



IPPBX Upgrade Manual

2014-03-19

Contents

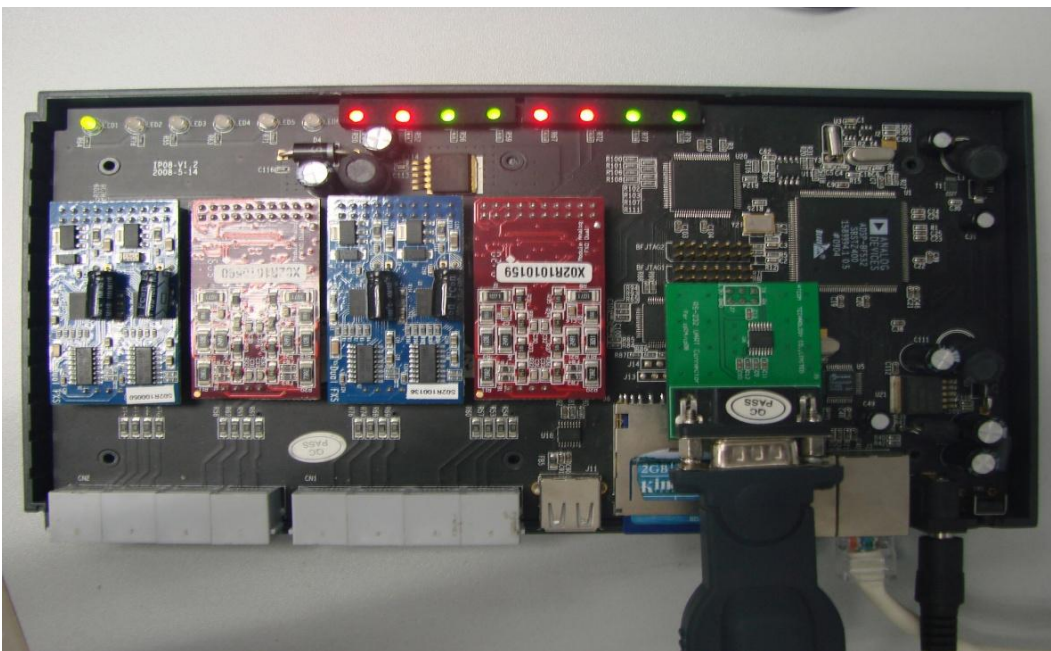
Contents	1
Notice:	2
1 Preparation	2
2 Connection	2
3 Download Kernal and Application for IPPBX	3
4 Load Kernel.....	3
5 Load Application.....	7
6 Login IPPBX via WEB GUI	8
7 Express Setup.....	9

Notice:

1. This manual is only for old firmware (IPOX-1.0.0.xx.xx_release.ext2/md5) upgrade to new firmware (V3.0).
2. The new firmware must be installed under com interface (RS232), please prepare serial console line.
3. The upgrade will **clear all configurations**, and the backup file of old firmware can't be used in new IPPBX, which means, after the upgrade, we need to **configure the box starting over**.

1 Preparation

- (1) A console cable(direct RS232)
- (2) A serial console client (eg. PuTTY for Windows or minicom for Linux)
- (3) A TFTP server (eg. Tftpd32 for Windows)

2 Connection

- 1) Connect IPPBX to PC with serial console line
There is RS232 interface in IP01/IP2G4A/IP4G, just connecting them is OK. If your box is IP02/IP04/IP08, you have to remove the top cover from the IPPBX and install the small RS232 daughter board which was included in the package on J6 as shown above.
- 2) Connect IPPBX WAN port to your PC with Twisted Pair.

