

CPU

Memory

133MHz, 32MB

 $3.2V \sim 6.0V$

WIFI

Tiny Size

25.4mm x 25.4mm x 3.4mm

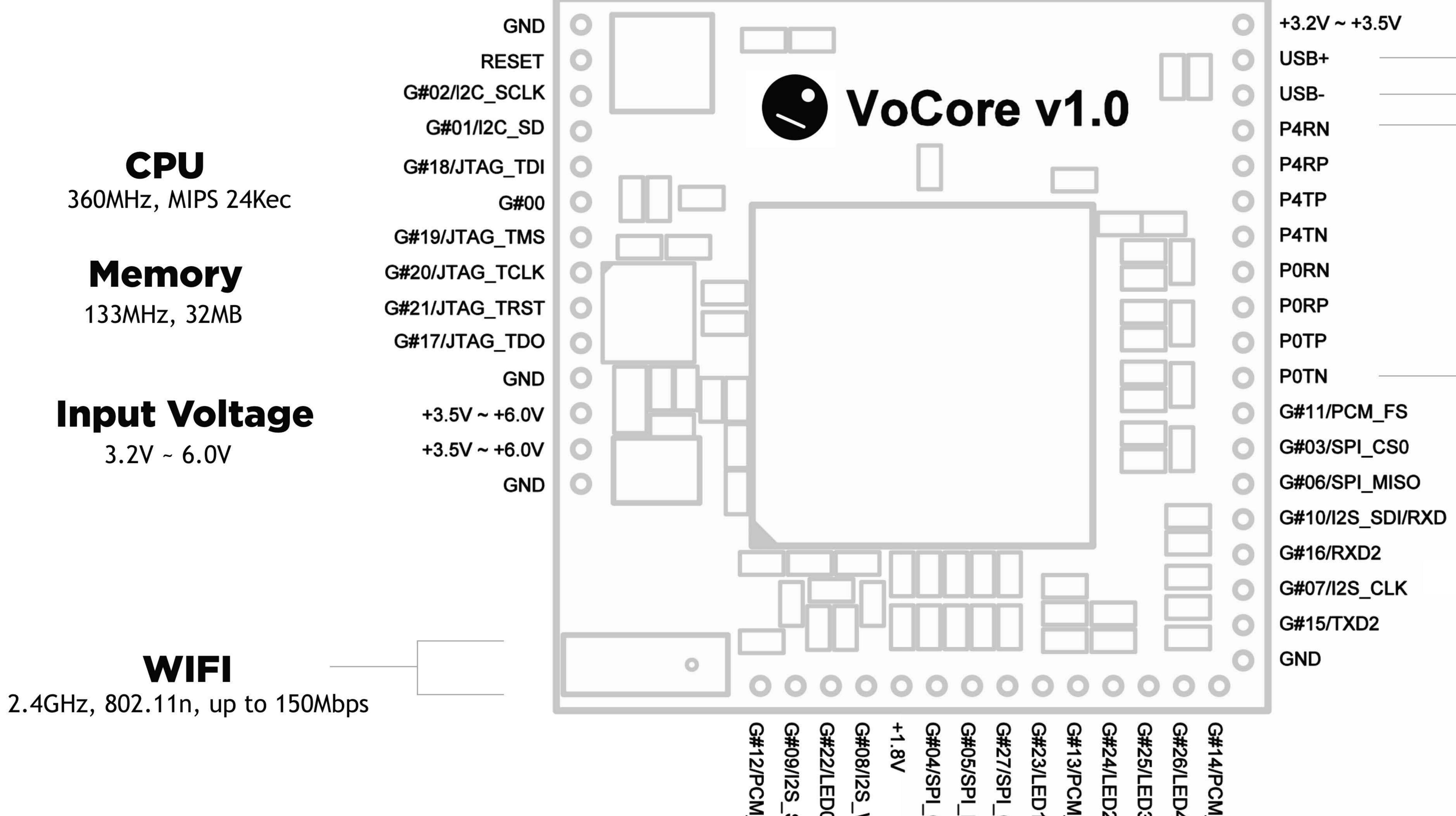
Software

OpenWrt (Linux 3.10.44) OS:

GUI:

192.168.61.1 IP:

Login: root Password: vocore



USB 2.0

480M, High-Speed

Two ports, 10/100M

Ethernet

GPIO Pins

Interfaces

UART, SPI, I2C, I2S, PCM, JTAG

Flash Memory

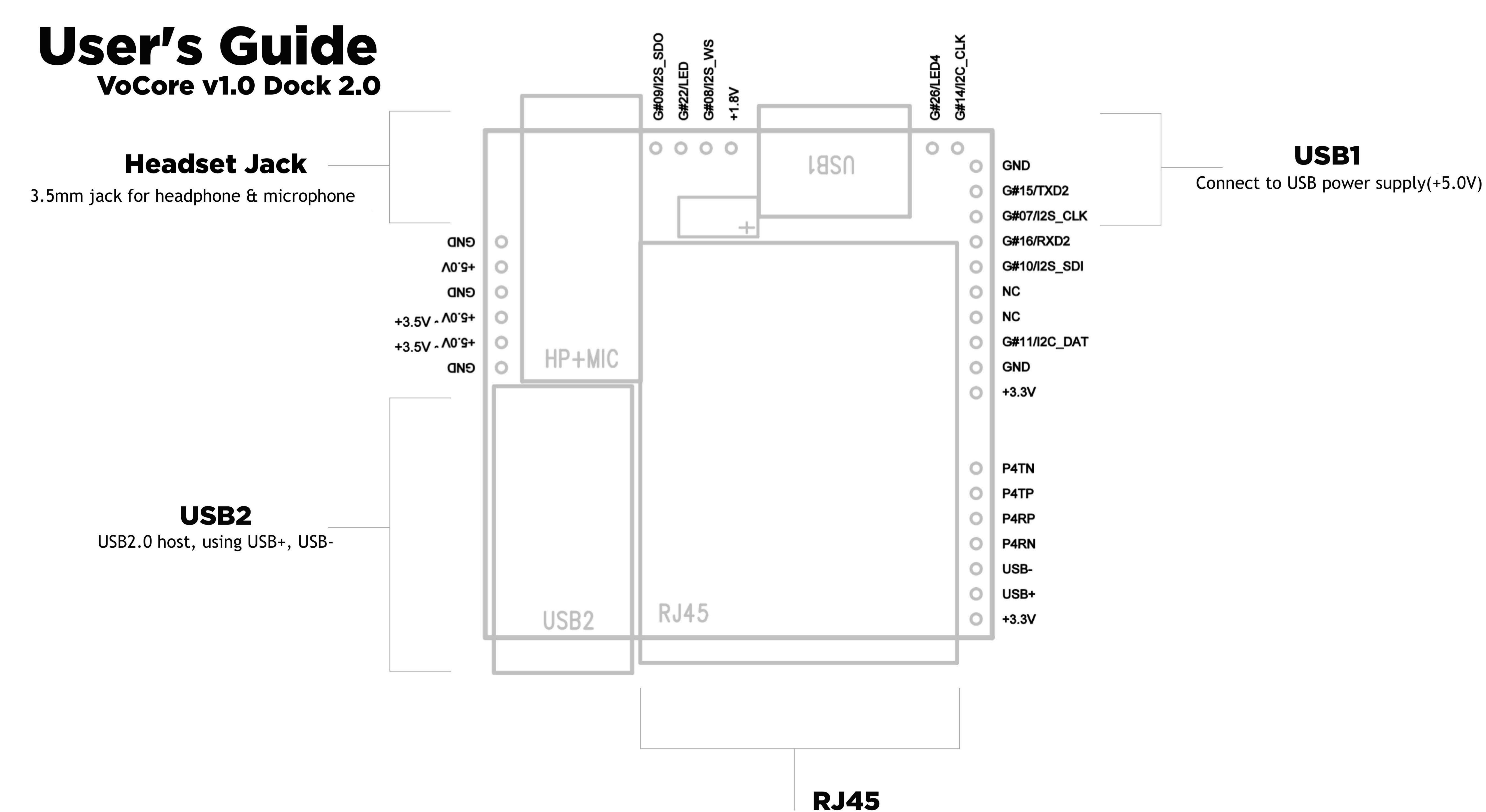
SPI, 8MB, 104MHz



Size User's Guide 27.4mm x 26.2mm x 16.4mm VoCore v1.0 Dock USB1 0000 USB1 MicroSD Connect to USB power supply(+5.0V) SPI micro SD slot, up to 30MHz G#10/I2S_SDI/RXD **GND** G#06/SPI_MISO G#03/SPI CS0 +3.5V ~ +6.0V +3.5V ~ +6.0V G#11/PCM_FS **GND** Screw Hole 2.0mm, two half, one full P4TN P4TP USB2 P4RP USB2.0 host, using USB+, USB-P4RN USB-USB+ +3.3V

