atcom

ATCOM phone provisioning user manual

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Contact ATCOM

Overview of ATCOM

ATCOM is the leading VoIP hardware manufacturer in global market. We have been keeping innovating with customer's needs oriented , working with partners to establish a total solution for SMB VoIP with IP phone , IP PBX and Asterisk cards

With over 10 years' experience of R&D , manufacturing and service in network and VoIP filed ; mission of creating the biggest value for IP terminals , we commit ourselves in supplying the competitive IP phone and other terminals for IP PBX , softswitch , IMS , NGN providers and carriers; supplying the competitive total VoIP solution for SMB market. We keep improving the customer's experience and creating the bigger value with our reliable products. Until now, our VoIP products have been available in100+ countries and used by millions of end users.

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Content

How to provision ATCOM IP Phone

This guide shows user how to provision ATCOM IP phones with the minimum settings required.
The purpose of this guide is:
•Be unfamiliar with atcom IP Phone
•Provision mass atcom IP phones
•ATCOM IP Phones support the TFTP ，FTP and HTTP protocols for file. provision are configured by default to use Trivial File Transfer Protocol(TFTP)

1. Introduction

This sections shows user how to get ready for the provisioning. The provisioning process discussed in this guide uses TFTP and a personal computer (PC) as the provisioning server.
The purpose of this guide is to serve as a basic guidance for auto provisioning Atcom IP phones, including:
R1, R2, R3, R4, A1x, A2x, A41, A4x, A6x,CT11

2. Obtaining Configuration Information

2.1. Obtaining Configuration Files：

Before beginning provisioning, user needs to obtain the configuration files. There are 2 configuration files both of which are CFG formatted. We call these two files Common CFG file and MAC-Oriented CFG file. The phone will try to download these CFG files from the server during provisioning.

The MAC-Oriented CFG file is only effectual for the specific phone. It uses the 12-digit MAC address of the phone as the file name. For example, if the MAC address of the phone is 80828701E160, then the MAC-Oriented CFG file name must be 80828701E160.cfg.

However, the Common CFG file is effectual for all the phones with the same model. It uses a fixed name "a00000000000x.cfg" as the file name. the names of the Common CFG file for

R1 is 'a000000000001.cfg' ;
R2 is 'a000000000002.cfg' ;
R3 is 'a000000000003.cfg' ;
R4 is 'a000000000004.cfg' ;

A1X is 'a000000000010.cfg' ;

A2X is 'a000000000020.cfg' ;

A41 is 'a000000000041.cfg' ;

A4X is 'a000000000040.cfg' ;

A6X is 'a000000000060.cfg' ;

CT1X is 'a000000000011.cfg ;

LTE is 'a000000000061.cfg'

D2X is 'd00000000020.cfg'

D3X is 'd00000000030.cfg'

A1X model included A10, A11, A16

A2X model include A20, A21, A20LTE, A20W, A20WAC, A26

A41 model include A40, A41, A41W

A4X model include A48, A48WAC, A48W, A48LTE

A6X model include A68, A68WAC, A68W, A68LTE

D2X model include D21, D22

D3X model include D32, D33

2.2. Obtaining phone information：

Before beginning the provisioning, user will also need the phone information. Such as, MAC address and the SIP account of the phone.

MAC Address: The unique 12-digit serial number of the phone. You can obtain it from the phone's bar code at the back of the phone.

SIP Account: This may include SIP credentials such as user name, password and the address of the phone's registration server . Ask system administrator for SIP account information user need. Although SIP accounts may not be required to get the phone working, we strongly recommend using them.

3. Managing Configuration Files

Auto provisioning enables Atcom IP phones to update automatically via downloading the Common

CFG file and MAC-Oriented CFG file.
Before provisioning user may need to edit and customize the configuration files.

3.1. Editing Common CFG file：

Common CFG file contains configuration parameters which apply to all phones of the same phone model.

Note:
The line beginning with "#" is considered to be a comment.
The file header "#!version:1.0.0.1" is not a comment, it must not be edited or be deleted and must be placed in the first line.

The parameters commonly edited in the Common CFG file are detailed as following:

```
###############################################################
##                    Common CFG File                        ##
###############################################################
```

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#!version:1.0.0.1

##File header "#!version:1.0.0.1" can not be edited or deleted, and must be placed in the first line.##
##This template file is applicable to R1/R2/R3/R4/A1X/A2X/A41/A48/A6X IP phones running firmware version 2.0 or later.##
##For more information on configuration parameters, refer to ATCOM_IP_Phones_Auto_Provisioning_Guide.##

###
#################################
PPPoE
###
#################################
##please type PPPOE user and password
network.PPPOE.user =
network.PPPOE.password =

###
#################################
Network Advanced
##
###
#################################
##It configures the transmission mode and speed of the Internet (WAN) port.
##0-Auto negotiate
##1-Full duplex 10Mbps
##2-Full duplex 100Mbps
##3-Half duplex 10Mbps
##4-Half duplex 100Mbps
##5-Full duplex 1000Mbps (only applicable to R1S/R3S/R4S IP phones)
##The default value is 0.It takes effect after a reboot.
network.internet_port.speed_duplex =

##It configures the transmission mode and speed of the PC (LAN) port.
##0-Auto negotiate
##1-Full duplex 10Mbps
##2-Full duplex 100Mbps
##3-Half duplex 10Mbps
##4-Half duplex 100Mbps
##5-Full duplex 1000Mbps (only applicable to R1S/R3S/R4S IP phones)
##The default value is 0.It takes effect after a reboot.
network.pc_port.speed_duplex =

###

```
############################
##                            VLAN                            ##
##############################################################
##############################
```
##Configure the VLAN
##it configure the LAN port enable type is yes(enable) or no(disable)
##LAN port type default no
##it configure the LAN vid value range is 1~4094
##LAN vid value default is 1
##it configure the LAN priority value range is 0~7
##LAN priority value default is o
##it configure the PC port enable type is yes(enable) or no(disable)
##it configure the PC vid range value is 1~4094
##it configure the PC priority value range is 0~7
network.vlan.internet_port_enable =
network.vlan.internet_port_vid =
network.vlan.internet_port_priority =
network.vlan.pc_port_enable =
network.vlan.pc_port_vid =
network.vlan.pc_port_priority =

```
##################################################################
##############################
##                            WEB                              ##
##################################################################
##############################
```
##It configures the HTTP port for web server access.
##The default value is 80.It takes effect after a reboot.
##it configure value range is 1~65535
##network.port.http =
network.port.http = 80

##It configures the HTTPS port for web server access.
##The default value is 443.It takes effect after a reboot.
##(only applicable to R3/R4 IP phones)
##it configure value range is 1~65535
network.port.https =
##(only applicable to R3/R4 IP phones)
##it choose type mode is disable/ http only /https only /http&https
##the default type mode is http&https
wui.https_enable =

##it configure the web server enable type is yes(enable) or no(disable)
##it default enable web server
wui.http_enable =

##it configure the user password default is null
##it configure the admin password default is admin
wui.user_password =
wui.admin_password =