3 Download Kernal and Application for IPPBX

Kernel for IP01: **uImage_IP01**

http://www.atcom.cn/cn/download/pbx/ip01/uImage_IP01

Kernel for IP02/IP04/IP08: **uImage.crc**

<http://www.atcom.cn/cn/download/pbx/ip02/uImage>

Kernel for IP2G4A/IP4G:**uImage_IP2G4A.crc**

http://www.atcom.cn/cn/download/pbx/ip2g4a/uImage_IP2G4A

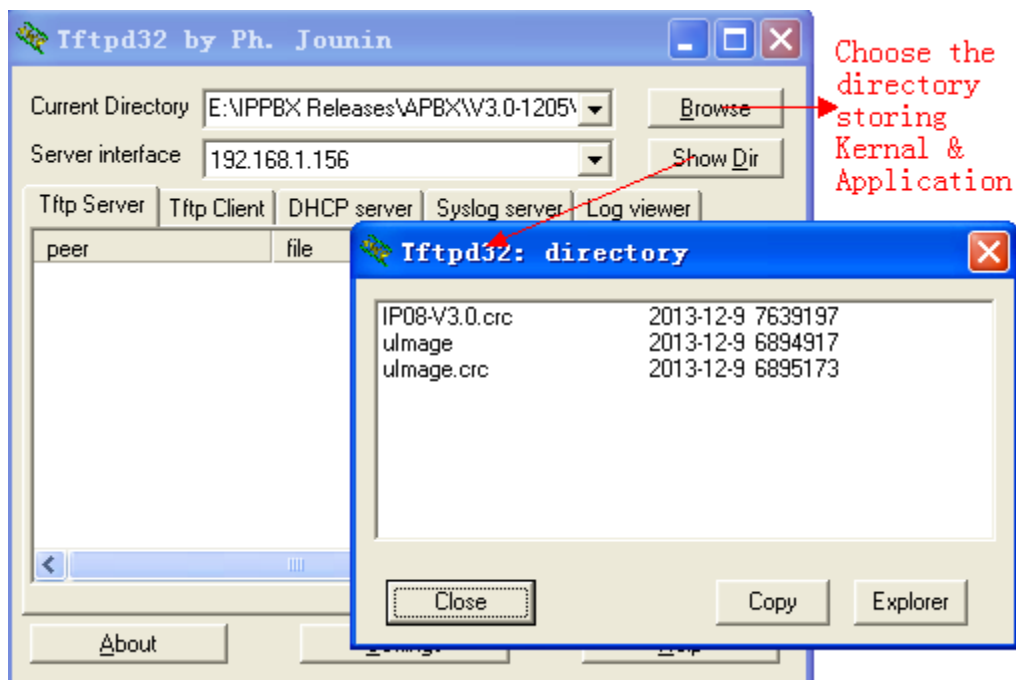
IP01/IP02 and IP04/IP08/IP2G4A/IP4G use different applications:

IP01/IP02: <http://www.atcom.cn/cn/download/pbx/ip01/IP01-V3.0.crc>

IP04/IP08/IP2G4A/IP4G: <http://www.atcom.cn/cn/download/pbx/ip04/IP04-V3.0.crc>

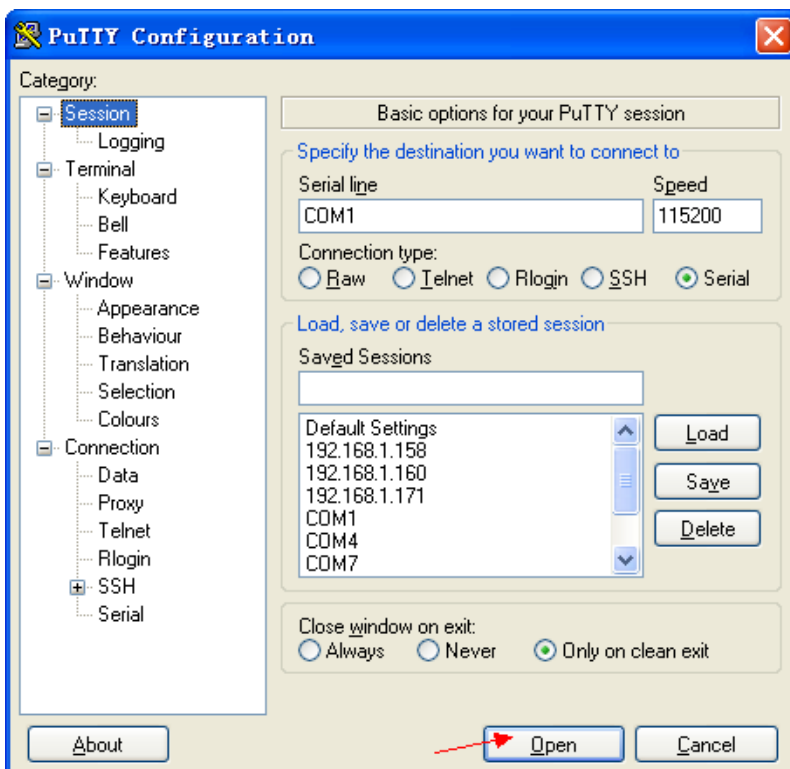
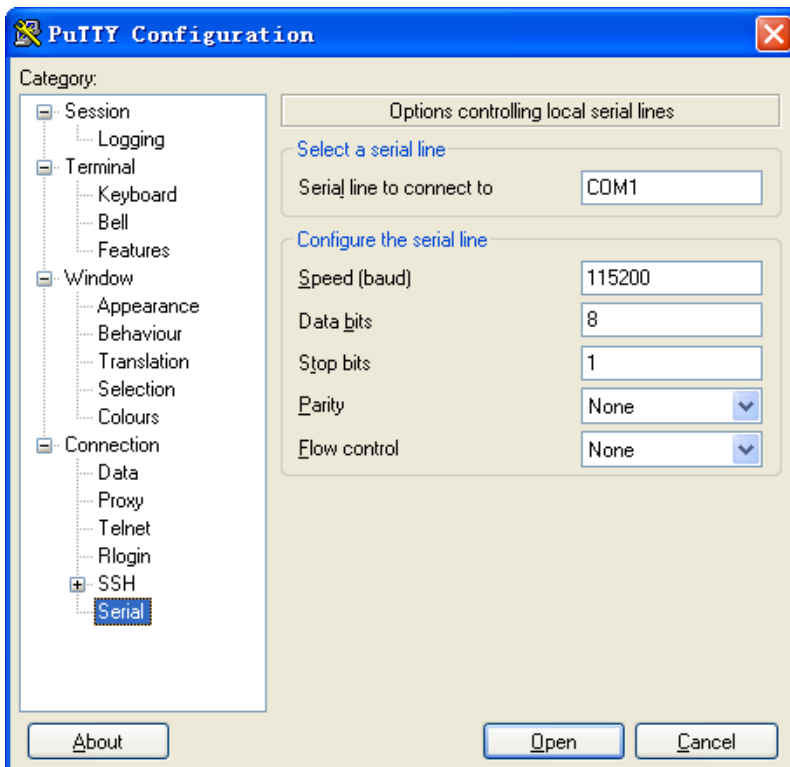
4 Load Kernel

