

# Vigor3300V+ Multi WAN Security Router



# **Quick Start Guide**

V.1.0

# Vigor 3300 V+ Multi-WAN Security Router Quick Start Guide

Version: 1.0 Date:30/06/2009



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Safety Instruc	tions and Approval						
Operation Environment	• Make sure the AC power source is within the range of AC 90-240V. The router should be used in a sheltered area, within the temperature range from 0 to +50 °C and relative humidity within the range from 10% to 90%.						
	• Do not expose the router to direct sunlight or other heat sources. The housing and electronic components may be damaged accordingly.						
Safety Instructions	<ul> <li>Read the quick start guide and installation manual before powering on the device.</li> <li>Locate the emergency power-off switch near the device before the router powers on.</li> <li>It is highly recommended to fix the device to the chassis to maintain air circulation and stable condition.</li> <li>Do not work alone if the operation environment is inappropriate.</li> <li>Check and avoid the potential hazard under moist environments, and grounding issues of power cabling.</li> <li>Please turn off the device when you replace the fuse, install or remove the chassis.</li> <li>Do not put the device in a damp or humid place, e.g. a bathroom-like environment.</li> <li>Avoid cable connection if lightning arises.</li> <li>When you want to dispose of the router, please follow the local regulations on environmental protection.</li> </ul>						
Warranty	We warrant to the original end user (purchaser) that the router will be free from any defects in workmanship or materials for a period of two (2) years from the date of purchase from the dealer. Please keep your purchase receipt in a safe place as it serves as proof of date of purchase. During the warranty period, and upon proof of purchase, should the product have indications of failure due to faulty workmanship and/or materials, we will, at our discretion, repair or replace the defective products or components, without charge for either parts or labor, to whatever extent we deem necessary tore-store the product to proper operating condition. Any replacement will consist of a new or re-manufactured functionally equivalent product of equal value, and will be offered solely at our discretion. This warranty will not apply if the product is modified, misused, tampered with, damaged by an act of God, or subjected to abnormal working conditions. The warranty does not cover the bundled or licensed software of other vendors. Defects which do not significantly affect the usability of the product will not be covered by the warranty. We reserve the right to revise the manual and online documentation and to make changes from time to time in the contents hereof without obligation to notify any person of such revision or changes.						



Be a Registered Owner	Web registration is preferred. You can register your Vigor router via http://www.draytek.com.
Firmware & Tools Updates	Please consult the DrayTek web site for more information on newest firmware, tools and documents.
	http://www.draytek.com

## **European Community Declarations**

Manufacturer:	DrayTek Corp.
Address:	No. 26, Fu Shing Road, HuKou Township, HsinChu Industrial Park, Hsin-Chu County,
	Taiwan 303
Product:	Vigor3300V+

DrayTek Corp. declares that Vigor3300V+ of routers are in compliance with the following essential requirements and other relevant provisions of R&TTE Directive 1999/5/EEC.

The product conforms to the requirements of Electro-Magnetic Compatibility (EMC) Directive 2004/108/EC by complying with the requirements set forth in EN55022/Class A and EN55024/Class A.

The product conforms to the requirements of Low Voltage (LVD) Directive 2006/95/EC by complying with the requirements set forth in EN60950-1.

## **Regulatory Information**

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class A 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.

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 may accept any interference received, including interference that may cause undesired operation.

Please visit http://www.draytek.com/user/AboutRegulatory.php.



This product is designed for the ISDN and POTS network throughout the EC region and Switzerland. Please see the user manual for the applicable networks on your product.



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# 1. Introduction

To ensure secure and reliable Internet access over enterprise networks, Vigor3300V+ will be a good solution for you. Vigor3300V+ is a comprehensive NAT and optional security suite that combines firewall, VPN, URL content filtering facilities, with bandwidth management and VoIP capabilities. The application scenario is shown as follows.



