

USER MANUAL

MV600 Series

Rev. B Wi-Fi Gateway



Important Notice

Due to the nature of wireless communications, transmission and reception of data can never be guaranteed. Data may be delayed, corrupted (i.e., have errors) or be totally lost. Although significant delays or losses of data are rare when wireless devices such as the router are used in a normal manner with a well-constructed network, the router should not be used in situations where failure to transmit or receive data could result in damage of any kind to the user or any other party, including but not limited to personal injury, death or loss of property. Axisstel accepts no responsibility for damages of any kind resulting from delays or errors in data transmitted or received using the Axisstel router or for failure of the Axisstel router to transmit or receive such data.

Safety Precautions

Do not operate the router:

- In areas where blasting is in progress
- Where explosive atmospheres may be present
- Near medical equipment
- Near life support equipment or any equipment that may be susceptible to any form of radio interference. In such areas, the router **MUST BE POWERED OFF**. The Axisstel router can transmit signals that could interfere with this equipment.

Do not operate the router in any aircraft, whether the aircraft is on the ground or in flight. In aircraft, the router **MUST BE POWERED OFF**. When operating, the router can transmit signals that could interfere with various onboard systems.

Note: Some airlines may permit the use of cellular phones while the aircraft is on the ground and the door is open. The router may be used at this time.

The driver or operator of any vehicle should not operate the router while in control of a vehicle. Doing so will detract from the driver or operator's control and operation of that vehicle. In some states and provinces, operating such communications devices while in control of a vehicle is an offense.

Limitation of Liability

The information in this manual is subject to change without notice and does not represent a commitment on the part of Axesstel.

AXESSTEL SPECIFICALLY DISCLAIMS LIABILITY FOR ANY AND ALL DIRECT, INDIRECT, SPECIAL, GENERAL, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR EXEMPLARY DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS OR REVENUE OR ANTICIPATED PROFITS OR REVENUE ARISING OUT OF THE USE OR INABILITY TO USE ANY AXESSTEL PRODUCT, EVEN IF AXESSTEL HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR THEY ARE FORESEEABLE OR FOR CLAIMS BY ANY THIRD PARTY.

Notwithstanding the foregoing, in no event shall Axesstel aggregate liability arising under or in connection with the Axesstel product, regardless of the number of events, occurrences, or claims giving rise to liability.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that
- to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

FOR COUNTRY CODE SELECTION USAGE (WLAN DEVICES)

Note: The country code selection is for non-US model only and is not available to on US models. Per FCC regulation, all WiFi product marketed in US must be fixed to US operation channels only.

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1 Introduction

Thank you for purchasing the Axisstel MV600 EV-DO router. This user manual will help you setup, configure and outline best practices for maximizing your wireless home network performance with the router.

2 Product Overview

In minutes, you will be able to connect your computers to the Internet, share your Internet connection and network your computers.. The following is a list of features that make your new Axisstel EV-DO router an ideal solution for your home or small office network. Implementation of these features depends on the particular service provider and account features you have chosen.

Some features described in this manual may not be supported by your service provider or may not be available with your network account. For details of the services and accounts available, contact your service provider.

Plug-and-Play

Your router was factory-set for compatibility with a particular service provider. Thus, your router operates on radio channels and enables services specific to your network service provider. Once your router has been activated on your service provider's network, you can connect to the Internet. After your router is activated, connect it to your computer using the Ethernet (RJ-45) cable or via WiFi. You are now ready to use the Internet.

Web-Based Advanced User Interface

You can easily setup the router's advanced functions through your web browser and without having to install additional software onto your computer. There are no drivers to install and, you can easily make changes and perform setup functions from any computer which is connected to your MV600

- NAT IP Address Sharing
- Support for VPN Pass Through
- Built in Dynamic Host Configuration Protocol (DHCP)
- Integrated 802.11b/g/n Wireless Access Point
- MAC Address Filtering

Integrated 10/100 4-Port Switch

The MV600 has a built-in, 4-port network switch to allow your wired computers to share printers, data and MP3 files, digital photos, and much more. The switch features automatic detection so it will adjust to the speed of connected devices. The switch will transfer data between computers and the Internet simultaneously without interrupting or consuming resources.

Integrated 802.11 b/g/n Wireless Access Point

The MV600 supports Wi-Fi modes b/g and n. Your router as default is set to Wi-Fi mode g. To use mode n you can change this by logging into the web interface (instructions are in section 3.10). Although, please ensure that your Wi-Fi card supports n mode.

2.1 Placement of your MV600

Place your MV600, the central connection point of your network, as close as possible to windows or in rooms at the outer side of your house. If you also use the Wi-Fi feature of the MV600, it should be placed near the center of your wireless network devices.

To achieve the best wireless network coverage:

- ◆ Ensure that your MV600's networking antennas are parallel to each other, and are positioned vertically (toward the ceiling). If your MV600 itself is positioned vertically, point the antennas as much as possible in an upward direction. In multistory homes, place the MV600 on an upper floor.
- ◆ Avoid placing your MV600 near devices that may emit radio "noise," such as microwave ovens. Dense objects can interfere with wireless communication
- ◆ If your wireless signal seems weak in some areas, try to move the MV600 to another location while observing the signal strength indicator

3 Using your Router

3.1 Package Contents

- MV600 EV-DO Rev B router
- Antennas
- RJ-45 Ethernet Networking Cable
- Power Supply (230V)
- Battery (Pre-installed)

3.2 Router Interfaces

The MV600 is designed to be placed on a desktop or wall mounted. All the ports at the back of the router are for better organization and utility. The LED indicators are easily visible on the top of the router to provide you with information about network activity and status.



3.3 Power LED

LED Color	AC Mode	Battery Mode
OFF	No Power	No Power
Blue Solid	Adaptor Connected	Fully Charged
Blue Blinking(3s)	In Charging	-
Blue Blinking(1s)	-	Low Level Charged

3.4 Signal Strength LED

This LED indicates the signal strength of the CDMA network serving the router.

LED Color	Status
OFF	No CDMA signal
Blue	Strongest Level
Blue Blinking(3s)	Medium Level
Blue Blinking(1s)	Low Level

3.5 Connect LED

This LED informs you that the router is connected to a wireless network and that your user ID and password have been validated.

LED Color	Status
OFF	No connection
Blue	- In Data use: Connected

3.6 Network LED

This LED informs you that the router is tuned to the wireless network. Your router is programmed to search and use an EV-DO network.

LED Color	Status
OFF	No Network
Blue	Network

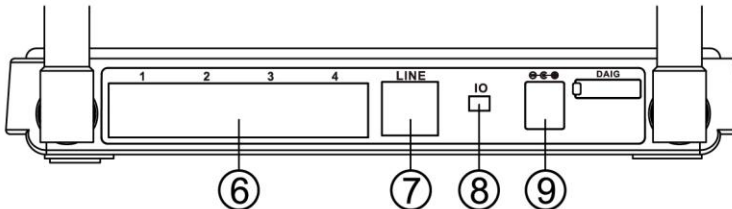
3.7 Wi-Fi LED

This LED indicates the status of your WiFi connection.

