

# Zeroshell

Voici la procédure d'installation pour 3 cartes 3g mobistar Huawei E-1552

## Installation

Requirements:

- Pen drive with almost 128 Mb available
- Live CD with ZeroShell

First steps ...

1. Download from <http://www.zeroshell.net/download/> the compact flash image
2. Copy to the pen drive Zeroshell image for CompactFlash (rename it to zeroshell.img.gz)

Next steps

1. A PC (or embedded pc) with a spare USB so we can plug the pen drive
2. Place the hard disk and set up as the primary master
3. Start the computer with Zeroshell live cd in it
4. In the main menu, press **S** to open the shell
5. Check that all the devices are present, with **fdisk -l** (/dev/sda1 will be your pen drive in most of the cases)
6. Once verified, you can mount the device with **mount /dev/sda1 /mnt/loop1** (if the directory /mnt/loop1 it's not created, you'll have to do it with **mkdir /mnt/loop1** and test again)
7. Create a partition in the new hard disk (using fdisk)
8. Enter to the pen drive directory **cd /mnt/loop1**
9. Extract the downloaded image to the disc **gunzip -c zeroshell.img.gz > /dev/hda1**
10. Wait a few minutes so everything will be copied, when it's done you'll have the blinking prompt again.
11. Reboot, remove the CD and continue with the configuration...

Un serveur **SSH** est installé et activé dès le démarrage de l'ordi:

```
ssh -l admin 192.168.3.1
```

voici son écran d'accueil

```
-----
Z e r o S h e l l - Net Services 1.0.beta14          May 19, 2011 - 10:17
-----
Hostname : zeroshell.example.com
CPU (1)  : Intel(R) Celeron(R) CPU 2.40GHz 2399MHz
Kernel   : 2.6.25.20
Memory   : 253872 kB
Uptime   : 0 days, 1:10          User      : admin
Load     : 0.05 0.11 0.09        Password  : zeroshell
Profile  : Default configuration Profile
-----
COMMAND MENU
<A> Activate Profile           <P> Change admin password
<D> Deactivate Profile       <T> Show Routing Table
<S> Shell Prompt              <F> Show Firewall Rules
<R> Reboot                    <N> Show Network Interface
<H> Shutdown                  <Z> Fail-Safe Mode
<B> Create a Bridge           <I> IP Manager
<W> WiFi Manager

                                     Select: █
```

au besoin il faudra peut être modifier l'adresse ip avec l'option « I »

## **Configuration via interface web**

Accéder par le navigateur sur l'adresse <http://192.168.3.1> (adresse serveur)



