



APBX Upgrade Manual

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Notice:

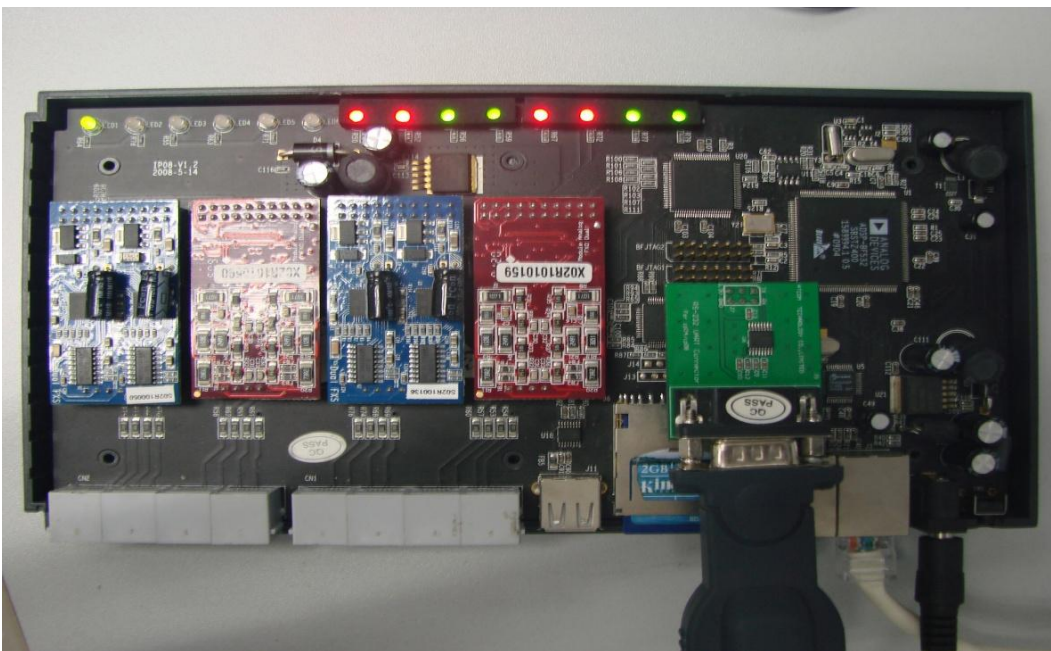
1. This manual is only for old firmware (IPOX-1.0.0.xx.xx_release.ext2/md5) upgrade to APBX firmware.
2. The new firmware (APBX firmware) must be installed under com interface (RS232), please prepare serial console line.
3. The upgrade will **clear all configurations**, and the backup file of old firmware can't be used in APBX, which means, after the upgrade, we need to **configure the box starting over**.
4. All configurations in APBX must be set via WEB GUI, if you want to configure your own Asterisk DialPlan, it is not recommend to do upgrade.

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)

Notice: the IP of TFTP server must be **192.168.1.150** , otherwise the upgrade will fail.