- 1) TFTP setting: Choose firmware uploading directory as tftp server base directory.

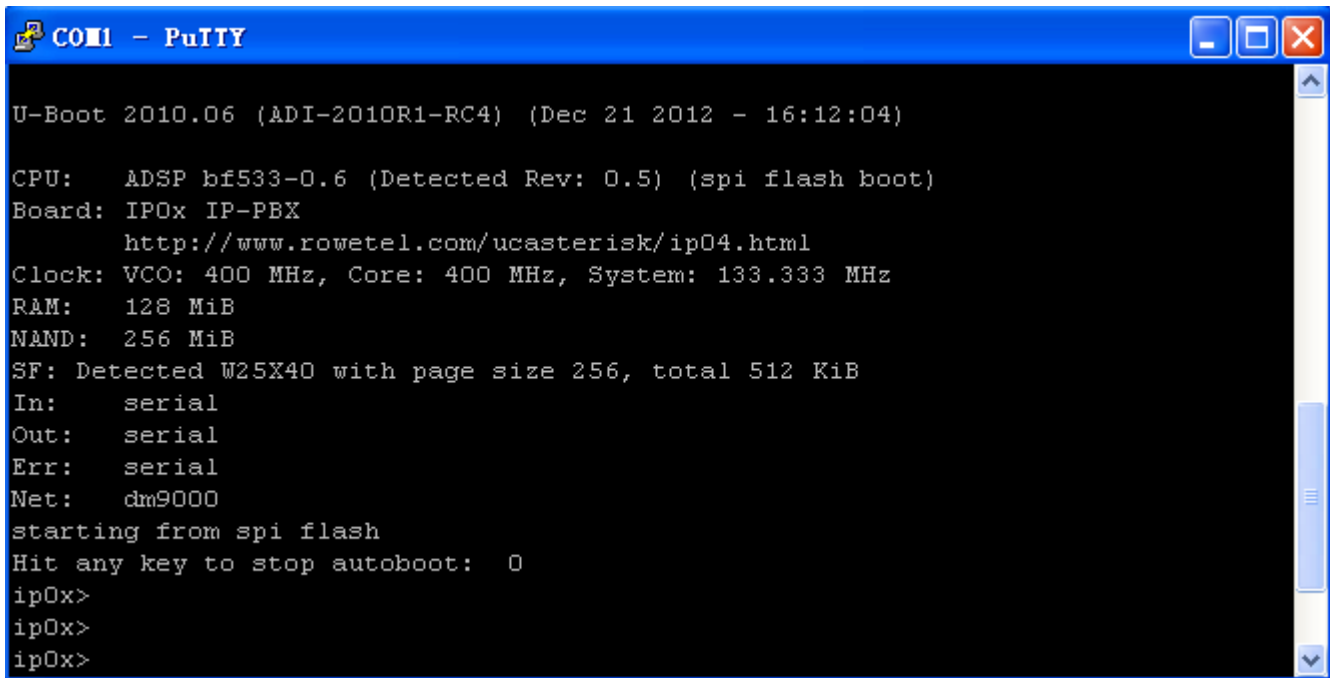


- 2) Putty setting

Configure your serial console client to 115,200 baud, 8 data bits and no parity. Also make sure Hardware Flow Control is turned off, and that you're using the correct port (minicom might be set to use /dev/tty0 by default instead of /dev/ttyS0)