LED Color	Status
OFF	No Wi-Fi
Blue Solid	Wi-Fi network within MV600 activated
Blue Blinking	Data passing through Wi-Fi

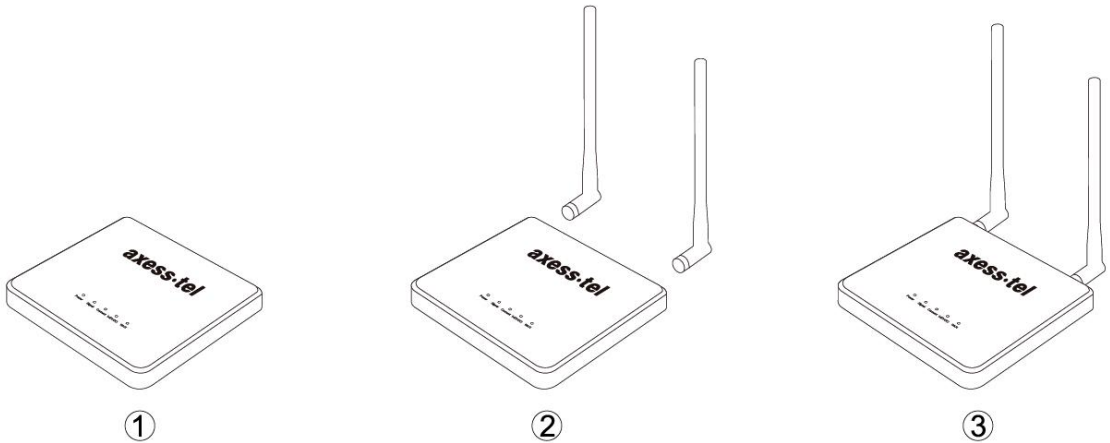
3.8 Other Features

- (6) Network connections to Computers (RJ-45/Ethernet)
- (7) Phone line (RJ-11)
- (8) Power On/Off Switch
- (9) Power Jack



3.9 Setting up your hardware

- 1 Make sure your router is not connected to any power source and that all the LEDs are OFF.
- 2 How to setup the antennas for maximized performance:



- ① Antennas are located on both sides of the router.
- ② Attach the antennas to the back of the router
- ③ Hand tighten the antennas so that they are securely attached to the router

- 3 Locate the power supply that is included with your router. Plug the power supply's small connector into the power port on the router (9). Plug the power supply into an empty power outlet.
- 4 Switch on the router (8). Look at the Power LED on top of the router and make sure the lights are ON.
- 5 Wait for a few seconds while the router searches for network service. When the router finds a suitable network, the Signal LED turns blue and will flash dependent upon the strength of the acquired signal. Refer to the Signal Strength LED description for more details.
- 6 Locate the Ethernet cable that is included with your router. Plug one end of this cable into ANY Ethernet port on your router. Plug the other end of the cable into the networking port on your computer. Alternatively connect to the router through WiFi (see below).

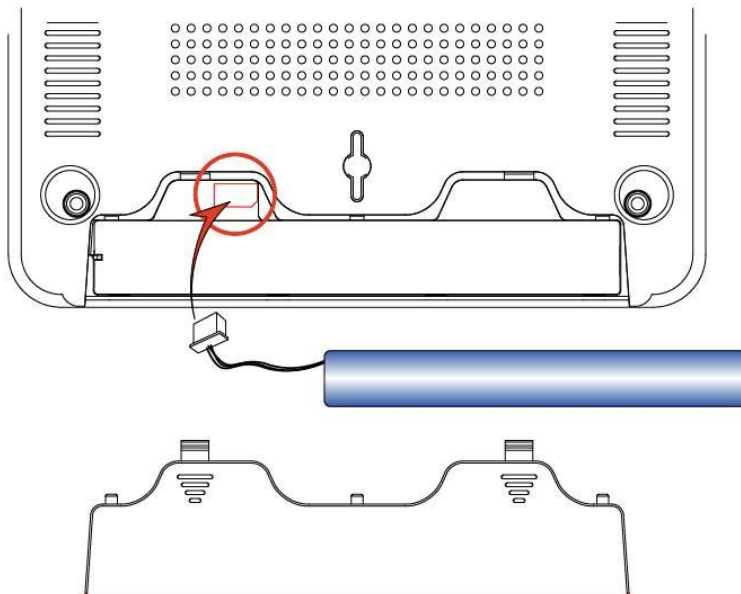
3.10 Rechargeable Battery

The R-90 comes with the rechargeable battery already pre-installed. It is natural that over time the battery performance will degrade. If you need to remove and replace your battery please follow the instructions below

Before removing or inserting the battery, please ensure that you disconnect the power supply, and move the power switch on the R-90 to the OFF position.

Removing / Replacing the Battery

- ① Open the battery cover on the bottom by sliding the cover down towards you.
- ② Disconnect / Connect the DC power cable to the unit marked below.
- ③ Close the battery cover



3.11 Connecting and Configuring your Router

Each router is factory built for use with a particular service provider. Thus, each router is set to use particular radio channels and to enable services specific to a provider.

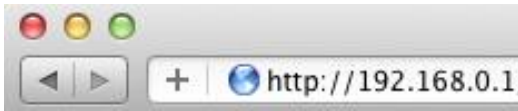
Once your router has been activated with the network, connect your computer to the router using the provided Ethernet (RJ-45) cable or WiFi. You are now ready to use the Internet.

4 Web Manager Options

The Web Manager User Interface is a web-based tool that you can use to setup the router. You can also use it to manage advanced functions of your router. From the User Interface, you can perform these tasks:

- View the router's current settings and status
- Change WiFi name, encryption and password
- Change current network settings such as the internal IP address, IP address pool, DHCP settings and more
- Set the router's firewall to work with specific applications (port forwarding)
- Setup security features such as client restrictions, MAC address filtering, WEP and WPA
- Enable the DMZ feature for a single computer on your network
- Change the router's internal password
- Reboot the router
- Reset the router's default settings
- Update the router's firmware

To log into the Web Manager, please follow the steps below:



1. Open your web browser and enter http:// 192.168.0.1 in the address bar.

A screenshot of a login page. The page has a light green background. At the top center, the word "Login" is displayed. Below it, there are two input fields: "Username" and "Password". To the right of the "Password" field is a "Login" button. At the bottom of the page, there is a small copyright notice: "Copyright © 2011 Avesstel Inc. All rights reserved."

2. A Log-in page will appear. When prompted for User name and password, enter the following name and password.

User Name: **admin**
Password: **admin**

* If you have changed the user name and the password, enter the new user name and password.