##
##############################
QoS
##
##############################
##It configures the voice QoS.
##The default value is 0.It takes effect after a reboot.Integer from 0 to 63
network.qos.rtptos =

##It configures the SIP QoS.
##The default value is 0.It takes effect after a reboot.Integer from 0 to 63
network.qos.signaltos =

##
##############################
802.1X
##
##############################
network.802_1x.mode =
network.802_1x.identity =
network.802_1x.md5_password =
network.802_1x.root_cert_url =
network.802_1x.client_cert_url =

##It configure the mouth of the PC 802.1 x - logoff function.It takes effect after a reboot.
##The default value is 0-Dsable ,   1-Enable
network.802_1x.proxy_eap_logoff.enable =

##
##############################
L2TP VPN(Except AT800 Model)
##
##
##############################
##it configure the VPN, the default value is no
network.vpn_enable =
network.vpn_server =
network.vpn_username =
network.vpn_password =

##

```
##############################
##                          LLDP                          ##
##############################################################
##############################
network.lldp.enable =
network.lldp.packet_interval =


##############################################################
##############################
##                          RTP Port                          ##
##############################################################
##############################
##It configures the maximum local RTP port.
##The default value is 16384.It takes effect after a reboot.Integer from 1024 to 65535
network.port.max_rtpport =

##It configures the maximum local RTP port.
##The default value is 16482.It takes effect after a reboot.Integer from 1024 to 65535
network.port.min_rtpport =


##############################################################
##############################
##                          Syslog                          ##
##############################################################
##############################
##The default value is 0.0-export to local.1-export to syslog server .
syslog.mode =

##It configures the IP address or domain name of the syslog server when exporting log to
the syslog server.
##It takes effect only if the parameter "syslog.mode" is configured as Server.
##The default value is blank.It takes effect after a reboot.
syslog.server =

##It configures the detail level of syslog information to be exported.0 means nothing and 7
means all.
##the detail log lever in the webpage '0' is 'None', '1' is 'Alert', '2' is 'Critical', '3' is 'Error',
'4' is 'Warning', '5' is 'Notice', '6' is 'inf0', '7' is 'Debug'
##The default value is 3.It takes effect after a reboot.Integer from 0 to 7
syslog.log_level =



##############################################################
##############################
##                          Autop Mode
##
```

```
##############################################################
##############################
auto_provision.power_on =

##############################################################
##############################
##                              Autop PNP                              ##
##############################################################
##############################
auto_provision.pnp_enable =

##############################################################
##############################
##                              Autop DHCP
##
##############################################################
##############################
auto_provision.dhcp_option.enable =
auto_provision.dhcp_option.list_user_options =

##############################################################
##############################
##                              Autop Repeat                              ##
##############################################################
##############################
auto_provision.repeat.enable =
auto_provision.repeat.minutes =

##############################################################
##############################
##                              Autop Weekly                              ##
##############################################################
##############################
auto_provision.weekly.enable =
```

#Configure the day of week for the phone to check new configuration files. The default value is 0123456.
#0-Sunday,1-Monday,2-Tuesday,3-Wednesday,4-Thursday,5-Friday,6-Saturday;
#It is only applicable to "Weekly" and "Power on + Weekly" modes.
#If the desired week is Monday, Tuesday and Wednesday, the value format is 012.
auto_provision.weekly.dayofweek =

#Configure the start time of the day for the phone to check new configuration files. The default value is 00:00.
#It is only applicable to "Weekly" and "Power on + Weekly" modes.
#If the desired start time of the day is seven forty-five a.m., the value format is 07:45.

auto_provision.weekly.begin_time =

#Configure the end time of the day for the phone to check new configuration files. The default time is 00:00.
#It is only applicable to "Weekly" and "Power on + Weekly" modes.
#If the desired end time of the day is seven forty-five p.m., the value format is 19:45.
auto_provision.weekly.end_time =

```
##############################################################
###############################
##                           Autop URL                     ##
##############################################################
###############################
auto_provision.server.url =
auto_provision.server.username =
auto_provision.server.password =
```

```
##############################################################
###############################
##                         Autop AES Key                   ##
##############################################################
###############################
```
##It configures the AES key for decrypting the Common CFG file. The valid characters contain: 0 ~ 9, A ~ Z, a ~ z.
##The default value is blank.
auto_provision.aes_key_16.com =

##It configures the AES key for decrypting the MAC-Oriented CFG file. The valid characters contain: 0 ~ 9, A ~ Z, a ~ z.
##The default value is blank.
auto_provision.aes_key_16.mac =

```
##############################################################
###############################
##                          Watch Dog
##
##############################################################
###############################
```
##it configure the watch dog enable type is 1(enable) or 0(disable)
##the default value is 1
watch_dog.enable =

```
##############################################################
###############################
##                         SIP Advanced                    ##
##############################################################
```

```
###############################
sip.rfc2543_hold =


##################################################################
###############################
##                                Echo Cancellation                                ##
##################################################################
###############################
##it configure the VAD enable type is yes(enable) or no(disable)
##the default value is no
##it configure the CNG enable type is yes(enable) or no(disable)
##the default value is no
voice.vad =
voice.cng =


##################################################################
###############################
##                                Jitter Buffer                                ##
##################################################################
###############################
##it configure Jitter Buffer type mode is 0 (Fixed) or 1 (Adaptive)
##the default tape value is 0 (Fixed)
##it configure Jitter Buffer min delay value range is 0 ~ 997
##the default min delay value is 0
##it configure Jitter Buffer max delay value range is 2 ~ 999
##the default max delay value is 300
##it configure Jitter Buffer normal delay value range is 1 ~ 998
##the default normal delay value is 120
voice.jib.adaptive =
voice.jib.min =
voice.jib.max =
voice.jib.normal =


##################################################################
###############################
##                                Volume                                ##
##################################################################
###############################
##it configure handset volume value is   1,2,3,4,5,6,7,8
##the default handset volume value is 5
##it configure speakphone volume range value is   1,2,3,4,5,6,7,8
##the default handset volume value is 5
##it configure headset volume range value is   1,2,3,4,5,6,7,8
##the default headset volume value is 5
##it configure ring volume range value is   1,2,3,4,5,6,7,8
```

##the default ring volume value is 6
voice.handfree.spk_vol =
voice.handset.spk_vol =
voice.headset.spk_vol =
voice.ring_vol=

##it configure handset input gain range value is -6,-4,-2,0,2,4,6
##the default handset value is 0
##it configure speakphone input gain value range is   -6,-4,-2,0,2,4,6
##the default handset value is 0
##it configure headset input gain value range is   -6,-4,-2,0,2,4,6
##the default headset value is 0
voice.handfree_send =
voice.handset_send =
voice.headset_send =

###
#############################
Transfer
###
#############################
##It enables or disables the phone to complete the blind transfer through
on-hook.0-Disabled,1-Enabled .
##The default value is 1.
transfer.blind_tran_on_hook_enable =

