

**R series auto provision 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 in 100+ countries and used by millions of end users.

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**Download Center**: <http://www.atcom.cn/download.html>

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# How to provision ATCOM IP Phone

This guide shows you how to provision ATCOM IP phones with the minimum settings required.

The purpose of this guide is:

•Be unfamiliar with atcom IP Phone

•Provision some atcom IP phones。

•used by DHCP server or ATCOM IP PBX. ATCOM IP Phones support the FTP ,TFTP ,HTTP and HTTPS protocols for file. provisioning and are configured by default to use Trivial File Transfer Protocol(TFTP)

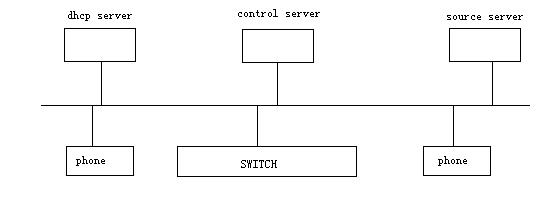
## Introduction

This sections introduce principle about auto provision and network topology 。

### Provision ways

When the network mode has been set to DHCP, IP Phone will add OPTION66 and OPTION 67 configurations to the DHCP Request after it starts. DHCP Ack with OPTION66 and OPTION 67 configurations will be replied from the DHCP server if IP address and file name have been configured in OPTION66 and OPTION 67. Then IP Phone will obtain the control file whose name is configured in OPTION67 from the IP address configured in OPTION66 through TFTP protocol. Control file defines the update path and corresponding file name for updating Ringtone, Phonebook, configuration, language and firmware. IP Phone will download the corresponding files from those paths and compare them with the earlier. If the corresponding files are different from the earlier then the phone will update them.

### Network topology：

[](http://192.168.1.148/wiki/%E6%96%87%E4%BB%B6:Top.jpg)

a. DHCP server：provide IP address , help OPTION66 configure IP address or domain name ,and help OPTION67 configure control file.

b. Control server：only support TFTP server, and used for deposit control file, control file need to deposit in the TFTP server

c. Source server：used for deposit firmware, phonebook, language, configuration file. Source server support TFTP server , FTP server and HTTP server. and support the same server with control server.

d. Phone：ATCOM IP phone, it needs to connect to the same switch or network with other all server.

**note**：DHCP OPTION66 need to fill in IP address or domain name of control server, DHCP OPTION67 need to type filename of control server. For example, control server IP address is 172.16.0.129, control filename is control.xml, so OPTION66 string values is 172.16.0.129 and OPTION67 string values is control.xml. now, control file only support file .xml

## Operation

This sections introduce the step of auto provision, the provision server is TFTP server and DHCP server in the guide document.

### Phone start up

Plug in the phone by adapter and connect the cable with phone and switch , or use the cable connecting the phone and switch directly without adapter, if the switch support POE

### Install and configure the tool in PC

•Install document editors and can edit XML ,like XML Notepad 2007

•Please start up TFTP server, if it is exist in PC. Or please install it and start up it ,if it is not. Like Tftpd32 tool during the Window , or install TFTP server immediately in Linux

•Create a root directory for deposit provisioning file, and it supports access or modification .

•Please start up DHCP server and configure OPTION66 and OPTON67,if it is exist in PC. Or please install it and start up it, if it is not, please install dhcpd in Linux

### Create control file and deposit the file in a root directory of TFTP server

Control file must be deposited a root directory of TFTP server, the purpose is：

1.Control provisioning file, include configuration file, phonebook, ringtone and firmware

2.Control provisioning mode, include TFTP ,FTP and HTP

3.Control IP address of provisioning file and provisioning filename.

Control filename is using the suffix ‘.xml’

The format of Control file like ：

<?xml version="1.0"?>

<AUTOUPDATE Model="Rainbow1">

<Config URL="tftp://172.16.0.107/$MAC.xml"/>

<PhoneBook URL="tftp://172.16.0.107/phonebook.xml"/>

<Firmware MD5="cadfadfaqeqedadfadfa" URL="tftp://172.16.0.107/Rainbow1-v2.2.5.13672.fw"/>

</AUTOUPDATE>

**note：**Via<AUTOUPDATE Model="Rainbow1"> of </AUTOUPDATE> can add and reduce as necessary you need. For example , there is only need to upgrade phonebook, so others has been cut out.