MV600 Series

If you enter an incorrect user name or password three times then you will be greeted with this error message

If you have forgotten your username and password, please press the reset button at the bottom of the modem and use defaults shown above.

If another user is already logged into the web interface then you will receive this error message. Please wait until the other person has logged out.

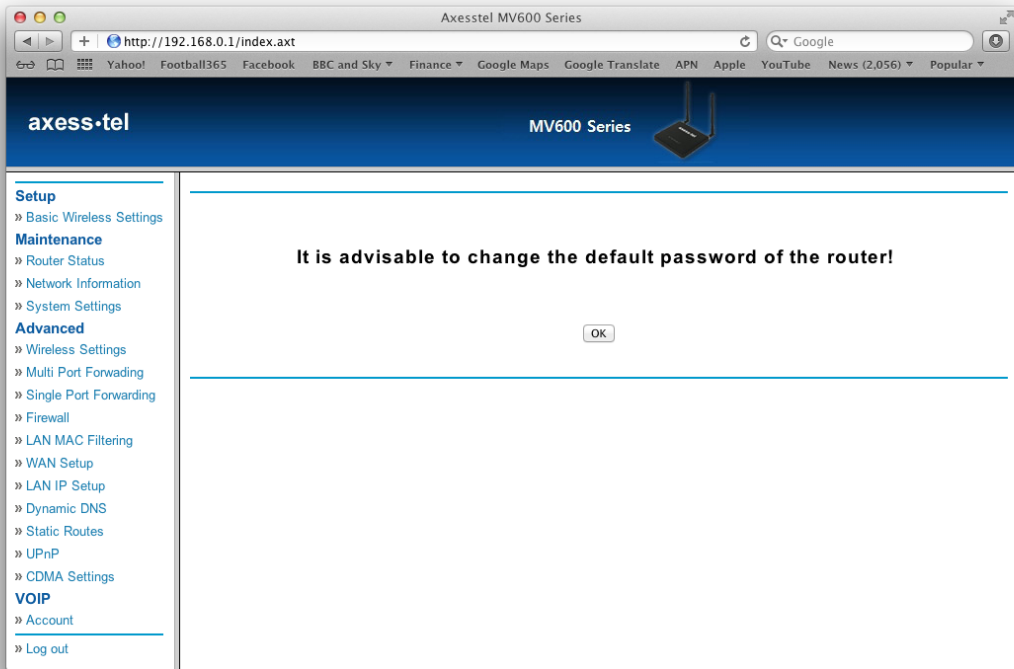
You have wrong ID or Password. Please wait 5 min. to reco

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Failed to log in.
Please wait! Until another user(IP:192.168.0.2) log-out.

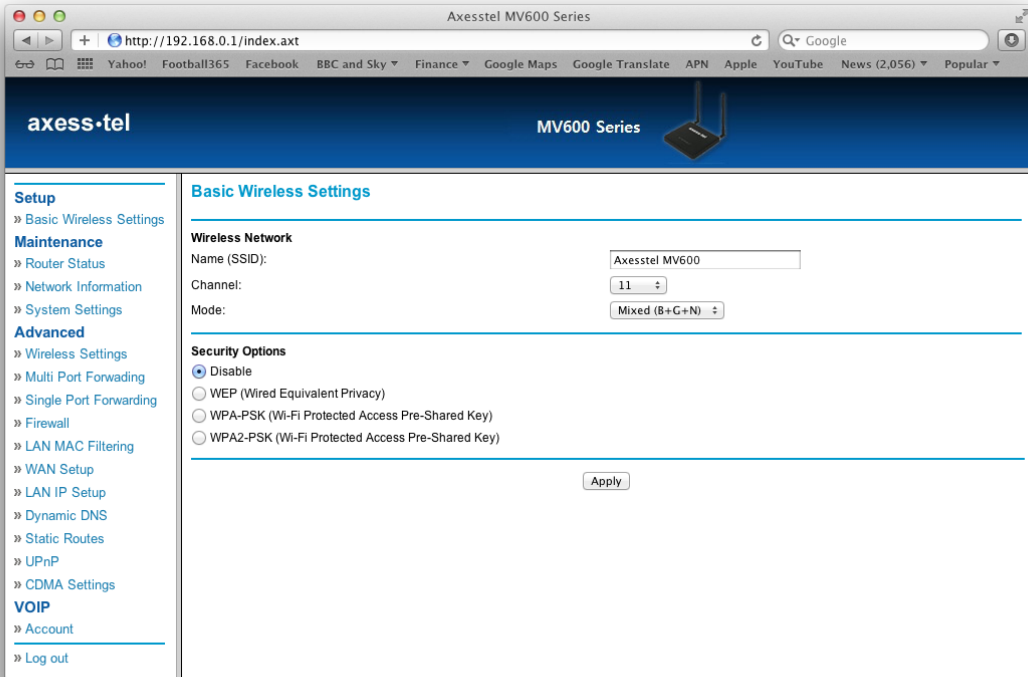
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3. After entering the correct user name and password you will be asked if you want to change the user name and password of the web page. It is advisable that you change your user name and password for enhanced security



4.1 Basic Wireless Settings

Clicking on the header of the “Basic Wireless Settings” tab will take you to the “Basic Wireless Settings” page. There are options that allow you to make changes to the Wi-Fi wireless network settings.



The screenshot shows a web browser window displaying the configuration page for an Axisstel MV600 Series device. The browser's address bar shows the URL `http://192.168.0.1/index.axt`. The page header features the **axess-tel** logo on the left and **MV600 Series** with a wireless router icon on the right. A left-hand navigation menu lists various settings categories: **Setup** (with sub-items: Basic Wireless Settings, Maintenance, Router Status, Network Information, System Settings), **Advanced** (with sub-items: Wireless Settings, Multi Port Forwarding, Single Port Forwarding, Firewall, LAN MAC Filtering, WAN Setup, LAN IP Setup, Dynamic DNS, Static Routes, UPnP, CDMA Settings), **VOIP** (with sub-items: Account), and **Log out**.

The main content area is titled **Basic Wireless Settings** and is divided into two sections:

- Wireless Network**:
 - Name (SSID):
 - Channel:
 - Mode:
- Security Options**:
 - Disable
 - WEP (Wired Equivalent Privacy)
 - WPA-PSK (Wi-Fi Protected Access Pre-Shared Key)
 - WPA2-PSK (Wi-Fi Protected Access Pre-Shared Key)

An **Apply** button is located at the bottom of the configuration area.

4.1.1 Changing the Wireless Network Name (SSID)

To identify your wireless network, SSID (Service Set Identifier) is used. You can change the SSID to anything you want, or you can leave it unchanged. If there are other wireless networks operating in your area, you will want to make sure that your SSID is unique to avoid interference. To change the SSID, type in the SSID name that you want to use in the “SSID” field and click “Apply”. The change is immediate. If you make a change to the SSID, your wireless-equipped computers may also need to be reconfigured to be able to connect to your new network name. Refer to the documentation of your wireless network adapter for information on making this change.