RJ45 10/100Mbps, 2 LEDs, with transformer

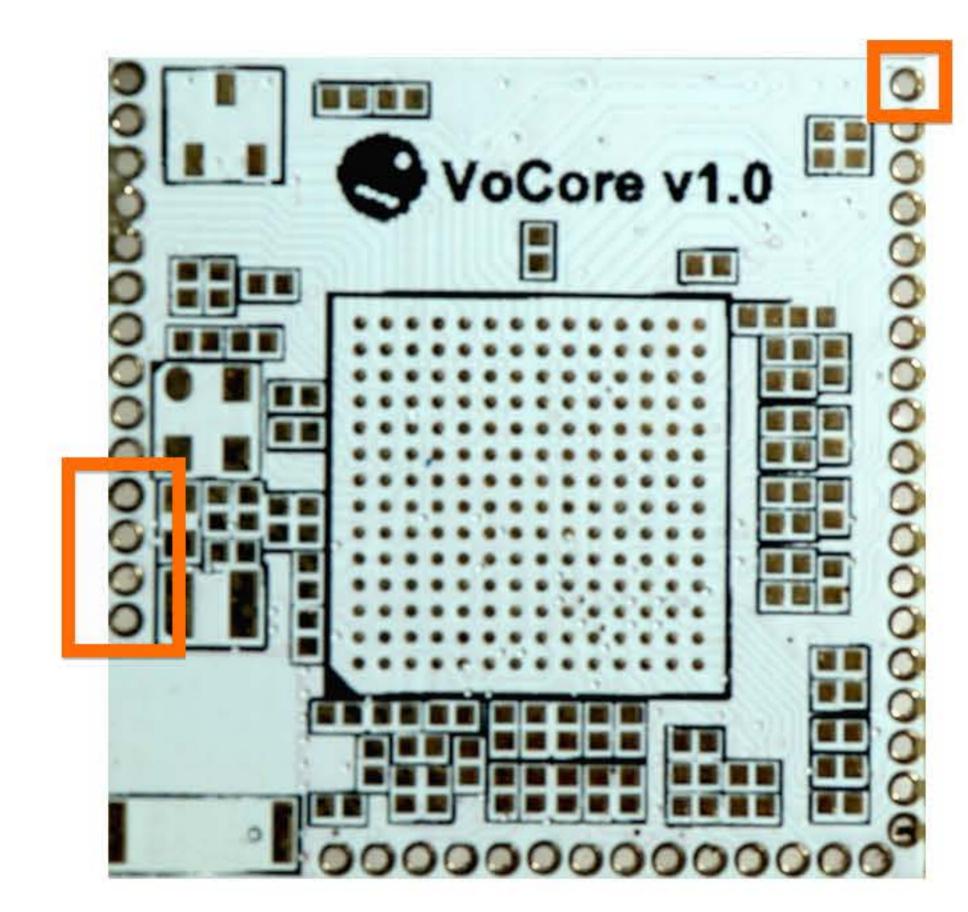




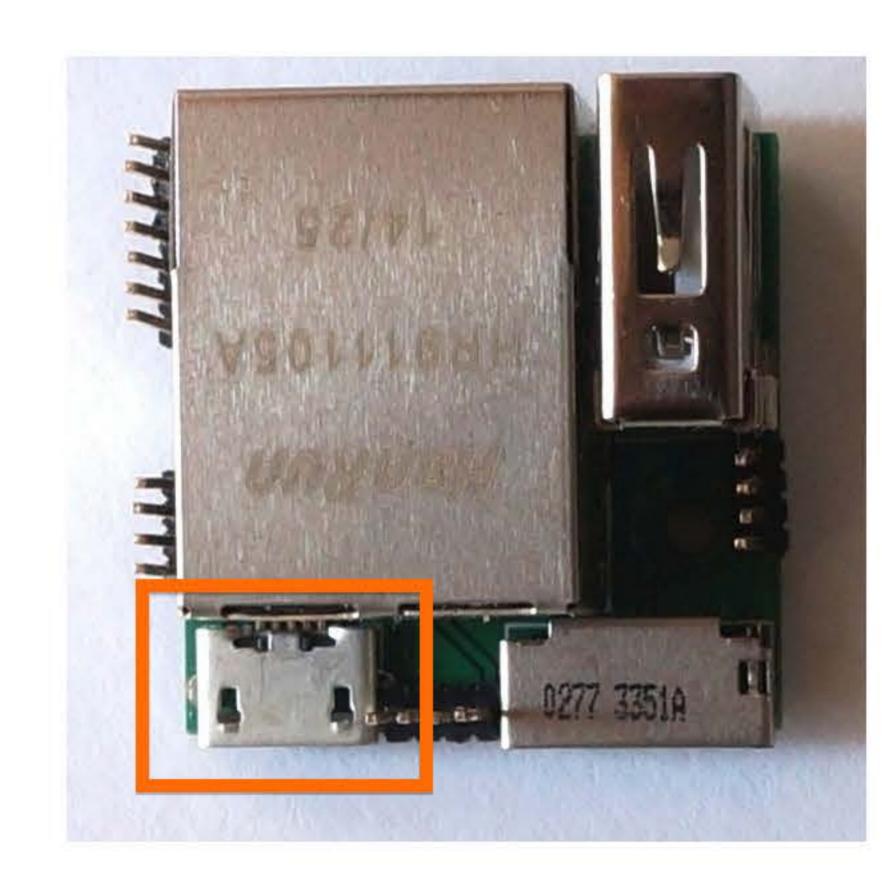
10/100Mbps, 2 LEDs, with transformer



Power



Without Dock Connect to 3.2V~6.0V & GND



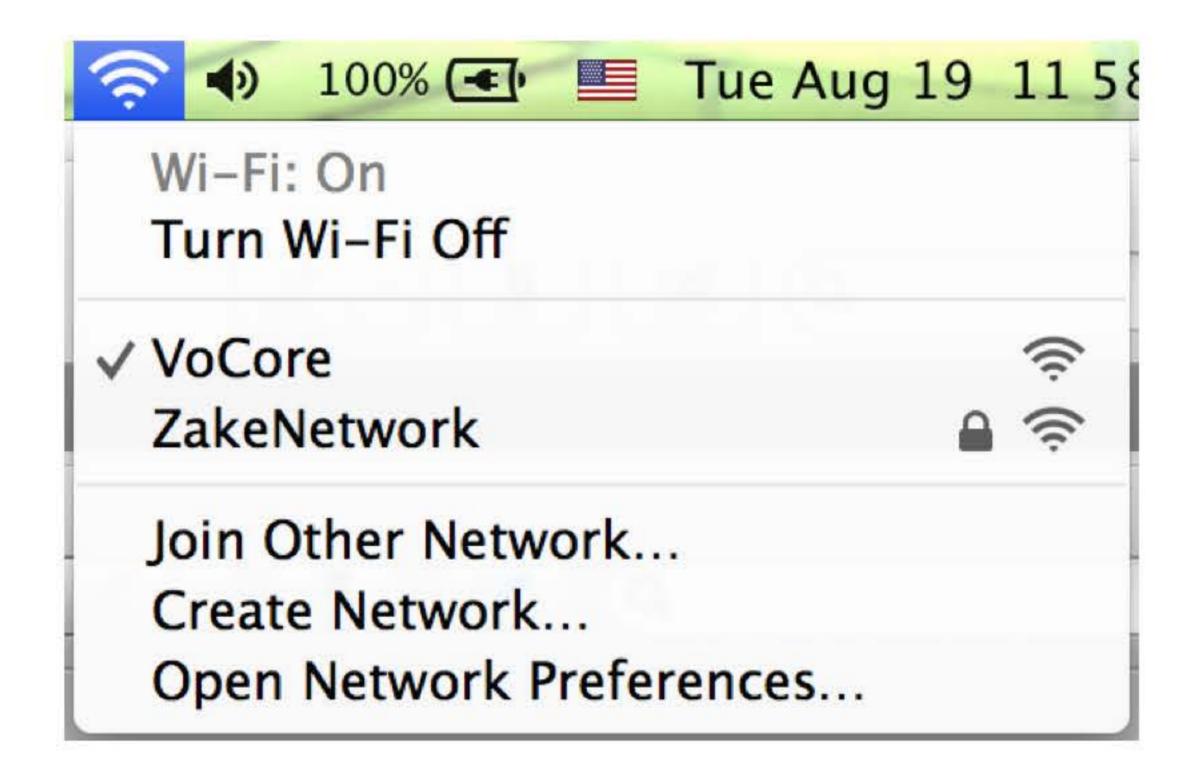
With Dock Connect to USB1

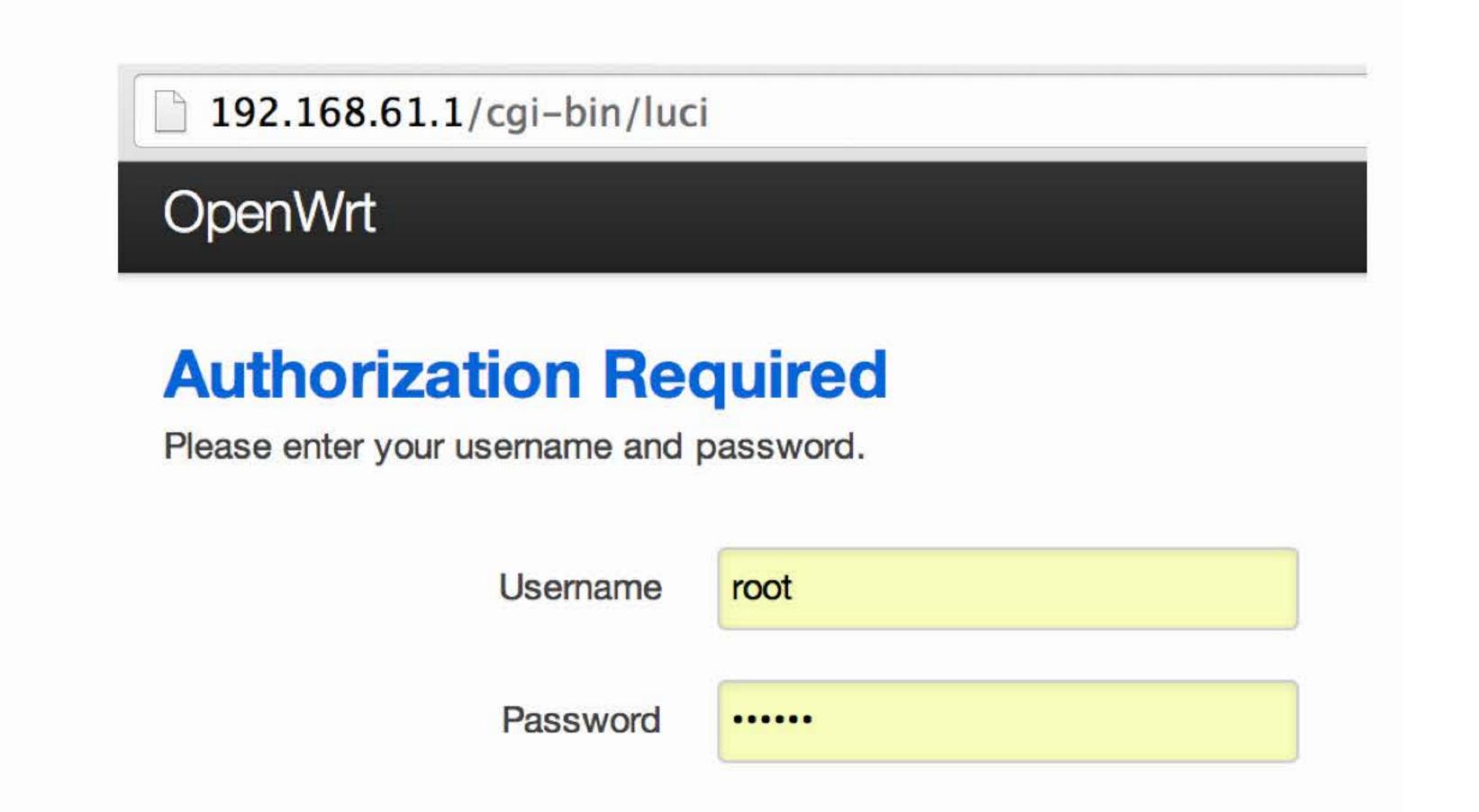
Boot

Booting will require about 30 seconds (the LED will light for 15 seconds).

Connect

Find VoCore-XXXXXXX in your computer wifi AP list.





LuCI Panel

open 192.168.61.1 to the LuCI control panel Login: root / vocore

Update Firmware

1. Click on Backup / Flash Firmware

OpenWrt	Status -	System -	Network -	Logout	AUTO REFRESH ON
		System			
Status		Administration			
System		Software			
System		Startup			
Hostname		Scheduled	l Tasks	penWrt	
Model		LED Configuration		oCore	
		Backup / Flash Firmware Reboot			
Firmware Version				oCore VoCore v1.0a / LuCl Trunk (svn-r10248)	
Kernel Version				3.10.36	