<?xml version="1.0"?>

<AUTOUPDATE Model="Rainbow1">

<PhoneBook URL="tftp://172.16.0.107/phonebook.xml"/>

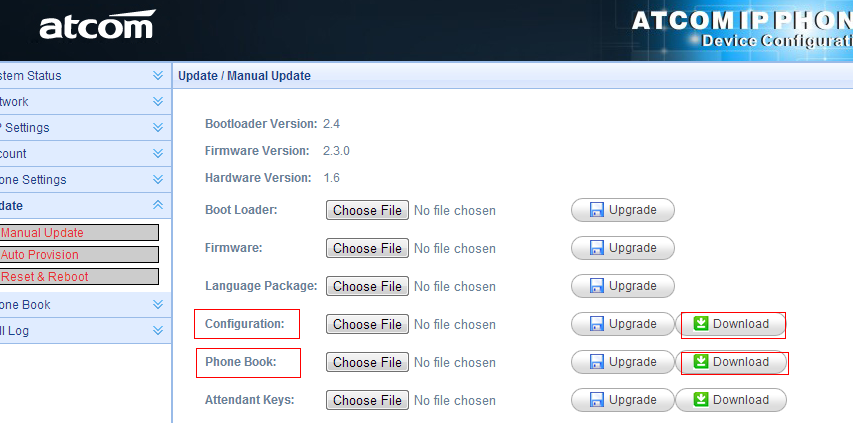
</AUTOUPDATE>

Model="Rainbow1" , "Rainbow1" is the phone model that needed to auto provision, maybe it is : AT800, AT810, AT820, AT840, Rainbow1, Rainbow2, Rainbow3 , Rainbow4

The format of control file must be fit perfectly, expert the contents of double quotations (" ")

### Download or provisioning file

•configuration, phonebook:please download the configuration and phonebook as following screenshot, then upload them to the TFTP server.

****

please edit file of configuration, phonebook in XML editor as you need .

•firmware: please download it in the atcom website and upload it to the TFTP server

### Deposit provisioning file in the root directory of TFTP server and rename the file by a rule

Naming rules：

(1) the rule of configuration :<Config URL="tftp://172.16.0.107/$MAC.xml"/>

Please upload configuration.xml and and filename is unfixed , maybe you can rename is 1234, but you must also modify your < Config URL="tftp://172.16.0.107/$MAC.xml"/> is < Config URL="tftp://172.16.0.107/1234.xml"/>

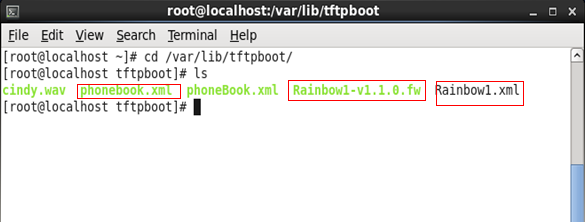
(2)the rule of phonebook:<PhoneBook URL="tftp://172.16.0.107/phonebook.xml"/>

Please upload phonebook.xml and filename is unfixed , maybe you can rename is friend, but you must also modify your <PhoneBook URL="tftp://172.16.0.107/phonebook.xml"/> is <PhoneBook URL="tftp://172.16.0.107/friend.xml"/>. And the phonebook.xml version should be different from the provision phone.

(3)the rule of firmware: <Firmware MD5="cadfadfaqeqedadfadfa" URL="tftp://172.16.0.107/Rainbow1-v2.2.5.13672.fw"/>

Please upload firmware and filename is using the suffix ‘.fw’, and please check the firmware MD5 with the Configuration Conversion.exe

as following screenshot:



### Configurating OPTION 66 and OPTION 67 in the DHCP server and restart the DHCP server

Edit dhcp.conf in the DHCP server, and configurating OPTION66 and OPTION67 like :

Option option-66 code 66=string;

Option option-67 code 67=string;

Subnet 172.16.0.0 netmask 255.255.255.0 {

Range 172.16.0.3 172.16.0.254;

Option option-66 “172.16.0.107”; ;IP address of TFTP server

Option option-67 “Rainbow1.xml”; ;the name of control file

}

## 3.verifing configurations

After auto provisioning, the phone boots up. You an then verify the update via phone user interface, or you can verify it via web user interface of the phone.

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| --- |
| 4.Refer The guide document introduce how to provision ATCOM phone by used DHCP server, TFTP server and PC.  If you need to know ATCOM phone, please download the user manure form atcom website. You can access  ATCOM website [www.atcom.com.cn](http://www.atcom.com.cn)  The provisioning information in this guide applies to the following ATCOM phones:  • AT8x0 series：AT800,AT810,AT820,AT840  •Rainbow series：Rainbow1,Rainbow2,Rainbow3,Rainbow4 |