4.1.2 Selecting the Wireless Channel

Your router as default is pre-configured to choose the best wireless channel. It does this by looking at the channels that are being used by Wi-Fi networks and choosing the best channel accordingly. If needed this channel can be changed.

4.1.3 Wi-Fi Mode

Your MV600 can support three different types of Wi-Fi network, types b, g and n. As default the MV600 is set to support mixed mode (b/g/n). This setting ensures that nearly all Wi-Fi devices will be able to connect to your MV600 without any issues

4.1.4 Securing your Wi-Fi Network

There are a few different ways you can maximize the security of your wireless network and protect your data from prying eyes and ears.. Three encryption methods are available.

- WEP (Wired Equivalent Privacy)
- WPA (Wi-Fi Protected Access) – PSK
- WPA 2 (Wi-Fi Protected Access 2) – PSK

4.2 Router Status

Clicking on the header of the “router Status” tab will take you to the “router Status” header page. From this page you can find all the relevant information pertaining to your router such as firmware version and IP address. Detailed descriptions are found below

The screenshot shows the web interface for an Axisstel MV600 Series router. The browser address bar shows the URL `http://192.168.0.1/index.axt`. The page title is "Axesstel MV600 Series". The navigation menu on the left includes sections for Setup, Maintenance, Advanced, and VOIP. The main content area is titled "Router Status" and contains the following information:

System Name	MV600 Series
Firmware Version	MV600_ETH_FIN_v1.6.5 2012-05-22 06:13:59
Hardware Version	1.00
WAN Port	
IP Address	0.0.0.0
Primary DNS	0.0.0.0
Secondary DNS	0.0.0.0
LAN Port	
MAC Address	00:19:ED:0B:A6:89
IP Address	192.168.0.1
IP Subnet Mask	255.255.255.0
DHCP Server	ON
Wireless Port	
MAC Address	00:19:ED:F0:76:EA
Name (SSID)	Axisstel MV600
Channel	11
Mode	Mixed (B+G+N)
Wireless Access Point	ON
Broadcast SSID	ON
VoIP Status	
Phone No.	-
Status	-

4.2.1 WAN Port

From here you will be able to find the details of the primary and secondary DNS servers together with the IP address that you have been allocated by the mobile network

4.2.2 LAN Port

From here you will be able to see the details of the IP address that is being used to access the web interface, together with its MAC address.

4.2.3 Wireless Port

From here you will be able to see all the details relating to your Wi-Fi connection

4.3 Network Information

The network information page will provide all the information and detail with regards to the mobile network. The information on this page can be very useful when you are in contact with Customer Services.

The screenshot displays the web interface for the AxessTel MV600 Series. The browser window shows the URL `http://192.168.0.1/index.axt`. The page header includes the 'axess•tel' logo and 'MV600 Series' text next to a router icon. A navigation sidebar on the left lists categories: Setup (Basic Wireless Settings), Maintenance (Router Status, Network Information, System Settings), Advanced (Wireless Settings, Multi Port Forwarding, Single Port Forwarding, Firewall, LAN MAC Filtering, WAN Setup, LAN IP Setup, Dynamic DNS, Static Routes, UPnP, CDMA Settings), and VOIP (Account, Log out). The main content area is titled 'Network Information' and contains the following data:

Module Information	
(Not all 3 carriers maybe connected at the same time.)	
Module Version	V6H218COMM
Module Status	OK
Module ESN	0x5F69E166
Network Status	
Connection Information	N/A
Carrier 1	Network RSSI : -0 dBm Ec/Io : 0 dBm Channel No. : 110 PN : 0 Mobile Transmit Power : 0 dBm
Carrier 2	Network RSSI : 0 dBm Ec/Io : 0 dBm Channel No. : 0 PN : 0 Mobile Transmit Power : 0 dBm
Carrier 3	Network RSSI : 0 dBm Ec/Io : 0 dBm Channel No. : 0 PN : 0 Mobile Transmit Power : 0 dBm
Connection status	N/A

4.4 System Settings

From the system settings page you can perform a variety of administration tasks.

Set Password – From here you can change the password which is used to access the web GUI

Set Username – This option allows you to modify the user name which is used to access the web GUI

Management Interface Protocol – This option allows you to toggle between using a HTTP or HTTPS connection when using the web GUI. If you do change to using a HTTPS connection please ensure that you add in HTTPS in the address field of your browser

Restore Settings – This option will restore the unit to factory settings. Any modifications that you may have made to SSID, WPA password, Port Forwarding etc will be lost. The login will revert back to the default settings.

Router Upgrade – Occasionally your operator may release a new firmware for your MV600, and this new firmware can be applied using this option

CDMA Upgrade – Occasionally your operator may release a new CDMA firmware for your R-90, and this new firmware can be applied using this option. (This is a low level firmware in addition to the router firmware above.) The CDMA firmware can be identified as the file name will start with 'V6H'

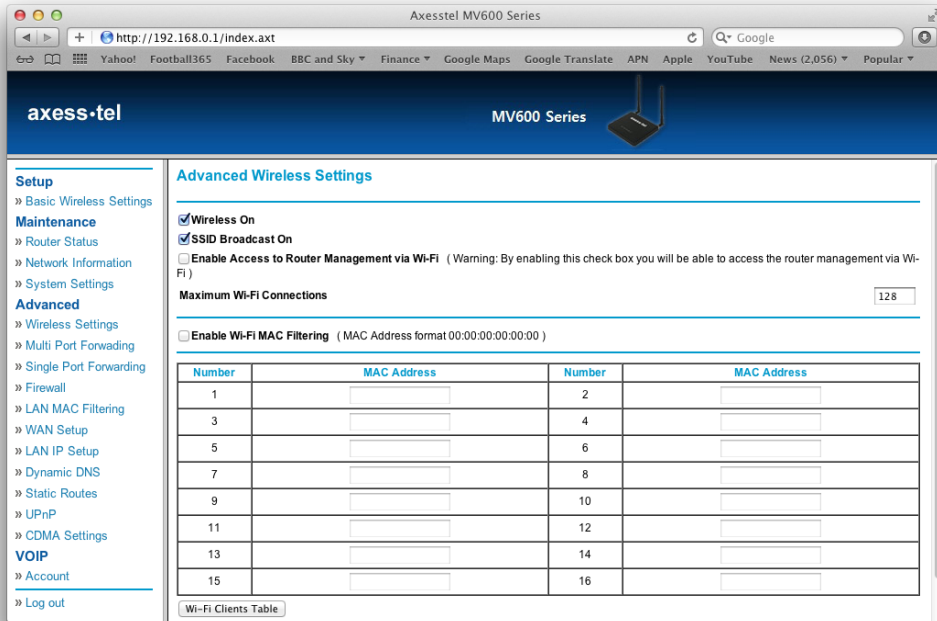
Reboot Settings – Occasionally you may need to reboot your device and this can be done by using this option.