ZEROSHELL  
Net Services

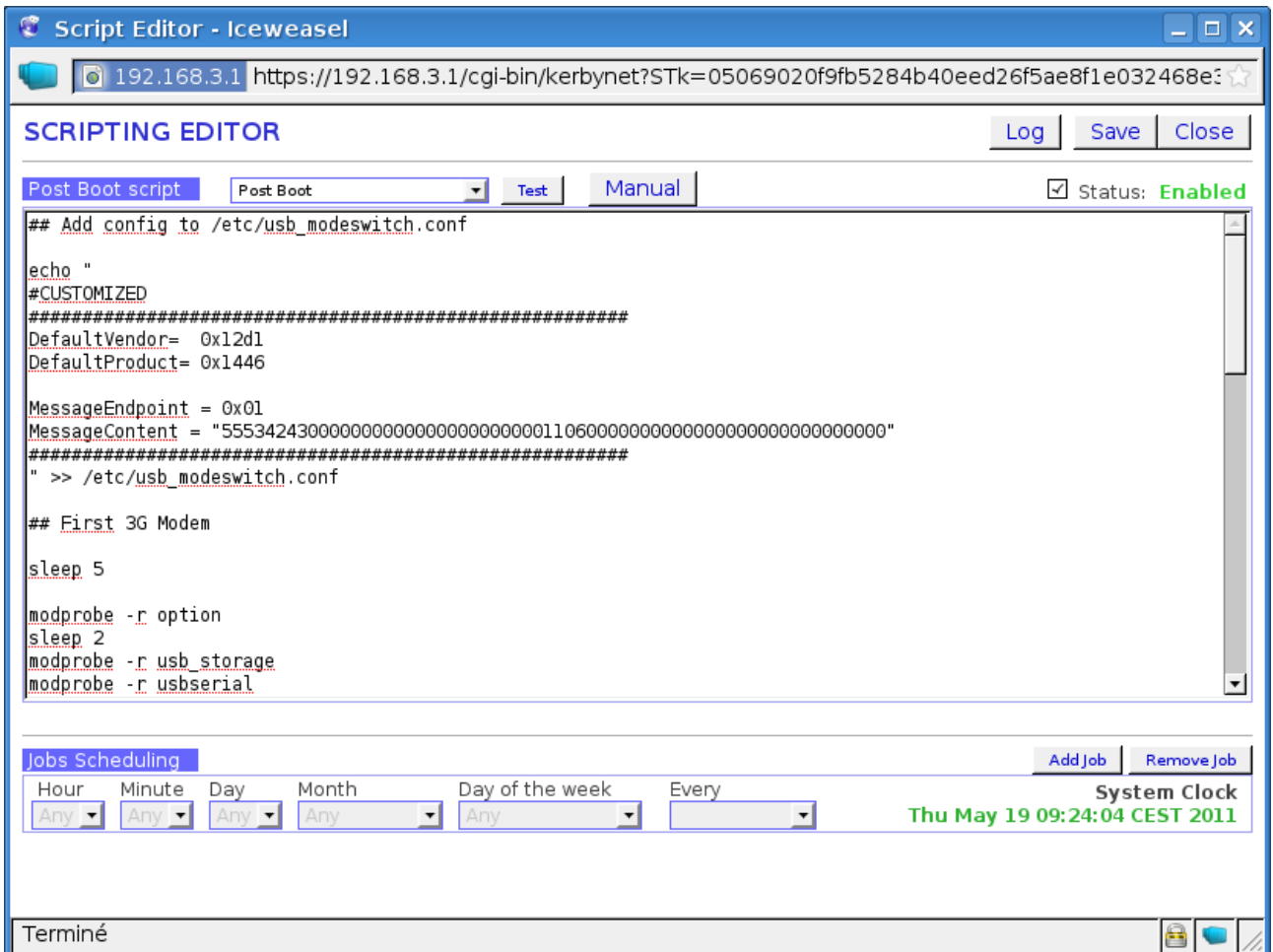
Username

Password

Username: admin  
Password: zershell

Vu la manière dont l'os reconnaît les cartes on doit pousser un script dans l'onglet **Startup/Cron**

qui se trouve dans la barre de navigation



Script Editor - Iceweasel

192.168.3.1 https://192.168.3.1/cgi-bin/kerbynet?STk=05069020f9fb5284b40eed26f5ae8f1e032468e3

**SCRIPTING EDITOR** [Log] [Save] [Close]

Post Boot script [Post Boot] [Test] [Manual]  Status: **Enabled**

```
## Add config to /etc/usb_modeswitch.conf
echo "
#CUSTOMIZED
#####
DefaultVendor= 0x12d1
DefaultProduct= 0x1446
MessageEndpoint = 0x01
MessageContent = "555342430000000000000000000000000011060000000000000000000000000000"
#####
" >> /etc/usb_modeswitch.conf

## First 3G Modem

sleep 5

modprobe -r option
sleep 2
modprobe -r usb_storage
modprobe -r usbserial
```

Jobs Scheduling [Add Job] [Remove Job]

Hour [Any] Minute [Any] Day [Any] Month [Any] Day of the week [Any] Every [ ] **System Clock**  
Thu May 19 09:24:04 CEST 2011

Terminé

voici le script:

```
## Add config to /etc/usb_modeswitch.conf

echo "
#CUSTOMIZED
#####
DefaultVendor= 0x12d1
DefaultProduct= 0x1446

MessageEndpoint = 0x01
MessageContent = "5553424300000000000000000000000011060000000000000000000000000000"
#####
" >> /etc/usb_modeswitch.conf

## First 3G Modem

sleep 5

modprobe -r option
sleep 2
modprobe -r usb_storage
modprobe -r usbserial

usb_modeswitch -v 0x12d1 -p 0x1446 -H -s 5 -c /etc/usb_modeswitch.conf

sleep 5

modprobe -r option
sleep 2
modprobe -r usb_storage
modprobe -r usbserial

sleep 5
modprobe usbserial vendor=0x12d1 product=0x1446

## Second 3G modem

sleep 5

modprobe -r option
sleep 2
modprobe -r usb_storage
modprobe -r usbserial

usb_modeswitch -v 0x12d1 -p 0x1446 -H -s 5 -c /etc/usb_modeswitch.conf

sleep 5

modprobe usbserial vendor=0x12d1 product=0x1446

## Third 3G Modem
```

