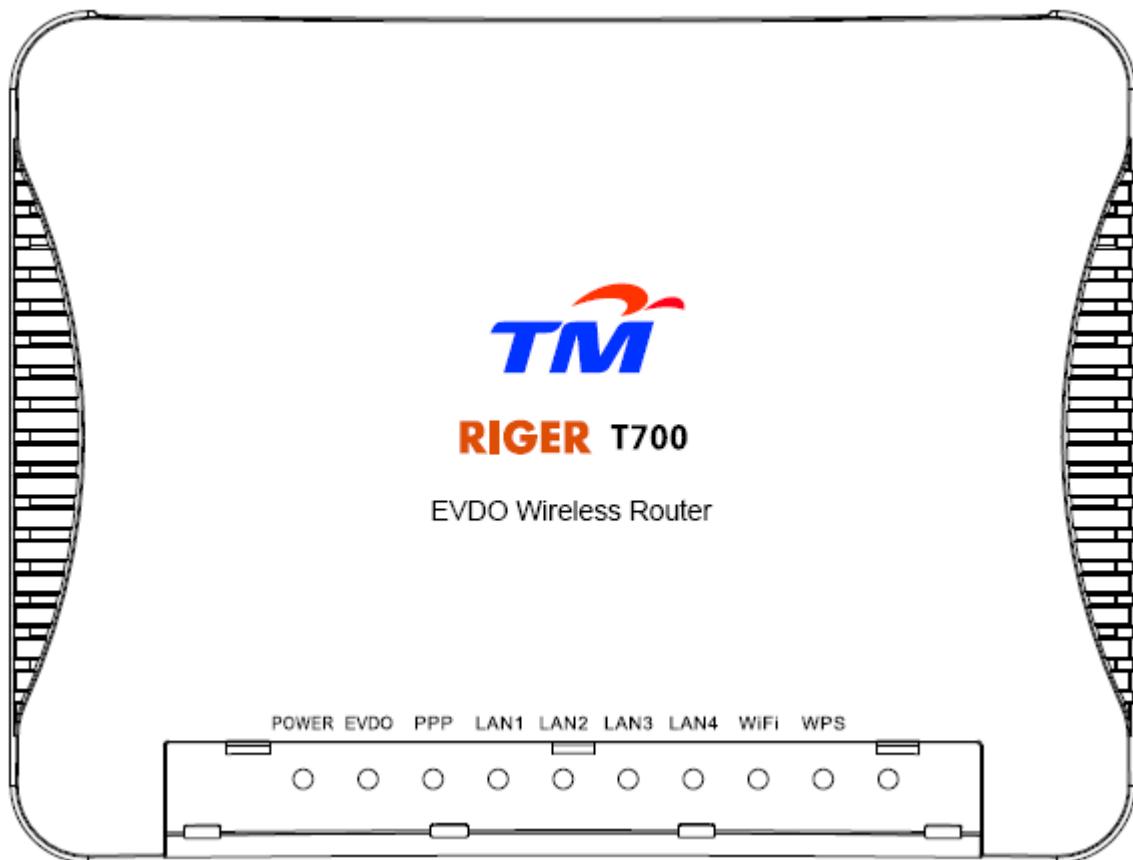
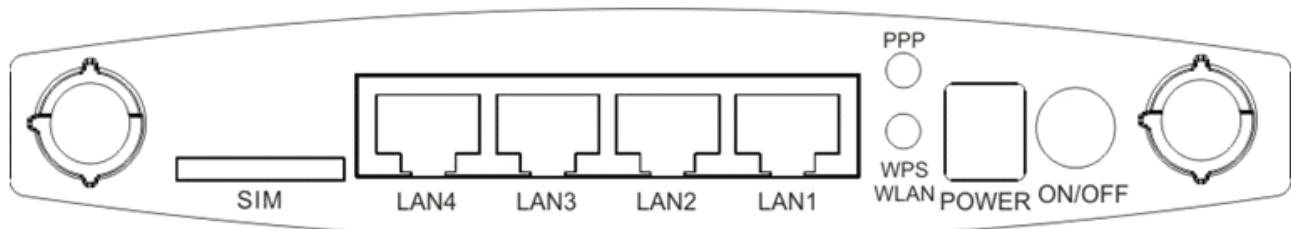




T700
EVDO Wireless Router
User Manual

v1.1

EVDO Router T700 Terminal Front Side**EVDO Router T700 Terminal back side**

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CHAPTER 1 NOTICE

1. Do not disassemble T700 EVDO Wireless Router equipment.
2. Please keep away T700 EVDO Wireless Router away from heating zone.
3. Moisture-proof.
4. Avoid children to swallow or to use without adult's supervision.
5. Avoid direct sunlight.
6. Keep environmental ventilation.
7. Keep plug dry, please unplug if abnormal situation happens (Smoking, abnormal sound or peculiar smell)

CHAPTER 2 Product Introduction

2.1 Product Brief

EVDO Wireless Router T700 is a convenient, flexible, standard SOHO Internet access gateway device, it can connect the internal information-based device to the wireless or wire line networks and provide anticipated application.

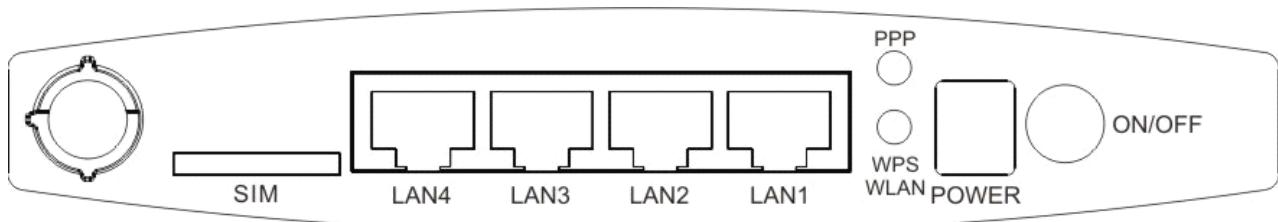
2.2 Features

1. You can configure and monitor the T700 EVDO Wireless Router by computer webpage.
2. T700 EVDO Wireless Router supports auto-dial up, allow you to access internet more convenient.
3. NAT, DHCP function can help you to configure the network and let you enjoy your internet trip.
4. Firewall function can keep your network safe.
5. MAC, URL filter function can customize the internet security policy under your personal requirement.
6. Internal network terminal wireless access function can realize the sharing of internet access.
7. USB 2.0 EVDO wireless internet access.
8. Wireless switch function.

2.3 Packing List

Name	Quantity
T700 EVDO Wireless Router	1
English User Guide	1
Power Transformer	1
Installation Disc	1
Network Cable	2
USB Cable	1
Warranty Card	1

2.4 Panel and Usage



From left to right, the introduction of interface is as follows:

1. SIM: Connect EVDO SIM card.

2. LAN1, LAN2, LAN3, LAN4: Connect PC or other network peripheral equipment.
3. PPP: Dial-up manually to connect the network.
4. WPS (WiFi Protected Setup): Facilitate the achievement of the automatic configuration and wireless connectivity (The terminal device need have the same function).
- WLAN: Users can quickly switch on/off the internal wireless network access.
5. POWER: Electric power connection.
6. SWITCH: The electricity switch of T700 EVDO Wireless Router.

2.5 T700 EVDO Wireless Router Hardware Requirement

Hardware Requirement:

- Processor: Pentium® MMX 233
- Minimum Memory: 64MB.
- Minimum hard disc remaining space: 20MB.

