

Flash Voxstack Gateway Board with USB-TTL cable

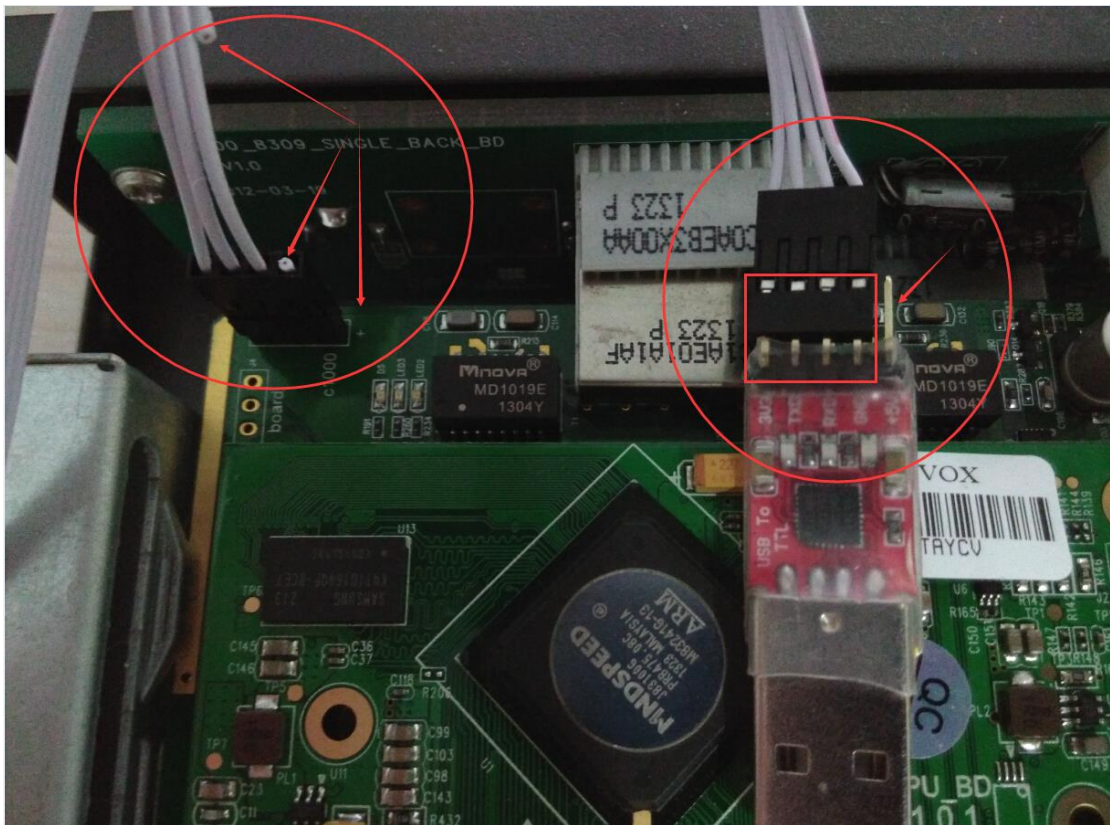
1. Install USB driver:

http://www.openvox.cn/pub/misc/tools/CP210x_VCP_Win_XP_S2K3_Vista_7.zip

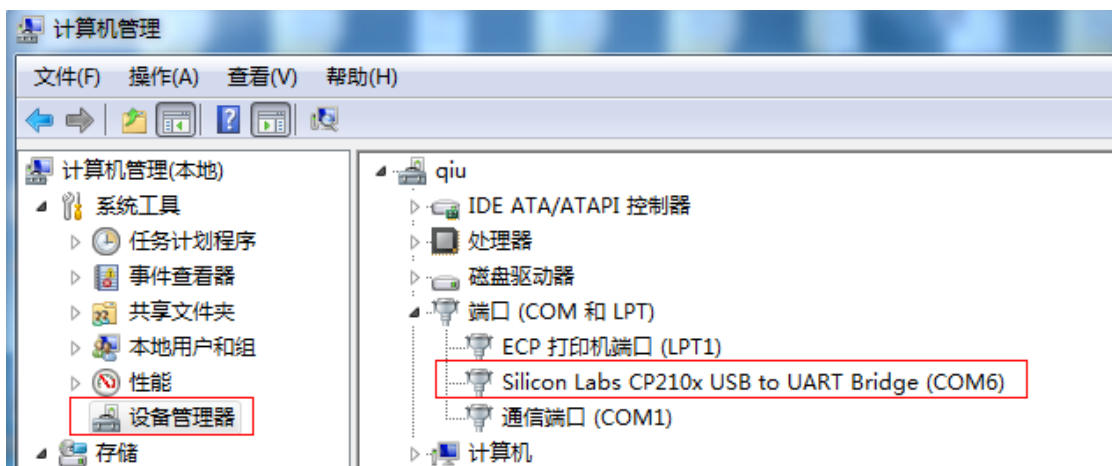
2. Install tftp32.exe:

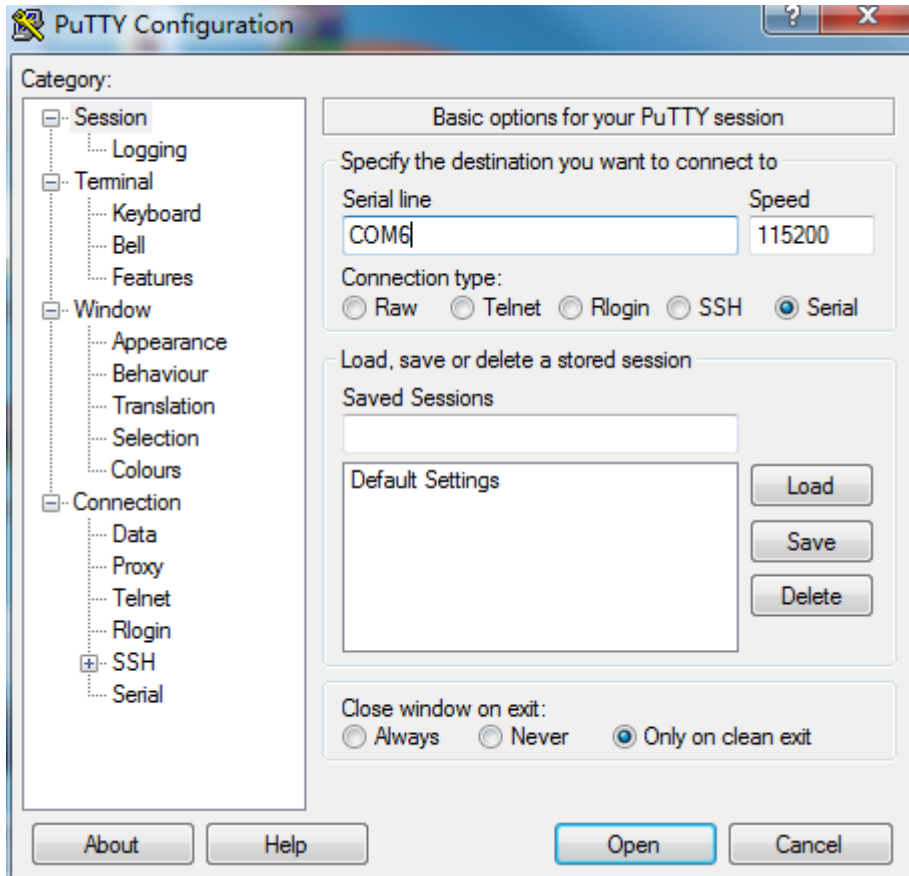
http://www.openvox.cn/pub/misc/tools/tftpd32_3.51.zip

3. Hardware connection:



4. Connect gateway with serial port cable after installed USB driver:





Notice: Please pay attention to the COM number of serial port.

5. Turn on the power, you will see output on the putty window.

Login bootloader:

```

DDR Training.....Done

eeprom-boot $Version: eeprom-boot_1_00_1
Autoboot from NAND in 1 seconds

U-Boot 1.1.6 (Feb 26 2013 - 09:56:06) OpenVox $Name: uboot_7_00_4 $

DRAM: 128 MB
Concerto Flash Subsystem Initialization
Flash: 0 kB
NAND: board_nand_init nand->IO_ADDR_R =30000000
128 MiB
In: serial
Out: serial
Err: serial
Reserve MSP memory
Net: concerto_gemac0, concerto_gemac1

NAND read: device 0 offset 0x60000, size 0x20000
131072 bytes read: OK
### main_loop: bootcmd="run boot_flash" enter
Hit any key to stop autoboot: 3 █

```

Notice: When you see "Hit any key to stop autoboot", please press "Enter" at once. Otherwise it will auto boot the system if you do not press the "Enter" in 3 seconds.