2. Uncheck "Keep Settings", click on "Choose File" to find your firmware. Then click on "Flash Image" to load your firmware to memory.

Flash new firmware image

Upload a sysupgrade-compatible image here to replace the running firmware. Check "Keep settings" to retain the current configuration (requires an OpenWrt compatible firmware image).

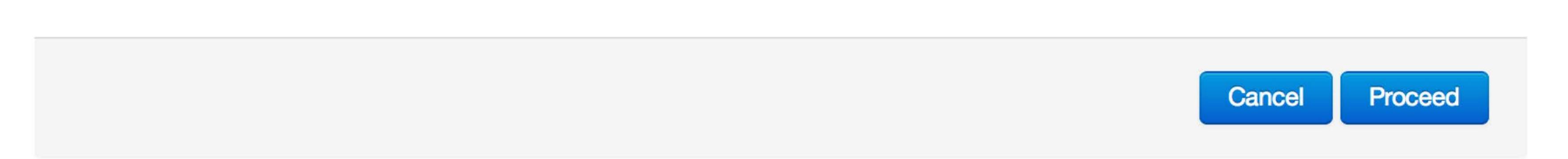
Keep settings:		
lmage:	Choose File No file chosen	Flash image

3. Press "Proceed" to continue.

Flash Firmware - Verify

The flash image was uploaded. Below is the checksum and file size listed, compare them with the original file to ensure data integrity. Click "Proceed" below to start the flash procedure.

- Checksum: 33fd34ddd6bffba24fc04c35ca0ac017
- Size: 3.50 MB (7.69 MB available)
- Configuration files will be kept.



4. Wait about 2~3 minutes. Once the new firmware ready, LuCI panel opens automatically

System - Flashing...

The system is flashing now.

DO NOT POWER OFF THE DEVICE!