Operation System:

- Windows® Me
- Windows® 98 SE
- Windows® 2000
- Windows® XP
- Windows® Vista
- Windows® 7
- Linux

2.6 Usage Explanation

Users can finish the advanced function configuration under the instruction of User's guide, the main functions are listed as below:

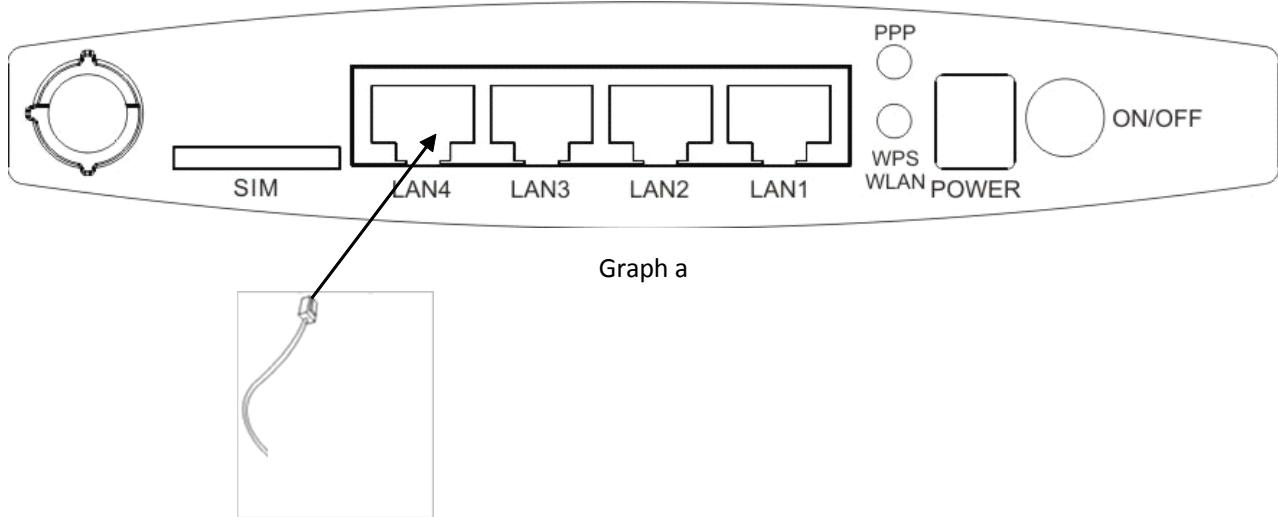
- ✓ operation mode
- ✓ The setting of network including WAN, LAN, DHCP terminal list, VPN Pass-through, advanced router configuration, QoS quality service.
- ✓ Wireless network setting including normal setting, advanced setting, security setting, WPS, terminal list.
- ✓ Firewall including MAC/IP/Port filter, Virtual Server, DMZ, System security setting.
- ✓ System Management including user's management, software upgrade, setting management, status, statistical data, system instruction, system record, EVDO status.

CHAPTER 3 Installation

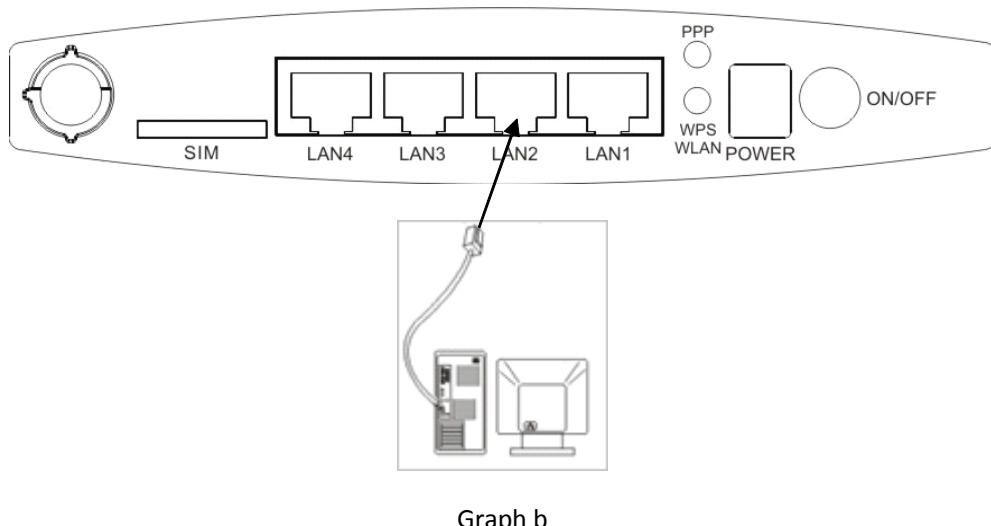
3.1 Hardware Connection

Explanation:

1. The Sketch map between Cable broadband user's access line and Local Router.



2. By using the complimentary cable to realize the connection between LAN1-LAN3 of T700 EVDO Wireless Router and the network card of terminal device. Look at graph b.



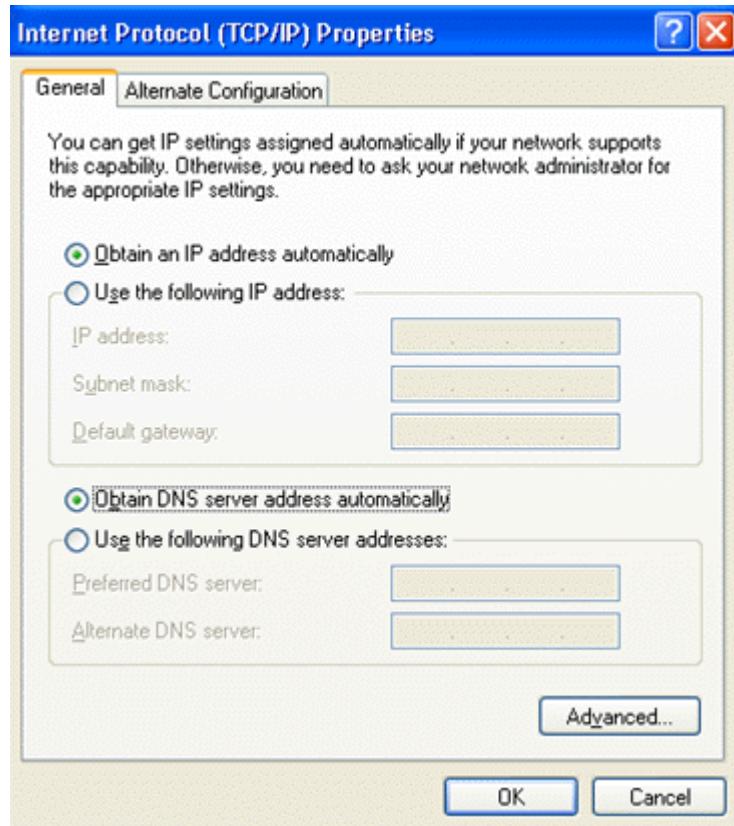
3.2 Default Setting

The login id of administrator is tmadmin , password is tmadmin.

Wireless SSID is StreamyxMobility_xxxx, no password.

3.3 Computer Setting

The default setting of IP is: 192.168.1.1, subnet mask: 255.255.255.0. You can configure the internet setting by WEB browser or use T700 EVDO Wireless Router as DNS server. Before the setting, you only need to set the properties of TCP/IP as "automatically obtain IP address and DNS address", look at graph 3.1



Graph3.1

CHAPTER 4 Setting Preparation

4.1 Preparation before Setting

1. Maintain the connection of hardware, refer to 3.1
2. Make sure the setting of PC is right, refer to 3.3

4.2 Login

1. Open the browser, input <http://192.168.1.1>, press enter and then the login interface pop up, look at graph 4.1.
2. Input "Modem Username" ("tmuser"), "Modem Password" ("tmuser"), click "Login" and enter the admin page, look at graph 4.2.
3. Input "Modem Username" ("tmadmin"), "Modem Password" ("tmadmin"), click "Login" and enter the admin page, look at graph 4.3.

The screenshot shows the login page for the EVDO Wireless Router Riger T700. At the top, there is a blue header bar with a white swoosh graphic on the left. Below the header, the text "EVDO Wireless Router" and "Riger T700" is displayed in orange. The main form area has a white background. It contains two text input fields: "Modem Username:" followed by an empty input box, and "Modem Password:" followed by another empty input box. Below these fields are two buttons: "Login" and "Clear". At the bottom right of the page is the TM logo, which consists of the letters "TM" in blue with a red swoosh above them. The entire page is framed by a thick blue border.

Graph4.1

[open all](#) | [close all](#)

Smart config-PPPoE
 Internet Settings
 Wireless Settings
 Administration
 Logout

EVDO Wireless Router
Riger T700

Smart config TM EVDO

1. User Account:

User ID:	<input type="text" value="login@evdo"/>	Help
Example: arween@evdo		
User Password:	<input type="password" value="*****"/>	

2. Wireless Configuration

Enable Wireless

Wireless Network Name (SSID):	<input type="text" value="StreamyxMobility_727C"/>	Help
Example: Arween's WiFi		
Wireless Channel:	<input type="text" value="6"/>	

Enable Security

Network Key(WEP):	<input type="text" value="1234567abcdef"/>	Help
Example: 1234567abcdef		

TM

Graph 4.2

[open all](#) | [close all](#)

EVDO Router
 Operation Mode
 Internet Settings
 Wireless Settings
 Firewall
 Administration
 Logout

Ver: TV1-ZZ-016

Select Language

<input type="text" value="English"/>	<input type="button" value="Apply"/>
--------------------------------------	--------------------------------------

[Status](#)
[Statistic](#)
[Management](#)

gohahead
WEB SERVER™

Graph 4.3

Web Smart config - TM EVDO:

Simple configuration web for tmuser, includes User Account and Wireless Configuration.