This guide provides basic indications and configurations for Vigor3300V+ series:

- Panel Explanation
- Hardware Installation
- Primary Web Configuration

# **1.1 Panel Explanation**

			-	- LA	N —	-			WAN	/DMZ	-
			۲	۲	۲	۲	LNK	۲	۲	۲	۲
		Firewa	10	۲	۲	۲	100	۲	۲	۲	۲
Factory	OPWR OACT	QoS	۲	۲	۲	$\odot$	FDX	۲	۲	۲	٢
Reset			P1	P2	<b>P</b> 3	P4		P1	P2	<b>P</b> 3	P4

# LED Explanation

LED		Status	Explanation			
PWR	·	On	The router is powered on.			
		Off	The router is powered off.			
ACT		On/Blinking	The system is active.			
		Off	The system is hanged.			
VPN		On	The VPN tunnel is launched.			
		Off	The VPN tunnel is closed.			
Firewall		On	The Firewall function is active.			
		Off	The Firewall function is inactive.			
QoS		On	The QoS function is active.			
		Off	The QoS function is inactive.			
	LNK	On	The Ethernet link is established on corresponding port.			
		Off	No Ethernet link is established.			
LAN (1, 2, 3, 4)	100	On	It means that a normal 100 Mbps connection is through its corresponding port.			
		Off	It means that a normal 10 Mbps connection is through its corresponding port.			
	FDX	On	It means a full duplex connection on corresponding po			
		Off	It means a half duplex connection on corresponding port.			
	LNK	On	The Ethernet link is established.			
WAN/DMZ $(1 \ 2 \ 3 \ 4)$		Blinking	The data transmission is done through the corresponding port.			
(1, 2, 3, 4)		Off	No Ethernet link is established.			
	100	On	It means that a normal 100Mbps connection is through its corresponding port.			
		Off	It means that a normal 10Mbps connection is through its corresponding port.			
	FDX	On	It means a full duplex connection on corresponding port.			
		Off	It means a half duplex connection on corresponding port.			



## **Modules (Optional)**

For the router supports functions of *FXS*, *FXO*, *ISDN S0/TE*, and *ISDN ALL TE* modules that are optional, users can purchase them and install them into the router according to the real requirement. The LED description for there four modules are different slightly. Please read the following for detailed explanation.

FXS PLUS		FXO PLUS
		ISDN ISDN I IIII IIII IIII IIII IIII
LED	Status	Explanation
FXS/FXO	On	It means VoIP port is connected and ready to use.
	Off	It means VoIP port is not connected.
	Blinking	It means a phone call is coming and the port is ringing.
S0/TE	On	It means S0 port is connected and S0 mode is ready.
(Left LED)	Off	It means TE port is connected and TE mode is ready.
	Blinking	No ISDN phone adapter connected.
S0/TE	On	It means ISDN link is established.
(Right LED)	Off	It means ISDN link is off.
	Blinking	It means the data and voice transmission is on-going.
ALL TE	On	It means TE port is connected and TE mode is ready.
(Left LED)		
ALL TE	On	It means ISDN link is established.
(Right LED)	Off	It means ISDN link is off.
	Blinking	It means the data and voice transmission is on-going.

#### Connectors



Interface	Description
Console	Provided for technician use.
LAN (P1 ~ P4)	Connecter for local networked devices.
WAN/DMZ (P1 ~ P4)	Connecter for remote networked devices.
FXS	Connecter for telephone set.
FXO	Connecter for FXS interface of PABX or PSTN line.
ISDN S0/TE	Connecter for ISDN phone/ISDN line.
ISDN ALL TE	Connecter for ISDN line.
Factory Reset button	Used to restore the default settings. Turn on the router (ACT LED is blinking). Press the hole and keep for more than 5 seconds. When you see the ACT LED begins to blink rapidly than usual, release the button. Then the router will restart with the factory default configuration.
PWR	Connecter for a power cord.s
ON/OFF	Power switch.

:

# **1.2 Package Content**



• The type of the power cord depends on the country that the router will be installed:



UK-type power cord



USA/Taiwan-type power cord



China-type power cord

EU-type power cord

AU/NZ-type power cord



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# 2. Install Your Vigor3300V+ Series Router

This section will guide you to install the router through hardware connection and configure the router's settings through web browser.

## 2.1 Hardware Installation

#### 2.1.1 Network Connection

Before starting to configure the router, you have to connect your devices correctly. In this case, we suppose you have *FXS/FXO* module inserted into the router.

- 1. Connect the power cord to Vigor3300V+'s power port on the rear panel, and the other side into a wall outlet.
- 2. Power on the device by pressing down the power switch on the rear panel. The **PWR** LED should be **ON**.
- 3. The system starts to initiate. After completing the system test, the **ACT** LED will light up and start blinking.
- 4. Connect one end of an Ethernet cable (RJ-45) to one of the LAN ports of Vigor3300V+s.
- 5. Connect the other end of the cable (RJ-45) to the Ethernet port on your computer (that device also can connect to other computers to form a small area network). The LAN LED for that port on the front panel will light up.
- 6. Connect a server/modem/router (depends on your requirement) to any WAN port of Vigor3300V+ with Ethernet cable (RJ-45). The WAN1 (to WAN4) LED will light up.
- 7. Connect telephone sets to the **FXS** ports of Vigor3300V+ with telephone lines (RJ-11 to RJ-11).
- 8. Connect the **FXO** ports to PABX with telephone lines (RJ-11 to RJ-11).

