



Esse tutorial é feito pela própria equipe da Lojamundi, uma empresa que sabe o que vende.

Se você ainda não tem uma Cubieboard 2, [compre com o menor preço do Brasil](#)

Instalando imagem do Debian na Cubieboard 2

Nesse artigo você irá aprender a instalar e configurar o Asterisk + Chan_dongle e envio de SMS.

Utilizaremos o sistema operacional Linux Debian 7 Squeeze para esse procedimento.

Link da imagem NAND do Debian:

<http://dl.cubieboard.org/software/a20-cubieboard/debian/nand/debian-nand.img.gz>

Vídeo Transferindo a imagem do Debian para Cubieboard2

<https://www.youtube.com/watch?v=Vuab24Os6DU>

Lembramos que a utilização desse procedimento é de responsabilidade total e exclusiva do cliente que gerencia o servidor, este tutorial foi executado e testado, a LojaMundi não se responsabiliza por possíveis danos causados pela má utilização do mesmo.

Instalando pacotes necessários:

```
root@cubieez:~#aptitude update
root@cubieez:~#aptitude install sudo unzip usb-modeswitch automake vim bison openssl
libssl-dev libasound2-dev libc6-dev libnewt-dev libncurses5-dev zlib1g-dev zlib-bin gcc g++
make build-essential apache2 php5-cli php5 php5-mysql php5-gd curl php-pear sox libtiff4-
dev subversion php-db libsqlite3-dev
```

#Colorindo o VIM

```
root@cubieez:~#sed -i "s|\"syntax on|syntax on|" /etc/vim/vimrc
```

#Instalando kernel-source

```
root@cubieez:~#cd /usr/src/
```

```
root@cubieez:~#aptitude build-essential linux-source-3.2
```

```
root@cubieez:~#tar -xvf /usr/src/linux-source-3.2.tar.bz2 -C /usr/src
```

```
root@cubieez:~#ln -s linux-source-3.2/ linux
```

#Compilando Asterisk

```
root@cubieez:~#root@cubieez:~#cd /usr/src/
```

```
root@cubieez:~#wget -c http://downloads.asterisk.org/pub/telephony/asterisk/asterisk-11-
current.tar.gz
```

```
root@cubieez:~#tar -zxvf asterisk-11-current.tar.gz
```

```
root@cubieez:~#cd /usr/src/asterisk-11.8.1/contrib/scripts
```

```
root@cubieez:~#./install_prereq install
```

```
root@cubieez:~#cd ../../
```



```
root@cubieez:~#./configure
root@cubieez:~#make && make install && make samples

#Compilado Chan_dongle
root@cubieez:~#wget https://github.com/jstasiak/asterisk-chan-
dongle/archive/asterisk11.zip
root@cubieez:~#unzip asterisk11.zip
root@cubieez:~#cd asterisk-chan-dongle-asterisk11/
root@cubieez:~#aclocal && autoconf && automake -a
root@cubieez:~#./configure
root@cubieez:~#make
root@cubieez:~#make install
root@cubieez:~#cp etc/dongle.conf /etc/asterisk/
root@cubieez:~#rm /etc/asterisk/extensions.conf

#Criando Plano de discagem para utilização do chan_dongle

root@cubieez:~#vim /etc/asterisk/extensions.conf

; this is chunks of Asterisk extensions.conf file for show some chan_dongle features
[general]

[from-internal]

exten => _X.,1,Dial(Dongle/g0/${EXTEN},60,tT)

Ou

exten => _X.,1,Dial(Dongle/dongle0/${EXTEN},60,tT)

#Agora basta inserir os ramais no contexto from-internal no sip.conf

root@cubieez:~#vim /etc/asterisk/sip.conf

[general]
udpbindaddr = 0.0.0.0
bindport = 5060
language = pt_BR
disallow = all

[100]
type=friend
username=100
secret=suasenha
dtmfmode=rfc2833
qualify=yes
host=dynamic
context=from-internal
callerid="100" <100>
```



```
callgroup=2
pickupgroup=2
disallow=all
allow=ulaw
allow=g722
allow=alaw
```

#####Iniciando Asterisk#####

```
root@cubieez:~#asterisk
root@cubieez:~#asterisk -vvvvvvvr
```

Asterisk 11.8.1, Copyright (C) 1999 – 2013 Digium, Inc. and others.

Created by Mark Spencer <markster@digium.com>

Asterisk comes with ABSOLUTELY NO WARRANTY; type 'core show warranty' for details.

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License version 2 and other licenses; you are welcome to redistribute it under

certain conditions. Type 'core show license' for details.

=====

Connected to Asterisk 11.8.1 currently running on cubieez (pid = 3309)

```
cubieez*CLI> sip show peers
```

```
Name/username Host Dyn Forcerport Comedia ACL Port Status Description
```

```
100/"100" (Unspecified) D Yes Yes 0 UNKNOWN
```

```
1 sip peers [Monitored: 0 online, 1 offline Unmonitored: 0 online, 0 offline]
```

```
cubieez*CLI> dongle show devices
```

```
ID Group State RSSI Mode Submode Provider Name Model Firmware IMEI IMSI Number
```

```
dongle0 0 Free 18 0 0 CLARO BR E1750 11.126.13.00.00 355013046317768 724056006075065
```

```
Unknown
```

#Segue abaixo o log de uma chamada para 10312

```
Executing [10312@from-internal:1] Dial("SIP/100-00000001", "Dongle/g0/10312,60,tT") in
new stack
```

```
— Called Dongle/g0/10312
```

```
— Dongle/dongle0-0100000001 is making progress passing it to SIP/100-00000001
```

```
> 0x991588 — Probation passed – setting RTP source address to 11.11.11.96:8000
```

```
— Dongle/dongle0-0100000001 answered SIP/100-00000001
```

```
== Spawn extension (from-internal, 10312, 1) exited non-zero on 'SIP/100-00000001'
```

#Enviando SMS via CLI Asterisk:

```
dongle sms dongle0 +556182353034 Ola
```

```
[dongle0] SMS queued for send with id 0x971b70
```

```
[Apr 14 21:58:39] ERROR[3351]: at_response.c:499 at_response_error: [dongle0] Error
sending SMS message 0x971b70
```



#Asterisk na inicialização

root@cubieez:~#vim /etc/rc.local

#!/bin/sh -e

#

rc.local

#

This script is executed at the end of each multiuser runlevel.

Make sure that the script will "exit 0" on success or any other

value on error.

#

In order to enable or disable this script just change the execution

bits.

#

By default this script does nothing.

safe_asterisk

exit 0