2 Connection

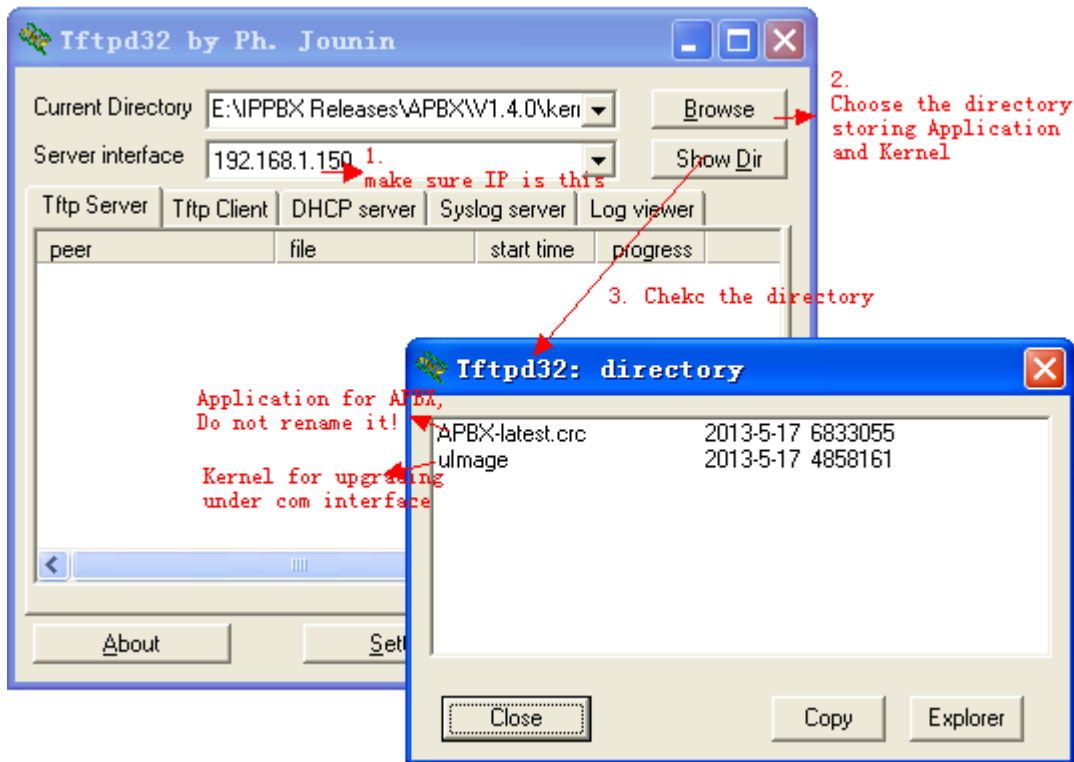


- 1) Connect IPPBX to PC with serial console line
There is RS232 interface in IP01/IP2G4A/IP4G, just connecting them is OK. If your box is IP02/IP04/IP08, you have to remove the top cover from the IPPBX and install the small RS232 daughter board which was included in the package on J6 as shown above.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

3 Load Kernel and Application

Make sure your TFTP server IP is 192.168.1.150. In general, you need to set the IP of your PC to this.

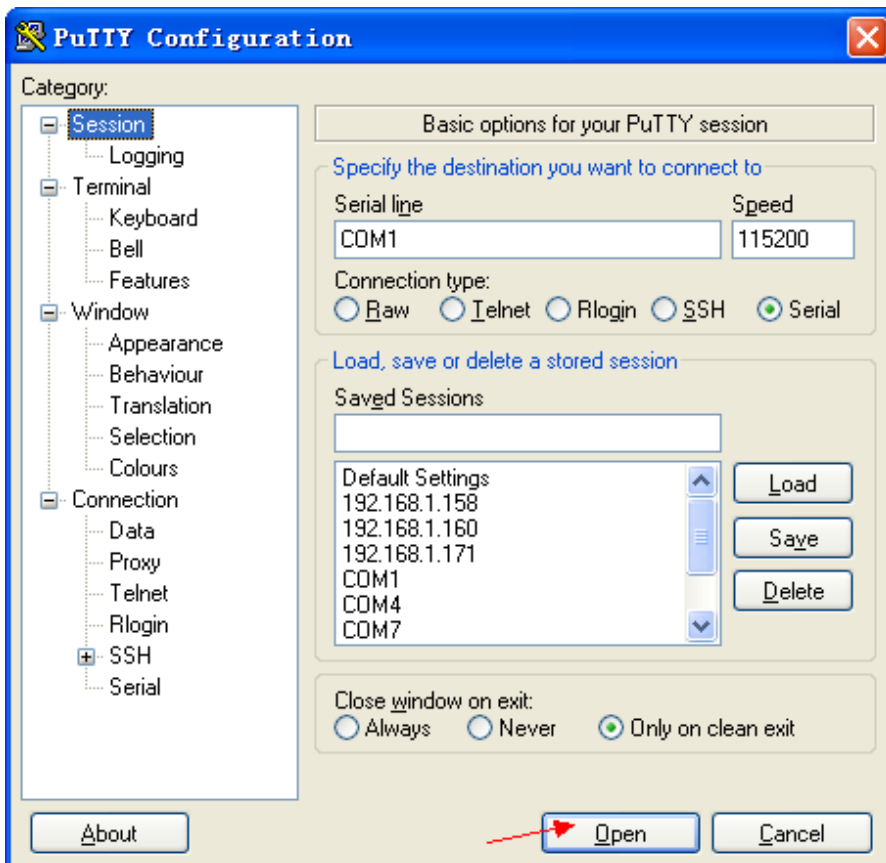
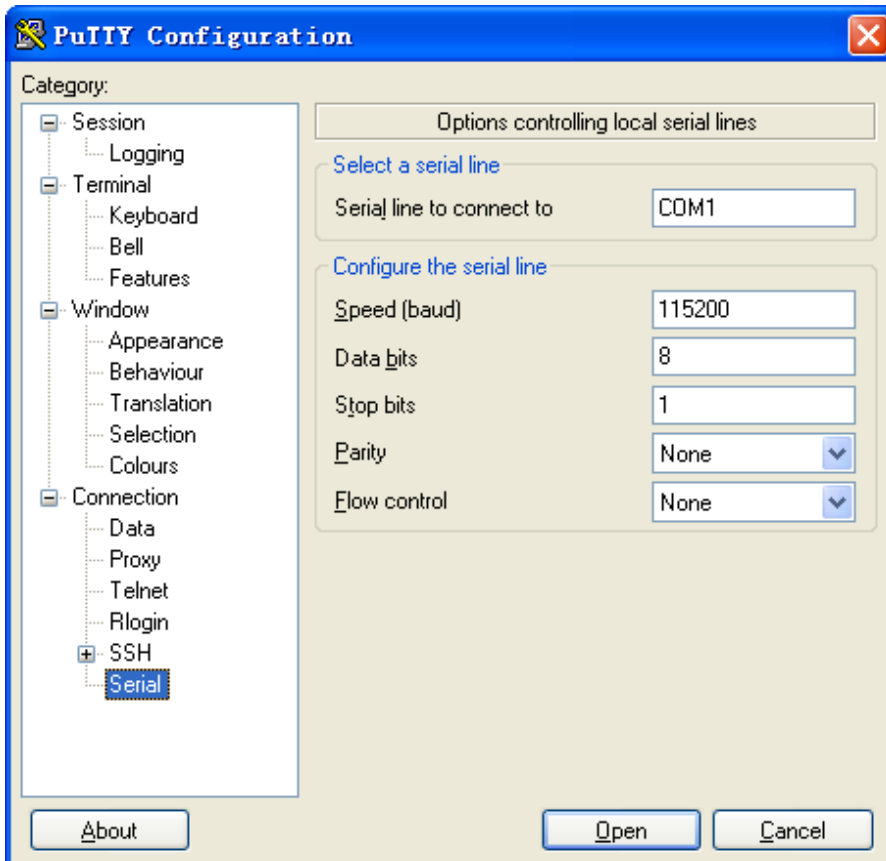
- 1) TFTP setting: Choose firmware uploading directory as tftp server base directory.



