

# How to use LP389 IP Phone HTTP provision feature

The Purpose of this document is to describe procedures to create an auto provision based on HTTP platform for IP Phone LP389 and LP600N.

<b>1. IP Phone MAC.cfg file Generation</b> .....	1
<b>Step 1. Build MAC address list for mass configuration file generation</b> .....	1
<b>Step 2. Create a template configuration file</b> .....	1
<b>Step 3. Make the change of “wtegencfg.ini” as follows if it is necessary.</b> .....	1
<b>Step 4. Generate the individual configuration file.</b> .....	2
<b>Additional Notes to above steps.</b> .....	2
<b>2. HFS HTTP Server Setup</b> .....	4
<b>Step 1. Setup HTTP server network</b> .....	4
<b>Step 2. Execute HFS Server</b> .....	4
<b>Step 3. Setting Server User name and Password</b> .....	5
<b>Step 4. Add configuration file or firmware</b> .....	6
<b>3. LP389 Provision Setting and Server Message</b> .....	9
<b>Step 1. LP389 Web for provision function</b> .....	9
<b>Step 2. MAC Address.cfg Messages</b> .....	10
<b>Step 3. Firmware Upgrade Message</b> .....	10
<b>Note</b> .....	11
<b>4. Provisioning Debug</b> .....	12
<b>Mode 1: Telnet</b> .....	12
<b>Mode 2: SYSLOG</b> .....	14

## 1. IP Phone MAC.cfg file Generation

Go to Welltech technical support webpage to download auto provision information of LP389 and LP600N and start the following steps.

### Step 1. Build MAC address list for mass configuration file generation

Open the “LP389 MAC.csv” file by using Microsoft Excel program. Refer to the picture below. You should ask for Welltech to provide you MAC address list by Excel file when you place an order. Or, you can build an Excel file with MAC address by yourself. This file is used to generate auto provision MAC address profile for each device.

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	\$MACAddress	l1tel	l1uid	l1pwd	l1dsp	l2tel	l2uid	l2pwd	l2dsp	l3tel	l3uid	l3pwd	l3dsp
2	0001A8FFFFFF	123	123	123	123								
3	0001a807537f	070000110	070000110	070000110	070000110								
4													

The “MAC.csv” file contains most frequent configurable parameters at each column of Excel file as follows.

#### Column A : MAC Address

Enter MAC address of this device which you are going to edit. The MAC address can be found from device webpage or sticker at bottom of enclosure.

MAC-Address:	00:01:A8:07:53:7F
--------------	-------------------

#### Column B, F, J : l1tel to l3tel

Telephone number ( Tel No ) of Line1, Line2 and Line3 are filled in these columns.

Tel No:	070000110
---------	-----------

#### Column C, G, K : l1uid~l3uid

User ID of Line1, Line2 and Line3 are filled in these columns.

User ID:	070000110
----------	-----------

#### Column D, H, L : l1pwd~l3pwd

User Password of Line1, Line2 and Line3 are filled in these columns.

User Password:	*****
----------------	-------

#### Column E, I, M : l1dsp~l3dsp

Display Name of Line1, Line2 and Line3 are filled in these columns.

Display Name:	070000110
---------------	-----------

### Step 2. Create a template configuration file

Open the “LP389 Parameter.txt” file and make the required changes. Make the changes for those necessary provision and SIP proxy setting. For details, please refer to file of “LP389 Parameter.txt”.

### Step 3. Make the change of “wtegenfg.ini” as follows if it is necessary.

```
# Template File
BaseFile = .\LP389 Parameter.txt
# MAC list file
```

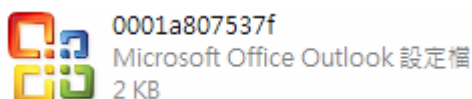
ListFile = .\LP389 MAC.csv  
# 0 : Off , 1: On  
Encrypt = 0

#### Step 4. Generate the individual configuration file.

Double click the “wtgencfg.exe” file, it will generate the configuration file for each MAC address list in “MAC address.cfg” format as the following pictures.

```
C:\> wtgencfg.exe 1.0.0 (R091006)
11:33:53 L0114 Notice : wtgencfg.exe 1.0.0 (R091006) start.
11:33:53 L0270 Info : Read ".\wtgencfg.ini".
11:33:53 L0271 Info : [System].
11:33:53 L0289 Info : Action=0.
11:33:53 L0304 Info : ToCase=0.
11:33:53 L0315 Info : BaseFile=.\LP389 Parameter.txt.
11:33:53 L0327 Info : ListFile=.\LP389 MAC.csv.
11:33:53 L0338 Info : Default HeadTagPrefix=FmtNo=_wtcfg_.
11:33:53 L0348 Info : HeadTagSuffix=.
11:33:53 L0355 Info : Encrypt=0.
11:33:53 L0364 Info : Default EncryptKey=*****.
11:33:53 L0397 Info : Read ".\LP389 Parameter.txt" 10122 element(s).
11:33:53 L0454 Info : Read ".\LP389 MAC.csv" 185 element(s).
11:33:53 L0632 Info : Removed ".\0001a8ffffff.cfg".
11:33:53 L0665 Info : Opened ".\0001a8ffffff.cfg".
11:33:53 L0703 Info : ".\0001a8ffffff.cfg" finished 29 record(s).
11:33:53 L0563 Info :
11:33:53 L0665 Info : Opened ".\0001a807537f.cfg".
11:33:53 L0703 Info : ".\0001a807537f.cfg" finished 29 record(s).
11:33:53 L0563 Info :
11:33:53 L0154 Notice : Total 2 file(s) generated.
請按任意鍵繼續 . . .
```

This program ( wtgencfg.exe ) generates an cfg file by using MAC Address as its name as shown below. Please note this file is .cfg format and Windows recognize it as Office Outlook set up file with the following display.



#### Additional Notes to above steps.

1. The “LP389 Parameter.txt” contains classification and detailed description of each parameter.
2. To configure common parameters to each phone set such as SIP Server IP address, SIP port number or voice codec priority, please modify “LP389 Parameter.txt” file.
3. To configure unique parameters to each phone set such as Account number, registration password, you need to modify “LP389 MAC.csv” file.

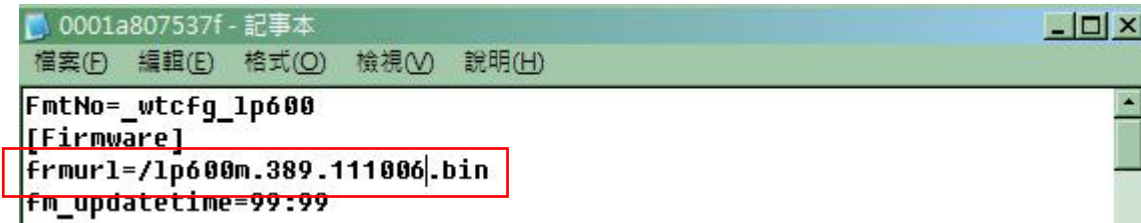
**Please take caution to both files Parameter.txt and MAC.csv before you start to create your desire features.**

4. If you want to **upgrade firmware via auto provision**, you have to open “LP389 Parameter.txt” file and modify the parameter “frmurl”. There are two formats that can be used.