The screenshot shows a web browser window with the URL `http://192.168.0.1/index.axt`. The browser's address bar and search bar are visible. The page header includes the **axess.tel** logo and **MV600 Series** with a router icon. A left-hand navigation menu lists categories: **Setup** (Basic Wireless Settings), **Maintenance** (Router Status, Network Information, System Settings), **Advanced** (Wireless Settings, Multi Port Forwarding, Single Port Forwarding, Firewall, LAN MAC Filtering, WAN Setup, LAN IP Setup, Dynamic DNS, Static Routes, UPnP, CDMA Settings), and **VOIP** (Account, Log out). The main content area is titled **System Settings** and contains three sections: **Set Password** with fields for Old Password, New Password, and Confirm New Password; **Set Username** with a field for New Username containing the text 'admin'; and **Management Interface Protocol** with radio buttons for Use HTTP (selected) and Use HTTPS. Each section has an **Apply** button. At the bottom, there are links for **Restore Settings** and **Restore to factory settings**.

4.5 Advanced Wireless Settings

From this page you can enable / disable your WiFi, as well as decide whether to broadcast your SSID. If you would like to disable access to the web interface via WiFi you can un-check the 'Enable Access to Router Management via Wi-Fi' checkbox.

From this page you can also configure which devices are allowed to connect to your MV600. If at anytime you would like to see which devices are connected to your MV600 then you can simply press the WiFi Clients table button and this will display a complete list



The screenshot displays the web interface for an Axisstel MV600 Series router. The browser address bar shows the URL `http://192.168.0.1/index.axt`. The page title is "Axisstel MV600 Series". The main content area is titled "Advanced Wireless Settings".

Setup

- » Basic Wireless Settings

Maintenance

- » Router Status
- » Network Information
- » System Settings

Advanced

- » Wireless Settings
- » Multi Port Forwarding
- » Single Port Forwarding
- » Firewall
- » LAN MAC Filtering
- » WAN Setup
- » LAN IP Setup
- » Dynamic DNS
- » Static Routes
- » UPnP
- » CDMA Settings

VOIP

- » Account

» Log out

Advanced Wireless Settings

- Wireless On**
- SSID Broadcast On**
- Enable Access to Router Management via Wi-Fi** (Warning: By enabling this check box you will be able to access the router management via Wi-Fi)

Maximum Wi-Fi Connections

Enable Wi-Fi MAC Filtering (MAC Address format 00:00:00:00:00:00)

Number	MAC Address	Number	MAC Address
1	<input type="text"/>	2	<input type="text"/>
3	<input type="text"/>	4	<input type="text"/>
5	<input type="text"/>	6	<input type="text"/>
7	<input type="text"/>	8	<input type="text"/>
9	<input type="text"/>	10	<input type="text"/>
11	<input type="text"/>	12	<input type="text"/>
13	<input type="text"/>	14	<input type="text"/>
15	<input type="text"/>	16	<input type="text"/>

4.6 Multi Port Forwarding

Clicking on the “Multi Port Forwarding” sub-heading in the “Advanced” list will take you to the relevant page. Multi Port Forwarding allows you to route a range of ports to the devices that are connected to your router. Your internal computers are protected by a firewall, so computers that are outside your network cannot “see” or reach your computers.

4.6.1 Multi Port Forwarding

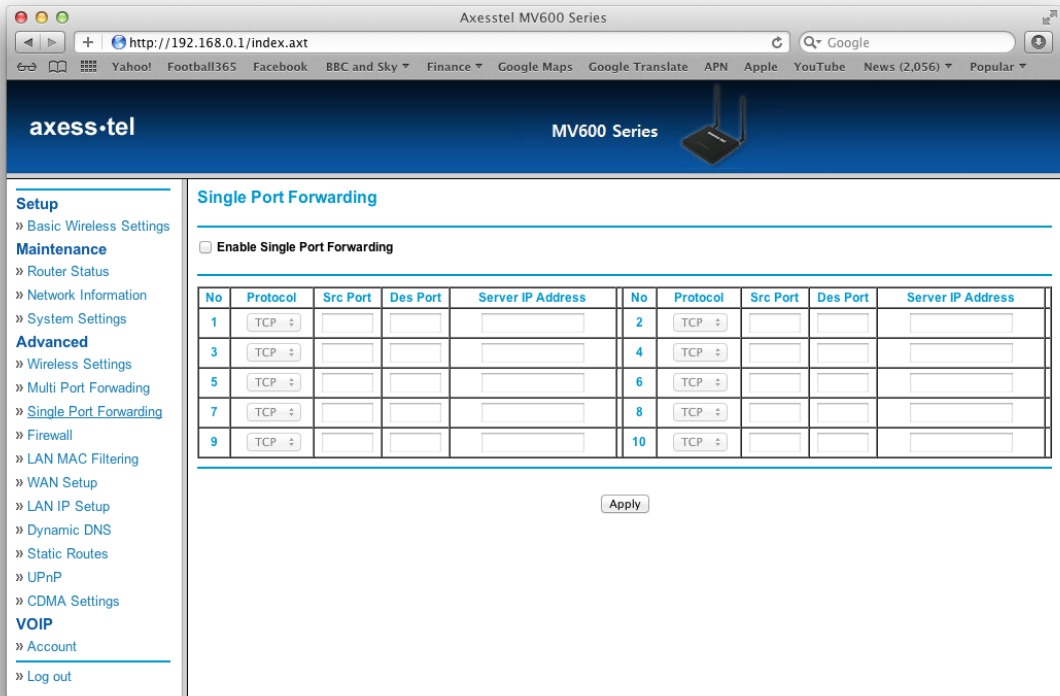
To enter settings into Port Forwarding, first select the appropriate service from the “Protocol” drop-down box. Select an application, enter the IP address and port number for your internal server into the provided spaces, and click “Apply”. Note: Opening ports in your firewall can pose a security risk. You can enable and disable settings very quickly. It is recommended that you disable these settings when you are not using a specific application.

The screenshot shows the web interface for the Axisstel MV600 Series router. The browser address bar shows the URL `http://192.168.0.1/index.axt`. The page title is "Multi Port Forwarding". There is a checkbox labeled "Enable Multi Port Forwarding" which is currently unchecked. Below this is a table with 10 rows for configuring port forwarding rules. Each row has columns for "No.", "Protocol", "Port Start", "Port End", and "Server IP Address". The "Protocol" column contains a dropdown menu with "TCP" selected. Below the table is an "Apply" button.

No.	Protocol	Port Start	Port End	Server IP Address	No.	Protocol	Port Start	Port End	Server IP Address
1	TCP				2	TCP			
3	TCP				4	TCP			
5	TCP				6	TCP			
7	TCP				8	TCP			
9	TCP				10	TCP			

4.7 Single Port Forwarding

This feature helps forward IP packets from a specific port to a specific host in your LAN by changing the port number.