- 3) Login IPPBX with serial console line
- 4) Power on the IPPBX
- 5) Press any key when you get the prompt 'Hit any key to stop autoboot'



```
COM1 - PuTTY
U-Boot 2010.06 (ADI-2010R1-RC4) (Dec 21 2012 - 16:12:04)

CPU:   ADSP bf533-0.6 (Detected Rev: 0.5) (spi flash boot)
Board: IPOx IP-PBX
       http://www.rowetel.com/ucasterisk/ip04.html
Clock: VCO: 400 MHz, Core: 400 MHz, System: 133.333 MHz
RAM:   128 MiB
NAND:  256 MiB
SF:    Detected W25X40 with page size 256, total 512 KiB
In:    serial
Out:   serial
Err:   serial
Net:   dm9000
starting from spi flash
Hit any key to stop autoboot:  0
ip0x>
ip0x>
ip0x>
```

6) Enter the following commands

```
ip0x>setenv autostart
ip0x>setenv ipaddr 192.168.1.160      ;set IPPBX IP
ip0x>setenv serverip 192.168.1.156  ;set tftp server IP
ip0x>setenv nandboot 'nand read.e 0x2000000 0x0 0x800000; bootm 0x2000000'
ip0x>setenv bootargs 'eth0addr=xx:xx:xx:xx:xx:xx eth1addr=xx:xx:xx:xx:xx:xx console=ttyBF0,115200'
ip0x>save
ip0x>tftp 0x2000000 ulmage
ip0x>nand erase
ip0x>nand write.e 0x2000000 0x0 0x800000
ip0x> setenv autostart yes
ip0x> save
ip0x>reset
```

```

ip0x> setenv autostart
ip0x> setenv serverip 192.168.1.156
ip0x> setenv ipaddr 192.168.1.160
ip0x> setenv nandboot 'nand read.e 0x2000000 0x0 0x800000;bootm 0x2000000'
ip0x> setenv bootargs 'eth0addr=80:82:87:00:03:6E eth1addr=80:82:87:00:03:6F console=ttyBF0,115200'
ip0x> save
Saving Environment to SPI Flash...
Erasing SPI flash...Erase: 20 03 00 00
Erase: 20 03 10 00
Erase: 20 03 20 00
Erase: 20 03 30 00
Erase: 20 03 40 00
Erase: 20 03 50 00
Erase: 20 03 60 00
Erase: 20 03 70 00
Erase: 20 03 80 00
Erase: 20 03 90 00
Erase: 20 03 a0 00
Erase: 20 03 b0 00
Erase: 20 03 c0 00
Erase: 20 03 d0 00
Erase: 20 03 e0 00
Erase: 20 03 f0 00
Writing to SPI flash...done
ip0x> tftp 0x2000000 uImage
dm9000 i/o: 0x20100000, id: 0x90000a46
DM9000: running in 16 bit mode
MAC: 80:82:87:00:03:6e
operating at 10M half duplex mode
Using dm9000 device
TFTP from server 192.168.1.156; our IP address is 192.168.1.160
Filename 'uImage'.
Load address: 0x2000000
Loading: #####
#####
#####transmission timeout
#####
#####transmission timeout
#####
#####transmission timeout
#####
#####
done

```

MAC of WAN, you can find it on the subface of the box

MAC of LAN: MAC of WAN+1
If there is no LAN (IP01/IP04), ignore it

```
ip0x> nand erase
NAND erase: device 0 whole chip
Really erase everything ? <y/N>
Skipping bad block at 0x03f40000
Skipping bad block at 0x07be0000
Skipping bad block at 0x08360000
Skipping bad block at 0x086e0000
Skipping bad block at 0x0a500000
Skipping bad block at 0x0ac00000
Skipping bad block at 0x0b740000
Skipping bad block at 0x0d040000
Erasing at 0xffe0000 -- 100% complete.
OK
ip0x> nand write.e 0x2000000 0x0 0x800000
NAND write: device 0 offset 0x0, size 0x800000
8388608 bytes written: OK
ip0x> setenv autostart yes
ip0x> save
Saving Environment to SPI Flash...
Erasing SPI flash...Erase: 20 03 00 00
Erase: 20 03 10 00
Erase: 20 03 20 00
Erase: 20 03 30 00
Erase: 20 03 40 00
Erase: 20 03 50 00
Erase: 20 03 60 00
Erase: 20 03 70 00
Erase: 20 03 80 00
Erase: 20 03 90 00
Erase: 20 03 a0 00
Erase: 20 03 b0 00
Erase: 20 03 c0 00
Erase: 20 03 d0 00
Erase: 20 03 e0 00
Erase: 20 03 f0 00
Writing to SPI flash...done
ip0x> reset
```