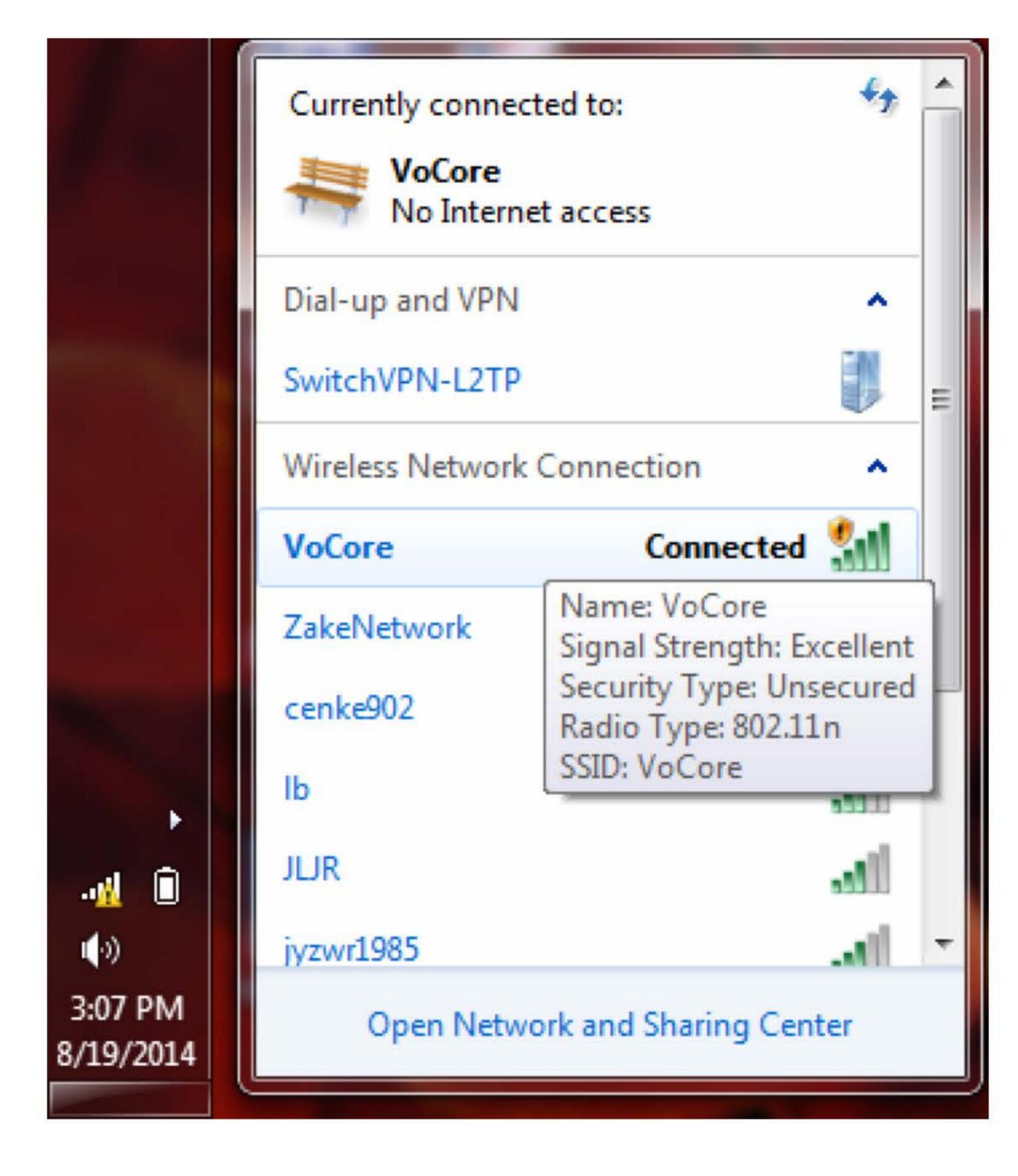
Wait a few minutes until you try to reconnect. It might be necessary to renew the address of your computer to reach the device again, depending on your settings.