Below shows an outline of the hardware installation for your reference.





**Caution**: Each of the Phone ports can be connected to an analog phone only. Do not connect the phone ports to the telephone wall jack. Such connection might damage your router.

## 2.1.2 ISDN Phone Adapter Installation

#### ISDN S0/TE Mode

Note:

ISDN NT is always fixed to connect ISDN phone. However, ISDN S0/TE is configurable as NT or TE mode. It can be adjusted in **VoIP>> Port Settings**.



When NT or TE port is dedicated with TE mode, the Green LED will flash while data transmission.

However, if it is dedicated with NT mode, the Orange LED will light on whenit connect to ISDN phone set.



And by using ISDN phone adapters (coming from the router package), the user can connect several phones to the router for communication. Refer to the following figure for reference.



**Note**: When ISDN phone is connected, the Orange LED will light on. When there is no ISDN phone connected, the Orange LED will flash.



#### ISDN ALL TE Mode

Such interface is used for connecting ISDN line. Each port is dedicated to TE mode only. Therefore, you cannot use such interface to connect to any ISDN phone.



For the connection, refer to the following figure for reference.



# 2.2 Primary Web Configuration

The **Quick Start** is designed for you to easily set up for Internet access. You can directly access the **Quick Start** via Web Configurator.

#### 2.2.1 Accessing Web Browser

1. Make sure your computer connects to the router correctly.

Notice: You may either simply set up your computer to get IP dynamically from the router or set up the IP address of the computer to be the same subnet as **the default IP address of Vigor router 192.168.1.1**. For the detailed information, please refer to the later section - Trouble Shooting of this guide.

2. Open a web browser (e.g. IE or Netscape) on your PC and type http://192.168.1.1. A pop-up window will open to ask for username and password. Please type default values on the window for the first time accessing. The default value for user name is draytek and the password is 1234. Next, click OK.

Entor Notu		d 2 V
CITCEI NECA	TOTE Passwor	
<b>?&gt;</b>	Please type yo	ur user name and password.
খ	Site:	192.168.1.1
	Realm	
	<u>U</u> ser Name	draytek
	<u>P</u> assword	жижжи
	🔲 <u>S</u> ave this p	assword in your password list
		OK Cancel

3. Now, the **Main Screen** will pop up.

Vig <u>or3300 s</u> MultiService	Security			•	VIGOROUS B	ROADBAND ACCES
uick Setup System	Network Advar	ced Firewall	QoS	VPN	VoIP	14:38:01
System - Status						
Refresh Option:	No Refresh	✓ Refresh				
Basic Status LA	N Status WAN Sta	tus				
Model :	Vigor3300V+					
Hardware Version :	1.0					
Firmware Version :	2.5.9.9 (EN)					
Build Date&Time :	2009-04-22 13:32:18					
System Uptime :	0 days 0 hours 0 minute	s 40 seconds				
CPU Usage :	77.6119%					
Memory Size :	128 MBytes					
Memory Usage :	16.7271%					
	1070-01-01 00:00:40					

## 2.2.2 Changing User Password

The first job that you have to do is changing the user password. Follow the steps below to modify:

1. Go to **System** page and choose **Change Password**.

Old Password :			
New Password :			
Confirm Password :			

- 2. Enter the login password on the field of Old Password. Type a new one in the field of New Password and retype it on the field of Confirm Password. Then click **Apply** to continue.
- 3. Now, the password has been changed. Next time, use the new password to access the Web Configurator for this router.

#### 2.2.3 Adjusting WAN Connection Mode

On the next page as shown below, please select the appropriate Internet access type according to the information from your ISP.

- 1. Go to Network page and choose WAN.
- 2. You have to select an appropriate WAN connection type for connecting to the Internet through this router. For example, choose **WAN1** and click **Edit** icon.