(1) /firmware name.bin

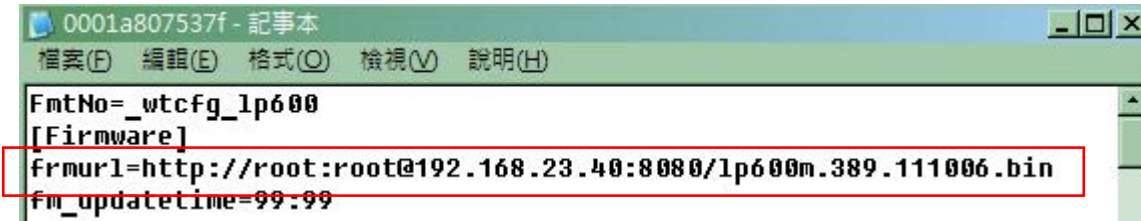
(2) http:// User name:Password@provision server address:port number/firmware name.bin

Example (1)



```
0001a807537f - 記事本
檔案(F) 編輯(E) 格式(O) 檢視(V) 說明(H)
FmtNo=_wtcfg_lp600
[Firmware]
frmurl=/lp600m.389.111006|.bin
fm_updatetime=99:99
```

Example (2) :



```
0001a807537f - 記事本
檔案(F) 編輯(E) 格式(O) 檢視(V) 說明(H)
FmtNo=_wtcfg_lp600
[Firmware]
frmurl=http://root:root@192.168.23.40:8080/lp600m.389.111006.bin
fm_updatetime=99:99
```

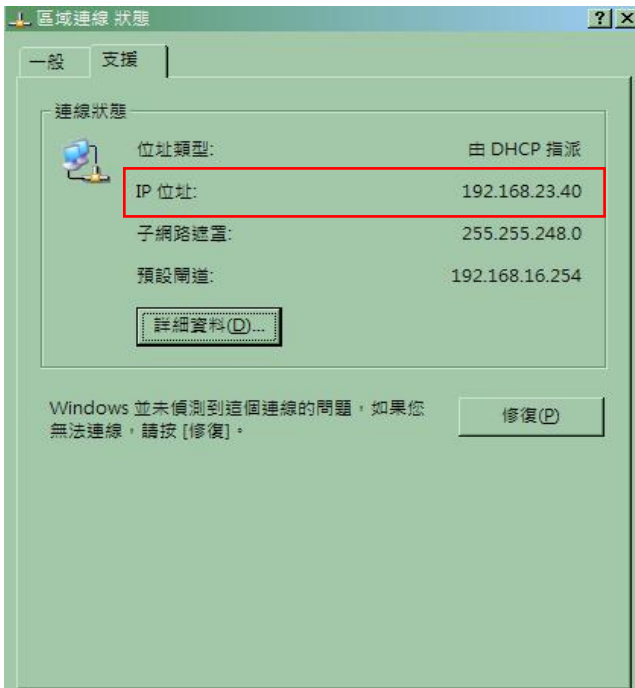
## 2. HFS HTTP Server Setup

You can use HFS as your HTTP server and refer to the following steps to create your HTTP server.

### Step 1. Setup HTTP server network

Confirm the network settings on the computer in which you want it to work as HFS HTTP server.

For example: IP address 192.168.23.40

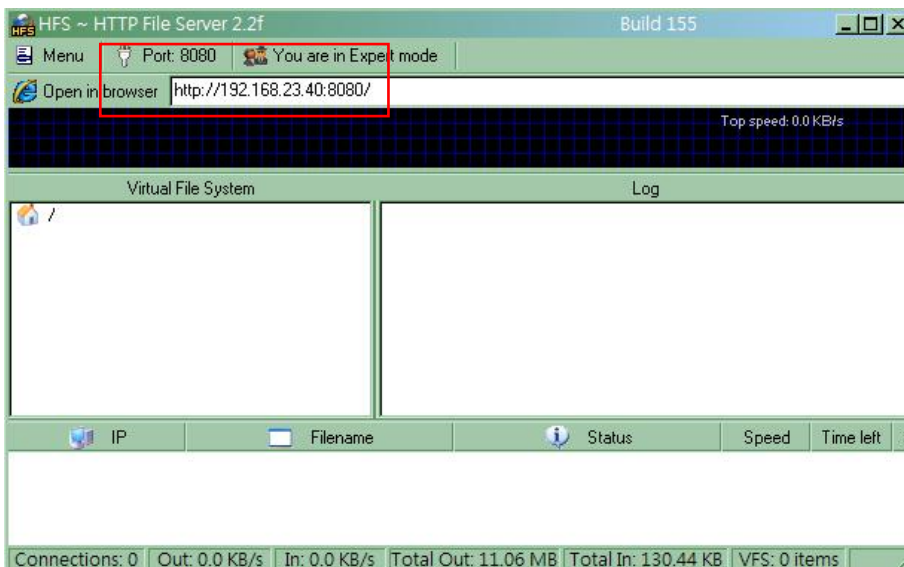


### Step 2. Execute HFS Server



(1) Press "HFS.exe"

(2) Open HTTP software.