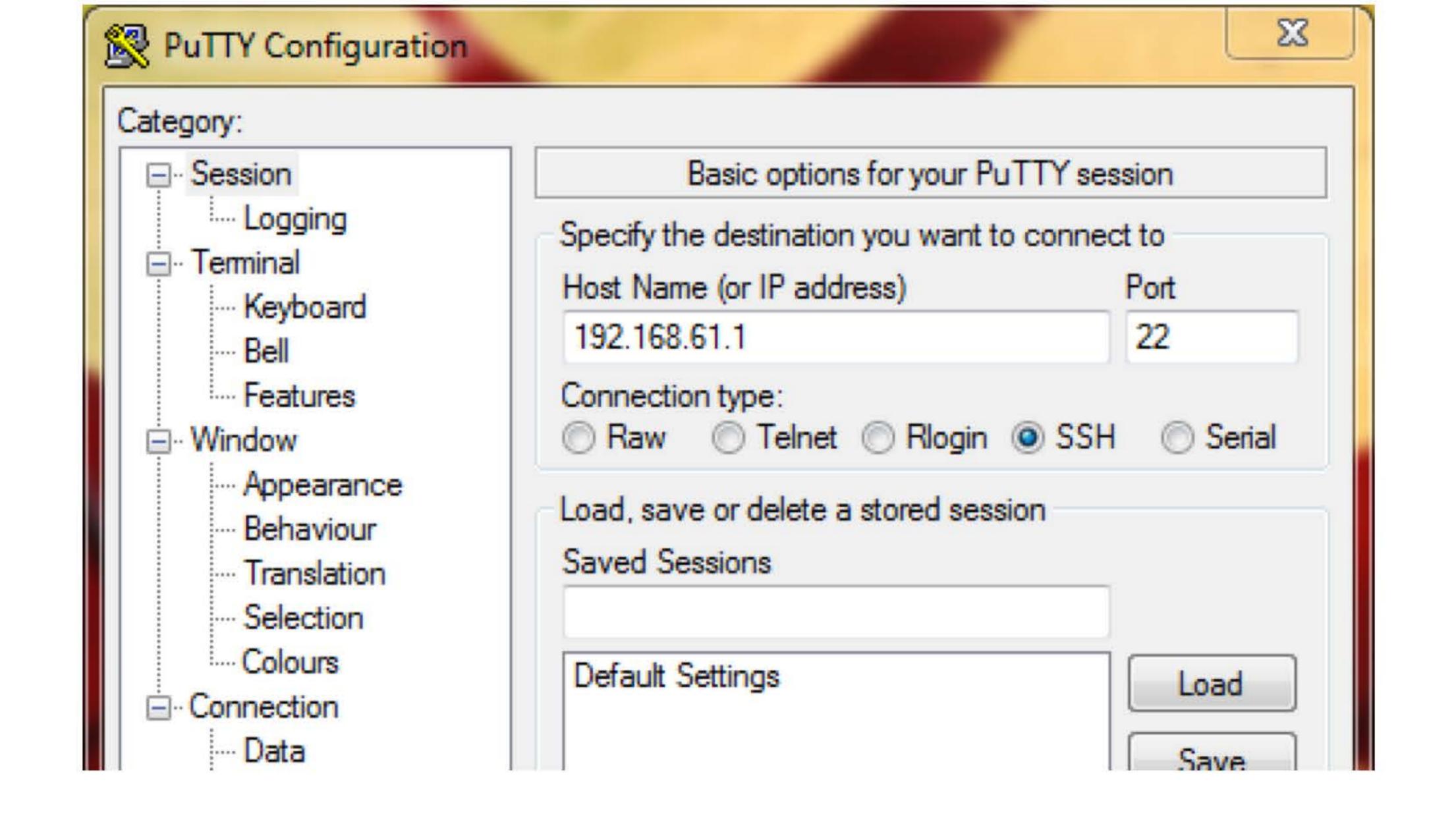




Connect through SSH: Windows

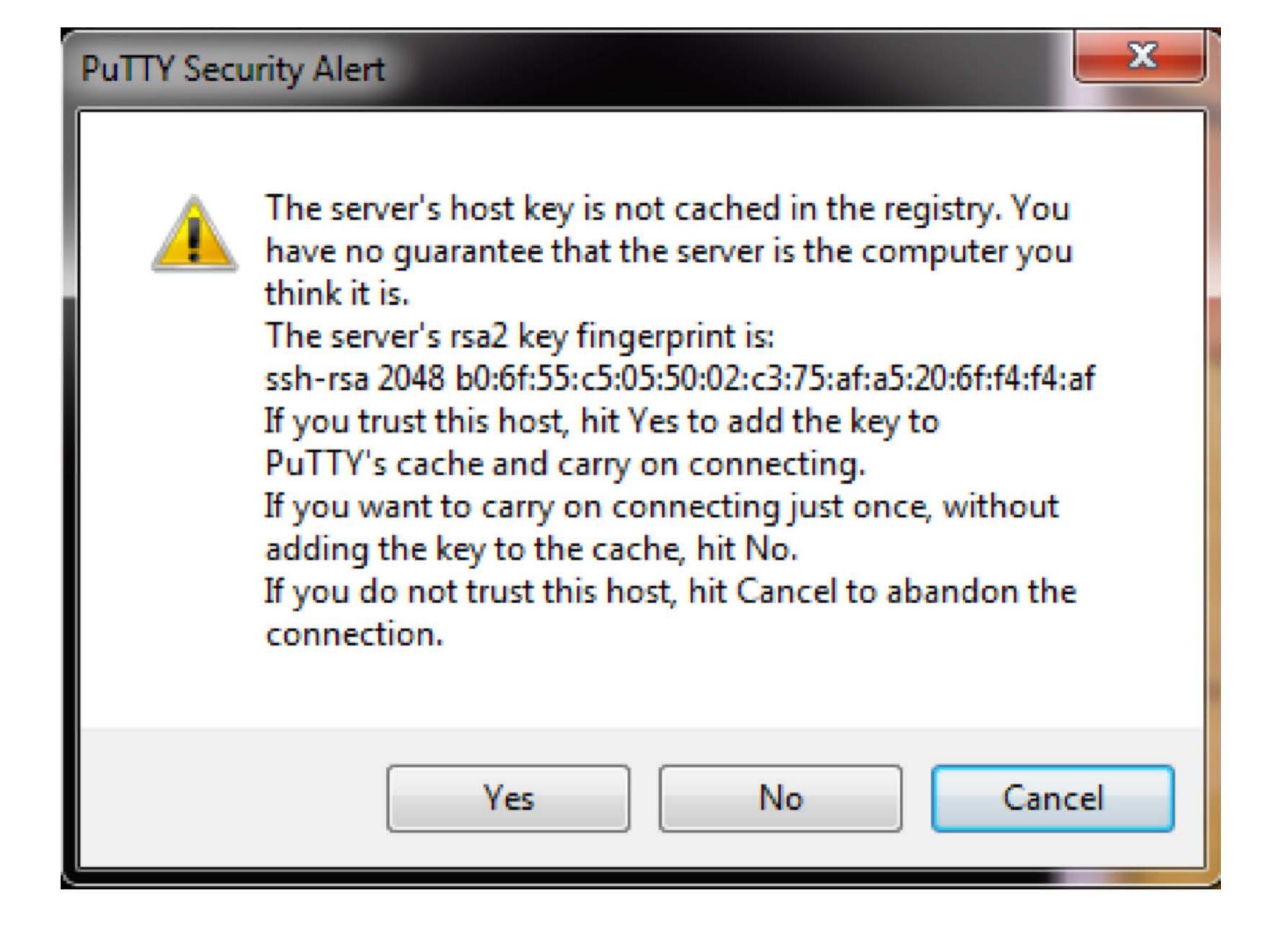
1. Find SSID: VoCore_XXXXXX in your connection list. Connect to it.



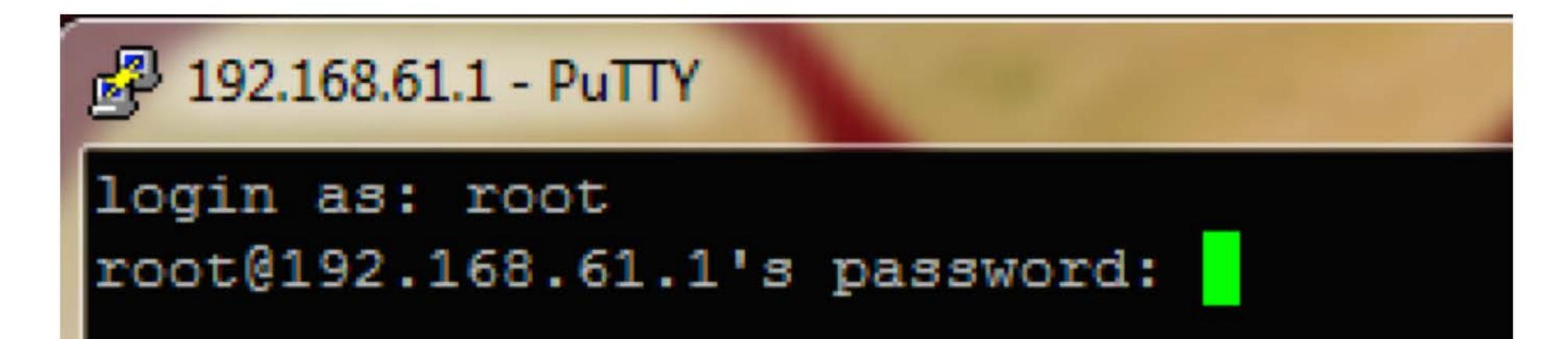


2. Use PuTTY or other SSH client connect to 192.168.61.1, port 22

3. Press 'Yes' button. (only show once)



4. Login As: root
Password: vocore



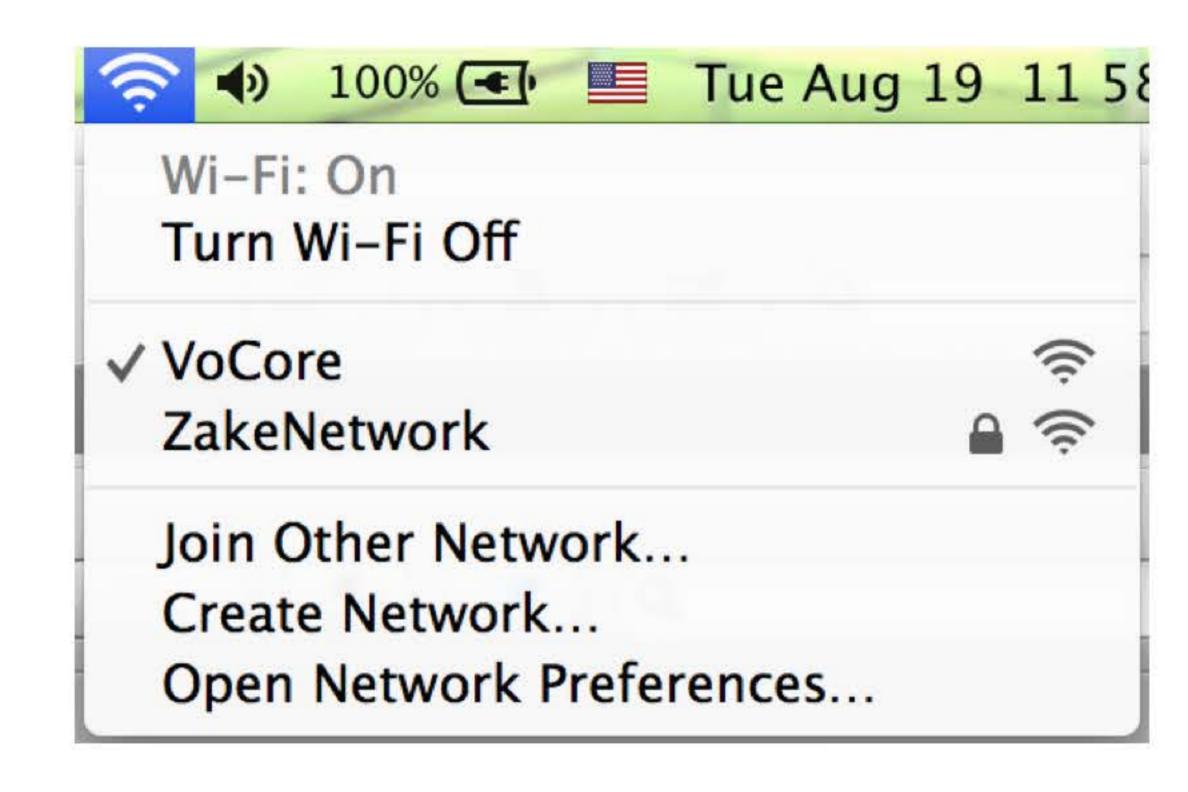
```
192.168.61.1 - PuTTY
login as: root
root@192.168.61.1's password:
BusyBox v1.22.1 (2014-08-07 11:19:30 CST) built-in shell (ash)
Enter 'help' for a list of built-in commands.
          _______
           WIRELESS FREEDOM
 CHAOS CALMER (v1.0, r42004)
  * 1 1/2 oz Gin
                          Shake with a glassful
  * 1/4 oz Triple Sec
                          of broken ice and pour
  * 3/4 oz Lime Juice
                          unstrained into a goblet.
  * 1 1/2 oz Orange Juice
  * 1 tsp. Grenadine Syrup
root@OpenWrt:~#
```