Networl	k - WAN							
Load Balance Backup :	91	⊙Disable Of ⊙Disable Of	Enable ( 🗌 Auto Enable	Weight)				
#	Edit	IP Mode	Active	Default Route	Load Balance	Weight	Backup-Master	Backup-Slave
WAN1	Z	DHCP	•	۲		10% 🗸	0	
WAN2	Z	Not Set		0		10% 🗸		
WAN3	Ś	Not Set				10% 🗸		
WAN4	Ś	Not Set				10% 🗸		
								Apply Cancel

3. There are four IP modes available for you to choose - Static IP, DHCP, PPPoE and PPTP.

Network - WA	N - WAN1 - Fast Ethernet
MAC Address :	Default MAC OUser Defined MAC     00:50:7f:38:58:6d
Downstream Rate :	102400 (kbps)
Upstream Rate :	102400 (kbps)
Type : Physical Mode :	Fast Ethernet V Auto Negotiation
IP Mode :	⊖ Static
Static/DHCP Configuration	PPPoE/PPTP DMZ Configuration Configuration
IP Address :	Host Name :
Subnet Mask :	Domain Name :



Static IP: If Static IP is selected, the following screen will appear. Please type in values for IP address, Subnet Mask, Default Gateway and Primary DNS specified by your ISP, and then click Apply.

Static/DHCP Configuration	PPPoE/PPTP Configuration	DMZ Configuration	
IP Address :	172.16.3.2	29	Host Name :
Subnet Mask :	255.255.25	55.0	Domain Name :
Default Gateway :	172.16.3.4		(Host Name and Domain Name are required for some ISPs.)
Primary DNS .			
Secondary DNS :			
MTU :	1500		
Connection Detec	tion		
Detect Type :	Send AR	P to Gateway 🔽	
Detect Interval(sec) :	10		
No-Reply Count:	2		
Detect Destination Hos (IP or Domain Name)	st :		
IP Alias List			

**DHCP:** If you choose **DHCP** mode, the DHCP server of your ISP will assign a dynamic IP address for Vigor3300 automatically. It is not necessary for you to assign any setting. Click **Apply**.

**PPPoE:** If your ISP provides you the **PPPoE** (Point-to-Point Protocol over Ethernet) connection, please select **PPPoE** to get the following page. Enter the **username** and **password** provided by your ISP on the web page. And click **Apply**.

Static/DHCP Configuration	PPPoE/PPTP DMZ Configuration Configuration		
User Name :	88996666@hinet.net	PPTP Local Address :	
Password :	•••••	PPTP Subnet Mask :	
Authentication :	PAP 🗸	PPTP Server Address :	
Service Name :			
PPPoE IP Alias :	Enable		
MTU :	1442		
IP Address Assig	nment Method (IPCP)		
Fixed IP :	⊙ No (Dynamic IP) ○Yes		
Fixed IP Address :			
Connection Dete	ection		
Detect Interval :	10		
No-Reply Count :	2		
			Apply Reset Cancel

**PPTP:** If your ISP uses **PPTP** (Point-to-Point Tunneling Protocol), please select **PPTP**. Next, enter the **PPTP Subnet Mask (e.g., 255.255.255.0), PPTP Local Address (e.g., 10.66.99.88)** and **PPTP Remote Address (e.g., 172.66.99.88)** provided by your ISP on the web page. And click **Apply**.

Static/DHCP Configuration	PPPoE/PPTP DMZ Configuration Configuration		
User Name :	88996666@hinet.net	PPTP Local Address :	10.0.0.2
Password :	• • • • • •	PPTP Subnet Mask :	255.255.255.0
Authentication :	PAP	PPTP Server Address :	10.0.0.1
Service Name :			
PPPoE IP Alias :	Enable		
MTU :	1442		
IP Address Assignm	nent Method (IPCP)		
Fixed IP :	⊙ No (Dynamic IP) OYes		
Fixed IP Address :			
Connection Detecti	ion		
Detect Interval :	10		
No-Reply Count :	2		
			Apply Reset Cancel

## 2.2.4 Adjusting LAN Connection

The LAN connection setup comes with parameters of IP address and Subnet Mask.

1. Go to **Network** page and choose **LAN**.

LAN IP/DHCP	DHCP Relay Agent	IP Routin
IP Configuration	Ŭ,	
IP Address :	192.168.1.1	
Subnet Mask :	255.255.25	5.0
DHCP Server		
Status :	<ul> <li>Enable</li> </ul>	O Disable
Start IP :	192.168.1.1	0
End IP :	192.168.1.2	254
Primary DNS :		
Secondary DNS :		
Lease Time (Min) :	1440	
Gateway IP(Optional) :		

- 2. For NAT Usage: the local IP address will be translated into a public IP for data transmission. The default values for the router's local IP address and Subnet Mask are **192.168.1.1** and **255.255.255.0**. Keep the default values.
- 3. Click the tab of **DHCP Relay Agent.** It will enable the router to serve as a DHCP server for your network. A DHCP server automatically assigns an IP address and related parameters to each computer on your network.