sleep 5

modprobe -r option

sleep 2

modprobe -r usb\_storage

modprobe -r usbserial

usb\_modeswitch -v 0x12d1 -p 0x1446 -H -s 5 -c /etc/usb\_modeswitch.conf

sleep 5

modprobe usbserial vendor=0x12d1 product=0x1446

!!!!!!!!!!!!!!! si une des cartes venaient a manquer il faut absolument enlever une partie du script!!!!!!

Dans la barre de navigation du menu setup choisir l'option network

Network

Pour installer de nouvelles cartes il faut choisir

New 3G Modem

## 2G/3G Mobile Connection

Save

Close

>> Interface: PPP0 Connected inet addr:172.24.70.2 P-t-P:10.64.64.64 (2G/3G: ttyUSB0)

### Description

3G-1

Modem connected to	: ttyUSB0
APN	: iew.be
Dial string	: *99*#
Optional AT string	:
Autostart the connection at boot	: Yes
Make this interface the Default Route	: Yes
Enable NAT on this interface	: Yes

L'option

Configure

nous ramène à l'écran de configuration des cartes

voici la vue d'ensemble que l'on doit avoir

PPP0 Connected inet addr:172.24.70.2 P-t-P:10.64.64.64 (2G/3G: ttyUSB0)  UP

PPP1 Connected inet addr:172.24.97.232 P-t-P:10.64.64.65 (2G/3G: ttyUSB3)  UP

PPP2 Connected inet addr:172.23.85.229 P-t-P:10.64.64.66 (2G/3G: ttyUSB6)  UP

## Load Balancing

Dans le menu de navigation il faut choisir l'option net balancer

- SYSTEM
  - Setup
  - Logs
  - Utilities
- USERS
  - Users
  - Groups
  - LDAP / NIS
  - RADIUS
  - Captive Portal
- NETWORK
  - Hosts
  - Router
  - DNS
  - DHCP
  - VPN
  - QoS
  - Wireless
  - Net Balancer
- SECURITY
  - Kerberos 5
  - Firewall
  - X.509 CA
  - HTTP Proxy

● Net Balancer

Status : ACTIVE Mode: Load Balancing and Failover Save Show Log Routing Table

Gateway List: 4	Add	Change	Remove	Refresh
<input type="radio"/> DEFAULT GATEWAY				
<input type="radio"/> 3G-1				
<input type="radio"/> 3G-2				
<input type="radio"/> 3G-3				

**Failover Monitor** Status: Active

ICMP failover checking  Enabled

Number of probes before marking DOWN

Number of probes before marking UP

Reply timeout (seconds)

Pause before starting a new cycle (seconds)

Immediately restart PPPoE and 3G Mobile  Yes


**Failover IP Addresses** Test

IP (1)   Enabled

IP (2)   Enabled

IP (3)   Disabled

Dans cette page de navigation il faut activer le status, verifier que les cartes soient « up » et mettre des adresses dans le cadre inférieur droit dans l'option failover ip adresse (ping d'adresse en cas de perte de liaison)

Dans le menu :  DHCP  
mettre la plage d'adresse que l'on veut promouvoir

Active on: ETH00 Subnet: 192.168.3.0/255.255.255.0 [New] [Remove] [Show Log] [Save] [Enabled

**Dynamic IP Configuration**

	<b>Default Lease Time</b> Days Hours Minutes 00 08 00	<b>Max Lease Time</b> Days Hours Minutes 00 12 00
Range 1	192.168.3.10	192.168.3.36
Range 2		
Range 3		

**Subnet Options** [Advanced]

Default Gateway	192.168.3.1
DNS 1	192.168.3.1
DNS 2	
DNS 3	
Domain Name	
NIS Domain	
NTP Server	
WINS Server	

**Static IP Entries** [Add] [Edit] [Delete]

Fixed IP	MAC Address	Description
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