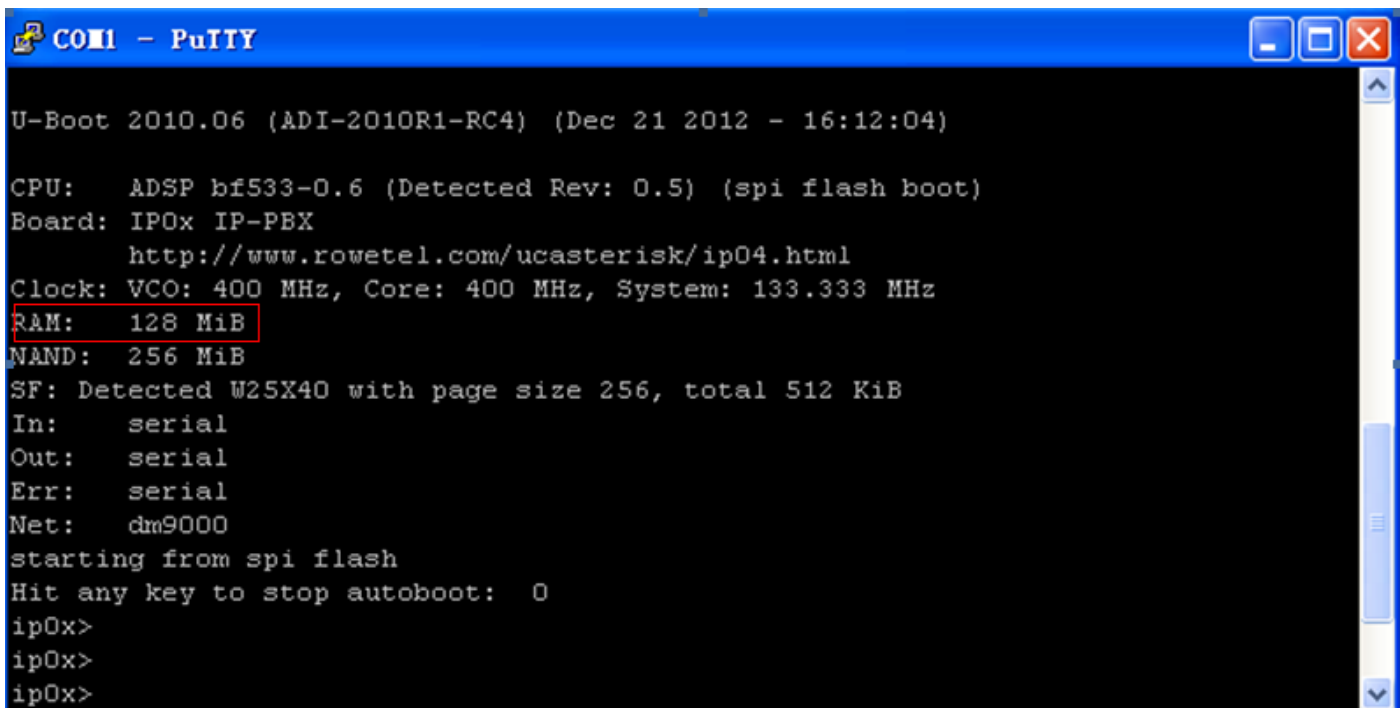
5 Load Application

Then IPPBX will reboot, now the Linux system is already, login the box with **root/atcombox** as user/password.

1) Check the RAM size of IP04/IP08/IP2G4A/IP4G

The latest hardware for IP04/IP08/IP2G4A/IP4G are with 128M RAM, the latest V3.0 firmware is for the latest hardware, so the latest Application can't run on old hardware. **If the RAM size of IPPBX is 64M, please upgrade below Application which is for IP01/IP02.** It doesn't support IAX2 and FAX to email, so it requires less RAM.