4.3 Check Status Info

Click "Administration->Status" Menu, check the normal info of device, look at graph 4.4,

Access Point Status

[open all](#) | [close all](#)

Let's take a look at the status of EVDO Router SoC Platform.

System Info	
SDK Version	3.3.3.0 (Dec 10 2010)
System Up Time	47 mins, 19 secs
System Platform	RT3052 embedded switch
Operation Mode	Gateway Mode

Internet Configurations	
Connected Type	EVDO
WAN IP Address	
Subnet Mask	
Default Gateway	
Primary Domain Name Server	
Secondary Domain Name Server	

Local Network	
Local IP Address	192.168.1.1
Local Netmask	255.255.255.0
MAC Address	00:25:5E:B5:72:7B

Graph 4.4

Click "Administration->EVDO Status" Menu, check the EVDO status of EVDO internet module, look at graph 4.5

EVDO Status

[open all](#) | [close all](#)

Let's take a look at the status of EVDO.

EVDO module	
Type:	EP45
Status:	Ready
Standard:	CDMA2000
Software Version:	EP45_V4_1.00.03T
IMEI:	"0x41395652"
SIM Ready:	●
SIM IMSI:	ERROR

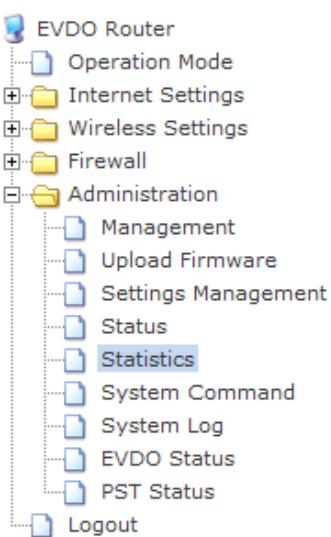
EVDO network	
Registered:	●

Graph4.5

Click "Administration->Statistics" Menu, check the memory status and data traffic, look at graph4.6

Statistic

[open all](#) | [close all](#)



Take a look at the EVDO Router SoC statistics

Memory	
Memory total:	13660 kB
Memory left:	1024 kB
WAN/LAN	
WAN Rx packets:	7772
WAN Rx bytes:	759670
WAN Tx packets:	7389
WAN Tx bytes:	4719699
LAN Rx packets:	7772
LAN Rx bytes:	759716
LAN Tx packets:	7391
LAN Tx bytes:	4721318
All interfaces	
Name	lo
Rx Packet	0
Rx Byte	0
Tx Packet	0
Tx Byte	0
Name	gre0
Rx Packet	0
Rx Byte	0

Graph 4.6

CHAPTER 5 Network Setting

Note: All the setting will be effective only after click "Apply".

5.1 The Setting of Operation Mode

After login (refer to 4.2, click menu“Operation Mode” and enter the broadband setting page, look at graph 5.1.

[open all](#) | [close all](#)

Operation Mode Configuration

You may configure the operation mode suitable for you environment.

Bridge:
All ethernet and wireless interfaces are bridged into a single bridge interface. Enable Ethernet Converter option, wireless is in Station mode; Disable Ethernet Converter, wireless is in AP mode.

Gateway:
The first ethernet port is treated as WAN port. The other ethernet ports and the wireless interface are bridged together and are treated as LAN ports.

AP Client:
The wireless apcli interface is treated as WAN port, and the wireless ap interface and the ethernet ports are LAN ports.

NAT Enabled

Graph 5.1

Bridge: All ethernet and wireless interface are bridged into a single bridge interface br0.

Gateway: The first ethernet port is treated as WAN port. The other ethernet ports and the wireless interfaces are bridged together and are treated as LAN ports. In EVDO mode, PORT 0 is Lan port. Please set NAT Enabled enable.

AP Client: The wireless apcli interface is treated as WAN port, and the wireless ap interface and the ethernet ports are LAN ports. Please set NAT Enabled enable.

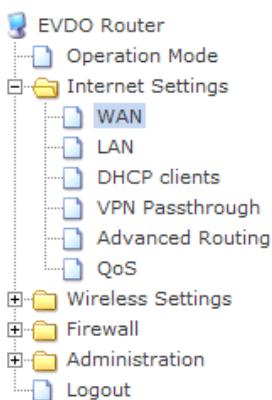
5.2 WAN Setting

The WAN online mode can select mobile communication network or Ethernet.

Notice: In Ethernet mode, PORT 0 is Wan port;
In EVDO mode, PORT 0 is Lan port;

5.2.1 Mobile Telecommunication Network Connection Setting

[open all](#) | [close all](#)



Wide Area Network (WAN) Settings

You may choose different connection type suitable for your environment. Besides, you may also configure parameters according to the selected connection type. If you insert EVDO modem, it will show the configuration option of EVDO.

WAN Connection Type:

Mobile telecommunications	EVDO
---------------------------	------

EVDO Mode	
EVDO module Type	EP45
EVDO module Status	Ready
Network Mode	EVDO only
Operation Mode	Auto
Idle Time (seconds)	60
Dial No.	#777
User Name	login@evdo
Password
Authentication	PAP
PPP Status	WAN interface is not ready
	<input type="button" value="Connect"/> <input type="button" value="Disconnect"/>

Graph 5.2

Network Selection: “Hybrid”means the EVDO Signal is the first choice, otherwise you can also choose CDMA 1x network,

“EVDO Only”means selecting EVDO network only,

“CDMA 1x Only”means selecting CDMA 1x network only,

Connect method: “Auto” means the system will auto dialup after system restart.

“Manual”means the dialup will be activated only by click “connect” button.

“On Demand”means the dial up will be activated after data follow is generated.

“latency time of Auto network disconnection”: in the “On Demand”mode, setting

the maximal to no flow time, the PPP will be broken
after the configured no flow time.

Access Point name: The APN need to be configured if TD-SCDMA or WCDMA is in use, The APN needn’t to be configured if CDMA2000 is in use.

Dialup Number: The EVDO network dialup number in PPP method. Input local telecom operators’ number. For example, China Mobile dial up number: *98*1#; China Telecom dial up number: #777; China Unicom dial up number: *99#;

User name and password : For example, in China Telecom CDMA2000, user name and password is :

ctnet@mycdma.cn and vnet.mobi; In the other standard, please configure by case.

PPP Status: Display the current PPP status, online time and the PPP disconnection reason.

5.2.2 Ethernet Connection Setting

Ethernet connection mode: PPPoE、DHCP (auto config), Static (fixed IP), L2TP, PPTP.

[open all](#) | [close all](#)

Wide Area Network (WAN) Settings

You may choose different connection type suitable for your environment. Besides, you may also configure parameters according to the selected connection type. If you insert EVDO modem, it will show the configuration option of EVDO.

WAN Connection Type:

Ethernet	PPPoE
----------	-------

PPPoE Mode

User Name	a
Password	*
Verify Password	*
Operation Mode	Auto
Idle Time (seconds)	60
PPP Status	WAN interface is not ready
Connect Disconnect	

Apply **Cancel**

Graph5.3

[open all](#) | [close all](#)

Wide Area Network (WAN) Settings

You may choose different connection type suitable for your environment. Besides, you may also configure parameters according to the selected connection type. If you insert EVDO modem, it will show the configuration option of EVDO.

WAN Connection Type:

Ethernet	DHCP (auto config)
----------	--------------------

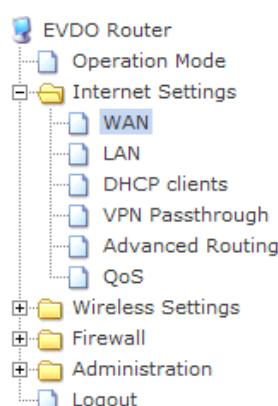
DHCP Mode

Host Name (optional)	
----------------------	--

Apply **Cancel**

Graph5.4

[open all](#) | [close all](#)



Wide Area Network (WAN) Settings

You may choose different connection type suitable for your environment. Besides, you may also configure parameters according to the selected connection type. If you insert EVDO modem, it will show the configuration option of EVDO.

