

This page will try to document my adventure in setup of GSM channel on Asterisk

te=0x86f20180 [0,0]

Contents: [Dobrica PavlinuÅiÄ 's random unstructured stuff]

- [Dobrica PavlinuÅiÄ 's random unstructured stuff \(Information\)](#)
- [Dobrica PavlinuÅiÄ 's random unstructured stuff \(Mass-storage switch\)](#)
- [Dobrica PavlinuÅiÄ 's random unstructured stuff \(Devices\)](#)
 - ♦ [Dobrica PavlinuÅiÄ 's random unstructured stuff \(Huawei E171\)](#)
 - ♦ [Dobrica PavlinuÅiÄ 's random unstructured stuff \(Check if voice is enabled\)](#)
 - ♦ [Dobrica PavlinuÅiÄ 's random unstructured stuff \(Huawei E1752\)](#)
 - ♦ [Dobrica PavlinuÅiÄ 's random unstructured stuff \(ZTE K3565-Z\)](#)
 - ♦ [Dobrica PavlinuÅiÄ 's random unstructured stuff \(ZTE MF626\)](#)
- [Dobrica PavlinuÅiÄ 's random unstructured stuff \(Huawei AT commands\)](#)
- [Dobrica PavlinuÅiÄ 's random unstructured stuff \(Source code\)](#)

Information

- <http://code.google.com/p/asterisk-chan-dongle/>
- http://www.makhutov.org/svn/chan_datacard/trunk/
- <http://wiki.e1550.mobi/>

Mass-storage switch

http://www.draisberghof.de/usb_modeswitch/

```
$ sudo apt-get install usb-modeswitch
```

Plug in modem again and you should get a bunch of serial ports:

```
[ 5445.108101] usb 2-2: new high speed USB device number 3 using ehci_hcd
[ 5445.242467] usb 2-2: New USB device found, idVendor=12d1, idProduct=1446
[ 5445.242477] usb 2-2: New USB device strings: Mfr=3, Product=2, SerialNumber=0
[ 5445.242484] usb 2-2: Product: HUAWEI Mobile
[ 5445.242489] usb 2-2: Manufacturer: HUAWEI Technology
[ 5445.244981] scsi7 : usb-storage 2-2:1.0
[ 5445.245515] scsi8 : usb-storage 2-2:1.1
[ 5446.017603] usb 2-2: USB disconnect, device number 3
[ 5450.036132] usb 2-2: new high speed USB device number 4 using ehci_hcd
[ 5450.170725] usb 2-2: New USB device found, idVendor=12d1, idProduct=1436
[ 5450.170736] usb 2-2: New USB device strings: Mfr=4, Product=3, SerialNumber=0
[ 5450.170743] usb 2-2: Product: HUAWEI Mobile
[ 5450.170748] usb 2-2: Manufacturer: HUAWEI Technology
[ 5450.175800] scsi14 : usb-storage 2-2:1.5
[ 5450.176793] scsi15 : usb-storage 2-2:1.6
[ 5450.271164] usbcore: registered new interface driver usbserial
[ 5450.271176] USB Serial support registered for generic
```

```
[ 5450.271234] usbcore: registered new interface driver usbserial_generic
[ 5450.271236] usbserial: USB Serial Driver core
[ 5450.296230] cdc_ether 2-2:1.1: wwan0: register 'cdc_ether' at usb-0000:00:1d.7-2, Mobile Broad
[ 5450.296411] usbcore: registered new interface driver cdc_ether
[ 5450.362679] USB Serial support registered for GSM modem (1-port)
[ 5450.362792] option 2-2:1.0: GSM modem (1-port) converter detected
[ 5450.362908] usb 2-2: GSM modem (1-port) converter now attached to ttyUSB0
[ 5450.362928] option 2-2:1.3: GSM modem (1-port) converter detected
[ 5450.362987] usb 2-2: GSM modem (1-port) converter now attached to ttyUSB1
[ 5450.362997] option 2-2:1.4: GSM modem (1-port) converter detected
[ 5450.363051] usb 2-2: GSM modem (1-port) converter now attached to ttyUSB2
[ 5450.363073] usbcore: registered new interface driver option
[ 5450.363074] option: v0.7.2:USB Driver for GSM modems
```

Devices

Huawei E171

```
Found modem : E171
Model : Huawei E171
IMEI : 354807044078459
Serial NR. : 4BA5TA10B2706637
Firmware : 11.126.85.01.143
Compile date / time : Jun 21 2010 20:27:27
Dashboard version : UTPS11.300.05.15.143_MAC11.301.09.01.143
Chipset : Qualcomm MSM6290
Voice feature : disabled
SIM Lock status : unlocked
Wrong codes entered : 0 (unlock attempts left : 10)
```

Check if voice is enabled

```
ati
Manufacturer: huawei
Model: E171
Revision: 11.126.85.01.143
IMEI: 354807044078459
+GCAP: +CGSM,+DS,+ES

AT^CVOICE?
^CVOICE:0,8000,16,20
```

Huawei E1752

<http://3g-modem.wetpaint.com/page/Huawei+E1750%2C+E1750C%2C+E1752%2C+E1752C>

```
Found modem : E1752
Model : Huawei E1752
IMEI : 353145034241600
Serial NR. : 047NAA19A1600110
Firmware : 11.126.13.00.00
Compile date / time : Jul 05 2010 10:16:42
Dashboard version : UTPS11.300.05.22.56_MAC11.300.08.19.56
```