6. Execute "print" command:

```
U-Boot 1.1.6 (Feb 26 2013 - 09:56:06) OpenVox $Name: uboot_7_00_4 $

DRAM: 128 MB
Comcerto Flash Subsystem Initialization
Flash: 0 kB
NAND: board_nand_init nand->IO_ADDR_R =30000000
128 MiB
In: serial
Out: serial
Err: serial
Reserve MSP memory
Net: comcerto_gemac0, comcerto_gemac1

NAND read: device 0 offset 0x60000, size 0x20000
131072 bytes read: OK
### main_loop: bootcmd="run boot_flash"
Hit any key to stop autoboot: 0
OpenVox > print
```

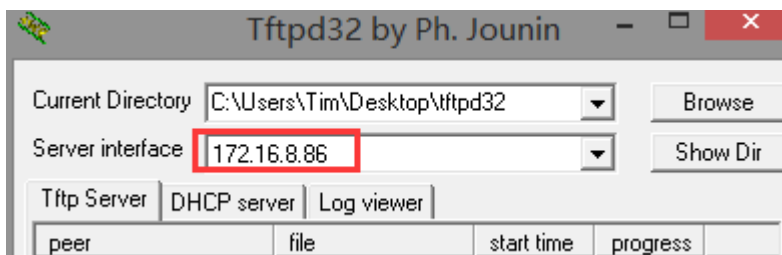
execute print

You will see detailed info about the flash:

```
updatesecond=tftp 81000000 ${fsfile};update 1
updatenandboot=tftp 81000000 ${bootfile};nand erase 0 40000;nand write.jffs2 810
00000 0 40000
epromfile=eeprom.bin
updateeprom=tftp 81000000 ${epromfile};eprom write 81000000 0 ${filesize}
bootcmd=run boot_flash
flash_first=run setfirstenv;run boot_flash
flash_second=run setsecondenv;run boot_flash
ethact=comcerto_gemac0
ethaddr=a0:98:05:01:1e:ee
wanmac=a0:98:05:01:1e:ef
filesize=ee7c14
fileaddr=81000000
ipaddr=192.168.1.99
serverip=192.168.1.100
partition=nand0,5
mtddevnum=5
rootmtdblock=/dev/mtdblock6
stdin=serial
stdout=serial
stderr=serial

Environment size: 2658/131068 bytes
OpenVox >
```