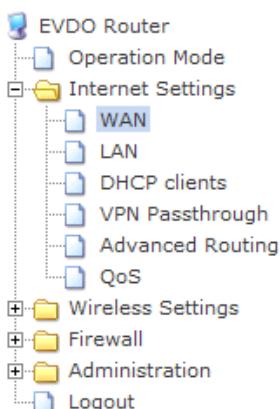
WAN Connection Type:

Ethernet STATIC (fixed IP)

Static Mode	
IP Address	<input type="text"/>
Subnet Mask	<input type="text"/>
Default Gateway	<input type="text"/>
Primary DNS Server	<input type="text"/>
Secondary DNS Server	<input type="text"/>

Graph 5.5

[open all](#) | [close all](#)



Wide Area Network (WAN) Settings

You may choose different connection type suitable for your environment. Besides, you may also configure parameters according to the selected connection type. If you insert EVDO modem, it will show the configuration option of EVDO.

WAN Connection Type:

Ethernet L2TP

L2TP Mode	
Server IP	<input type="text" value="l2tp_server"/>
User Name	<input type="text" value="l2tp_user"/>
Password	<input type="text" value="....."/>
Address Mode	Static <input type="button" value="▼"/>
IP Address	<input type="text"/>
Subnet Mask	<input type="text"/>
Default Gateway	<input type="text"/>
Operation Mode	Auto <input type="button" value="▼"/>
Keep Alive Mode: Redial Period <input type="text" value="60"/> seconds	

Graph 5.6

Wide Area Network (WAN) Settings

[open all](#) | [close all](#)

- EVDO Router
- Operation Mode
- Internet Settings
 - WAN
 - LAN
 - DHCP clients
 - VPN Passthrough
 - Advanced Routing
 - QoS
- Wireless Settings
- Firewall
- Administration
- Logout

You may choose different connection type suitable for your environment. Besides, you may also configure parameters according to the selected connection type. If you insert EVDO modem, it will show the configuration option of EVDO.

WAN Connection Type:

<input type="button" value="Ethernet"/>	<input type="button" value="PPTP"/>
---	-------------------------------------

PPTP Mode	
Server IP	<input type="text" value="pptp_server"/>
User Name	<input type="text" value="pptp_user"/>
Password	<input type="password" value="*****"/>
Address Mode	<input type="button" value="Static"/>
IP Address	<input type="text"/>
Subnet Mask	<input type="text"/>
Default Gateway	<input type="text"/>
Operation Mode	<input type="button" value="Auto"/>
Keep Alive Mode: Redial Period <input type="text" value="60"/> seconds	

Graph 5.7

5.3 LAN Setting

[open all](#) | [close all](#)



Local Area Network (LAN) Settings

You may enable/disable networking functions and configure their parameters as your wish.

LAN Setup	
IP Address	192.168.1.1
Subnet Mask	255.255.255.0
LAN 2	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
LAN2 IP Address	
LAN2 Subnet Mask	
MAC Address	00:25:5E:B5:72:7B
DHCP Type	Server <input type="button" value="▼"/>
Start IP Address	192.168.1.2
End IP Address	192.168.1.254
Subnet Mask	255.255.255.0
Using Default DNS/Gateway	<input checked="" type="checkbox"/>
Lease Time	3600
Statically Assigned	MAC: <input type="text"/> IP: <input type="text"/>
Statically Assigned	MAC: <input type="text"/> IP: <input type="text"/>
Statically Assigned	MAC: <input type="text"/> IP: <input type="text"/>
802.1d Spanning Tree	Disable <input type="button" value="▼"/>
LLTD	Disable <input type="button" value="▼"/>
IGMP Proxy	Disable <input type="button" value="▼"/>
UPNP	Disable <input type="button" value="▼"/>
Router Advertisement	Disable <input type="button" value="▼"/>
PPPoE Relay	Disable <input type="button" value="▼"/>
DNS Proxy	Enable <input type="button" value="▼"/>

Graph 5.8

DHCP Setting: Start DHCP service, configure Start IP address, End IP address, Subnet mask, Lease time.

DNS Setting: Suggest to select “use default DNS Server/Gateway” and make ppp to search DNS Server and

Gateway IP automatically. You can also choose setting up the DNS server and default gateway manually.

802.1d Spanning tree: Avoid the bridging loop and maintain the redundant pathway.

LLTD: Discover the link layer topology, get the equipment location in network topology.

IGMP Proxy: Intercept the IGMP requirement of terminal client and process the requirement, then send the processed requirement to up layer router.

UPnP: Universal plug-and-play, a peer-to-peer network connecting system that applying in PC and intelligent device.

Router Advertisement: Router advertisement.

PPPoE relay: PPPOE forward.

DNS Proxy: DNS forward block.

5.4 DHCP Clients

The information of the host that connect to DHCP.

[open all](#) | [close all](#)

DHCP Client List

You could monitor DHCP clients here.

Host Name (optional)	MAC Address	IP Address	Expires in
AzwanAbdullah	00:23:5A:AF:29:F1	192.168.1.2	01:00:00
AzwanAbdullah	00:26:82:01:06:D8	192.168.1.3	00:40:27

GRAPH 5.9

5.5 VPN Pass-through

Users can start the NAT Pass-through of IPSec, PPTP and L2TP protocols.

[open all](#) | [close all](#)

VPN Passthrough

VPN passthrough configurations including: L2TP, IPSec, and PPTP passthrough.

VPN Pass Through	
L2TP Passthrough	Disable <input type="button" value="▼"/>
IPSec Passthrough	Disable <input type="button" value="▼"/>
PPTP Passthrough	Disable <input type="button" value="▼"/>

[Apply](#) [Cancel](#)

Graph 5.10

5.6 Advanced Routing Setting

Users can set the static routing rule and the dynamic routing protocol, check the current setting rule. The dynamic route can use RIP protocol.

[open all](#) | [close all](#)

Static Routing Settings

You may add and remove custom Internet routing rules, and/or enable dynamic routing exchange protocol here.

Add a routing rule									
Destination									
Range	Host								
Gateway									
Interface	LAN								
Comment									

Current Routing table in the system:

No.	Destination	Netmask	Gateway	Flags	Metric	Ref	Use	Interface	Comment
1	255.255.255.255	255.255.255.255	0.0.0.0	5	0	0	0	LAN(br0)	
2	192.168.1.0	255.255.255.0	0.0.0.0	1	0	0	0	LAN(br0)	

Dynamic Routing Settings

Dynamic Routing Protocol	
RIP	Disable

Apply **Reset**

GRAPH 5.11

5.7 QoS Quality of Service

[open all](#) | [close all](#)



Quality of Service Settings

You may setup rules to provide Quality of Service guarantees for specific applications.

QoS Setup

Quality of Service	<input type="button" value="Disable"/>
Upload Bandwidth:	<input type="button" value="User defined"/> Bits/sec
Download Bandwidth:	<input type="button" value="User defined"/> Bits/sec
<input type="button" value="Submit"/>	

Graph 5.12

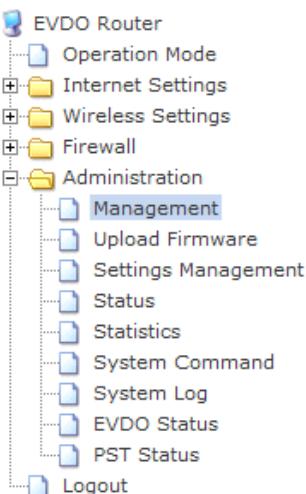
After Set up “select”QoS, set up the upload bandwidth and download bandwidth, click “submit”, then the QoS group will be displayed. User can load system by default or creat new QoS rule.

5.8 Time Management and Dynamic Domain Setting

User can select synchronization with the host or input the time server address., select the correct time. Look at Graph 5.13.

Dynamic domain service can provide the setting of DNS server that can provide the variable address.

[open all](#) | [close all](#)



System Management

You may configure administrator account and password, NTP settings, and Dynamic DNS settings here.