The screenshot shows the AxessTel MV600 Series web interface. The browser address bar displays `http://192.168.0.1/index.axt`. The page title is "AxessTel MV600 Series". The navigation menu on the left includes:

- Setup
 - » Basic Wireless Settings
- Maintenance
 - » Router Status
 - » Network Information
 - » System Settings
- Advanced
 - » Wireless Settings
 - » Multi Port Forwarding
 - » Single Port Forwarding
 - » Firewall
 - » LAN MAC Filtering
 - » WAN Setup
 - » LAN IP Setup
 - » Dynamic DNS
 - » Static Routes
 - » UPnP
 - » CDMA Settings
- VOIP
 - » Account
- » Log out

The main content area is titled "Single Port Forwarding". It features a checkbox labeled "Enable Single Port Forwarding" which is currently unchecked. Below this is a table for configuring port forwarding rules:

No	Protocol	Src Port	Des Port	Server IP Address	No	Protocol	Src Port	Des Port	Server IP Address
1	TCP				2	TCP			
3	TCP				4	TCP			
5	TCP				6	TCP			
7	TCP				8	TCP			
9	TCP				10	TCP			

Below the table is an "Apply" button.

4.8 Firewall

This page will allow you to enable / disable your firewall

Setup

- » Basic Wireless Settings

Maintenance

- » Router Status
- » Network Information
- » System Settings

Advanced

- » Wireless Settings
- » [Multi Port Forwarding](#)
- » Single Port Forwarding
- » Firewall
- » LAN MAC Filtering
- » WAN Setup
- » LAN IP Setup
- » Dynamic DNS
- » Static Routes
- » UPnP
- » CDMA Settings

VOIP

- » Account
- » Log out

Firewall

Enable IP/Port Blocking Service

No	Protocol	Source IP Address	Destination IP Address	Port
1	TCP			
2	TCP			
3	TCP			
4	TCP			
5	TCP			
6	TCP			
7	TCP			
8	TCP			
9	TCP			
10	TCP			

Apply

4.9 LAN MAC Filtering

Your router can be configured to restrict access to the Internet, email or other network services. Restrictions can be set for a single computer, a range of computers or multiple computers.

4.9.1 MAC Filtering

The MAC address filter is a powerful security feature that allows you to specify which computers are allowed on your network. Any computer attempting to access your network must be specified in the filter list or it will be denied access. When you enable this feature, you must enter the MAC address of each client (computer) on your network in order to allow network access to each.

MAC Services Blocking can be set in three modes.

- **Disable.** In this mode, there are no restrictions on any devices connected to the router, whether through Wi-Fi or Ethernet ports
- **Deny.** In this mode, the service table shows the client MAC address being blocked by the router.
- **Allow.** In this mode, the service table shows the client MAC address allowed by the router.

To modify the service table (add, change address or remove clients), enter the correct value and click “Apply”.

Note: You will not be able to delete the MAC address of the computer you are using to access the router’s administrative functions.

The screenshot shows a web browser window with the URL `http://192.168.0.1/index.axt`. The page title is "Axisstel MV600 Series". The browser's address bar and search bar are visible. The page content includes a navigation menu on the left and a main configuration area for "LAN MAC Filtering".

Navigation Menu:

- Setup**
 - » Basic Wireless Settings
- Maintenance**
 - » Router Status
 - » Network Information
 - » System Settings
- Advanced**
 - » Wireless Settings
 - » Multi Port Forwarding
 - » Single Port Forwarding
 - » Firewall
 - » LAN MAC Filtering
 - » WAN Setup
 - » LAN IP Setup
 - » Dynamic DNS
 - » Static Routes
 - » UPnP
 - » CDMA Settings
- VOIP**
 - » Account
- » Log out

LAN MAC Filtering Configuration:

Options: Disable, Deny, Allow

(MAC Address format 00:00:00:00:00:00)

Number	MAC Address	Number	MAC Address
1	<input type="text"/>	2	<input type="text"/>
3	<input type="text"/>	4	<input type="text"/>
5	<input type="text"/>	6	<input type="text"/>
7	<input type="text"/>	8	<input type="text"/>
9	<input type="text"/>	10	<input type="text"/>

4.10 WAN Setup

Clicking on the “WAN Setup” sub-heading in the “Advanced” list will take you to the “WAN Setup” page. This is where you can enable or disable the router’s DMZ, Internet Ping, and HTTP-related items.

4.10.1 Demilitarized Zone (DMZ)

The DMZ feature allows you to specify one computer on your internal network to be placed outside the firewall. This may be necessary if the firewall is causing problems with a game, video conferencing, or other application. Use this feature on a temporary basis. The computer in the DMZ is NOT protected from hacker attacks.

4.10.2 WAN Ping Blocking

Computer hackers use what is known as “pinging” to find potential victims on the Internet. By pinging a specific IP address and receiving a response, a hacker can determine that something of interest might be at that IP address. You can set your router so it will not respond to a hacker’s ICMP ping, increasing the level of security provided by your router. If it is necessary to turn on the ping response, select “Allow Ping Response on WAN port” and click “Apply”..

4.10.3 Disable NAT

This feature disables all NAT router functionality.

4.10.4 Enable Access to Router Managemnet via Internet

This feature allows users with access to the Wi-Fi network to login to the router interface. Be aware that the default settings “username and password” = “admin” a good security measure against intruders to your network. If you wish to restrict the access to the router interface to be accessible only via ethernet cable, please uncheck this box.

axesstel MV600 Series

http://192.168.0.1/index.axt

Google

Yahoo! Football365 Facebook BBC and Sky Finance Google Maps Google Translate APN Apple YouTube News (2,056) Popular

Setup

- » Basic Wireless Settings

Maintenance

- » Router Status
- » Network Information
- » System Settings

Advanced

- » Wireless Settings
- » Multi Port Forwarding
- » Single Port Forwarding
- » Firewall
- » LAN MAC Filtering
- » WAN Setup
- » LAN IP Setup
- » Dynamic DNS
- » Static Routes
- » UPnP
- » CDMA Settings

VOIP

- » Account
- » Log out

WAN Setup

Disable DMZ

Default DMZ

Super DMZ

Host IP Address:

Host MAC Address:

DHCP Lease Time sec

(After changing the DMZ settings, please renew your IP Address)

Allow Ping Response on WAN port

Enable Access to Router Management via Internet

Disable NAT

Enable Auto Ping

Auto PING Interval min(s)

IP Address or URL

Apply

4.11 LAN IP Setup

Clicking on the header of the “LAN IP Setup” tab will take you to its header page.

4.11.1 LAN TCP/IP Setup

The IP address in this instance is referring to the IP address that you use to log into your router (default 192.168.0.1). If you change this, then in future you will need to log in using the new IP address that you chosen.