IP01/IP02: <http://www.atcom.cn/cn/download/pbx/ip01/IP01-V3.0.crc>



```

COM1 - PuTTY
U-Boot 2010.06 (ADI-2010R1-RC4) (Dec 21 2012 - 16:12:04)

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SF: Detected W25X40 with page size 256, total 512 KiB
In:    serial
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Net:   dm9000

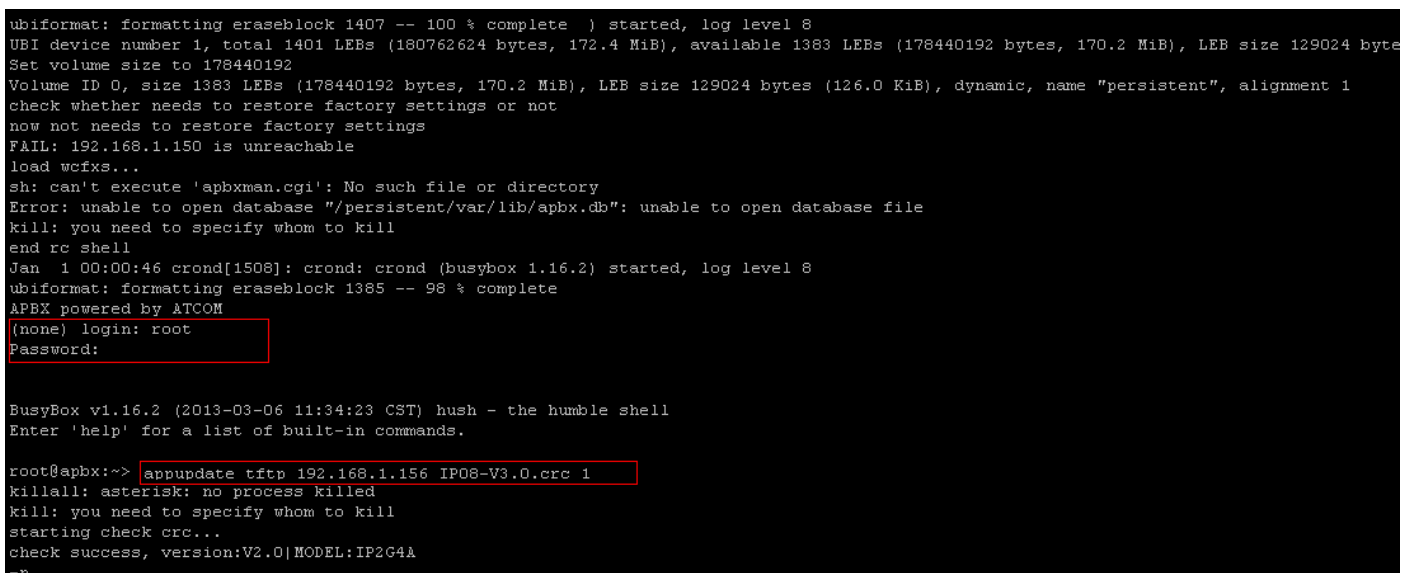
starting from spi flash
Hit any key to stop autoboot:  0
ip0x>
ip0x>
ip0x>

```

2) Load Application

Run command **appupdate tftp tftp_server filename 1** to load Application.

After that, IPPBX will reboot automatically.



```

ubiformat: formatting eraseblock 1407 -- 100 % complete ) started, log level 8
UBI device number 1, total 1401 LEBs (180762624 bytes, 172.4 MiB), available 1383 LEBs (178440192 bytes, 170.2 MiB), LEB size 129024 byte
Set volume size to 178440192
Volume ID 0, size 1383 LEBs (178440192 bytes, 170.2 MiB), LEB size 129024 bytes (126.0 KiB), dynamic, name "persistent", alignment 1
check whether needs to restore factory settings or not
now not needs to restore factory settings
FAIL: 192.168.1.150 is unreachable
load wcfxs...
sh: can't execute 'apbxman.cgi': No such file or directory
Error: unable to open database "/persistent/var/lib/apbx.db": unable to open database file
kill: you need to specify whom to kill
end rc shell
Jan  1 00:00:46 crond[1508]: crond: crond (busybox 1.16.2) started, log level 8
ubiformat: formatting eraseblock 1385 -- 98 % complete
APBX powered by ATCOM
(mnone) login: root
Password:

BusyBox v1.16.2 (2013-03-06 11:34:23 CST) hush - the humble shell
Enter 'help' for a list of built-in commands.

root@apbx:~> appupdate tftp 192.168.1.156 IP08-V3.0.crc 1
killall: asterisk: no process killed
kill: you need to specify whom to kill
starting check crc...
check success, version:V2.0|MODEL:IP2G4A
-m .