Language Settings

Select Language	<input type="button" value="English"/>
<input type="button" value="Apply"/> <input type="button" value="Cancel"/>	

Administrator Settings

Account	tmadmin
Password
<input type="button" value="Apply"/> <input type="button" value="Cancel"/>	

man user setting

man user account	tmuser
man user passwd
<input type="button" value="Apply"/> <input type="button" value="Cancel"/>	

NTP Settings		
Current Time	Sat Jan 1 01:12:03 UTC 2000	<input type="button" value="Sync with host"/>
Time Zone:	(GMT+08:00) China Coast, Hong Kong	
NTP Server	ex: time.nist.gov ntp0.broad.mit.edu time.stdtime.gov.tw	
NTP synchronization(hours)	<input type="text"/>	
<input type="button" value="Apply"/> <input type="button" value="Cancel"/>		

DDNS Settings		
Dynamic DNS Provider	None	
Account	<input type="text"/>	
Password	<input type="text"/>	
DDNS	<input type="text"/>	
<input type="button" value="Apply"/> <input type="button" value="Cancel"/>		

Graph 5.13

CHAPTER 6 Wireless Network setting

6.1 AP Mode Setting

If the operation mode is configured as “**Gateway**”, then the wireless network module will be AP mode.

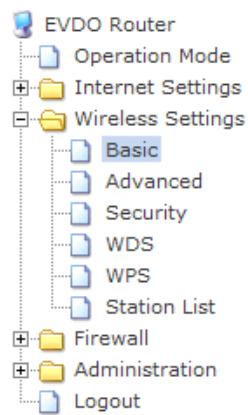
6.1.1 Basic Setting

Click menu “Wireless network setting->basic setting” and enter the wireless setting page, look at graph

6.1

Basic Wireless Settings

[open all](#) | [close all](#)



You could configure the minimum number of Wireless settings for communication, such as Network Name (SSID) and Channel. The Access Point can be set simply with only the minimum setting items.

Wireless Network		
Radio On/Off	RADIO ON	
Network Mode	11b/g/n mixed mode	
Network Name(SSID)	StreamyxMobility_XXXX	Hidden <input type="checkbox"/> Isolated <input type="checkbox"/>
Multiple SSID1		Hidden <input type="checkbox"/> Isolated <input type="checkbox"/>
Multiple SSID2		Hidden <input type="checkbox"/> Isolated <input type="checkbox"/>
Multiple SSID3		Hidden <input type="checkbox"/> Isolated <input type="checkbox"/>
Multiple SSID4		Hidden <input type="checkbox"/> Isolated <input type="checkbox"/>
Multiple SSID5		Hidden <input type="checkbox"/> Isolated <input type="checkbox"/>
Multiple SSID6		Hidden <input type="checkbox"/> Isolated <input type="checkbox"/>
Multiple SSID7		Hidden <input type="checkbox"/> Isolated <input type="checkbox"/>
Broadcast Network Name (SSID)	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	
AP Isolation	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	
MBSSID AP Isolation	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	

MBSSID AP Isolation	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
BSSID	00:25:5E:B5:72:7C
Frequency (Channel)	2437MHz (Channel 6) <input type="button" value="▼"/>
HT Physical Mode	
Operating Mode	<input checked="" type="radio"/> Mixed Mode <input type="radio"/> Green Field
Channel BandWidth	<input type="radio"/> 20 <input checked="" type="radio"/> 20/40
Guard Interval	<input type="radio"/> Long <input checked="" type="radio"/> Auto
MCS	<input type="button" value="Auto"/> <input type="button" value="▼"/>
Reverse Direction Grant(RDG)	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Extension Channel	2457MHz (Channel 10) <input type="button" value="▼"/>
Space Time Block Coding(STBC)	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Aggregation MSDU(A-MSDU)	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Auto Block ACK	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Decline BA Request	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
HT Disallow TKIP	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Other	
HT TxStream	<input type="button" value="1"/> <input type="button" value="▼"/>
HT RxStream	<input type="button" value="1"/> <input type="button" value="▼"/>

Graph 6.1

Click “basic setting configure” and set the basic wireless parameter.

Broadcast network name: If you choose stop then the wireless name(SSID)will be hidden.

Network mode: including 5 modes, 802.11b, 802.11g, 802.11n, 802.11b/g adaptive and 802.11b/g/n adaptive.

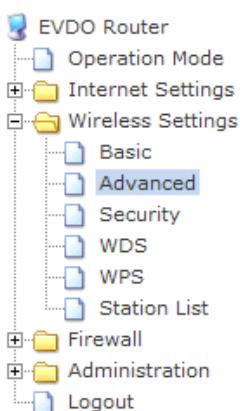
Network name (SSID) (service set identifier): The wireless users will be permitted to visit LAN only if they make their wireless network name (SSID) and T700 equipment name(SSID) the same. Support multi-SSID, users can make the wireless terminal login the network in different ways by the needs and implement of the rating isolation management to the wireless access.

Channel: Select wireless channel.

AP Isolation/MBSSID AP Isolation: The terminals can visit each other if several terminals login the AP at the same time.

6.1.2 Advanced Setting

[open all](#) | [close all](#)



Advanced Wireless Settings

Use the Advanced Setup page to make detailed settings for the Wireless. Advanced Setup includes items that are not available from the Basic Setup page, such as Beacon Interval, Control Tx Rates and Basic Data Rates.

Advanced Wireless	
BG Protection Mode	<input type="button" value="Auto"/>
Beacon Interval	<input type="text" value="100"/> ms (range 20 - 999, default 100)
Data Beacon Rate (DTIM)	<input type="text" value="1"/> ms (range 1 - 255, default 1)
Fragment Threshold	<input type="text" value="2346"/> (range 256 - 2346, default 2346)
RTS Threshold	<input type="text" value="2347"/> (range 1 - 2347, default 2347)
TX Power	<input type="text" value="100"/> (range 1 - 100, default 100)
Short Preamble	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Short Slot	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Tx Burst	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Pkt_Aggregate	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
IEEE 802.11H Support	<input type="radio"/> Enable <input checked="" type="radio"/> Disable(only in A band)
Country Code	<input type="button" value="None"/>

Wi-Fi Multimedia	
WMM Capable	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
APSD Capable	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
WMM Parameters	<input type="button" value="WMM Configuration"/>

Multicast-to-Unicast Converter	
Multicast-to-Unicast	<input type="radio"/> Enable <input checked="" type="radio"/> Disable

Graph 6.2

Please do not modify the setting only if users can deeply understand the WIFI technology.

6.1.3 Safe Mode

Certification model are:

Open, Shared, 802.1x,WPA,WPA-PSK,WPA2,WPA-PSK, WPA2/WPA mixture, WPA2/WPA –PSK mixture.

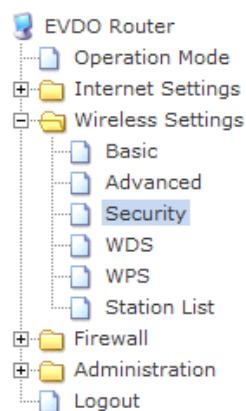
Shared encryption

Don't choose "Disable" WEP encryption mode, the WEP encryption option will be displayed.

Encryption strength: 128 or 64.

Access password : Wireless user can't login the target wireless AP if the user's Encryption Key is not same with AP's key.

[open all](#) | [close all](#)



Wireless Security/Encryption Settings

Setup the wireless security and encryption to prevent from unauthorized access and monitoring.

Select SSID

SSID choice	StreamyxMobility_XXXX
-------------	-----------------------

"StreamyxMobility_XXXX"

Security Mode	WEPAUTO
---------------	---------

Wire Equivalence Protection (WEP)

Default Key	Key 1
WEP Keys	WEP Key 1 : 1234567abcdef ASCII
	WEP Key 2 : <input type="text"/> ASCII
	WEP Key 3 : <input type="text"/> ASCII
	WEP Key 4 : <input type="text"/> ASCII

Access Policy

Policy	Disable
--------	---------

Add a station Mac:	<input type="text"/>
--------------------	----------------------

[Apply](#)

[Cancel](#)

Graph 6.3

- **802.1x certification**

Select "802.1x" and enter 802.1x certification page.

802.1x certification need a Radius server. You can input Radius server, IP address, port and password.

Look at graph 6.4

[open all](#) | [close all](#)

Wireless Security/Encryption Settings

Setup the wireless security and encryption to prevent from unauthorized access and monitoring.