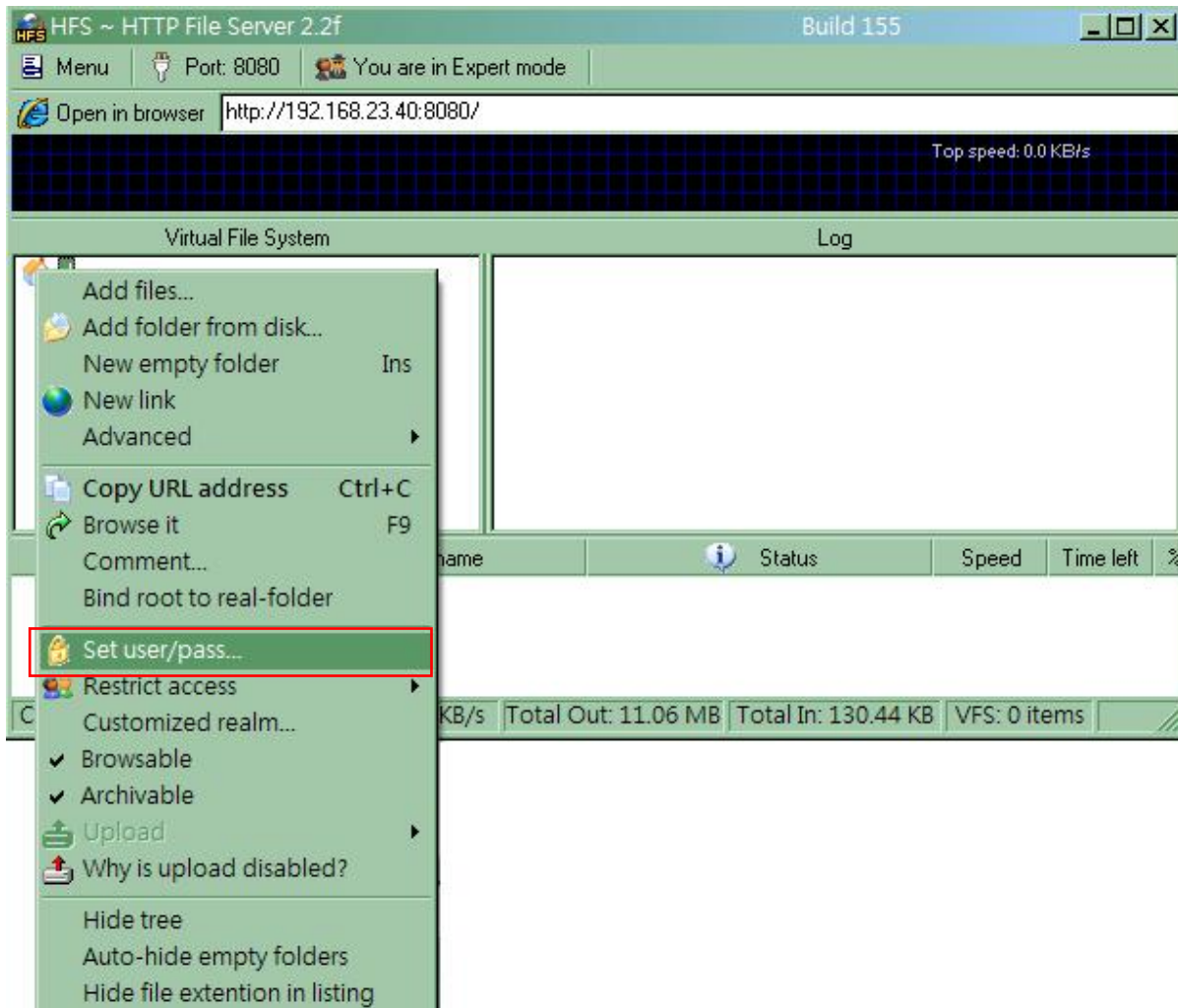


You can see your server IP “http://192.168.23.40” and this example port is 8080. The server Port can be changed.

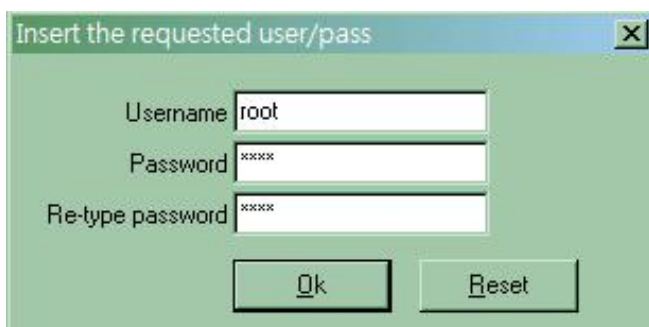
### Step 3. Setting Server User name and Password

If you don't need set “User / Password”, you can skip this step.

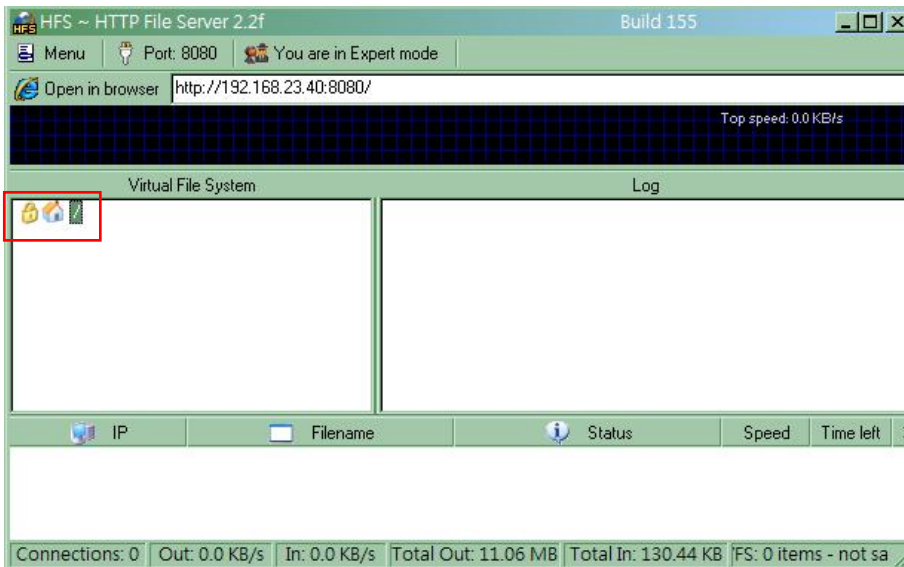
(1) Select the house Icon in Virtual File System. Right-click and select “Set user/pass..”.



(2) Enter HTTP server User name and Password, Re-type password. For this example, User name is **root**, Password is **root**.