7. Set IP address of tftp server (the IP address of PC which is running tftp32.exe) and ip address of the gateway board:



Set board ip: setenv ipaddr 172.16.8.87
Set server ip: setenv serverip 172.16.8.86

```

00000 0 40000
eepromfile=eeprom.bin
updateeeprom=tftp 81000000 ${eepromfile};eeprom write 81000000 0 ${filesize}
bootcmd=run boot_flash
flash_first=run setfirstenv;run boot_flash
flash_second=run setsecondenv;run boot_flash
ethact=comcerto_gemac0
ethaddr=a0:98:05:01:1e:ee
wanmac=a0:98:05:01:1e:ef
filesize=ee7c14
fileaddr=81000000
ipaddr=192.168.1.99
serverip=192.168.1.100
partition=nand0,5
mtddevnum=5
rootmtdblock=/dev/mtdblock6
stdin=serial
stdout=serial
stderr=serial

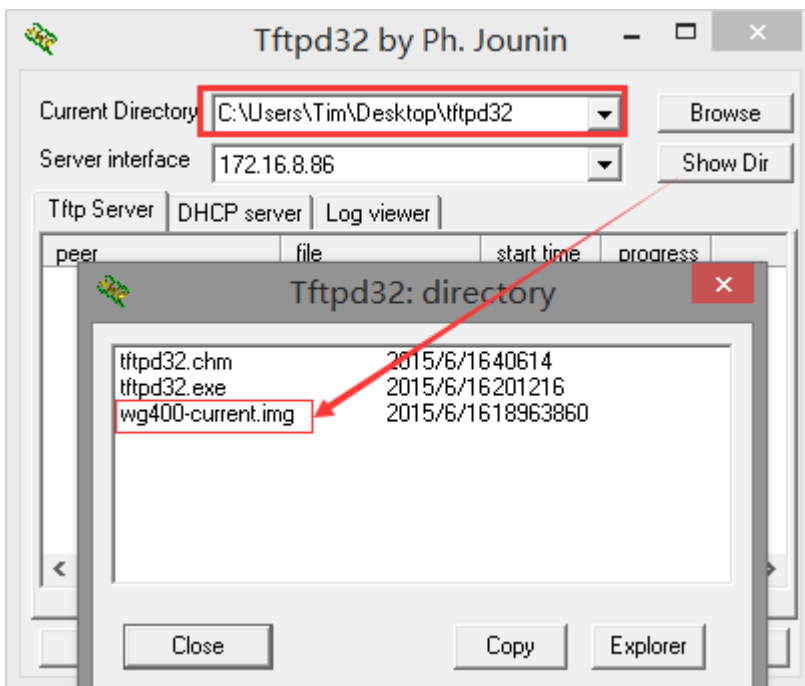
Environment size: 2658/131068 bytes
OpenVox > setenv ipaddr 172.16.8.87
OpenVox > setenv serverip 172.16.8.86
OpenVox >

```

← default ip address

← set new ip address

- Open tftpd32.exe, choose the latest firmware file you've downloaded from openvox website: <http://www.openvox.cn/pub/firmwares/GSM%20Gateway/wg400-current.img>



10. Set the firmware filename:

Command: `setenv fsfile wg400-current.img`

```
ethact=comcerto_gemac0
ethaddr=a0:98:05:01:1e:ee
wanmac=a0:98:05:01:1e:ef
filesize=ee7c14
fileaddr=81000000
partition=nand0,5
mtddevnum=5
rootmtdblock=/dev/mtdblock6
stdin=serial
stdout=serial
stderr=serial
ipaddr=172.16.8.87
serverip=172.16.8.86

Environment size: 2638/131068 bytes
OpenVox > setenv fsfile wg400-current.img
```

set firmware name

11. Execute "run updatesecond" to flash the firmware:

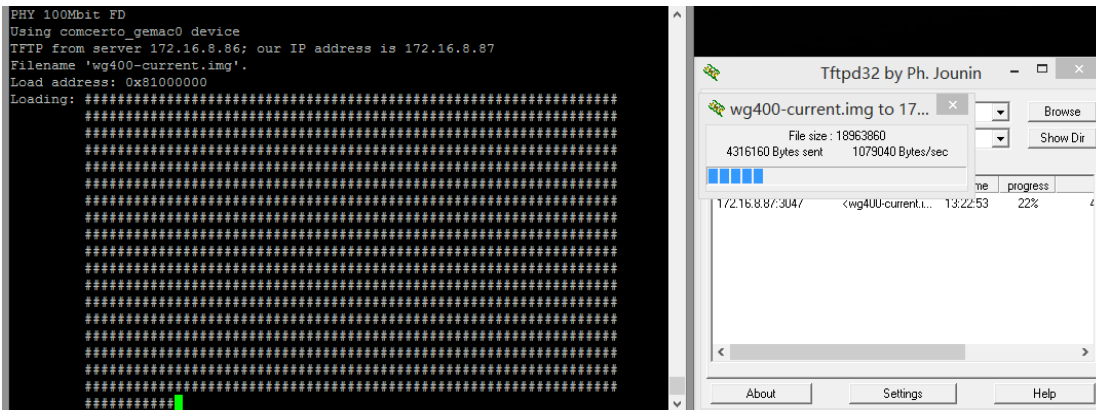
```
updatenandboot=tftp 81000000 ${bootfile};nand erase 0 40000;nand write.jffs2 810
00000 0 40000
eepromfile=eeprom.bin
updateeeprom=tftp 81000000 ${eepromfile};eeprom write 81000000 0 ${filesize}
bootcmd=run boot_flash
flash_first=run setfirstenv;run boot_flash
flash_second=run setsecondenv;run boot_flash
ethact=comcerto_gemac0
ethaddr=a0:98:05:01:1e:ee
wanmac=a0:98:05:01:1e:ef
filesize=ee7c14
fileaddr=81000000
partition=nand0,5
mtddevnum=5
rootmtdblock=/dev/mtdblock6
stdin=serial
stdout=serial
stderr=serial
ipaddr=172.16.8.87
serverip=172.16.8.86
fsfile=wg400-current.img

Environment size: 2663/131068 bytes
OpenVox > run updatesecond
```