##It enables or disables the phone to transfer call to the two parties after a local conference
call hangs up.
##0-Disabled,1-Enabled.
##The default value is 0.
transfer.tran_others_after_conf_enable =

##It enables or disables the phone to complete the attended transfer through on-hook.
##0-Disabled,1-Enabled.
##The default value is 1.
transfer.on_hook_trans_enable =

##It configures the DSS key behavior during an active call when user presses the DSS
##key and the DSS key is configured as a speed dial, transfer or BLF/BLF list key.
##0-New Call,1-Attended Transfer,2-Blind Transfer.
##The default value is 2.
transfer.dsskey_deal_type =

###
#############################

```
##                          Language Settings                          ##
#############################################################
###############################
##It configures the language of the LCD and web user interface.
##The default value is 0.
##English = 0,
##French = 1,
##Hebrew = 2,
##Russian = 3,
##Spanish = 4,
##Chinese = 5,
##Farsi = 6,
##Hungarian = 7,there is no Hungarian language in the website
##Polish, = 8,
##Portuguese = 9,
##Turkish = 10,
##German = 11,
##Italian = 12,
phone.current_language =


#################################################################
###############################
##                             Dial Plan                              ##
#################################################################
###############################
dialplan.area_code.code =
dialplan.area_code.min_len =
dialplan.area_code.max_len =
dialplan.area_code.line_id =
```

For example: dialplan.area_code.code = 123(code)
           dialplan.area_code.min_len = 8
           dialplan.area_code.max_len = 15
           dialplan.area_code.line_id = 1,2,3,4

```
### X ranges from 1 to 10
###dialplan.block_out.number.x =
###dialplan.block_out.line_id.x =

dialplan.block_out.number.1 =
dialplan.block_out.line_id.1 =

dialplan.block_out.number.2 =
dialplan.block_out.line_id.2 =
```

dialplan.block_out.number.3 =
dialplan.block_out.line_id.3 =

For example: dialplan.block_out.number.1 = 8012(phone number)
            dialplan.block_out.line_id.1 = 1(account)

###X ranges from 1 to 10
###dialplan.dialnow.rule.X =
###dialplan.dialnow.line_id.X =

dialplan.dialnow.rule.1 =
dialplan.dialnow.line_id.1 =

dialplan.dialnow.rule.2 =
dialplan.dialnow.line_id.2 =

For example: dialplan.dialnow.rule.1 = 8012(phone number)
            dialplan.dialnow.line_id.1 = 1(account)
###X ranges from 1 to 10
###dialplan.replace.prefix.X =
###dialplan.replace.replace.X =
###dialplan.replace.line_id.X =

dialplan.replace.prefix.1 =
dialplan.replace.replace.1 =
dialplan.replace.line_id.1 =

dialplan_dialnow.url =
phone_setting.dialnow_delay =
dialplan_replace_rule.url =

For example: dialplan.replace.prefix.1 = 1(number)
            dialplan.replace.replace.1 = 8012(replace)
            dialplan.replace.line_id.1 = 1(account)
##
##############################
Remote Phonebook
##
##############################
###X ranges from 1 to 5
###remote_phonebook.data.X.url =
###remote_phonebook.data.X.name =

remote_phonebook.data.1.url =
remote_phonebook.data.1.name =

For example: remote_phonebook.data.1.url =   tftp://192.168.1.100/phonebook.xml
                remote_phonebook.data.1.name = test

##It enables or disables the phone to perform a remote phone book search when receiving an incoming call.
##0-Disabled,1-Enabled.
##The default value is 0.
features.remote_phonebook.enable =

For example: features.remote_phonebook.enable = 0

##It configures the interval (in seconds) for the phone to update the data of the remote phone book from the remote phone book server.
##The value 0 means the phone will not regularly update the data of the remote phone book from the remote phone book server.
##The default value is 120.Integer from 0 to 65535.
features.remote_phonebook.flash_time =

For example: features.remote_phonebook.flash_time = 120

##
#############################
LDAP
##
#############################
##It enables or disables LDAP feature.0-Disabled,1-Enabled.
##The default value is 0.
ldap.enable =

##It configures the criteria for searching the contact name attributes.
##Example:ldap.name_filter = (|(cn=%)(sn=%)).
##The default value is blank.
ldap.name_filter =

##It configures the criteria for searching the contact number attributes.
##Example:ldap.number_filter = (|(telephoneNumber=%)(mobile=%)(ipPhone=%))
##The default value is blank.
ldap.number_filter =

##It configures the IP address or domain name of the LDAP server.
##The default value is blank.
ldap.host =

##It configures the port of the LDAP server.
##The default value is 389.Integer from 1 to 65535.

ldap.port =

##It configures the LDAP search base which corresponds to the location of the LDAP phonebook.
##Example:ldap.base = dc=atcom,dc=cn.
##The default value is blank.
ldap.base =

##It configures the user name for accessing the LDAP server.
##The default value is blank.
ldap.user =

##It configures the password for accessing the LDAP server.
##The default value is blank.
ldap.password =

##It configures the maximum of the search results returned by the LDAP server to be displayed.
##The default value is 50.Integer from 1 to 32000.
ldap.max_hits =

##It configures the name attributes of each record to be returned by the LDAP server.
##Multiple attributes are separated by spaces.Example:ldap.name_attr =sn cn.
##The default value is blank.
ldap.name_attr =

##It configures the number attributes of each record to be returned by the LDAP server.
##Multiple attributes are separated by spaces.Example:ldap.numb_attr = Mobile ipPhone.
##The default value is blank.
ldap.numb_attr =

##It configures the display name of the contact record displayed on the LCD screen. The value of this parameter must start with "%" symbol.
##Example:ldap.display_name = %cn
##The default value is blank.
ldap.display_name =

##It configures the LDAP version.
##The default value is 3.
ldap.version =

##It enables or disables the phone to perform an LDAP search when receiving an incoming call.
##0-Disabled,1-Enabled.
##The default value is 0.
ldap.call_in_lookup =

##It enables or disables the phone to sort the search results in alphabetical order or numerical order.
##0-Disabled,1-Enabled.
##The default value is 0.
ldap.ldap_sort =
##It is the electricity + start, automatic search + 00 the beginning and the beginning of the numbe
##The default value is 0.(0-Disable,1-Enable)
ldap.incoming_call_special_search.enable =
##The default value is 0,value of 0 to 2, respectively the ldap, ldap + StarTLS and ldaps
ldap.tls_mode =
##the default look call out value is 0.(0-Disable,1-Enable)
ldap.call_out_lookup =

```
##############################################################
###############################
##                            Features                            ##
##############################################################
###############################
```
##it configure send key mode is 0 (none), 1 (*), 2 (#)
##the default value is 2 (#)
features.key_as_send =