Select SSID

SSID choice: StreamyxMobility_727C

802.1x WEP

WEP: Disable Enable

Radius Server

IP Address	
Port	1812
Shared Secret	
Session Timeout	0
Idle Timeout	

Access Policy

Policy: Disable Enable

Add a station Mac:

Apply Cancel

Graph 6.4

6.1.4 WPS

WPS“activate”, the WPS setting menu will display. Users can set WPS by inputting PIN or PBC button on router.

Long press WPS button and then Reset OOB.

If users want to use PIN mode to connect with STA, the PIN of AP must be the same as PIN of STA.

[open all](#) | [close all](#)

Wi-Fi Protected Setup

You could setup security easily by choosing PIN or PBC method to do Wi-Fi Protected Setup.

WPS Config

WPS: Disable Enable

Apply

Graph 6.5

6.1.5 AP Client

If the operation mode is configured as “**AP Client**”, then the AP client fuction will be opened.

Notice: To make AP client function works normal, the MAC address of wireless interface of the router and the relevant router must both be configured as the number which is the multiple of 4.

[open all](#) | [close all](#)

AP Client Parameters		
SSID	<input type="text"/>	
MAC Address (Optional)	<input type="text"/>	
Security Mode	Open ▾	
Encryption Type	None ▾	
WEP Default Key	Key 1 ▾	
WEP Keys	WEP Key 1 :	<input type="text"/> ASCII ▾
	WEP Key 2 :	<input type="text"/> ASCII ▾
	WEP Key 3 :	<input type="text"/> ASCII ▾
	WEP Key 4 :	<input type="text"/> ASCII ▾

[Apply](#) [Cancel](#)

Graph 6.6

6.1.6 WDS

Please configure the operation mode as “**Gateway**”.

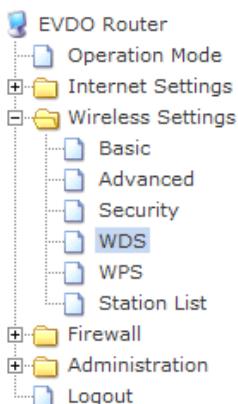
WDS“enable”, the WDS setting menu will display.

In Lazy mode, the APs can be connected automatically.

In Bridge mode, this AP is just as bridge, other clients can't see the client connected with this AP.

In repeater mode, you need to set the MAC address of the wireless interface of the AP which you want to connect with.

[open all](#) | [close all](#)



Wireless Distribution System

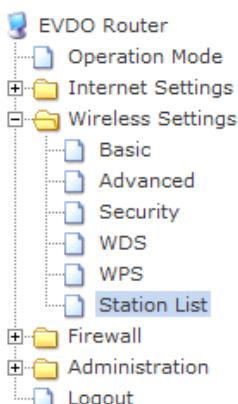
Wireless Distribution System Settings

Wireless Distribution System(WDS)	
WDS Mode	Disable
<input type="button" value="Apply"/> <input type="button" value="Cancel"/>	

Graph 6.7

6.1.7 Station list

[open all](#) | [close all](#)



Station List

You could monitor stations which associated to this AP here.

Wireless Network							
MAC Address	Aid	PSM	MimoPS	MCS	BW	SGI	STBC

Graph 6.8

CHAPTER 7 Security setting

7.1 MAC/IP/Port Filter Setting

Select “Firewall”, click “MAC/IP/Port filter setting”.

Filter the data of specific MAC address device,

Filter the data of specific IP or source IP address device and filter certain packet of protocol.

Filter the data of device in specific port number range.

[open all](#) | [close all](#)

- EVDO Router
- Operation Mode
- Internet Settings
- Wireless Settings
- Firewall
 - MAC/IP/Port Filtering
 - Virtual Server
 - DMZ
 - System Security
 - Content Filtering
- Administration
- Logout

MAC/IP/Port Filtering Settings

You may setup firewall rules to protect your network from virus,worm and malicious activity on the Internet.

Basic Settings

MAC/IP/Port Filtering	<input type="button" value="Disable"/>
Default Policy – The packet that don't match with any rules would be:	<input type="button" value="Dropped."/>

MAC/IP/Port Filter Settings

MAC address	
Dest IP Address	
Source IP Address	
Protocol	<input type="button" value="None"/>
Dest Port Range	_____ - _____
Source Port Range	_____ - _____
Action	<input type="button" value="Accept"/>
Comment	

(The maximum rule count is 32.)

Current MAC/IP/Port filtering rules in system:

No.	MAC address	Dest IP Address	Source IP Address	Protocol	Dest Port Range	Source Port Range	Action	Comment	Pkt Cnt
Others would be dropped									-

Graph7.1

URL filter page, users can filter URL by setting up this page.

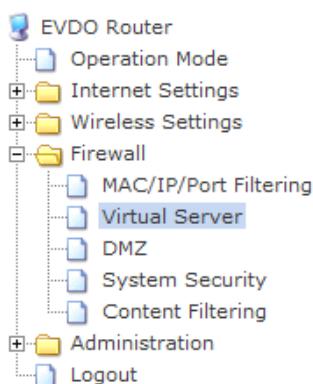
Graph7.2

Page 27 , Total 39 pages

7.2 Fictitious Server

Users can setup fictitious server on this page. Setup server in LAN and activate fictitious server. Nominate port number and IP address and protocol; make it available to the extranet host.

[open all](#) | [close all](#)



Virtual Server Settings

You may setup Virtual Servers to provide services on Internet.

Virtual Server Settings	
Virtual Server Settings	Disable <input type="button" value="▼"/>
IP Address	<input type="text"/>
Port Range	<input type="text"/> - <input type="text"/>
Protocol	TCP&UDP <input type="button" value="▼"/>
Comment	<input type="text"/>

(The maximum rule count is 32.)

Current Virtual Servers in system:

No.	IP Address	Port Range	Protocol	Comment
-----	------------	------------	----------	---------

Graph 7.3

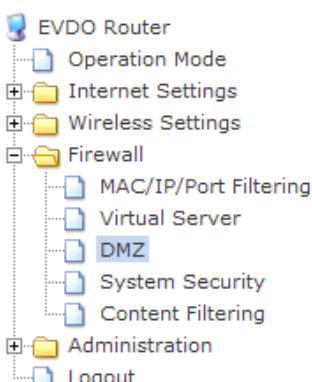
7.3 DMZ

Users can setup isolation zone between extranet and intranet, to avoid the invasion.

[open all](#) | [close all](#)

DMZ Settings

You may setup a De-militarized Zone(DMZ) to separate internal network and Internet.



DMZ Settings	
DMZ Settings	Disable <input type="button" value="▼"/>
DMZ IP Address	<input type="text"/>

Graph 7.4

7.4 System Security Setting

Users can configure the remote control, filter WAN ping packets, packet filter testing, start or forbidden.

[open all](#) | [close all](#)

System Security Settings

You may configure the system firewall to protect AP/Router itself from attacking.

Remote management
Remote management (via WAN)

Ping from WAN Filter
Ping from WAN Filter

Stateful Packet Inspection (SPI)
SPI Firewall

The left sidebar shows the navigation tree:

- EVDO Router
 - Operation Mode
 - Internet Settings
 - Wireless Settings
 - Firewall
 - MAC/IP/Port Filtering
 - Virtual Server
 - DMZ
 - System Security** (selected)
 - Content Filtering
 - Administration
 - Logout

Graph 7.5

CHAPTER 8 System Management

8.1 Language and Administrator Setting

Users can choose English or Simply Chinese.

Users can change account and password in Administrator setting page.

[open all](#) | [close all](#)

The screenshot shows the System Management interface with the following sections:

- Language Settings:** A dropdown menu set to "English". Buttons: **Apply**, **Cancel**.
- Administrator Settings:** Fields for Account (tmadmin) and Password (*****). Buttons: **Apply**, **Cancel**.
- man user setting:** Fields for man user account (tmuser) and man user passwd (*****). Buttons: **Apply**, **Cancel**.
- NTP Settings:**
 - Current Time: Sat Jan 1 02:42:41 UTC 2001, Sync with host button.
 - Time Zone: (GMT+08:00) China Coast, Hong Kong dropdown.
 - NTP Server: Input field with placeholder: ex: time.nist.gov, ntp0.broad.mit.edu, time.stdtime.gov.tw.
 - NTP synchronization(hours): Input field.