```

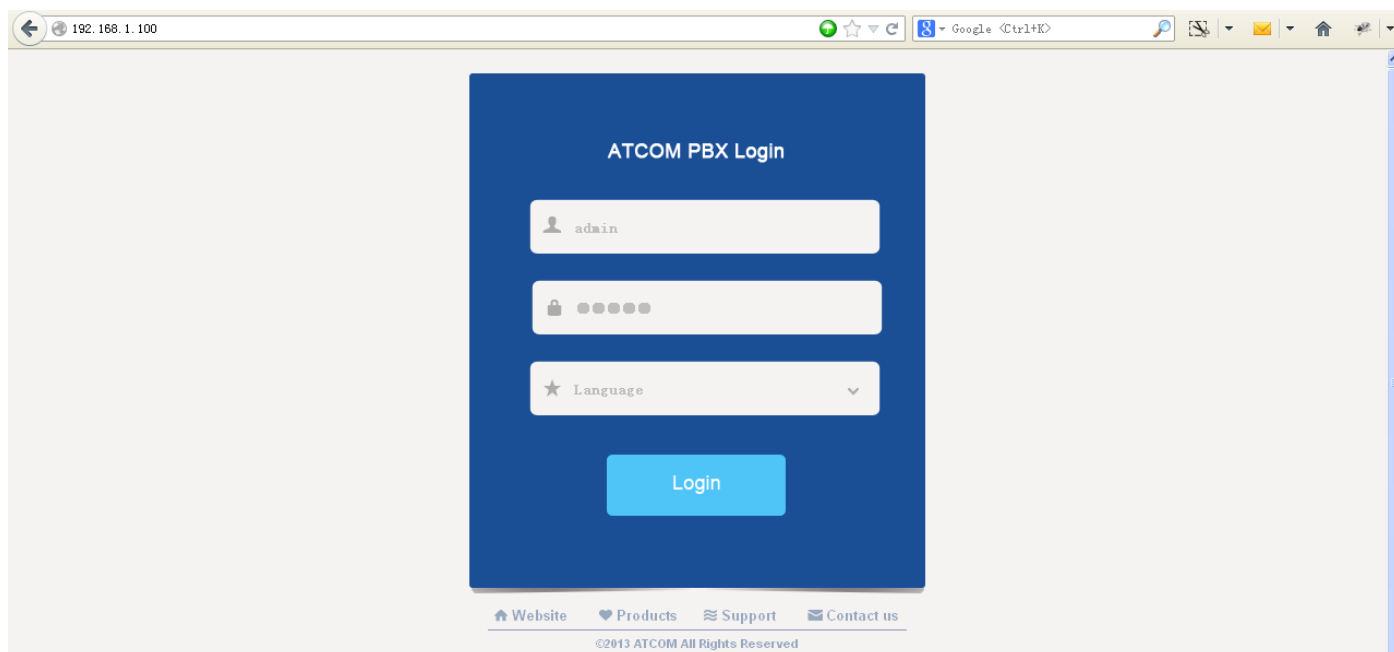
6 Login IPPBX via WEB GUI

After successful upgrade, the output in COM interface should like below, then you can login APBX