##it configure auto answer enable mode is 0(disable),1(enable)
##the default value is 0(disable)
##the default auto answer delay value is 0
features.auto_answer_enable =
features.auto_answer_delay =

features.ringer_device.is_use_headset =

```
##############################################################
###############################
##                          Features DND
##
##############################################################
###############################
```
##it configure DND enable mode is 0(disable),1(enable)
##the default value is 0(disable)
features.dnd.enable =
features.dnd.on_code =
features.dnd.off_code =
features.dnd_refuse_code =
features.dnd.emergency_authorized_number =

```
################################################################
##############################
##                            Phone Settings                            ##
################################################################
##############################
phone_setting.inter_digit_time =
phone_setting.ring_type =
phone_setting.headsetkey_mode =


################################################################
##############################
##                            Phone Setting Display                            ##
################################################################
##############################
##it configure backlight lever mode is 1,2,3,4,5,6,7,8,9,10,11,12
##the default value is 7
phone_setting.active_backlight_level =

##It configures the backlight time (in seconds).3,5,10,15,20,30,50,100
##the default value is 10
phone_setting.backlight_time =

###It configures the contrast of the LCD screen
###The default value is 6.Integer from 1 to 12
phone_setting.contrast =


################################################################
##############################
##                       Memory Key(Only for R2/R3/R4 Models)
##
################################################################
##############################
#memorykey.X.type--Customize the Memorykey type.
#The valid types are:
#0-NA ,1-Conference, 2-Forward ,3-Transfer ,4-Hold,5-DND ,6-SMS ,7-Directed
Pickup ,8-Call Park ,9-DTMF ,10-Voice Mail, 11-Speed Dial,12-Intercom
#13-Line ,14-BLF ,15-Prefix

###memorykey.X.line =
###memorykey.X.label =
###memorykey.X.value =
###memorykey.X.pickup_value =
###memorykey.X.type =
```

###It configures the desired line to apply the key feature.
###The default value is 1.Integer from 1 to 6
memorykey.1.line = 1

###It configures the value of the memory key feature.
###For example, when set the key feature to BLF, it configures the number of the monitored user.
###The default value is blank.
memorykey.1.value = 5003

###It configures the label displayed on the LCD screen for each memory key.
###The default value is blank.
memorykey.1.label =

###It configures the pickup code for BLF feature or conference ID followed by the # sign for Meet-Me conference feature.
###It only applies to BLF and Meet-Me conference features.
###The default value is blank.
memorykey.1.pickup_value =

###It configures the desired feature for memory key X.
###The default value is 0.
memorykey.1.type =

##
###############################
Line Key
##
###############################
###Except R1 Model
###R2/R3 X ranges from 1 to 4
###R4 X ranges from 1 to 6

#linekey.X.type--Customize the linekey type.
#The valid types are:

#0-NA   1-Conference   2-Forward   3-Transfer 4-Hold,   5-DND
#6-SMS   7-Directed Pickup   8-Call Park   9-DTMF   10-Voice Mail
#11-Speed Dial   12-Intercom   #13-Line   14-BLF   15-Prefix

###linekey.X.line =
###linekey.X.value =
###linekey.X.pickup_value =
###linekey.X.type =

###linekey.X.label =

###It configures the desired line to apply the key feature.Integer from 1 to 6
linekey.1.line = 1

###It configures the value of the line key feature.
###For example, when setting the key feature to BLF, it configures the number of the monitored user.
###The default value is blank.
linekey.1.value =

###It configures the pickup code for BLF feature or conference ID followed by the # sign for Meet-Me conference feature.
###It only applies to BLF and Meet-Me conference features.
###The default value is blank.
linekey.1.pickup_value =

###It configures the key feature for the line key X.
linekey.1.type =

###It configures the label displayed on the LCD screen for each line key.
###The default value is blank.
linekey.1.label =

###
###################################
Programable Key(Only support R3/R4)
##
###
###############################
###X ranges from 1 to 14

#programablekey.x.type--Customize the programmable key type.
#The valid types are:
#0-NA   1-Conference   2-Forward   3-Transfer 4-Hold,   5-DND
#6-SMS   7-Directed Pickup   8-Call Park   9-DTMF   10-Voice Mail
#11-Speed Dial   12-Intercom   #13-Line   14-BLF   15-Prefix

###programablekey.X.type =
###programablekey.X.line =
###programablekey.X.value =
###programablekey.X.history_type =
###programablekey.X.label =
###programablekey.X.pickup_value =

###It configures the key feature for the programmable key X.

programablekey.1.type =

###It configures the desired line to apply the programmable key feature.
programablekey.1.line =

###It configures the value of the programmable key feature.
###For example, when configuring the key feature to be Speed Dial, it configures the number.
###The default value is blank.
programablekey.1.value =

###It configures the history type of programmable key.
###0-Local History,1-Network History.
###The default value is 0.
programablekey.1.history_type =

###It configures the label displayed on the LCD screen for each soft key.
###The default value is blank.
programablekey.1.label =

###It configures conference ID followed by the # sign for Meet-Me conference feature.
###It only applies to Meet-Me conference feature.
###The default value is blank.
programablekey.1.pickup_value =

##
################################
Expansion Key(Only for R2/R3/R4 Models)
##
##
###############################
###R2 X ranges from 1 to 5, Y ranges from 1 to 16
###R3/R4 X only 1, Y ranges from 1 to 16

###expansion_module.X.key.Y.type =
###expansion_module.X.key.Y.line =
###expansion_module.X.key.Y.value =
###expansion_module.X.key.Y.pickup_value =
###expansion_module.X.key.Y.label =

###It configures the key feature of the expansion module X key Y.
expansion_module.1.key.1.type =

###It configures the desired line to apply the expansion module key feature.Integer from 1 to 6
expansion_module.1.key.1.line =

###It configures the value of the expansion module key feature.
###The default value is blank.
expansion_module.1.key.1.value =

###It configures the pickup code for BLF feature or conference ID followed by the # sign for Meet-Me conference feature.
###It only applies to BLF and Meet-Me conference features.
###The default value is blank.
expansion_module.1.key.1.pickup_value =

###It configures the label displayed on the LCD screen of the expansion module for each key.
###The default value is blank.
expansion_module.1.key.1.label =


```
############################################################
###############################
##                          Forward Always                          ##
############################################################
###############################
##it configure forward always enable mode is 0(disable) or 1(enable)
##the default value is 0
##the default forward always target is black.
forward.always.enable =
forward.always.target =
forward.always.on_code =
forward.always.off_code =

############################################################
###############################
##                          Forward Busy                          ##
############################################################
###############################
##it configure forward busy enable mode is 0(disable) or 1(enable)
##the default value is 0
##the default forward busy target is black.
forward.busy.enable =
forward.busy.target =
forward.busy.on_code =
forward.busy.off_code =

############################################################
###############################
##                          Forward No Answer
```

```
##
###############################################################
##############################
##it configure forward no answer enable mode is 0(disable) or 1(enable)
##the default value is 0
##the default forward no answer target is black.
##The default no answer time value is 5.Integer from 0 to 60.
forward.no_answer.enable =
forward.no_answer.target =
forward.no_answer.timeout =
forward.no_answer.on_code =


###############################################################
##############################
##                              Call Waiting                              ##
###############################################################
##############################
##it configure call waiting enable mode is 0(disable) or 1(enable)
##the default value is 1
call_waiting.enable =
call_waiting.tone =
call_waiting.on_code =
call_waiting.off_code =



###############################################################
##############################
##                              Contact                              ##
###############################################################
##############################
local_contact.data.url =

###############################################################
##############################
##                    Configure the access URL of firmware          ##
###############################################################
##############################
###It configures the access URL of the firmware file.
###The default value is blank.It takes effect after a reboot.
firmware.url =
```