DDNS Settings	
Dynamic DNS Provider	<input type="button" value="None"/>
Account	<input type="text"/>
Password	<input type="password"/>
DDNS	<input type="text"/>
<input type="button" value="Apply"/> <input type="button" value="Cancel"/>	

Graph 8.1

8.2 Software Upgrade

After selecting the target file, click “confirm” and then upgrade start.

[open all](#) | [close all](#)

Upgrade Firmware

Upgrade the EVDO Router SoC firmware to obtain new functionality. It takes about 1 minute to upload upgrade flash and be patient please. Caution! A corrupted image will hang up the system.

Update Firmware	
<input type="text" value="Location:"/>	<input type="button" value="Choose File"/> No file chosen
<input type="button" value="Apply"/>	

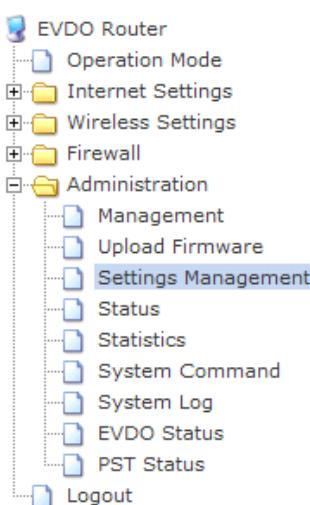
EVDO Router

- Operation Mode
- + Internet Settings
- + Wireless Settings
- + Firewall
- Administration
 - Management
 - **Upload Firmware**
 - Settings Management
 - Status
 - Statistics
 - System Command
 - System Log
 - EVDO Status
 - PST Status
- Logout

Graph 8.2

8.3 Setting Management

Users can export current router setting file or import existing setting file to router. Press restore default then the router will be back to initial settings. Press restart button then the system will close and start again.

[open all](#) | [close all](#)

Settings Management

You might save system settings by exporting them to a configuration file, restore them by importing the file, or reset them to factory default.

Export Settings	
Export Button	<input type="button" value="Export"/>
Import Settings	
Settings file location	<input type="button" value="Choose File"/> No file chosen
<input type="button" value="Import"/> <input type="button" value="Cancel"/>	
Load Factory Defaults	
Load Default Button	<input type="button" value="Load Default"/>
System Restart	
System Restart Button	<input type="button" value="System Restart"/>

Graph 8.3

8.4 System Instruction

User can input command in this page and then the command will be executed under shell.

[open all](#) | [close all](#)

System Command

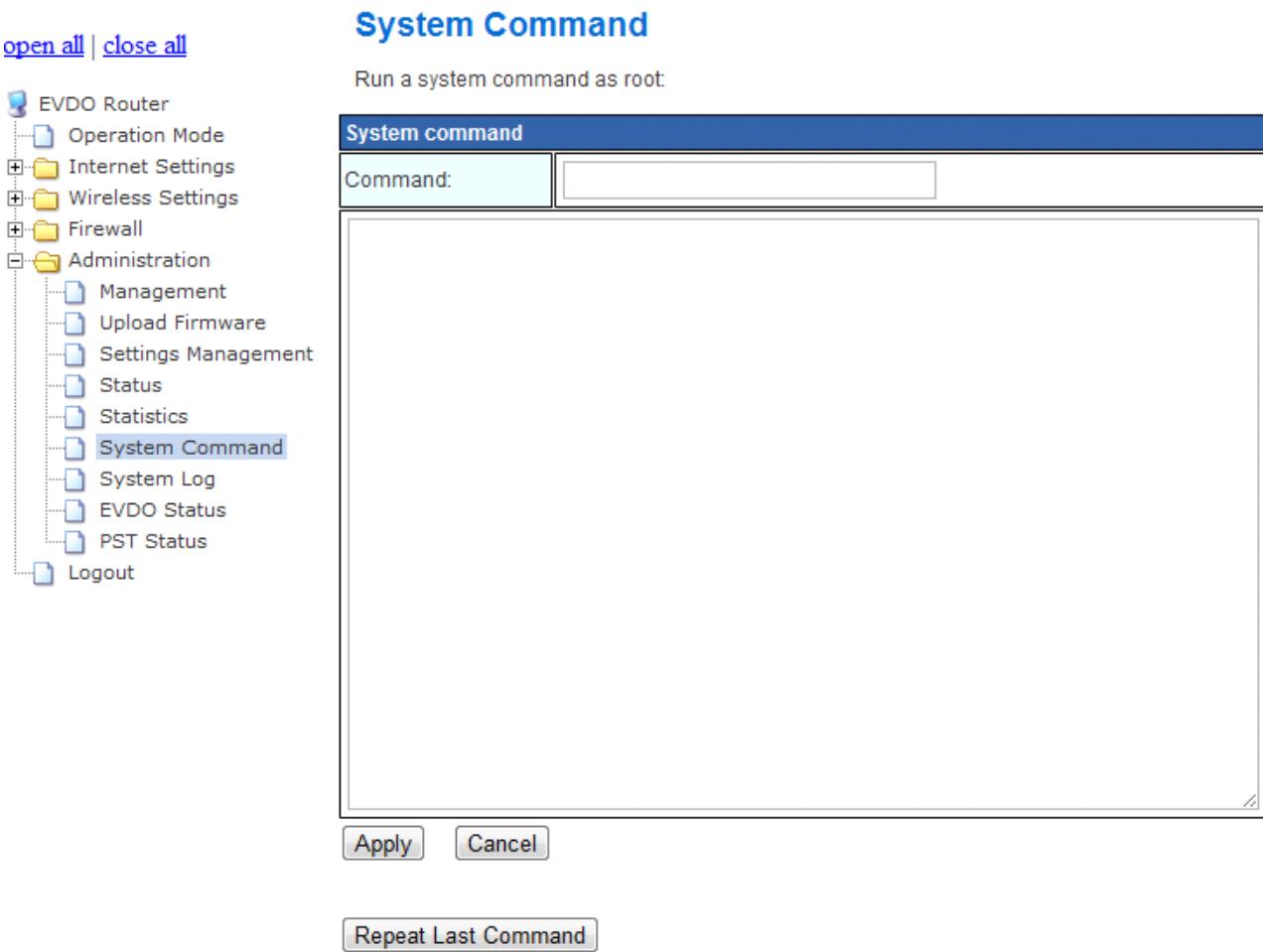
Run a system command as root:

System command

Command:	<input type="text"/>

[Apply](#) [Cancel](#)

[Repeat Last Command](#)



The screenshot shows a user interface for a 'System Command' feature. On the left, there is a sidebar menu with the following structure:

- EVDO Router
 - Operation Mode
 - Internet Settings
 - Wireless Settings
 - Firewall
 - Administration
 - Management
 - Upload Firmware
 - Settings Management
 - Status
 - Statistics
 - System Command
 - System Log
 - EVDO Status
 - PST Status
 - Logout

The 'System Command' option under 'Administration' is highlighted with a blue selection bar. To the right of the sidebar is a large central window titled 'System command'. This window contains a 'Command:' input field with an empty text box. Below the input field is a large, empty text area for displaying the results of the command. At the bottom of the window are two buttons: 'Apply' and 'Cancel'. Below the main window is a separate button labeled 'Repeat Last Command'.

Graph 8.4

8.5 System Information

User can trace the syslog in this page and check the fault cause.

