar.gz
- dahdi-tools-x.x.x.x.tar.gz

Install the Dahdi driver:

```
# tar xvfz dahdi-linux-x.x.x.x.tar.gz
# cd dahdi-linux-x.x.x.x
# make
# make install
```

Results:

```
[…]

#####################################################
###
### DAHDI installed successfully.
### If you have not done so before, install the package
### dahdi-tools.
###
#####################################################
```

Install the Dahdi tools:

```
# tar xvfz dahdi-tools-x.x.x.x.tar.gz
# cd dahdi-tools-x.x.x.x
# ./configure
# make
# make install
# make config
```

Results:

```
[…]
DAHDI has been configured.
```

If you have any Dadhi hardware it is now recommended you edit /etc/dahdi/modules in order to load support for only the Dadhi hardware installed in this system. By default, support for all Dadhi hardware is loaded at Dadhi start.

```
I think that the DAHDI hardware you have on your system is:
pci:0000:0b:08.0 wct4xxp- d161:0220 Wildcard TE220 (4th Gen)
```

Configure the Dahdi driver:

Configuration files are not stored in /etc/dahdi:

```
# cd /etc/dahdi
# ls
init.conf modules system.conf
```

Example of system.conf (dual E1 board):

```
#
# Dahdi Configuration File
#

span=1,1,0,ccs,hdb3,crc4
bchan=1-15
dchan=16
bchan=17-31

span=2,1,0,ccs,hdb3,crc4
bchan=32-46
dchan=47
bchan=48-62

#span=3,1,0,ccs,hdb3,crc4
#bchan=63-77
#dchan=78
#bchan=79-93

#span=4,1,0,ccs,hdb3,crc4
#bchan=94-108
#dchan=109
#bchan=110-124

loadzone=es
defaultzone=es
```

You can disable the unused modules by editing the /etc/dahdi/modules and removing or commenting them.

Example of modules (dual E1/T1 board wct4xxp):

```
#
# Dahdi modules
#
wct4xxp
```

Start / Stop Dahdi driver:

The Dahdi tools install a startup script, /etc/init.d/dahdi. You may also use this script to control Dahdi from the Linux command line:

```
# /etc/init.d/dahdi start
# /etc/init.d/dahdi restart
# /etc/init.d/dahdi stop
```

NOTE:

Remember that, the Dahdi module loading is disabled in the I6NET packaged Asterisk version. Disable the noload in the /etc/asterisk/modules.conf.

## Install VoiceXML browser

Use root to install Vxi*, the VoiceXML browser for Asterik.

Unzip and untar the VoiceXML package by using the command:

```
# tar xvzf vxml_VX.X_date.tar.gz
```

Go to the directory of the vxml package and type the following command.

```
# cd vxml_VX.X_date
# ./install.sh
```

# Setup

Be careful, respect the order for starting and stopping the full VoiceXML modules :

To start the platform orderly:

- Start Dahdi (optional)
- Start VoiceXML browser
- Start Asterisk

To stop it, orderly :

- Stop Asterisk
- Stop VoiceXML browser
- Stop Dahdi (optional)

## Start Dahdi deamon

To start the dahdi driver:

```
# /etc/init.d/dahdi start
```

To stop the dahdi driver:

```
# /etc/init.d/dahdi stop
```

## Start VoiceXML deamon

The VoiceXML browser software is installed in /usr/sbin and /usr/lib/vxml. The VoiceXML browser setup script on Linux is /etc/vxmld.conf (older verions: /etc/init.d/openvxi). The vxml script calls the /usr/sbin/vxmld executable that is the VoiceXML browser engine. If the VoiceXML browser process dies, the Asterisk module can be configured to detect it and force the VoiceXML browser and the Asterisk to restart using the safe_asterisk script.

```
# /etc/init.d/vxml start
```

To stop the VoiceXML deamon:

```
# /etc/init.d/vxml stop
```

NOTE:

This startup script runs only for Debian/Ubuntu Linux distributions, please modify or install a correct this script file to launch correctly Vxi from other Linux systems. We provide a script to start the actual, AsteriskNOW linux distribution from Digium.

## Start Asterisk deamon

For production setups, we use safe_asterisk wrapper to catch any asterisks error, avoiding to restart asterisk manualy. This script will start a new asterisk instance when asterisk process is missing. So if you really want to stop asterisk, you must stop safe_asterisk script first. It is better to modify the safe_asterisk script to restart the VoiceXML browser when the safe_asterisk script restart the Asterisk. Edit the script and add :

```
#NOTIFY=ben@alkaloid.net          # Who to notify about crashes
EXEC="/etc/init.d/vxml restart"   # Run this command if Asterisk crashes
#LOGFILE=/path/to/logfile         # Where to place the normal logfile
(disabled if blank)
```

Start asterisk: (just call the wrapper)

```
#safe_asterisk
```

Stop asterisk:

```
#killall -9 safe_asterisk && asterisk -x 'core stop gracefully'
```

NOTE:

On production server there can be a CRON command line restarting asterisk automatically each morning, using safe_asterisk is mandatory. Check with "#crontab -l", if there is any asterisk killall commands related with asterisk.