For example: firmware.url = tftp://192.168.1.100/A21.fw

3.2.   Editing MAC-Oriented CFG file：

MAC-Oriented CFG file contains configuration parameters which are expected to be updated per phone, such as the registration information.
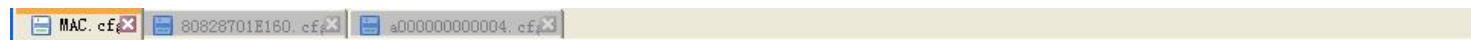
```
MAC.cfg   80828701E160.cfg   a000000000004.cfg
1   #!version:1.0.0.1
2
3   ##File header "#!version:1.0.0.1" can not be edited or deleted, and must be placed in the
    first line.##
4
5   ############################################################################
6   ##                              Account1 Basic Settings
    ##
7   ############################################################################
8   account.1.enable =
9   account.1.label =
10  account.1.display_name =
11  account.1.auth_name =
12  account.1.user_name =
13  account.1.password =
14  account.1.outbound_proxy_enable =
15  account.1.outbound_host =
16  account.1.outbound_port =
17
18  ##It configures the local SIP port for account 1. The default value is 5060.
19  account.1.sip_listen_port =
20
21  ##It configures the transport type for account 1. 0-UDP,1-TCP,2-TLS
22  ##The default value is 0.
23  account.1.transport =
24
25  account.1.sip_server.1.address =
26  account.1.sip_server.1.port =
```

The parameters commonly edited in the MAC-Oriented CFG file.

#!version:1.0.0.1

##File header "#!version:1.0.0.1" can not be edited or deleted, and must be placed in the first line.##

##
###############################
Account1 Basic Settings
##
###############################
#It configure the account enable type is yes-Enable or no-Disabled, or 1-Enable or

0-Disabled
#The default value is yes or 1
account.1.enable =
account.1.label =
account.1.display_name =
account.1.auth_name =
account.1.user_name =
account.1.password =
account.1.outbound_proxy_enable =
account.1.outbound_host =
account.1.outbound_port =

##It configures the local SIP port for account 1. The default value is 5060.
account.1.sip_listen_port = 5060

##It configures the transport type for account 1. 0-UDP,1-TCP,2-TLS
##The default value is 0.
account.1.transport =

account.1.sip_server.1.address =
account.1.sip_server.1.port =

account.1.sip_server.2.address =
account.1.sip_server.2.port =

##it configure the register expires time and subscribe time
##the register expires value time is 300
##the subscribe expires value time is 3600
account.1.register_expires_overlap =
account.1.subscribe_expires_overlap =

##
##############################
NAT Settings
##
##############################
##It enables or disables the NAT traversal for account X.0-Disabled,1-Enabled
##The default value is 0.
account.1.nat.nat_traversal =

##It configures the type of keep-alive packets sent by the phone to the NAT device to keep
the communication port open so that NAT can continue to function for account X.
##0-Dsiabled,1-Default: the phone sends UDP packets to the server,2-Option: the phone
sends SIP OPTION packets to the server,3-Notify: the phone sends SIP NOTIFY packets to
the server.

##The default value is 1.
account.1.nat.udp_update_enable =

##It configures the keep-alive interval (in seconds) for account X.
##The default value is 30.Integer from 15 to 2147483647
account.1.nat.udp_update_time =

```
###########################################################
###############################
##                            Account1 Advance Settings
##
###########################################################
###############################
```

##It configures the voice mail number
##The default value is blank.
account.1.voice_mail_number=

##It enables or disables the phone to subscribe the message waiting indicator for account
X.0-Disabled,1-Enabled.
##The default value is 0.
account.1.subscribe_mwi =

```
###########################################################
###############################
##                            BLF List                                    ##
###########################################################
###############################
```
##It configures the BLF List URI to monitor a list of users for account X.
##The default value is blank.
account.1.blf.blf_list_uri =

```
###########################################################
###############################
##                            Audio Codec                                 ##
###########################################################
###############################
```
#It configure the Codec type is yes or no
account.1.codec.1.enable =
account.1.codec.1.payload_type =
account.1.codec.1.priority =
account.1.codec.1.rtpmap =

account.1.codec.2.enable =

account.1.codec.2.payload_type =
account.1.codec.2.priority =
account.1.codec.2.rtpmap =

account.1.codec.3.enable =
account.1.codec.3.payload_type =
account.1.codec.3.priority =
account.1.codec.3.rtpmap =

account.1.codec.4.enable =
account.1.codec.4.payload_type =
account.1.codec.4.priority =
account.1.codec.4.rtpmap =

account.1.codec.5.enable =
account.1.codec.5.payload_type =
account.1.codec.5.priority =
account.1.codec.5.rtpmap =

account.1.codec.6.enable =
account.1.codec.6.payload_type =
account.1.codec.6.priority =
account.1.codec.6.rtpmap =

account.1.codec.7.enable =
account.1.codec.7.payload_type =
account.1.codec.7.priority =
account.1.codec.7.rtpmap =

account.1.codec.8.enable =
account.1.codec.8.payload_type =
account.1.codec.8.priority =
account.1.codec.8.rtpmap =

account.1.codec.9.enable =
account.1.codec.9.payload_type =
account.1.codec.9.priority =
account.1.codec.9.rtpmap =

account.1.codec.10.enable =
account.1.codec.10.payload_type =
account.1.codec.10.priority =
account.1.codec.10.rtpmap =

account.1.codec.11.enable =
account.1.codec.11.payload_type =

account.1.codec.11.priority =
account.1.codec.11.rtpmap =

##
##############################
Audio Advanced
##
##
##############################
##It configures whether to use voice encryption service for account
X.0-Disabled,1-Optional,2-Compulsory.
##The default value is 0.
account.1.srtp_encryption =

##
##############################
Pickup Code
##
##############################
##It configures the group pickup code for account X.
##The default value is blank.
account.1.group_pickup_code =

##It configures the directed pickup code for account X.
##The default value is blank.
account.1.direct_pickup_code =

##
##############################
DTMF
##
##############################
##It configure the DTMF type is yes-Enable or no-Disabled
##The default value is yes.
account.1.dtmf.type =