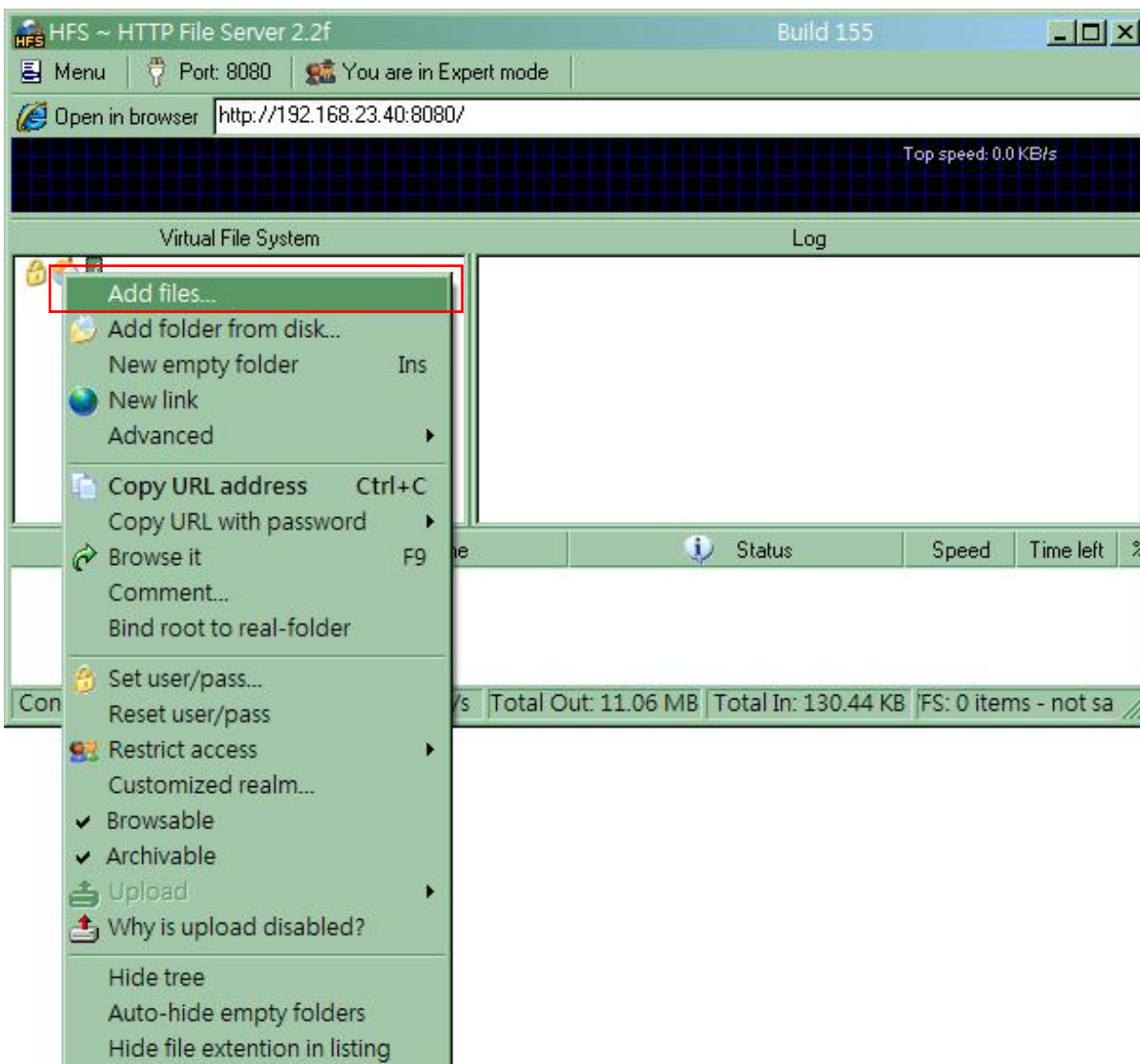


(3) User name and Password Setting are completed.



#### Step 4. Add configuration file or firmware

(1) Select the house icon in Virtual File System. Right-click and select "Add files".

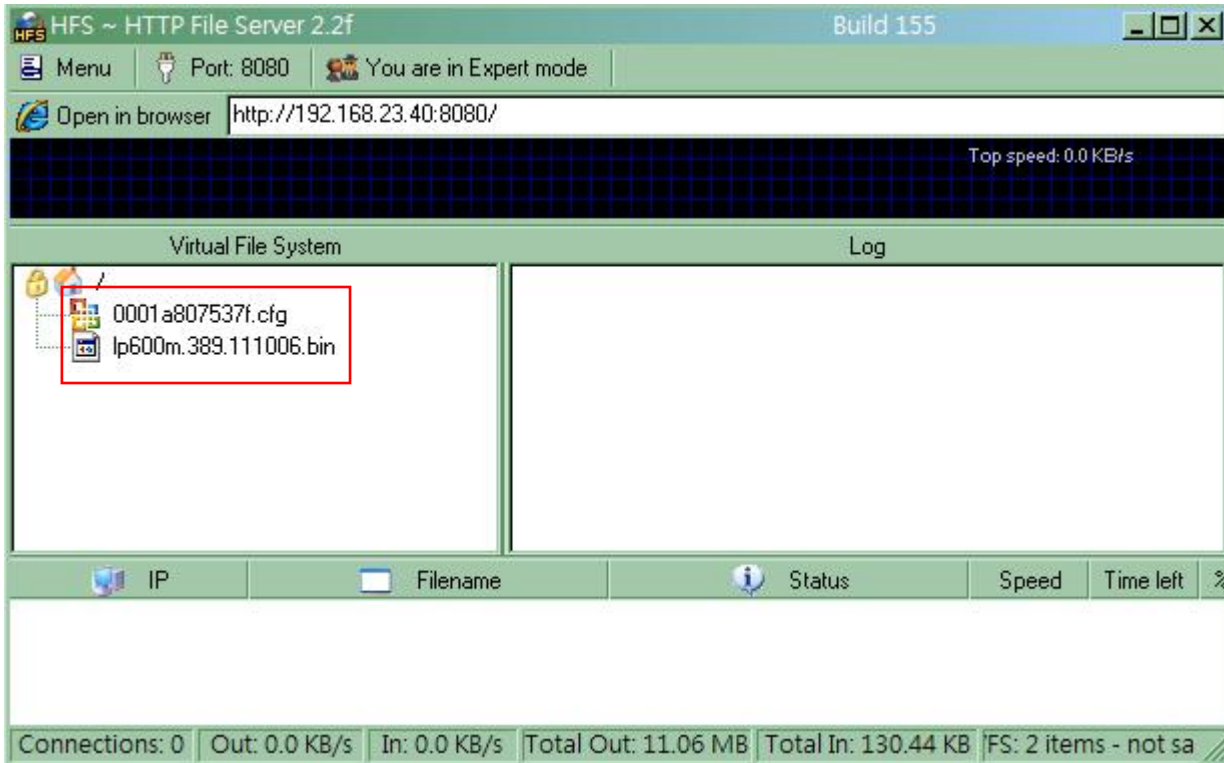


(2) Select IP Phone “ MAC.cfg” file or firmware and import to this window.

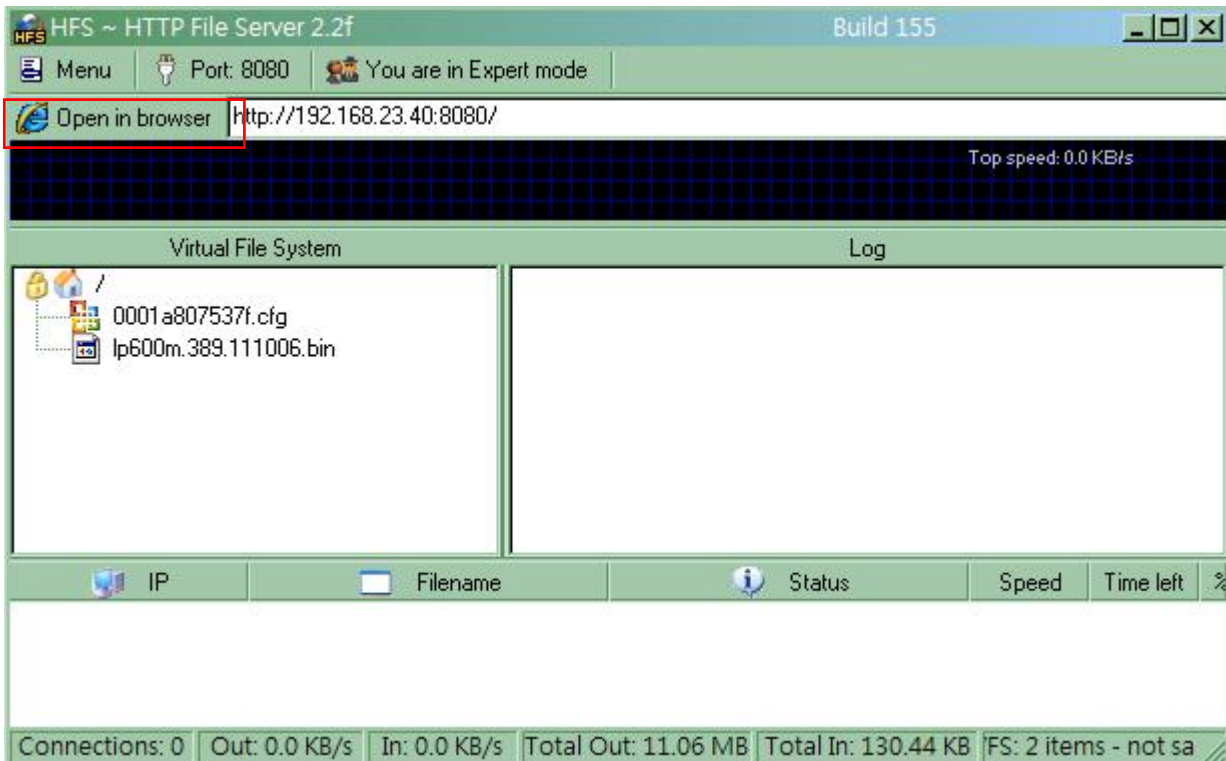
For example:

MAC.cfg file is 0001a807537f.cfg

Firmware file is lp600m.389.111006.bin



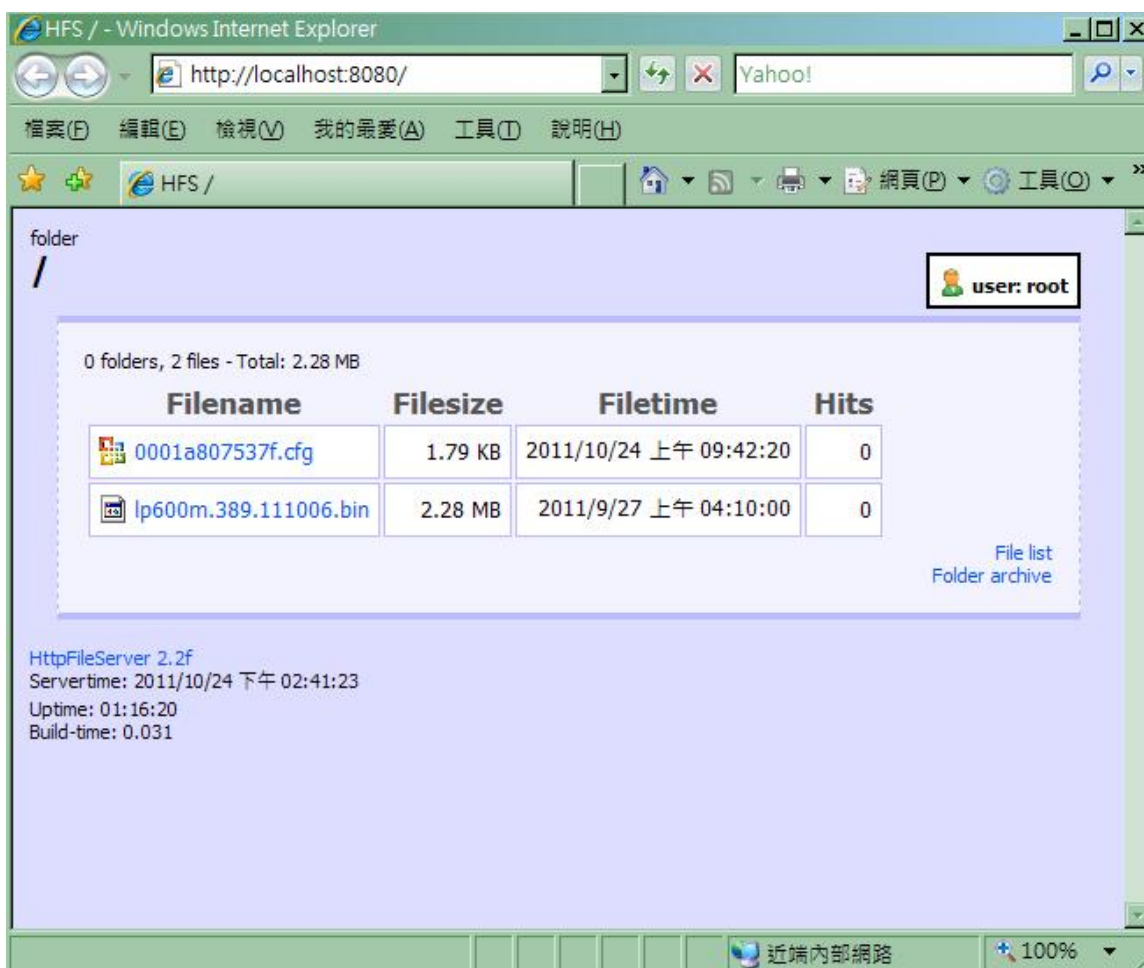
(3) Press “Open in browser” button to activate the Internet Explorer browser.



Enter your setting of HFS HTTP server User Name and Password. If you don't set, you can skip.



See the following screen setup successfully.



### 3. LP389 Provision Setting and Server Message

#### Step 1. LP389 Web for provision function

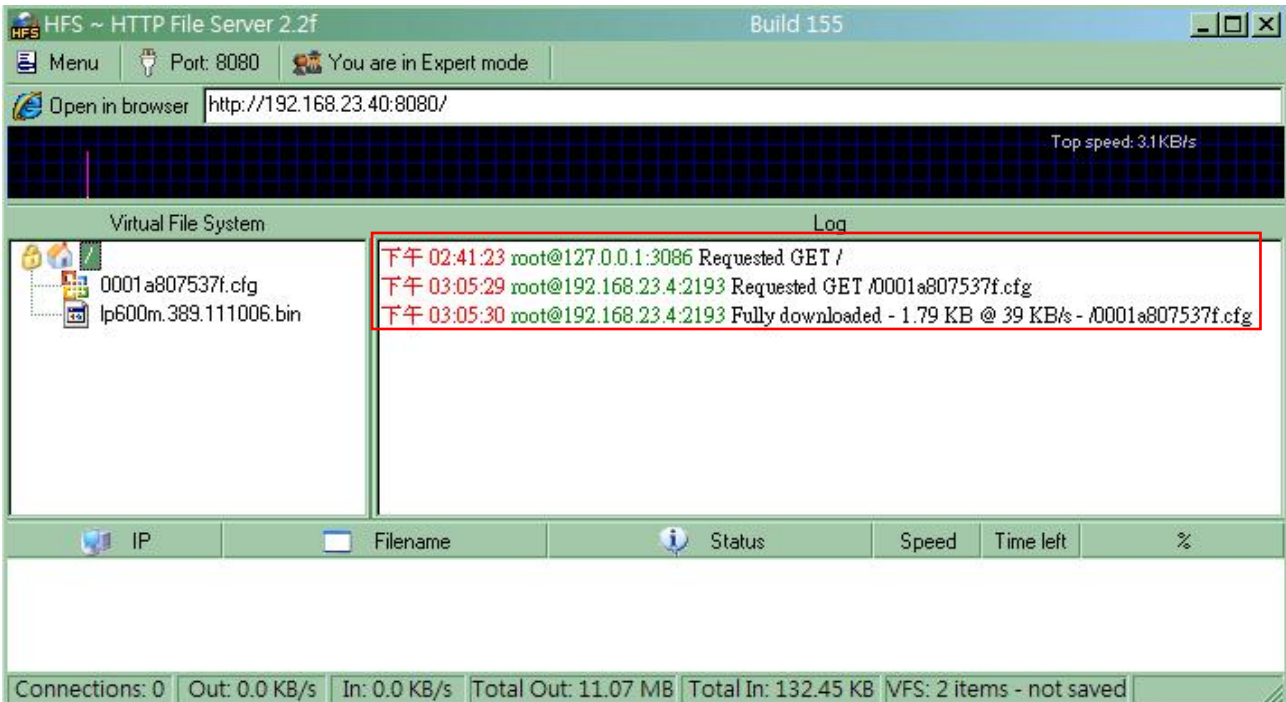
Enter LP389 web browser HTTP URL address. Select the left function “Device Setting” at “Provisioning” to configure.