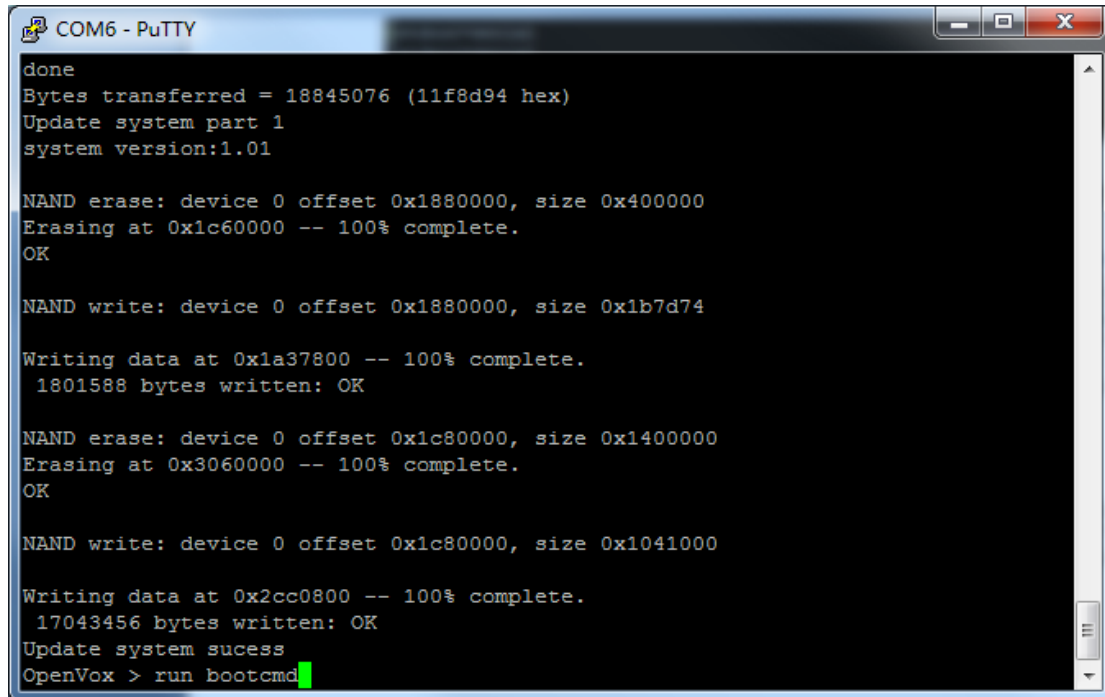
It shows mtdblock6, so execute command "run updatesecond" to flash firmware

Notice:

Check "rootmtdblock=/dev/mtdblockX" filed, if it shows "mtdblock6", then execute "update second" to flash firmware; if "mtdblock4", then execute "update first".



12. Execute "run bootcmd" to reboot and login new system:



```
COM6 - PuTTY
done
Bytes transferred = 18845076 (11f8d94 hex)
Update system part 1
system version:1.01

NAND erase: device 0 offset 0x1880000, size 0x400000
Erasing at 0x1c60000 -- 100% complete.
OK

NAND write: device 0 offset 0x1880000, size 0x1b7d74
Writing data at 0x1a37800 -- 100% complete.
1801588 bytes written: OK

NAND erase: device 0 offset 0x1c80000, size 0x1400000
Erasing at 0x3060000 -- 100% complete.
OK

NAND write: device 0 offset 0x1c80000, size 0x1041000
Writing data at 0x2cc0800 -- 100% complete.
17043456 bytes written: OK
Update system success
OpenVox > run bootcmd
```

Finished! Enjoy!