##
##############################
Session Timer
##
##############################
##It configure the Session Timer type is yes-Enable or no-Disabled
##The default value is no.
account.1.session_timer.enable =

```
##################################################
################################
##                    Account2 Basic Settings                    ##
##################################################
################################
account.2.enable =
account.2.label =
account.2.display_name =
account.2.auth_name =
account.2.user_name =
account.2.password =
account.2.outbound_proxy_enable =
account.2.outbound_host =
account.2.outbound_port =

##It configures the local SIP port for account 1. The default value is 5060.
account.2.sip_listen_port =

##It configures the transport type for account 1. 0-UDP,1-TCP,2-TLS
##The default value is 0.
account.2.transport =

account.2.sip_server.1.address =
account.2.sip_server.1.port =

account.2.sip_server.2.address =
account.2.sip_server.2.port =

account.2.register_expires_overlap =
account.2.subscribe_expires_overlap =


##################################################
##############################
##                    NAT Settings                    ##
##################################################
#############################
##It enables or disables the NAT traversal for account X.0-Disabled,1-Enabled
##The default value is 0.
account.2.nat.nat_traversal =

##It configures the type of keep-alive packets sent by the phone to the NAT device to keep
the communication port open so that NAT can continue to function for account X.
##0-Dsiabled,1-Default: the phone sends UDP packets to the server,2-Option: the phone
```

sends SIP OPTION packets to the server,3-Notify: the phone sends SIP NOTIFY packets to the server.
##The default value is 1.
account.2.nat.udp_update_enable =

##It configures the keep-alive interval (in seconds) for account X.
##The default value is 30.Integer from 15 to 2147483647
account.2.nat.udp_update_time =

##
#############################
Account2 Advance Settings
##
##
#############################

##It configures the voice mail number
##The default value is blank.
account.2.voice_mail_number=

##It enables or disables the phone to subscribe the message waiting indicator for account X.0-Disabled,1-Enabled.
##The default value is 0.
account.2.subscribe_mwi =

##
#############################
BLF List
##
#############################
##It configures the BLF List URI to monitor a list of users for account X.
##The default value is blank.
account.2.blf.blf_list_uri =

##
#############################
Audio Codec
##
#############################
account.2.codec.1.enable =
account.2.codec.1.payload_type =
account.2.codec.1.priority =
account.2.codec.1.rtpmap =

account.2.codec.2.enable =
account.2.codec.2.payload_type =
account.2.codec.2.priority =
account.2.codec.2.rtpmap =

account.2.codec.3.enable =
account.2.codec.3.payload_type =
account.2.codec.3.priority =
account.2.codec.3.rtpmap =

account.2.codec.4.enable =
account.2.codec.4.payload_type =
account.2.codec.4.priority =
account.2.codec.4.rtpmap =

account.2.codec.5.enable =
account.2.codec.5.payload_type =
account.2.codec.5.priority =
account.2.codec.5.rtpmap =

account.2.codec.6.enable =
account.2.codec.6.payload_type =
account.2.codec.6.priority =
account.2.codec.6.rtpmap =

account.2.codec.7.enable =
account.2.codec.7.payload_type =
account.2.codec.7.priority =
account.2.codec.7.rtpmap =

account.2.codec.8.enable =
account.2.codec.8.payload_type =
account.2.codec.8.priority =
account.2.codec.8.rtpmap =

account.2.codec.9.enable =
account.2.codec.9.payload_type =
account.2.codec.9.priority =
account.2.codec.9.rtpmap =

account.2.codec.10.enable =
account.2.codec.10.payload_type =
account.2.codec.10.priority =
account.2.codec.10.rtpmap =

account.2.codec.11.enable =

account.2.codec.11.payload_type =
account.2.codec.11.priority =
account.2.codec.11.rtpmap =

###
######################################
Audio Advanced
##
###
######################################
##It configures whether to use voice encryption service for account
X.0-Disabled,1-Optional,2-Compulsory.
##The default value is 0.
account.2.srtp_encryption =

###
######################################
Pickup Code
###
######################################
##It configures the group pickup code for account X.
##The default value is blank.
account.2.group_pickup_code =

##It configures the directed pickup code for account X.
##The default value is blank.
account.2.direct_pickup_code =

###
######################################
DTMF
###
######################################
account.2.dtmf.type =

###
######################################
Session Timer
###
######################################
account.2.session_timer.enable =

```
################################################################
################################
##                    Account3 Basic Settings                    ##
################################################################
################################
```

```
################################################################
################################
##                    Account4 Basic Settings                    ##
################################################################
################################
```

```
################################################################
################################
##                         Features Pickup                         ##
################################################################
################################
```

##It enables or disables the phone to display the GPickup soft key when the phone is in the pre-dialing screen.
##0-Disabled,1-Enabled.
##The default value is 0.
features.pickup.group_pickup_enable =

##It configures the group call pickup code.
##The default value is blank.
features.pickup.group_pickup_code =

##It enables or disables the phone to display the DPickup soft key when the phone is in the pre-dialing screen.
##0-Disabled,1-Enabled.
##The default value is 0.
features.pickup.direct_pickup_enable =

##It configures the directed call pickup code.
##The default value is blank.
features.pickup.direct_pickup_code =

```
################################################################
################################
```

```
##                              Time                              ##
###############################################################
##############################
```
##It configures the time zone.For more available time zones, refer to Time Zones on page 215.
##The default value is +8.
local_time.time_zone =

##It configures the time zone name.For more available time zone names, refer to Time Zones on page 215.
##The default time zone name is China(Beijing).
local_time.time_zone_name =

local_time.ntp_server1 =
local_time.ntp_server2 =

##It configures the update interval (in seconds) when using the NTP server.
##The default value is 1000.Integer from 15 to 86400
local_time.interval =

##It enables or disables daylight saving time (DST) feature.
##0-Disabled,1-Enabled,2-Automatic.
##The default value is 0.
local_time.summer_time =

##It configures the way DST works when DST feature is enabled.
##0-DST By Date ,1-DST By Week.
##The default value is 0.
local_time.dst_time_type =

##It configures the start time of the DST.
##Value formats are:Month/Day/Hour (for By Date),Month/ Day of Week Last in Month/Day of Week/ Hour of Day (for By Week)
##The default value is 1/1/0.
local_time.start_time =

##It configures the end time of the DST.
##Value formats are:Month/Day/Hour (for By Date),Month/ Day of Week Last in Month/Day of Week/ Hour of Day (for By Week)
##The default value is 12/31/23.
local_time.end_time =

##It configures the offset time (in minutes).
##The default value is blank.Integer from -300 to 300
local_time.offset_time =

##It configures the time format.0(0-12 Hour),1(1-24 Hour).
##The default value is 0.
local_time.time_format =

##It configures the date format.0(month/day),1(day/month).
##The default value is 0.
local_time.date_format =

##It configures the phone to obtain time from NTP server or manual
settings.0-Manual,1-NTP
##The default value is 1.
local_time.manual_time_enable =

##
################################
NETWORK
##
##
################################
#
##It configure the WAN port type is 0(DHCP),1(Static IP),2(PPPOE)
##The default value is 0.
network.internet_port.type =
network.internet_port.ip =
network.internet_port.mask =
network.internet_port.gateway =
network.primary_dns=
network.secondary_dns =

4. Configuring a TFTP Server

Atcom IP Phones support using the FTP, TFTP, HTTP and HTTPS protocols to download the configuration files.