Network	Time	Advance	User Login	Debug	Provisioning	
<b>Provisioning Type:</b> HTTP						
<b>HTTP Config URL:</b> http://192.168.23.40:8080						
<b>Refresh Interval (minute):</b> 60						
<b>User ID:</b> root						
<b>Password:</b> ●●●●						
					Apply	Cancel

- (1) Provisioning Type : Please select HTTP type.
- (2) HTTP Config URL : Enter your HTTP server IP and Port number.
- (3) Refresh Interval (minute) : The interval time is for LP389 IP Phone to access HTTP server to check .cfg file if there are any new firmware to update.
- (4) User ID : HTTP server User ID.
- (5) Password : HTTP server Password.

## Step 2. MAC Address.cfg Messages

HTTP server will show .cfg file to check its messages. Confirm if message is consistent, then start to download configuration.



The screenshot shows the HFS HTTP File Server 2.2f interface. The top bar displays "Build 155", "Menu", "Port: 8080", and "You are in Expert mode". The address bar shows "http://192.168.23.40:8080/". The "Virtual File System" pane on the left lists files: "0001a807537f.cfg" and "lp600m.389.111006.bin". The "Log" pane on the right shows the following entries:

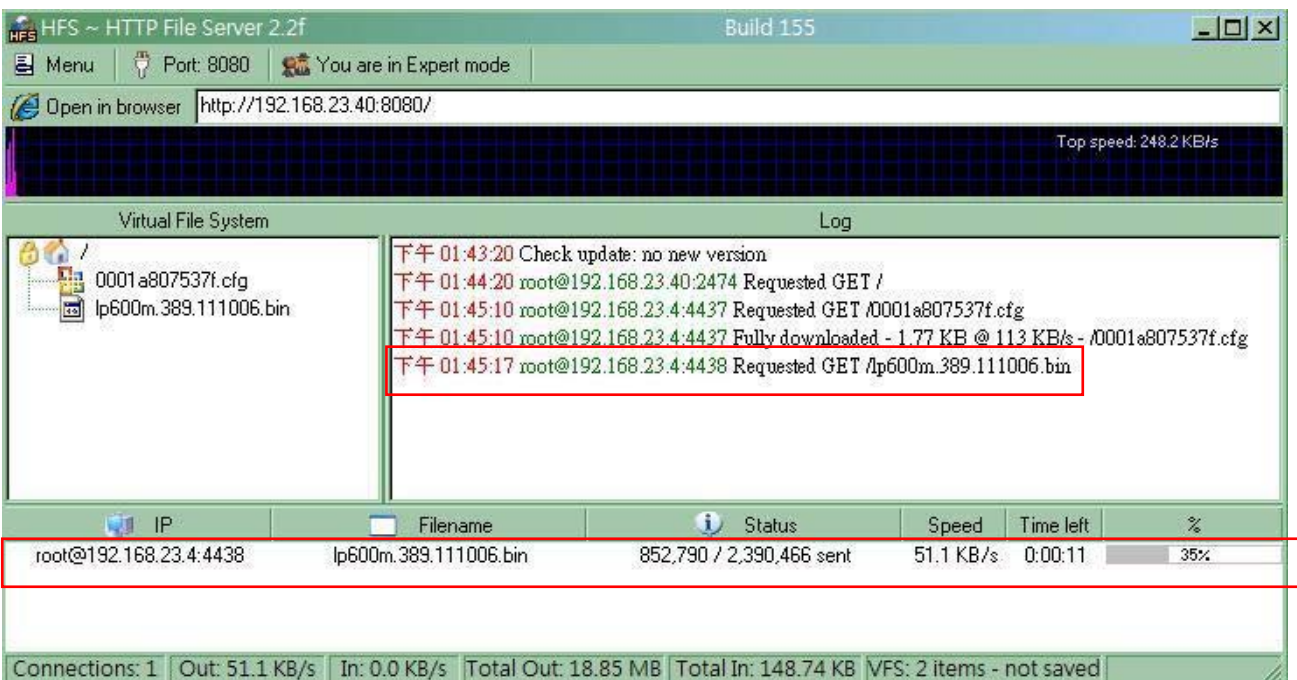
```
下午 02:41:23 root@127.0.0.1:3086 Requested GET /  
下午 03:05:29 root@192.168.23.4:2193 Requested GET /0001a807537f.cfg  
下午 03:05:30 root@192.168.23.4:2193 Fully downloaded - 1.79 KB @ 39 KB/s - /0001a807537f.cfg
```

The status bar at the bottom shows "Connections: 0", "Out: 0.0 KB/s", "In: 0.0 KB/s", "Total Out: 11.07 MB", "Total In: 132.45 KB", and "VFS: 2 items - not saved".

## Step 3. Firmware Upgrade Message

Provision function will check IP Phone firmware automatically. If existing firmware of IP Phone is different with the firmware version on the "LP389 MAC.cfg" file, IP Phone will start to upgrade new firmware from cfg file.

(1) Confirm if message is consistent, then start to download firmware.



The screenshot shows the HFS HTTP File Server 2.2f interface. The top bar displays "Build 155", "Menu", "Port: 8080", and "You are in Expert mode". The address bar shows "http://192.168.23.40:8080/". The "Virtual File System" pane on the left lists files: "0001a807537f.cfg" and "lp600m.389.111006.bin". The "Log" pane on the right shows the following entries:

```
下午 01:43:20 Check update: no new version  
下午 01:44:20 root@192.168.23.40:2474 Requested GET /  
下午 01:45:10 root@192.168.23.4:4437 Requested GET /0001a807537f.cfg  
下午 01:45:10 root@192.168.23.4:4437 Fully downloaded - 1.77 KB @ 113 KB/s - /0001a807537f.cfg  
下午 01:45:17 root@192.168.23.4:4438 Requested GET /lp600m.389.111006.bin
```

The status bar at the bottom shows "Connections: 1", "Out: 51.1 KB/s", "In: 0.0 KB/s", "Total Out: 18.85 MB", "Total In: 148.74 KB", and "VFS: 2 items - not saved".

IP	Filename	Status	Speed	Time left	%
root@192.168.23.4:4438	lp600m.389.111006.bin	852,790 / 2,390,466 sent	51.1 KB/s	0:00:11	35%

(2) Firmware upgraded is completed. Log message on Window show the messages.