with default IP:192.168.1.100 (WAN) and user/password: admin/atcom

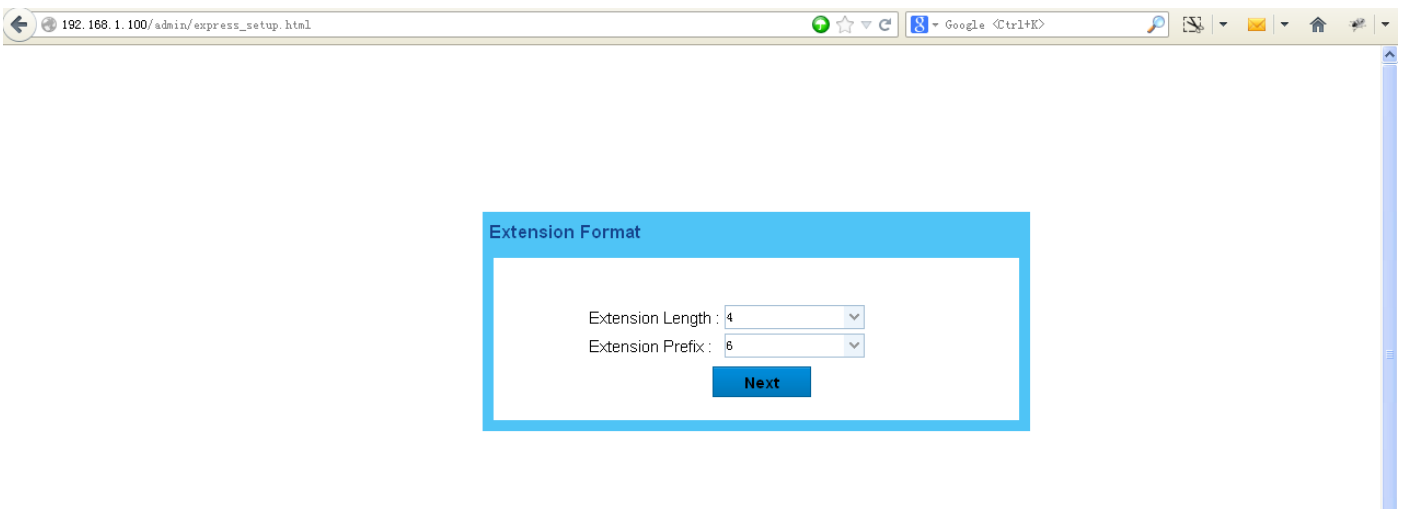
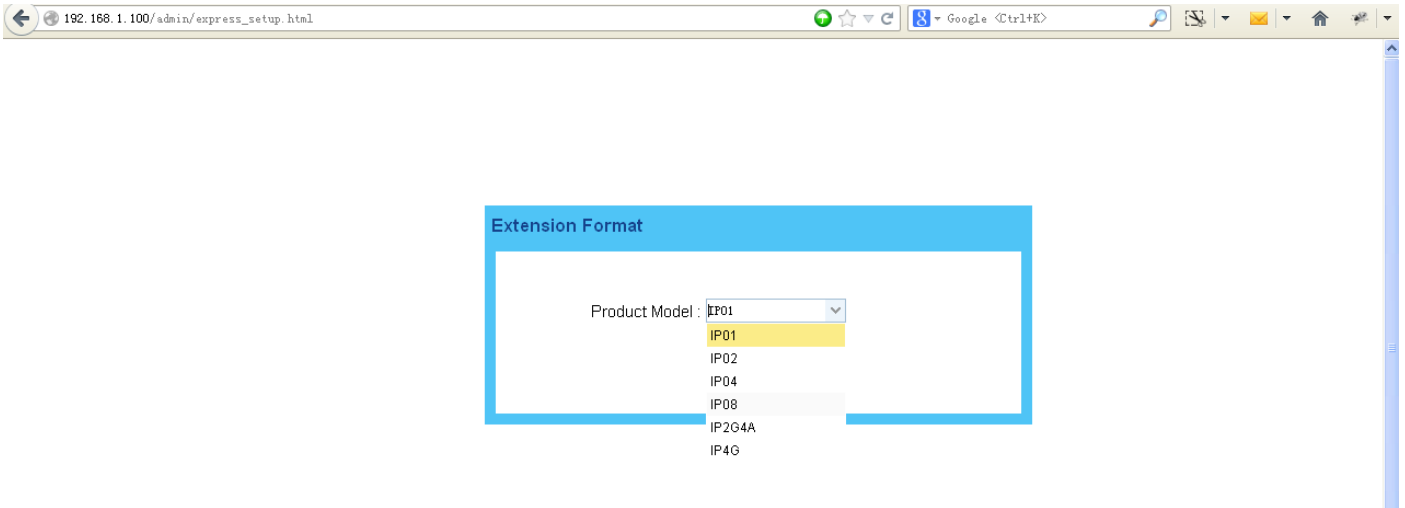
```
port: 1 port_type: O
port: 2 port_type: O
port: 3 port_type: S
port: 4 port_type: S
port: 5 port_type: -
port: 6 port_type: -
port: 7 port_type: -
port: 8 port_type: -
bad!!! NO BATTERY on port1!
Module 0: Installed -- AUTO FXO (FCC mode)
bad!!! NO BATTERY on port2!
Module 1: Installed -- AUTO FXO (FCC mode)
ProSLIC module is Si3215
Start manual calibration
Module 2: Installed -- AUTO FXS
ProSLIC module is Si3215
Start manual calibration
Module 3: Installed -- AUTO FXS
Found: ATCOM IP0x (8 modules)
wcfxs_init_ok = 1
dahdi_echocan_oslec: Registered echo canceler 'OSLEC'
dahdi: Registered tone zone 0 (United States / North America)
802.1Q VLAN Support v1.8 Ben Greear <greearb@candelatech.com>
All bugs added by David S. Miller <davem@redhat.com>
Jan  1 00:00:09 crond[379]: crond: crond (busybox 1.16.2) started, log level 8

APBX powered by ATCOM
```



7 Express Setup

After login, PBX will prompt you to choose the product model and extension format.



Then you can configure APBX for your call service, enjoy it!