TFTP server is used by default. You can use any protocol for provisioning. The following section takes the TFTP server as an example.

We recommend that user can use TFTPD32 or 3CDaemon tool as a TFTP server. TFTPD32 is free applications for Windows. user can download the TFTPD32 at: http://tftpd32.jounin.net/

4.1 Preparing a Root Directory

To prepare a root directory
1. Create a root TFTP directory on the local computer
2. Place the configure file to this directory
3. Set the security permissions for the TFTP directory folder

ATCOM TECHNOLOGY CO., LIMITED   www.atcom.cn
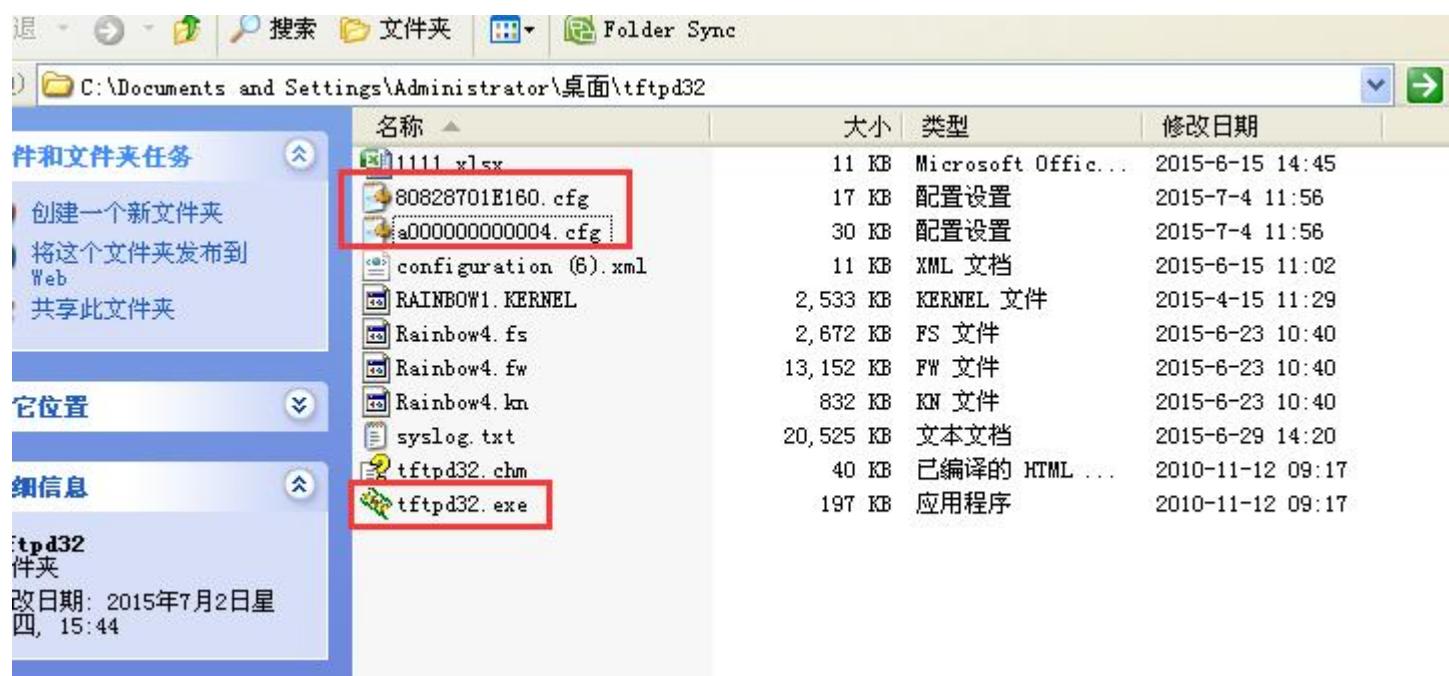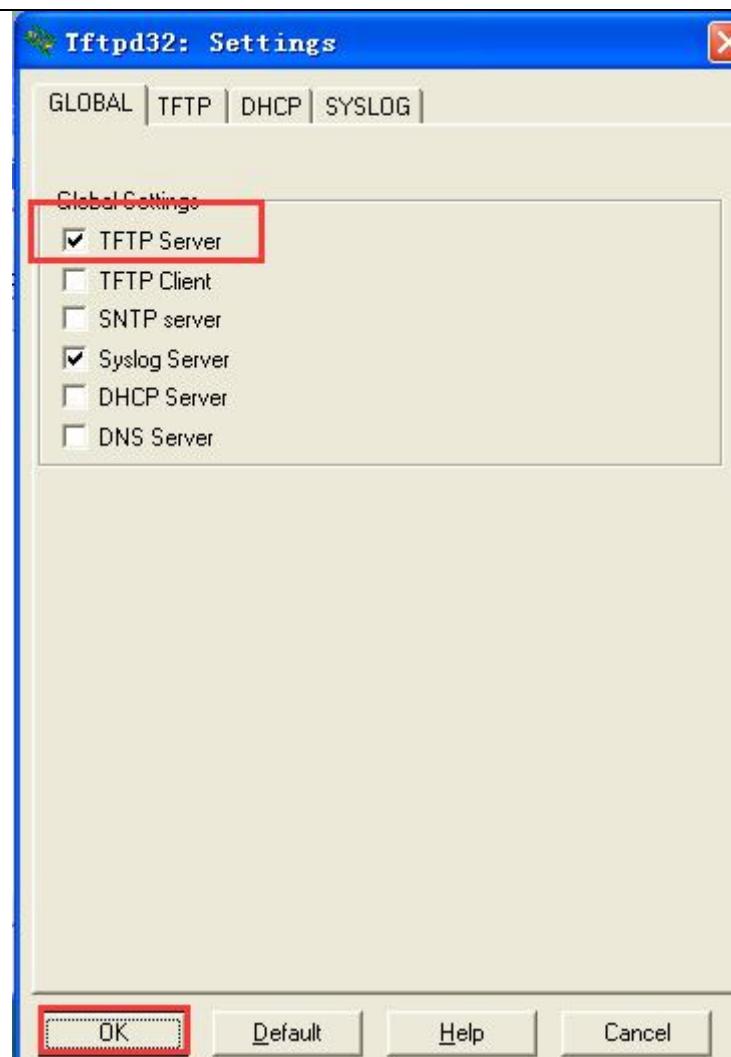
4.2 Configuring a TFTP Server