5. There is the OpenWrt welcome message, now we can control it from console. Your VoCore is ready!



Connect through SSH: MacOS

1. Find SSID: VoCore_XXXXXX in your connection list. Connect to it.





2. Run Terminal in Application/Other

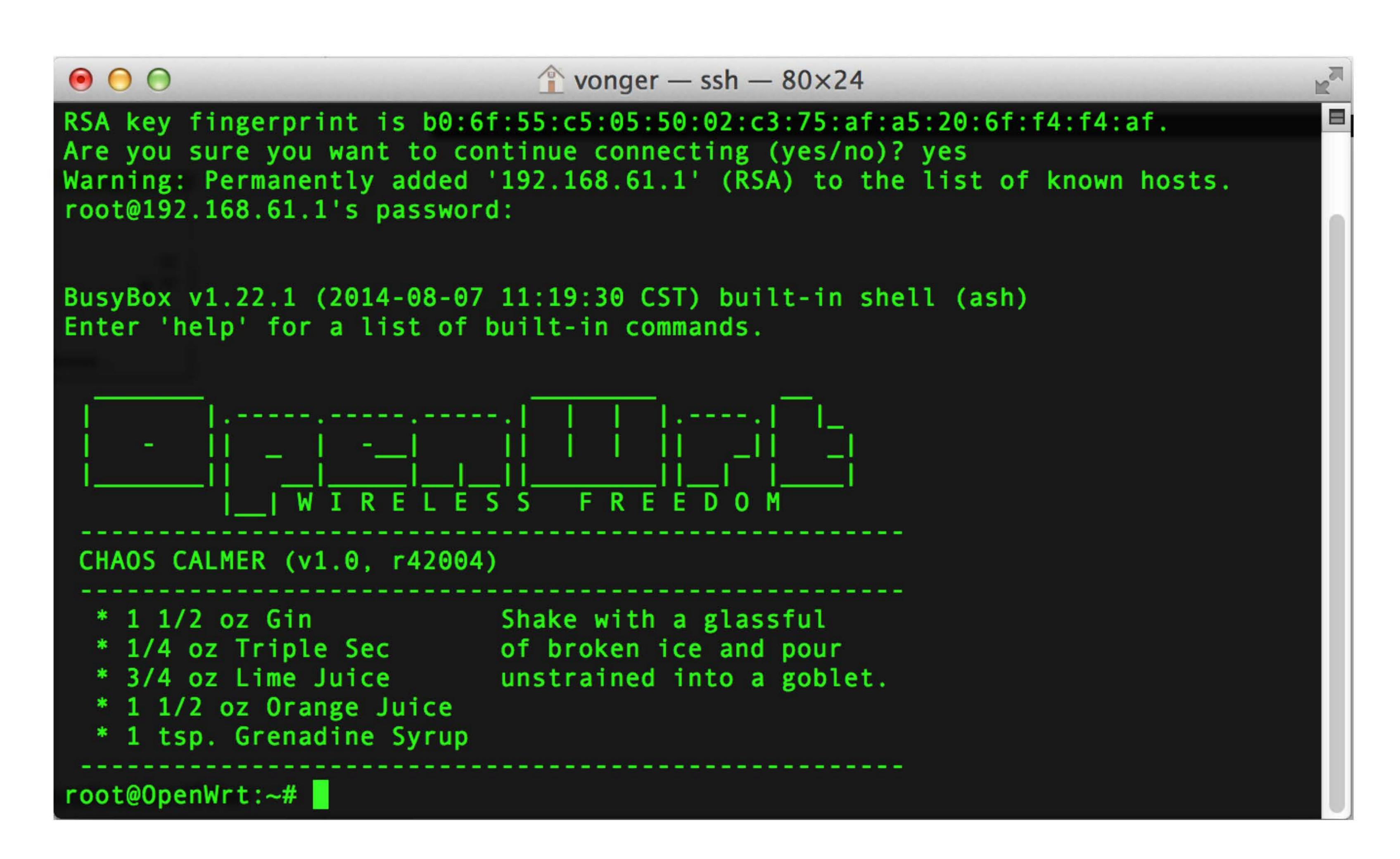
3. Input command "ssh root@192.168.61.1"

4. Input "yes" to continue. (only show once)

```
The authenticity of host '192.168.61.1 (192.168.61.1)' can't be established. RSA key fingerprint is b0:6f:55:c5:05:50:02:c3:75:af:a5:20:6f:f4:f4:af. Are you sure you want to continue connecting (yes/no)? yes
```

5. Password is vocore, press enter to continue.

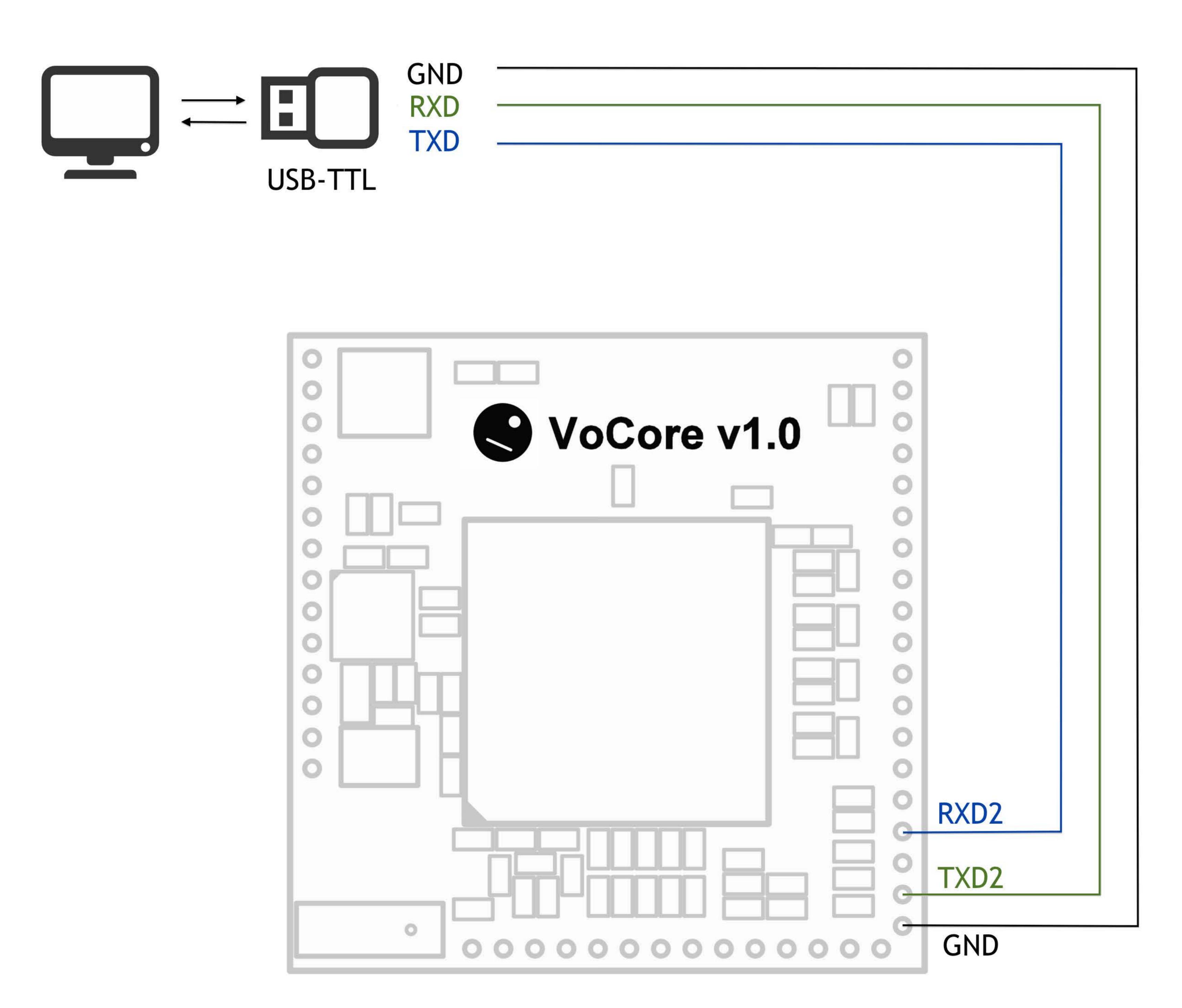
root@192.168.61.1's password:



6. There is the OpenWrt welcome message, now we can control it from console. Your VoCore is ready!



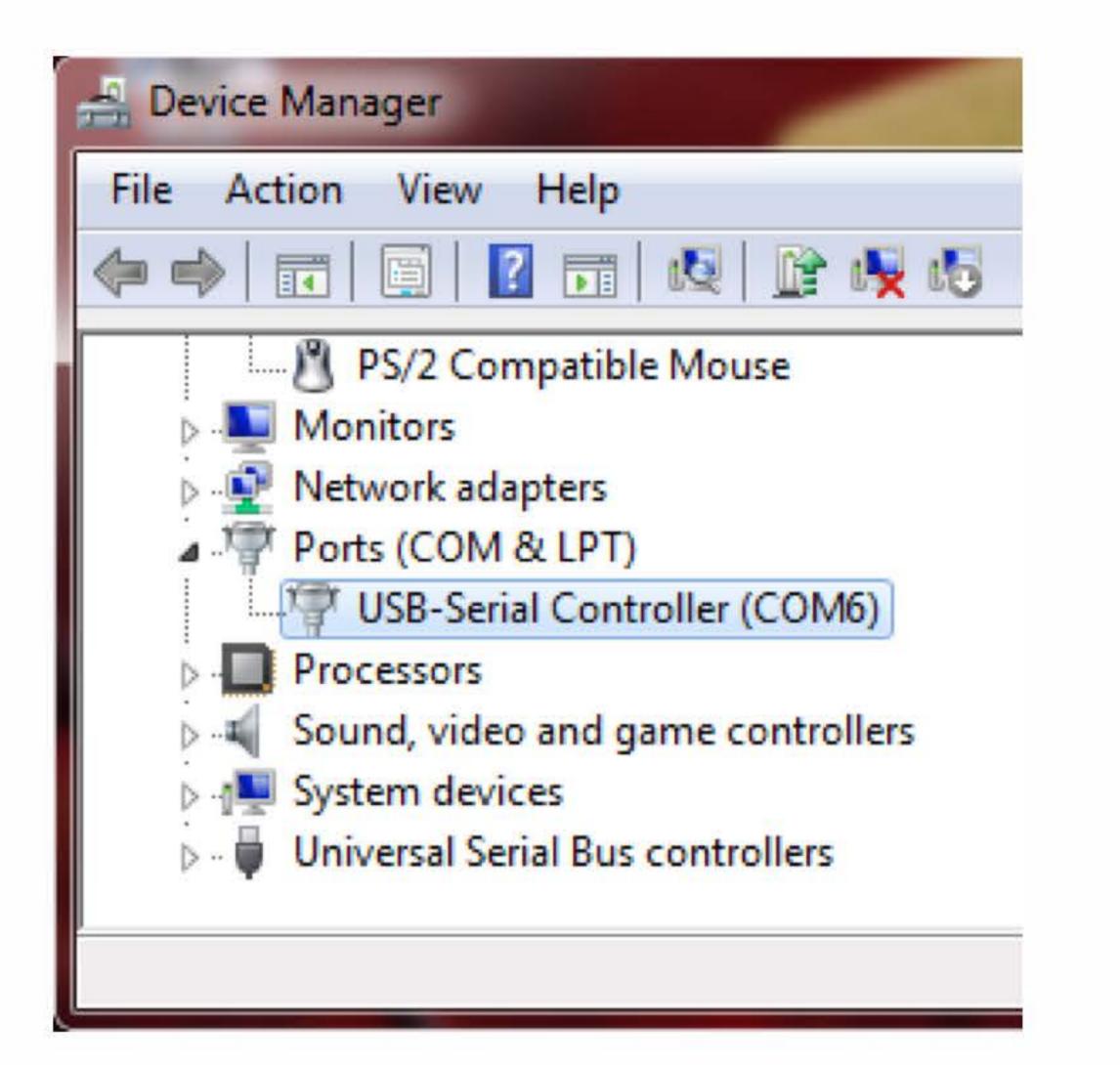
Connect through TTL: Hardware

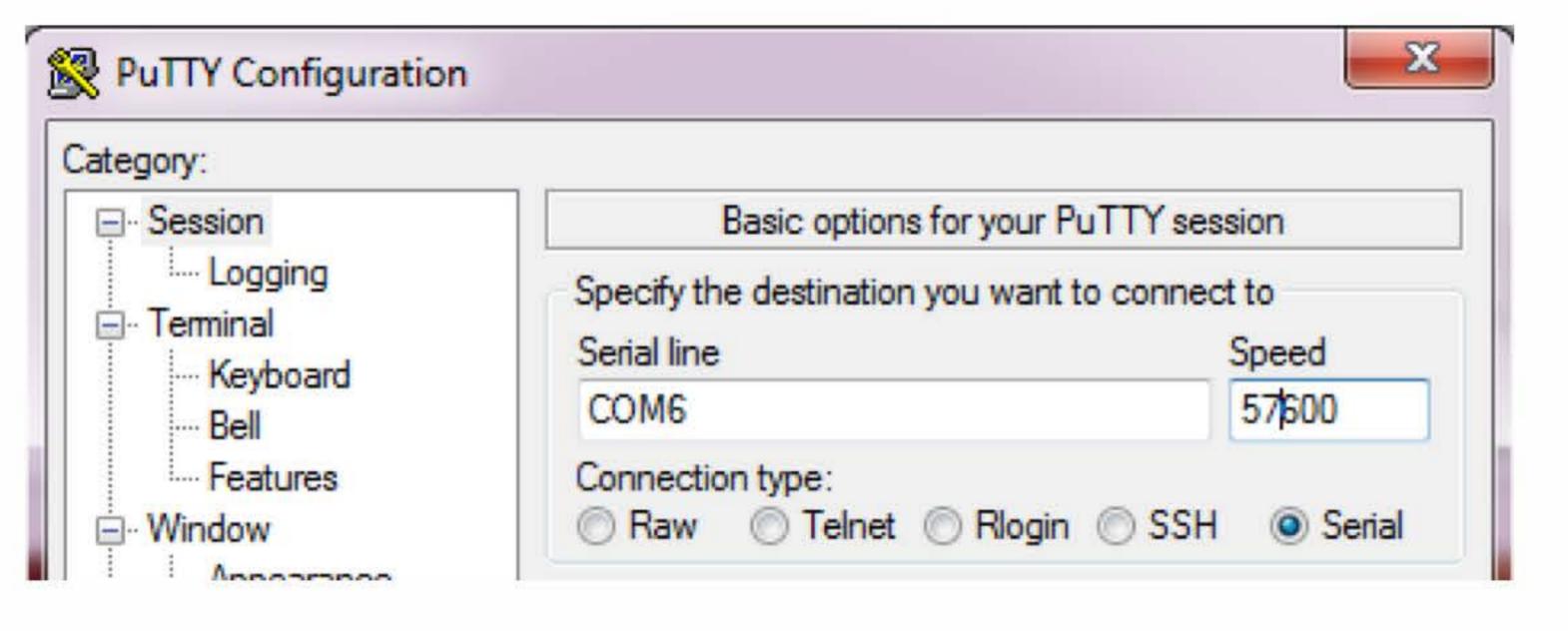


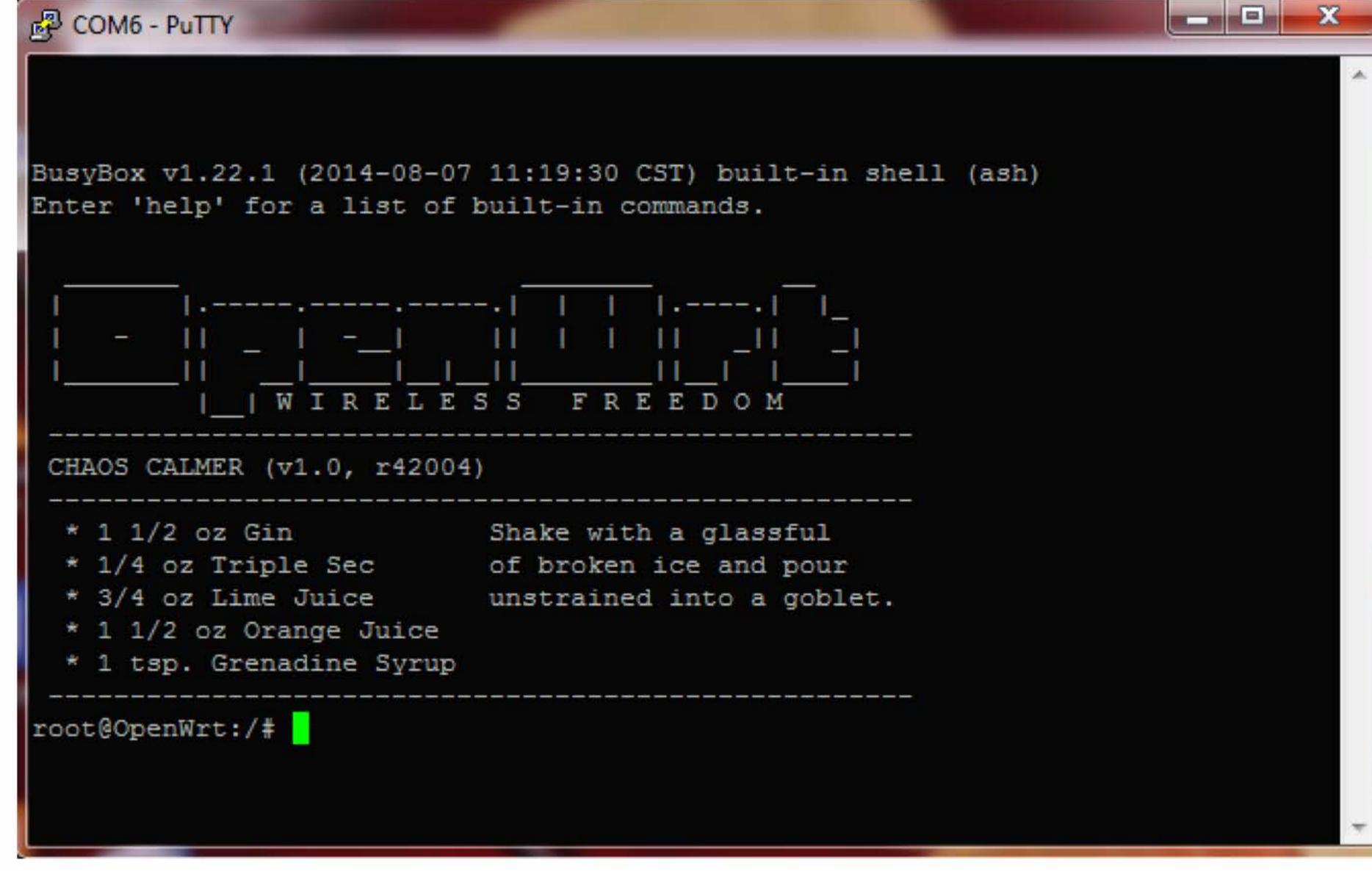
Connect through TTL: Software

Windows:

- 1. Setup your usb-serial in device manager.
- 2. Open PuTTY or other UART compatible client.
- 3. Set your serial port speed to 57600bps(8n1, default).