There is no need to change the subnet mask. This is a unique, advanced feature of your router. It is possible to change the subnet mask, if necessary. Do NOT make changes to the subnet mask unless you have a specific reason to do so. The default setting is “255.255.255.0”.

4.11.2 Use the Router as a DHCP Server

The DHCP server function makes setting up a network very easy by assigning IP addresses to each computer on the network automatically. The DHCP server can be turned OFF, if necessary. To do so, you must manually set a static IP address for each computer on your network. To turn off the DHCP server, de-select “Use router As DHCP Server” and click “Apply”.

If at anytime you would like to see which devices are connected to your MV600, please press the DHCP clients table button

The screenshot shows a web browser window with the URL `http://192.168.0.1/index.axt`. The browser's address bar and search bar are visible. The page header features the **axess•tel** logo and the text **MV600 Series** next to a router icon. A left-hand navigation menu lists various settings categories: **Setup** (Basic Wireless Settings), **Maintenance** (Router Status, Network Information, System Settings), **Advanced** (Wireless Settings, Multi Port Forwarding, Single Port Forwarding, Firewall, LAN MAC Filtering, WAN Setup, LAN IP Setup, Dynamic DNS, Static Routes, UPnP, CDMA Settings), **VOIP** (Account), and **Log out**.

The main content area is titled **LAN IP Setup**. It contains the following configuration options:

- LAN TCP/IP Setup**
 - IP Address:
 - IP Subnet Mask:
- Use Router as DHCP Server**
 - Start IP Address:
 - End IP Address:
 - DNS IP Address:
- DHCP Connected Clients:

An **Apply** button is located at the bottom of the configuration section.

4.12 Dynamic DNS

Dynamic DNS (Domain Name Service) is a method for Dynamic IP users to notify a domain name server to change, in real time (ad-hoc) the active DNS configuration of its configured hostnames, addresses, or other information stored in DNS. Your router supports Dynamic DNS. To use Dynamic DNS, check the “Enable Dynamic DNS Service” box and complete the following items.

Service Provider: Select the appropriate Service Provider from the drop down menu and input the Host Name, User Name, and your Password. This information should be the same information that you registered with your Dynamic DNS service provider.

Use Wildcards: Click “Use Wildcards” to enable wildcards for this host or keep the box unchecked to disable wildcards for this host. The wildcard alias *.yourhost.ourdomain.ext is the same address as yourhost.ourdomain.ext.

The screenshot shows a web browser window with the URL `http://192.168.0.1/index.axt`. The browser's address bar and search bar are visible. The page header features the **axesstel** logo on the left and **MV600 Series** with a router icon on the right. A left-hand navigation menu lists various settings categories: **Setup** (with sub-item Basic Wireless Settings), **Maintenance** (with sub-items Router Status, Network Information, System Settings), **Advanced** (with sub-items Wireless Settings, Multi Port Forwarding, Single Port Forwarding, Firewall, LAN MAC Filtering, WAN Setup, LAN IP Setup, Dynamic DNS, Static Routes, UPnP, CDMA Settings), and **VOIP** (with sub-items Account, Log out). The main content area is titled **Dynamic DNS** and contains the following configuration options:

- Enable Dynamic DNS service**
- Service Provider**: A dropdown menu currently set to `www.dyndns.com`.
- Hostname**: An empty text input field.
- Username**: An empty text input field.
- Password**: An empty text input field.
- Use Wildcards**

An **Apply** button is located at the bottom center of the configuration section.

4.13 Static Routes

A static IP address connection type is less common than other connection types. If your ISP uses static IP addressing, you will need your IP address, subnet mask and ISP gateway address. This information is available from your ISP or on the paperwork that your ISP gave you. Type in your information and click “Apply”.

IP Address: Provided by your ISP. Enter your IP address here.

Subnet Mask: Provided by your ISP. Enter your subnet mask here.

ISP Gateway Address: Provided by your ISP. Enter the ISP gateway address here.

Axesstel MV600 Series

http://192.168.0.1/index.axt

Google

axess•tel MV600 Series

Setup

- » Basic Wireless Settings
- Maintenance**
- » Router Status
- » Network Information
- » System Settings
- Advanced**
- » Wireless Settings
- » Multi Port Forwarding
- » Single Port Forwarding
- » Firewall
- » LAN MAC Filtering
- » WAN Setup
- » LAN IP Setup
- » Dynamic DNS
- » Static Routes
- » UPnP
- » CDMA Settings
- VOIP**
- » Account
- » Log out

Static Routes

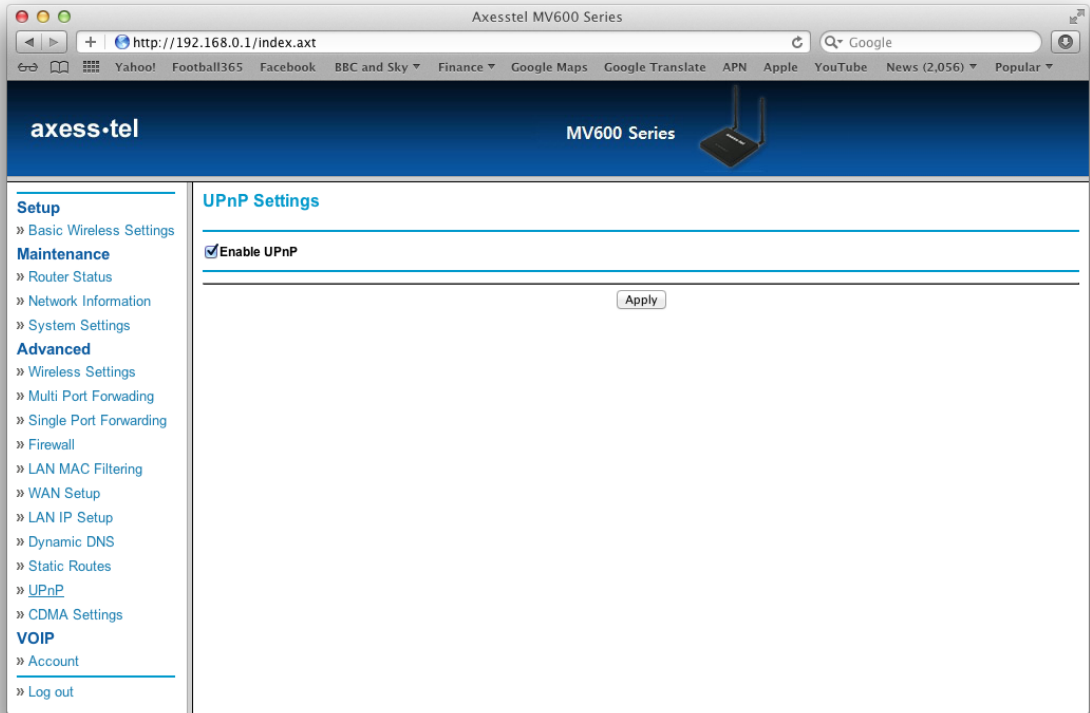
No	Active	Destination	Subnet Mask	Gateway
1	<input type="checkbox"/>			
2	<input type="checkbox"/>			
3	<input type="checkbox"/>			
4	<input type="checkbox"/>			
5	<input type="checkbox"/>			
6	<input type="checkbox"/>			
7	<input type="checkbox"/>			
8	<input type="checkbox"/>			
9	<input type="checkbox"/>			
10	<input type="checkbox"/>			

Apply

Destination	Subnet Mask	Gateway	IF	Metric
255.255.255.255	255.255.255.255	0.0.0.0	br0	0
192.168.0.0	255.255.255.0	0.0.0.0	br0	0
127.0.0.0	255.0.0.0	0.0.0.0	lo	0

4.14 UPnP Settings

From this page you can enable / disable UPnP, Universal Plug and Play.