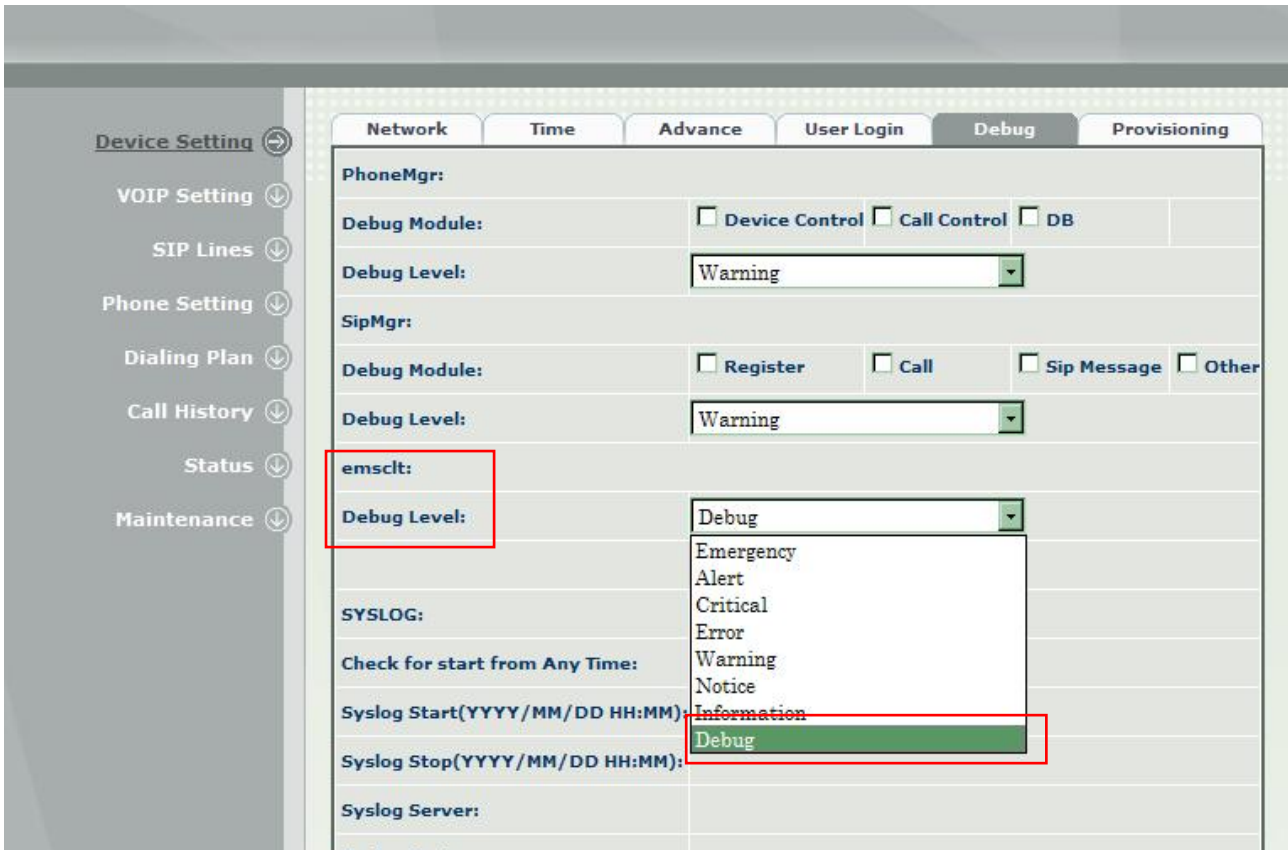
```
下午 01:45:38 root@192.168.23.4:4438 Fully downloaded - 2.28 MB @ 112 KB/s - /lp600m.389.111006.bin
```


**Note.**

- 1 – If the firmware upgrade process is starting, please don't remove power on both IP Phone and HTTP Server.
- 2 – During firmware update, it takes lots of CPU resources and loading, cause Computer performance deterioration.
- 3 – After the upgrade messages, please wait for 1 or 2 minutes. LP389 LCD will display “Upgrade...” message. Then LP389 reboot itself after upgraded procedures are completed.

#### 4. Provisioning Debug

If the provisioning has any problem, you can use the debug function from LP389 webpage. There are two ways you can use. Please refer to the following steps to open the debug function. Enter your LP389 web browser. Select the left function “Device Setting” at “Debug” to set. Then select “emscft” Debug Level : Debug.



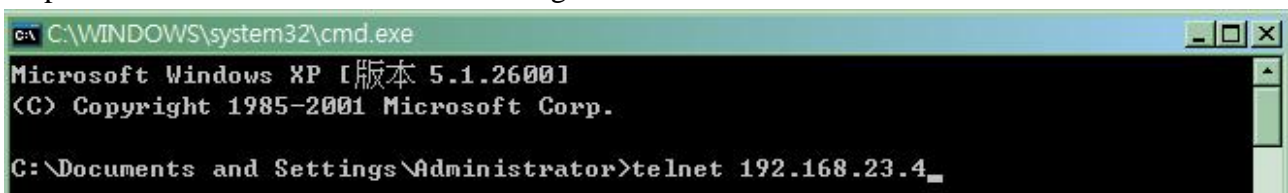
Press  button to complete setting.

#### Mode 1: Telnet

Step 1. Check your IP Phone network address

Step 2. Set up IP address of your computer which you are going to monitor debug messages. Both the computer network address and IP Phone address should stay at the same subnet.

Step 3. Use Windows DOS command to login the LP389 IP Phone.



Step 4. Enter User Name : root, and Password : root (default)

```
c:\ Telnet 192.168.23.4
User: root
Password:
User "root" logged in.
[root#]
```

Step 5. Enter “debug -o” to open the debug message.

```
c:\ Telnet 192.168.23.4
User: root
Password:
User "root" logged in.
[root#] debug -o
Dbgout_dev=/proc/395/fd/1.
utelshell Sent Sig(50 SigApplyChg). File=/var/pidfile/logmgr.pid.
Enter "debug -c" to stop debug.
[root#] [10:19:03-895] emscltP00191 T01024 Debug L00192 HTTPCRI=1, Set Last_DevC
fg_Refresh=6094.
[10:19:03-895] emscltP00191 T01024 Notic L00824      Call execvp ArgC=5, Cmd=wget
-o "/var/getdevconf.cfg" "http://192.168.23.40:8080/0001a8075
[10:19:03-895] 37f.cfg".
[10:19:06-935] emscltP00191 T01024 Notic L00885      waitpid WGet=402, ErrNo=10.
[10:19:06-935] emscltP00191 T01024 Warni L00908 Err "/var/getdevconf.cfg" <size=
0>.
[10:19:06-936] emscltP00191 T01024 Notic L00824      Call execvp ArgC=5, Cmd=wget
-o "/var/getdevconf.xml" "http://192.168.23.40:8080/0001a8075
[10:19:06-936] 37f.xml".
[10:19:09-983] emscltP00191 T01024 Notic L00885      waitpid WGet=403, ErrNo=10.
[10:19:09-984] emscltP00191 T01024 Warni L00908 Err "/var/getdevconf.xml" <size=
0>.
[10:19:09-985] emscltP00191 T01024 Notic L00213 GetDevCfg Ret=-1.
_
```

To close the debug mode, please enter command “debug -c”.

```
[root#]
[root#] debug -c
Dbgout_dev=.
utelshell Sent Sig(50 SigApplyChg). File=/var/pidfile/logmgr.pid.
Debug has stopped.
[root#] _
```

## Mode 2: SYSLOG

You can use TFTP as your SYSLOG server and refer to the following steps to create your SYSLOG server.