- 4. Press "OK" to connect, then press "Enter".
- 5. If VoCore is ready, it will show welcome message.

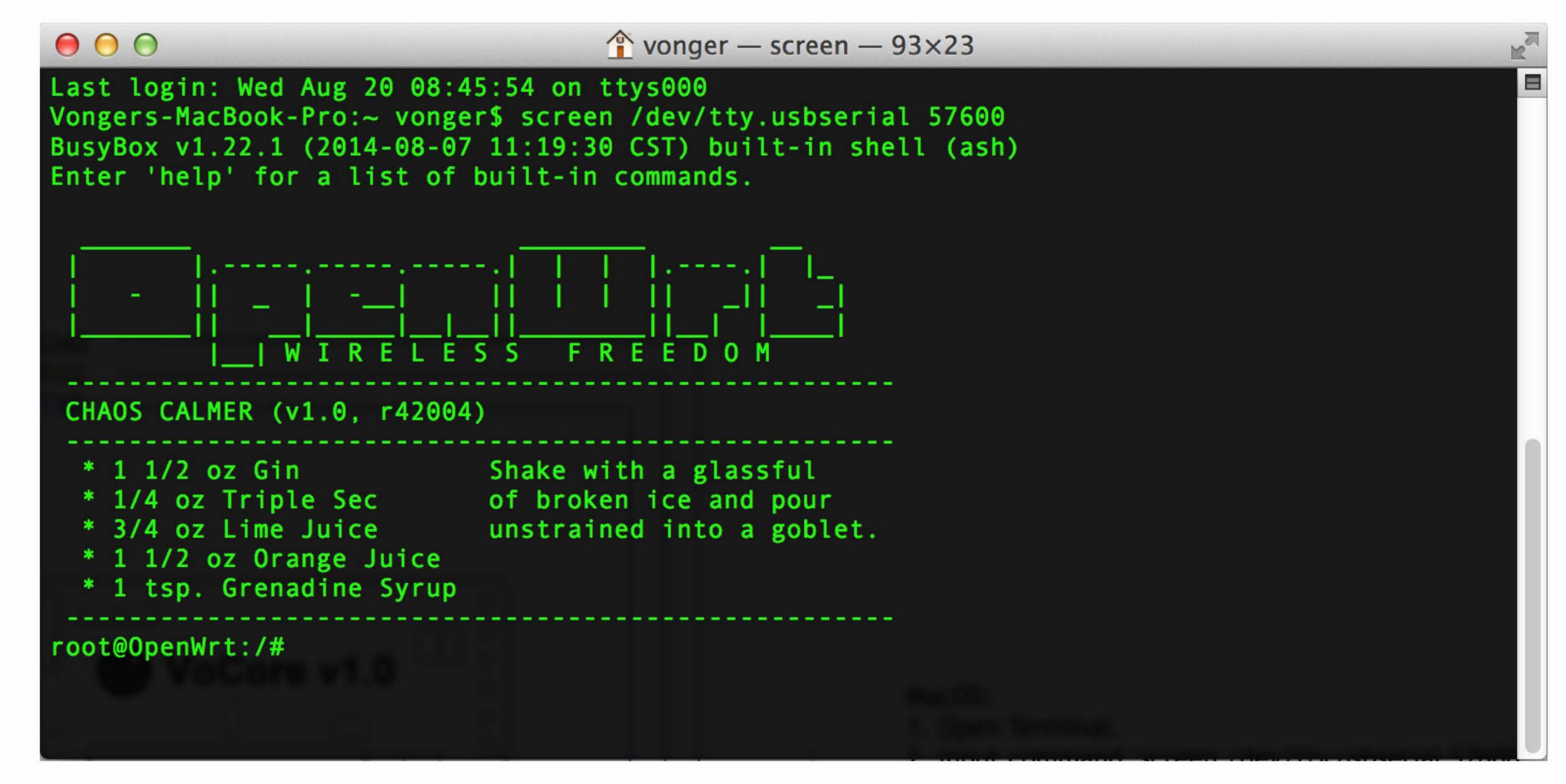






MacOS:

- 1. Open Terminal.
- 2. Input command "screen /dev/tty.usbserial 57600"
- 3. Press "Enter".
- 4. If VoCore is ready, it will show welcome message.



Other OS:

TTL Default Parameters: 57600bps, 8 data bits, no parity, 1 stop bit.



Principle Diagram