[open all](#) | [close all](#)

System Log

Syslog:
[Refresh](#)
[Clear](#)

System Log

```

Jan 1 02:01:19 3gRouter daemon.notice wanManager[254]: Checking
Jan 1 02:01:19 3gRouter daemon.notice wanManager[254]: WAN device is re
Jan 1 02:01:19 3gRouter daemon.notice wanManager[254]: WAN interface is
Jan 1 02:01:19 3gRouter daemon.notice wanManager[254]: [-1], [-1]
Jan 1 02:01:19 3gRouter daemon.notice wanManager[254]: Current ppp mode
Jan 1 02:01:20 3gRouter daemon.notice wanManager[254]: ppp status: [dow
Jan 1 02:01:23 3gRouter daemon.notice wanManager[254]: OperationMode: [
Jan 1 02:01:23 3gRouter daemon.notice wanManager[254]: wanConnectionMod
Jan 1 02:01:23 3gRouter daemon.notice wanManager[254]: Current mode is
Jan 1 02:01:23 3gRouter daemon.notice wanManager[254]: Checking
Jan 1 02:01:23 3gRouter daemon.notice wanManager[254]: WAN device is re
Jan 1 02:01:23 3gRouter daemon.notice wanManager[254]: WAN interface is
Jan 1 02:01:23 3gRouter daemon.notice wanManager[254]: [-1], [-1]
Jan 1 02:01:23 3gRouter daemon.notice wanManager[254]: Current ppp mode
Jan 1 02:01:24 3gRouter daemon.notice wanManager[254]: ppp status: [dow
Jan 1 02:01:29 3gRouter daemon.notice wanManager[254]: OperationMode: [
Jan 1 02:01:29 3gRouter daemon.notice wanManager[254]: wanConnectionMod
Jan 1 02:01:29 3gRouter daemon.notice wanManager[254]: Current mode is
Jan 1 02:01:31 3gRouter daemon.notice wanManager[254]: Checking
Jan 1 02:01:31 3gRouter daemon.notice wanManager[254]: WAN device is re
Jan 1 02:01:31 3gRouter daemon.notice wanManager[254]: WAN interface is
Jan 1 02:01:31 3gRouter daemon.notice wanManager[254]: [-1], [-1]
Jan 1 02:01:31 3gRouter daemon.notice wanManager[254]: Current ppp mode
Jan 1 02:01:31 3gRouter daemon.notice wanManager[254]: ppp status: [dow
Jan 1 02:01:34 3gRouter daemon.notice wanManager[254]: OperationMode: [
Jan 1 02:01:34 3gRouter daemon.notice wanManager[254]: wanConnectionMod
Jan 1 02:01:34 3gRouter daemon.notice wanManager[254]: Current mode is
Jan 1 02:01:34 3gRouter daemon.notice wanManager[254]: Checking
Jan 1 02:01:34 3gRouter daemon.notice wanManager[254]: WAN device is re
Jan 1 02:01:35 3gRouter daemon.notice wanManager[254]: WAN interface is
Jan 1 02:01:41 3gRouter daemon.notice wanManager[254]: [-1], [-1]
Jan 1 02:01:46 3gRouter daemon.notice wanManager[254]: Current ppp mode
Jan 1 02:01:46 3gRouter daemon.notice wanManager[254]: ppp status: [dow
Jan 1 02:01:46 3gRouter daemon.notice wanManager[254]: OperationMode: [
Jan 1 02:01:46 3gRouter daemon.notice wanManager[254]: wanConnectionMod
Jan 1 02:01:46 3gRouter daemon.notice wanManager[254]: Current mode is
Jan 1 02:01:46 3gRouter daemon.notice wanManager[254]: Checking

```

Graph 8.5

CHAPTER 9 FAQ

9.1 Login Failure

9.1.1 Line and Equipment Inspect

1. Check the power light is open or not, if not, please confirm the electricity and adaptor are correctly connected or not.
2. Check LAN1-LAN3 light is open or not, if not, please confirm whether Ethernet cable is correctly connected or straight / cross cable is correctly selected.
3. If users are using EVDO connection, please confirm EVDO dial up is in use. Besides, please confirm the parameters of “network/EVDO setting” are correct.
(Notice: if EVDO internet is selected, please reset the router; if EVDO internet setting is changed but ppp is not up, wait the dialup of router. Please do not unplug EVDO modem during router is working. Please repeat above process if necessary.)

If above requirement is well comply, the line and router should be in shape, please check PC and equipment setting.

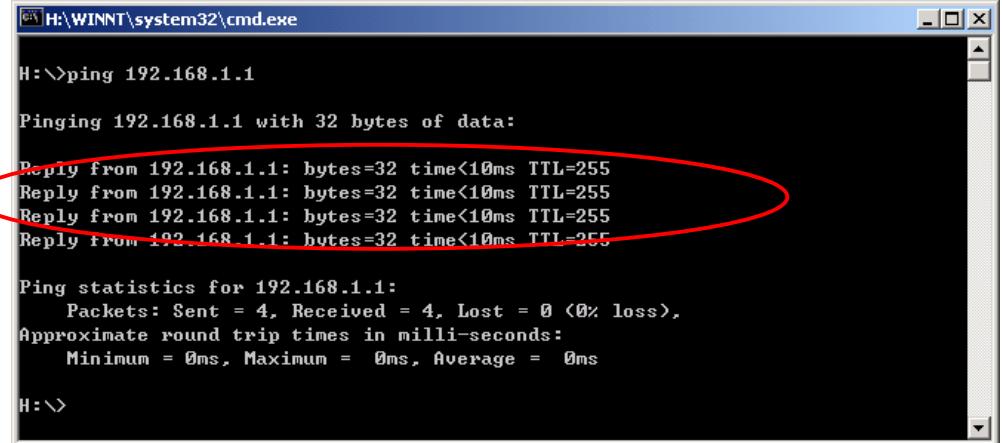
9.1.2 Setting Inspect

Below will introduce the setting inspect of built-in dial-up in Windows 2000. The inspect on the other dialup method and operation system is similar.

1. Enter the device manager to check the PC card is properly installed.
2. Check the setting of PC card; make sure the network connection setting is configured as “automatically obtain IP address”. refer to 3.3
3. Try to execute “ping 192.168.1.1”, observe the reaction. If “time out”, please recheck the Ethernet connection and IP setting.
4. If the connection is successful, please try to ping a extranet address, for example “ping 202.96.209.133”.
 - If the ping is successful, we can make sure that the setting of router is ok, please continue to check the problem refer to step 5.
 - If the ping is unsuccessful, please check the setting is correct or not by step 6.
5. Please try to ping extranet URL address, for example “ping www.google.com”.
 - If the ping is successful, that means the network setting is ok, please check PC side setting, for example the security level is too high or the installation of anti-virus firewall.
 - If the ping is unsuccessful, please check the setting of PC card, refer to 3.3.

Note 1: The way to input command in Windows2000 is: click “run” in Windows start menu, input “cmd” in the pop up window and enter, the Open Command Window will pop up.

Note 2: The standard of successful connection is that the return showed as below after the ping command is executed. See graph 9.1.



```
H:\>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time<10ms TTL=255

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

H:\>
```

Graph 9.1

6. If only the ping to extranet IP is unsuccessful, please try to focus on the correction of device settings.
7. Please refer to 5.1 for the connection setting.

Make sure above parameters are correctly saved, then the users can surf the internet.

CHAPTER 10 Technical Specifications

Machine at full speed maximum power consumption: <20W

Power adapter input: 12V, 0.7A

Weight: 342g

Operating temperature : 0°C-40°C

Operating humidity: 20%~90% (non-condensing)

Size: 196mm * 142mm * 30mm (without antenna)

Machine power: 12V

CHAPTER 11 Environmental Protection Instruction

1. The company promises that the product is in full compliance with the EU ROHS environmental protection directives.
2. That some of the device from a technological or economic point of view, there is no alternative, so the use of leaded materials, but these materials are exempted from environmental protection in the EU. Within the framework of the list, parts list is as follows:

The name and content of Products, toxic and hazardous substances or elements

Part Name	Toxic and hazardous substances or elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	hexavalent chromium (Cr ⁶⁺)	pbb (PBB)	pbde (PBDE)
circuit module	x	o	o	o	o	o
Adapter	x	o	o	o	o	o
the antenna and its connection components	x	o	o	o	o	o

O : Indicates that the toxic and harmful substances in the part of all homogeneous materials are less than the content of the restrictions imposed in the SJ/T11363-2006 standard

x: Indicates that the toxic and hazardous substance exceeds the restrictions imposed by the standard requirements SJ/T11363-2006 at least in this part of the content of a homogeneous material.

Note: 1) If the product sold have built-in antenna, there is no the antenna and its connecting components. If the product is only USB-powered products, there is no adapter. 2) The lead contained in circuit module is mainly in Discharge tube, transistors, diodes, transistors, SMD resistors and capacitors, high-frequency converter. The lead contained in adapter is mainly in PIN feet and plug metal parts. The lead contained in antenna and its connecting components is in metal part.

3. The products can be environmentally friendly used in the period of 10 years.

Conditions for environmental protection use period : -20°C ~ 50°C, No acid or other hazardous gas environments.

4. Unless mark the other special mark, this 10 years mark cover the whole Environmental Use period. Some parts may have a different environmental protection use period (for example, batteries, power adapter) attached.