If you have a tftpd32 application installed on your computer, use it directly.
If tftpd32 start to download the provisioning file, please check as following screenshot
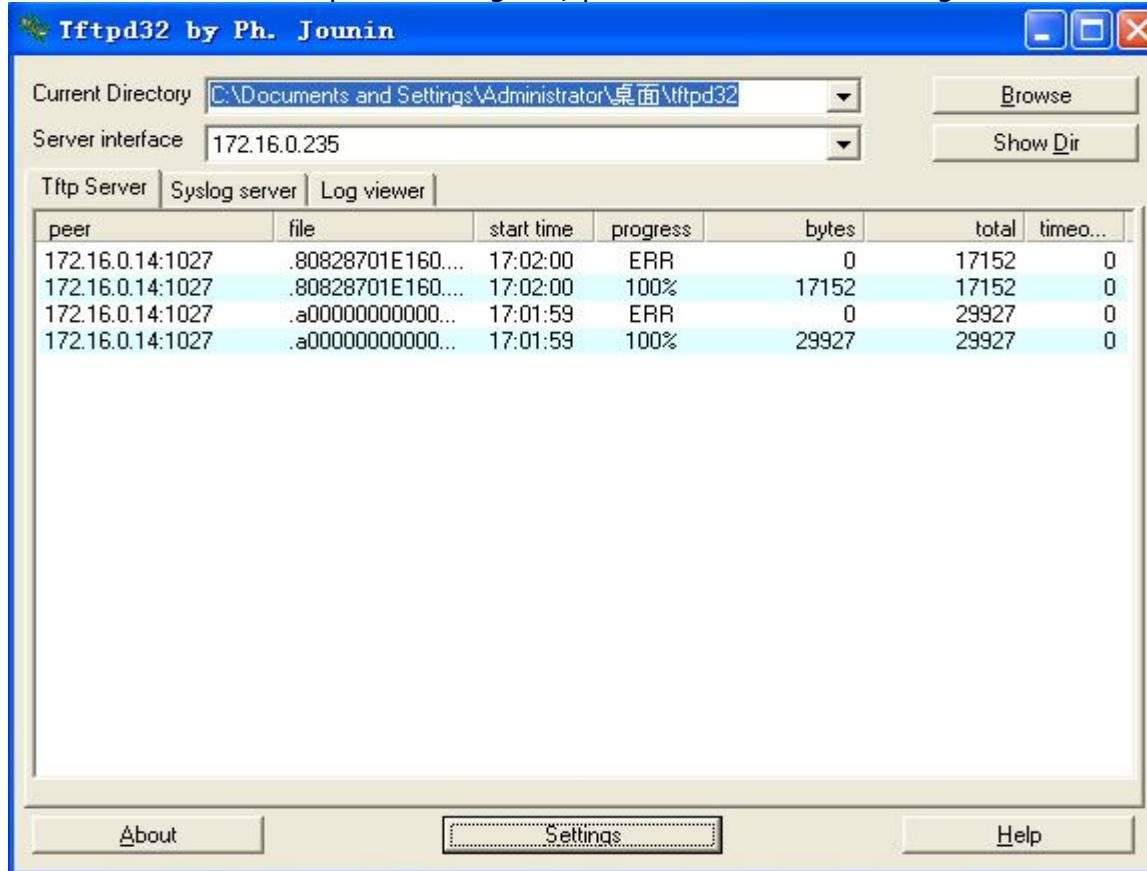
5. Obtaining the Address of provisioning file

Atcom IP phone support to obtain the provisioning server during bootup process in the following ways:

1. Auto provision by the webpage
2. DHCP Option
3. Plug and Play (PNP) server
4. RPS website

1.To configure the auto provisioning by the webpage .
login to webpage by admin lever (the right corner) ,and go to 'Update-Auto Provision'

2.To configure DHCP option
please check the DHCP option detailed guide document .

3.To configuration PNP server
Atcom IP phone default enable PNP server .

Any PNP sever activated in the network responses with a SIP Notify message and an address of the
provisioning server contained in the message body. The phone can then connect to the provisioning
server and performs the provisioning process

atcom

4.To configure RPS website
please check the RPS website detailed guide document .

6.Downloading and Verifying Configuration

During the auto provisioning process, you can monitor the download request and response message by a wireshark tool.
Atcom IP phone downloads configuration files from the tftp server.

Auto provision

Filter:	tftp			✕ Expression... Clear Apply Save		
No.	Time	Source	Destination	Protocol	Length	Info
22397	2015/187 14:21:57.344216	172.16.0.14	172.16.0.235	TFTP	68	Read Request, File: a000000000004.cfg, Transfer type: octet
22403	2015/187 14:21:57.394014	172.16.0.235	172.16.0.14	TFTP	558	Data Packet, Block: 1
22404	2015/187 14:21:57.395253	172.16.0.14	172.16.0.235	TFTP	60	Acknowledgement, Block: 1
22405	2015/187 14:21:57.395314	172.16.0.235	172.16.0.14	TFTP	558	Data Packet, Block: 2
22406	2015/187 14:21:57.396304	172.16.0.14	172.16.0.235	TFTP	60	Acknowledgement, Block: 2
22407	2015/187 14:21:57.396345	172.16.0.235	172.16.0.14	TFTP	558	Data Packet, Block: 3
22408	2015/187 14:21:57.397316	172.16.0.14	172.16.0.235	TFTP	60	Acknowledgement, Block: 3
22409	2015/187 14:21:57.397410	172.16.0.235	172.16.0.14	TFTP	558	Data Packet, Block: 4
22410	2015/187 14:21:57.400048	172.16.0.14	172.16.0.235	TFTP	60	Acknowledgement, Block: 4
22411	2015/187 14:21:57.400102	172.16.0.235	172.16.0.14	TFTP	558	Data Packet, Block: 5
22412	2015/187 14:21:57.401072	172.16.0.14	172.16.0.235	TFTP	60	Acknowledgement, Block: 5
22413	2015/187 14:21:57.401121	172.16.0.235	172.16.0.14	TFTP	558	Data Packet, Block: 6
22414	2015/187 14:21:57.402088	172.16.0.14	172.16.0.235	TFTP	60	Acknowledgement, Block: 6
22415	2015/187 14:21:57.402136	172.16.0.235	172.16.0.14	TFTP	558	Data Packet, Block: 7
22416	2015/187 14:21:57.403103	172.16.0.14	172.16.0.235	TFTP	60	Acknowledgement, Block: 7
22417	2015/187 14:21:57.403158	172.16.0.235	172.16.0.14	TFTP	558	Data Packet, Block: 8
22418	2015/187 14:21:57.404135	172.16.0.14	172.16.0.235	TFTP	60	Acknowledgement, Block: 8
22419	2015/187 14:21:57.404190	172.16.0.235	172.16.0.14	TFTP	558	Data Packet, Block: 9
22420	2015/187 14:21:57.405200	172.16.0.14	172.16.0.235	TFTP	60	Acknowledgement, Block: 9
22421	2015/187 14:21:57.405245	172.16.0.235	172.16.0.14	TFTP	558	Data Packet, Block: 10
22424	2015/187 14:21:57.406325	172.16.0.14	172.16.0.235	TFTP	60	Acknowledgement, Block: 10
22425	2015/187 14:21:57.406372	172.16.0.235	172.16.0.14	TFTP	558	Data Packet, Block: 11
22426	2015/187 14:21:57.407337	172.16.0.14	172.16.0.235	TFTP	60	Acknowledgement, Block: 11