The screenshot shows a web browser window titled "AxessTel MV600 Series" with the address bar displaying "http://192.168.0.1/index.axt". The browser's search bar contains "Google". The page header features the "axess-tel" logo on the left and "MV600 Series" with a router icon on the right. A left-hand navigation menu lists categories: "Setup" (with sub-items: Basic Wireless Settings), "Maintenance" (with sub-items: Router Status, Network Information, System Settings), "Advanced" (with sub-items: Wireless Settings, Multi Port Forwarding, Single Port Forwarding, Firewall, LAN MAC Filtering, WAN Setup, LAN IP Setup, Dynamic DNS, Static Routes, UPnP, CDMA Settings), and "VOIP" (with sub-items: Account, Log out). The main content area is titled "UPnP Settings" and contains a single checkbox labeled "Enable UPnP" which is checked. Below the checkbox is an "Apply" button.

4.15 CDMA Settings

Clicking on the header of the “CDMA Settings” tab will take you to its header page. From this page, the router’s basic settings can be modified. These settings include:

- PPP Login ID and password (if applicable)
- Authentication Method. A drop-down menu allows users to change the authentication method. The default value is CHAP.
- Dial No.

The screenshot shows a web browser window titled "AxessTel MV600 Series" with the URL "http://192.168.0.1/index.axt". The browser's address bar and search bar are visible. The page header features the "axess-tel" logo and "MV600 Series" text next to a router icon. A left-hand navigation menu lists various settings categories: Setup, Maintenance, Advanced, and VOIP. The "CDMA Settings" page is active, displaying the following configuration options:

- EV-DO Mode** (Rev. A will provide greater Internet stability in areas with low signal strength.): Rev. B
- Login**: 1234567890@test
- Password**: [masked]
- Authentication**: CHAP
- Dial No**: #777

An "Apply" button is located at the bottom of the settings area.

4.16 VoIP

Please contact your service provider to check if they support VoIP

5 Troubleshooting

Problem	Solution
<p>I am unable to connect to the Internet. The MV600's "Signal" light is on and the "Connect" light is off</p>	<p>Please ensure that you are connected to your MV600. If you are using Wi-Fi please try to connect via an Ethernet cable to the MV600 to see if that resolves the issue. If you are using a third party firewall, please disable this firewall as this could be interfering with the connection. Another solution maybe to reboot your router. Alternatively please contact customer services if none of the above resolve your problem</p>
<p>I can't connect to the Internet wirelessly from my computer but it works if I use the Ethernet cable.</p>	<p>Please check to see if the WiFi LED is on. If it is off please log into the web interface (see section 4) an enable Wi-Fi. If the LED is on then please check that your computer is in range of the MV600, and that you are connected to the correct Wi-Fi device</p>
<p>My wireless network performance is inconsistent, data transfer is sometimes slow and my Wi-Fi signal strength is poor.</p>	<p>Wireless technology is radio-based, which means connectivity and the throughput performance between devices decreases when the distance between devices increases. Other external factors can cause signal degradation such as walls and metal appliances. Your connection speed may decrease as you move farther away from the MV600 or access point. In order to determine if wireless issues are related to range, we suggest temporarily moving the computer, if</p>

	possible, only a few meters away from the MV600 to see if the data rate improves
My internet speed is slow and my Signal LED is flashing every 1 second.	If your signal LED is flashing blue this means that the device is not receiving good signal from the mobile network. Please try to move the MV600 to near a window to see if this improves the data rate. You have good signal when the signal led starts to flash at a slower speed or the signal led remains fixed.

6 Technical Specification

Size	180 x 160 x 26 mm
Weight	500g
Battery Type	Li-ion (2 cell), 7.4V(Max 8.4V)/1000mA/h
Operating Temperature	Without Adaptor: -20°C ~ +60°C With Adaptor: -20°C ~ +40°C
Storage Temperature	-30°C ~ +70°C
Humidity	5 ~ 95%
Stand by Time	2 ~ 3 hours
Usage Time	60 ~ 90 minutes
Adaptor Input	100/240V
Adaptor Output	9V/2A

Version 1.0

7 Certification

Declaration of Conformity

AXESSTEL INC.
6815 Flanders Drive Ste.210
San Diego, CA 92121, U.S.A.

Model Name: MV610, MV610R, MV610V, MV610VR

Conformity Assessment Principles

Complies with the essential requirements of Article 3 of the R&TTE Directive 1999/5/EC, if used for its intended use and that the following standards has been applied:

1. Health (Article 3.1.a of the R&TTE Directive)

Applied standard(s) : EN 62209-1: 2006 for Head SAR

2. Safety (Article 3.1.a of the R&TTE Directive)

Applied standard(s) : EN 60950-1 : 2006 + A11 : 2009

3. Electromagnetic compatibility (Article 3.1b. of the R&TTE Directive)

Applied standard(s) : EN 301 489-1 V 1.8.1 (2008-04) / EN 301 489-17 V 2.1.1 (2009-05)
EN 301 489-25 V 2.3.2 (2005-07)

4. Efficient use of the radio frequency spectrum (Article 3.2 of the R&TTE Directive)

Applied standard(s) : EN 301 526V1.1.1 (2006-07) / EN 300 328 V1.7.1 (2006-10)

We hereby declare that (all essential radio test suites have been carried out and that) the above named product is in conformity to all the essential requirements of Directive 1999/5/EC.

The conformity assessment procedure referred to in Article 10 and detailed in Annex (III) or (IV) of Directive 1999/5/EC has been followed with the involvement of the following Notified Body (ies): PHOENIX, Koenigswinkel 10 32825 Blomberg Germany

Identification mark: **CE 0700** (Phoenix Notified Body number)

A Technical Construction File and all other relevant technical documentation is filed at the development house:

AXESSTEL INC.

TEL: 858- 625-2100
FAX: 858- 625- 2110

E-mail : kjeon@axesstel.com
Attention: Kevin Jeon / Director of Engineering

Signature of authorized person: 

Date: November 24, 2011