Chipset : Qualcomm MSM6290
Voice feature : disabled
SIM Lock status : unlocked
Wrong codes entered : 0 (unlock attempts left : 10)

ZTE K3565-Z

[http://3g-modem.wetpaint.com/page/ZTE+K3565-Z+\(Vodafone\)](http://3g-modem.wetpaint.com/page/ZTE+K3565-Z+(Vodafone))

Manufacturer: ZTE INCORPORATED
Model: K3565-Z
Revision: BD_P673A2V1.0.0B09
IMEI: 357867029244846
+GCAP: +CGSM,+DS,+ES

OK

AT^CVOICE=?
ERROR

ZTE MF626

Manufacturer: ZTE INCORPORATED
Model: MF626
Revision: BD_TMOP673M3V1.0.1B03
IMEI: 355364037442846
+GCAP: +CGSM,+DS,+ES

OK

AT^CVOICE=?
ERROR

Huawei AT commands

AT^CVOICE=0 Enable Voice
AT^CVOICE=1 Disable Voice
AT^CVOICE=? Check status
=====
AT^U2DIAG=0 â switch the device in modem mode only
AT^U2DIAG=1 â device in modem mode + CD-ROM
AT^U2DIAG=255 â modem mode + CD-ROM + Card Reader
AT^U2DIAG=256 â modem mode + Card Reader

<http://wiki.e1550.mobi/doku.php?id=usage>

AT+CCWA=0,0,1 disable call-waiting
AT+CFUN=1,1 reboot modem
AT^CARDLOCK=â <code>â send unlock code
AT^SYSCFG=13,0,3FFFFFFF,0,3 modem 2G only, automatic search any band, no roaming
AT^SYSCFG=2,0,3FFFFFFF,2,4 Any
AT^SYSCFG=13,1,3FFFFFFF,2,4 2G only

```
AT^SYSCFG=14,2,3FFFFFFF,2,4      3G only
AT^SYSCFG=2,1,3FFFFFFF,2,4      2G preferred
AT^SYSCFG=2,2,3FFFFFFF,2,4      3G preferred
AT^U2DIAG=0      enable modem function only
ATI      get relevant information from modem
ATZ      reset modem configuration
AT+CIMI      read IMSI
AT+CLCK="SC",0,"<pin>"      disable PIN verification
```

Voice connection

```
AT^CVOICE=?
^CVOICE: (0)
```

```
OK
AT^CVOICE?
^CVOICE:0,8000,16,20
```

```
ATD50463599999
OK
```

```
AT^DDSETEX=2
```

Source code

Test if your modem supports voice capabilities

[git.rot13.org Git - huawei.git/rss log](https://git.rot13.org/Git-huawei.git/rss/log)

- force AT\$QCDMG from command-line

```
force AT$QCDMG from command-line
```

♦ [DH] qcdm.pl

- specify port at command line

```
specify port at command line
```

♦ [DH] qcdm.pl

- query Huawei and ZTE specific AT commands

```
query Huawei and ZTE specific AT commands
```

♦ [DH] at-chat.pl

- specify port at command line

```
specify port at command line
```

♦ [DH] at-chat.pl

- don't modify echo ATE0

```
don't modify echo ATE0
```

- ◆ [DH] at-chat.pl
- rename AT chat script

rename AT chat script

- ◆ [DH] at-chat.pl
- ◆ [DH] qcom-chat.pl
- enter in diag mode automatically

enter in diag mode automatically

- ◆ [DH] qcdm.pl
- mirror from <https://www.codeaurora.org/git/projects/hisense-ts7008/repository/>

mirror from <https://codeaurora.org/git/projects/hisense-ts7008/repository/>

- ◆ [DH] AMSS/diagcmd.h
- ◆ [DH] AMSS/diagd3des.c
- ◆ [DH] AMSS/diagd3des.h
- ◆ [DH] AMSS/diagdiag.c
- ◆ [DH] AMSS/diagdiag_v.h
- ◆ [DH] AMSS/diagfwd.c
- ◆ [DH] AMSS/diagsec.c
- ◆ [DH] AMSS/diagsec.h
- ◆ [DH] AMSS/nv/nv_info_tab.c
- ◆ [DH] AMSS/nv/nvi_items.h
- ◆ [DH] AMSS/nv/nvim.c
- ◆ [DH] AMSS/nv/nvim_items.h
- ◆ [DH] AMSS/nv/nvio.c
- ◆ [DH] AMSS/tmc.c
- correct crc calculation and escaping

correct crc calculation and escaping

- ◆ [DH] qcdm.pl
- chat in Qualcomm DM protocol

chat in Qualcomm DM protocol

- ◆ [DH] qcdm.pl
- <http://events.ccc.de/congress/2011/Fahrplan/events/4735.en.html>

events.ccc.de/congress/2011/Fahrplan/events/4735.en.html

- ◆ [DH] docs/2022_11-ccc-qcombbdbg.pdf
- few more commands

few more commands

- ◆ [DH] qcom-chat.pl
- AT Commands set SIM5210_ATC_V1.1

AT Commands set SIM5210_ATC_V1.1

- ◆ [DH] docs/SIM5210_ATC_V1.1.pdf

- more command, better handling of response

more command, better handling of response

- ♦ [DH] qcom-chat.pl
- chat with qualcomm modem

chat with qualcomm modem

- ♦ [DH] qcom-chat.pl