Notice: IP01 use kernel: `uImage_IP01`, IP02/IP04/IP08 use `uImage`, and IP2G4A/IP4G use `uImage_IP2G4A`, all of them use same application: `APBX-latest.crc`. Application will be loaded automatically during upgrade, please put it in the same directory of kernel. All of them can be downloaded from our web site: <http://www.atcom.cn/download.html>

- 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'
- 6) Enter the following commands

```
ip0x>setenv autostart
ip0x>setenv ipaddr 192.168.1.160 ;set IPPBX IP
ip0x>setenv serverip 192.168.1.150 ;set tftp server IP
ip0x>setenv setbootargs 'setenv bootargs eth0addr=xx:xx:xx:xx:xx:xx eth1addr=xx:xx:xx:xx:xx:xx
console=ttyBF0,115200'
ip0x>run setbootargs
ip0x>save
ip0x>tftp 0x2000000 ulmage
ip0x>nand erase
ip0x>nand write.e 0x2000000 0x0 0x700000
ip0x> setenv autostart yes
ip0x> save
```

```
ip0x> setenv autostart
ip0x> setenv ipaddr 192.168.1.160
ip0x> setenv serverip 192.168.1.150
ip0x> setenv setbootargs 'setenv bootargs eth0addr=80:82:87:00:06:9A eth1addr=80:82:87:00:06:9B console=ttyBF0,115200'
ip0x> run setbootargs
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: 80:82:87:00:06:9a
operating at 10M half duplex mode
Using dm9000 device
TFTP from server 192.168.1.150; our IP address is 192.168.1.160
Filename 'uImage'.
Load address: 0x2000000
Loading: #####
#####
#####
#####
#####transmission timeout
#####transmission timeout
#####transmission timeout
#####
#####
```

MAC of WAN, you can find it in the subface of IPPBX
 ↓
 MAC of LAN: MAC of WAN + 1
 If there is no LAN in your PBX (IP01/IP04), ignore it

```
ip0x> nand erase
NAND erase: device 0 whole chip
Really erase everything ? <y/N> ← put y here
Skipping bad block at 0x001c0000
Skipping bad block at 0x001e0000
Skipping bad block at 0x05cc0000
Skipping bad block at 0x07500000
Skipping bad block at 0x08000000
Skipping bad block at 0x08040000
Erasing at 0xffe0000 -- 100% complete.
OK
ip0x> nand write.e 0x2000000 0x0 0x700000
NAND write: device 0 offset 0x0, size 0x700000
Skip bad block 0x001c0000
Skip bad block 0x001e0000
 7340032 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
```

4 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: 0
port: 2 port_type: 0
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 IPDx (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
```



ATCOM PBX Login

UserName:

Password:

5 Express Setup

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

Express Setup	Express Setup --> Extension Format
---------------	------------------------------------

Extension Format

Product Model :

- IP01
- IP02
- IP04
- IP08
- IP2G4A
- IP4G

choose your product model

Express Setup	Express Setup --> Extension Format
---------------	------------------------------------

Extension Format

Extension Length :

Extension Prefix :

Next

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