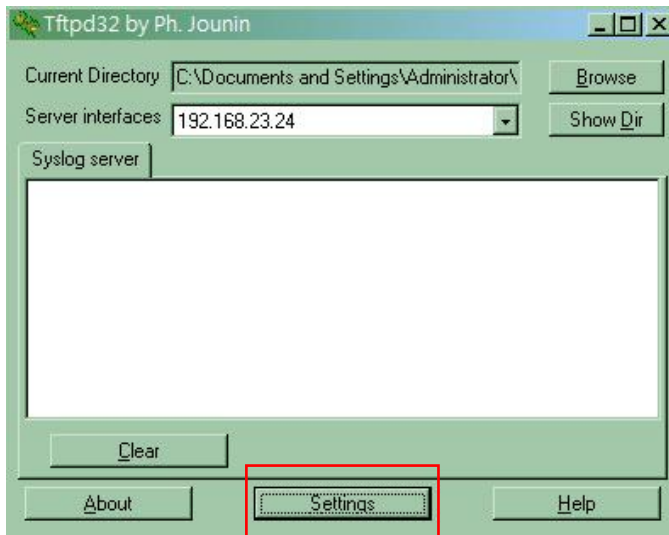
Step 1. Check your IP Phone network address.

Step 2. Set up IP address of your computer which you are going to monitor debug messages. Both the computer network address and IP Phone address should stay at the same subnet.



Step 3. Press “TFTP.exe”

Step 4. Press the setting button.



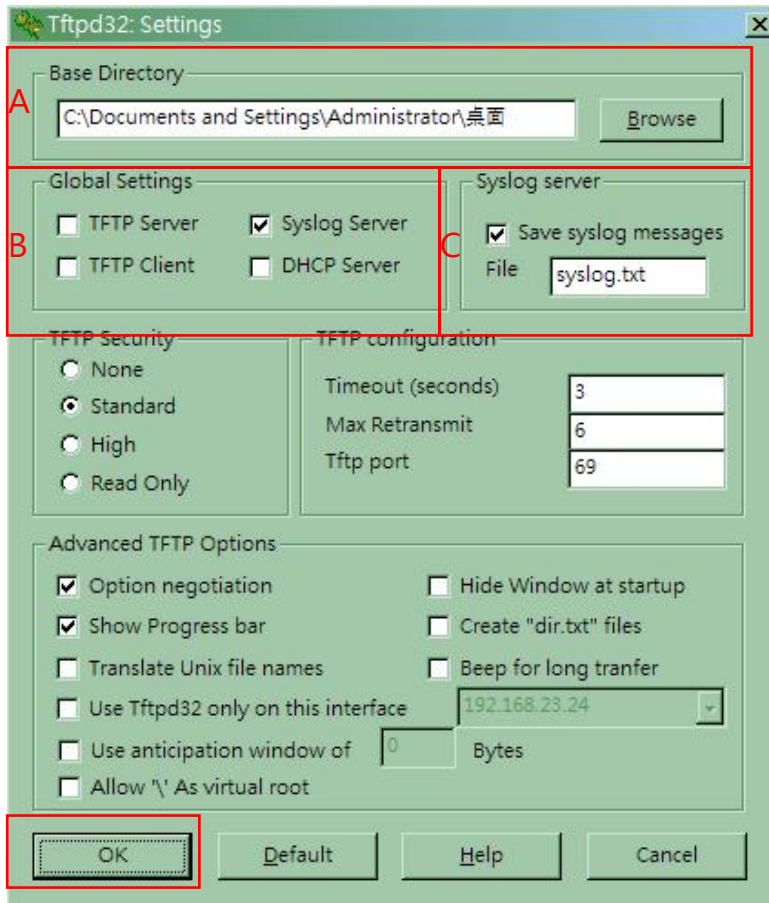
The IP address in **Server interfaces** field is your computer network address and syslog server address.

**Step 5. Please follow your demand to configure related settings.**

(A) Base Directory : Choose the path to store syslog.txt.

(B) Global Settings : Select “Syslog Server” to establish your syslog server.

(C) Syslog server : Select the “Save syslog messages” and modify the log file name.




Press ” OK “ button to complete setting.

## Step 6. Setting your LP389 SYSLOG configuration.

Enter your LP389 web browser. Select the left function “Device Setting” at “Debug” to set.

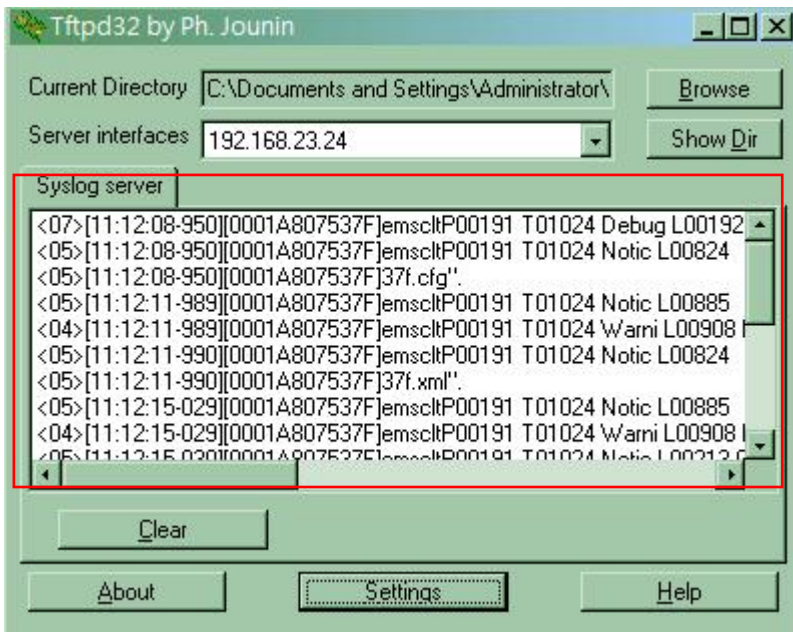
The screenshot shows the web interface of the LP389 device. On the left is a navigation menu with options: Device Setting, VOIP Setting, SIP Lines, Phone Setting, Dialing Plan, Call History, Status, and Maintenance. The main content area has tabs for Network, Time, Advance, User Login, Debug, and Provisioning. The 'Debug' tab is active. Under 'Debug', there are sections for PhoneMgr, SipMgr, and emsclt, each with 'Debug Module' and 'Debug Level' settings. A red box highlights the 'SYSLOG' configuration section, which includes: 'SYSLOG' (radio buttons for Enable and Disable, with 'Enable' selected), 'Check for start from Any Time' (checkbox checked), 'Syslog Start(YYYY/MM/DD HH:MM):', 'Syslog Stop(YYYY/MM/DD HH:MM):', 'Syslog Server:' (text field containing '192.168.23.24'), and 'Syslog Port:' (text field containing '514').

- (1) SYSLOG : Select the “Enable” button to open the SYSLOG function.
- (2) Check for start from Any Time : When You choose this function, the syslog message will be sent out to pre-configured address immediately. If you want to receive Syslog messages at a certain period of time, simply disable this selection.
- (3) Syslog Start (YYYY/MM/DD HH:MM) : Syslog message start to send out date and time.
- (4) Syslog Stop (YYYY/MM/DD HH:MM) : Syslog message stop to send out date and time.
- (5) Syslog Server : Enter your TFTP server address.
- (6) Syslog Port : Syslog default port is 514.

Press  to complete syslog setting.

**Step 7. Syslog message will be output to your server.**

(1) In Tftpd32 Syslog server windows, It can monitor the syslog message.



(2) If you save the syslog message file, you can find syslog file under the path.



syslog