Network - LAN	1	
LAN IP/DHCP	DHCP Relay Agent	IP Routing
Relay Agent		
WAN Interface :	WAN1 🗸	
DHCP Server IP Addres	s: 172.16.3.8	

### 2.2.5 Setting NAT Port Redirection Table

The **NAT Port Redirection** means port forwarding. Port forwarding sets up public services on your network such as web servers, FTP servers and other special Internet applications. When other users send this type of request to your network through the Internet, the router will direct these requests to an appropriate host inside. For example, port number with 1024 can be transferred into IP address of 192.168.1.100 of LAN. Whenever the incoming packet from the WAN side with the port number within 1000~2000, the packet will be directly forwarded to LAN IP address.

1. Go to Advanced page and choose NAT and then Port Redirection.

Ac	lva	nced ·	NAT - Po	rt Redi	rection							
#		Profile Status	Comment	Protocol	Public Port Start	Public Port End	Private IP	Private Port Start	Private Port End	Public IP	WAN Interface	IP Alias
1	۲											
2	0											
3	0											
4	0											
5	0											
6	0											
7	0											
8	0											
9	0											
10	0											
										[	Edit Delete	Delete A



2. Click radio button of #1 and click **Edit**.

Vig <u>or3300 se</u> MultiService S	ecurity	VIGOROUS BROADBAND ACCES
uick Setup System	Network Advanced Firewall QoS VPN VolP	3:45:54 P
Advanced - NAT	- Port Redirection - Edit	
1 Comment :	NAT Group1	
Protocol : Public Port Range:	TCP/UDP 💌	
Private IP : Private Port Range:	172.168.1.100	
Use IP Alias : WAN Interface :	Disable OEnable	
IP Alias :		
		Apply Cancel

- 3. Select TCP/UDP as the protocol.
- 4. Type in public port range from 1000 to 2000.
- 5. Type in private IP with 172.168.1.100.
- 6. Type in private port range from 2000 to 3000.

### 2.2.6 Setting NAT Address Mapping Table

**NAT** (Network Address Translation) converts IP addresses on a private network (designated as "LAN") into public IP addresses, so the packets can be forwarded to another registered network (designated as "WAN"). It enables multiple PCs inside the LAN to access the Internet by means of one public IP address. **NAT** is enabled by default. By setting **NAT Table**, the public IP is provided by your ISP.

1. Go to Advanced page and choose NAT and then Address Mapping.

Protocol	Public IP	Private IP	Mask
<b>•</b>			
0			
0			
0			
0			
0			
0			
0			
0			
0			

2. Click radio button of #1 and click **Edit**.

1	
Protocol :	TCP 🔽
Public IP :	10.1.1.100 💌
Private IP :	192.168.1.100
Subnet Mask :	/24 🗸

- 3. Select **TCP** as the protocol.
- 4. Set the Private IP with 192.168.1.100 and select /24 as the Subnet Mask.
- **Note:** If you want to choose any on of the Public IP settings, you must specify some IP addresses in the IP Alias List of the Static/DHCP Configuration page first. If you did not type in any IP address in the IP Alias List, the Public IP setting will be empty in this field. And when you click **Apply**, a message will appear to inform you.

#### 2.2.7 Setting ICMP Access Control

The Access Control can prevent viruses from using ICMP packets to attack the device. You can disable the ping from the LAN/WAN side when there are worm-type viruses detected on your network. The mechanism can avoid virus spread, but in most cases it should not be enabled because its activation may make the device block normal query packets. You can allow or reject the management from WAN interface in this function by your selection.

1. Go to System page and choose Access Control.

System -	Access Conti	rol	
Managemen	t Method		
Allow Managem	nent Method:		
HTTP	✓ Telnet	SSH SSH	
Managemen	t Access Control		
Allow Managem	nen: from the WAN		
Oisable	C Enable All	C Enable User Defined	WAN IP
	_	Allowed IP1:	
		Allowed IP2:	
		Allowed IP3:	
Managemen	it Port		
<ul> <li>Default Port</li> </ul>	s (HTTP Port:80 Teln	et Port:23 SSH Port:22 )	O User Defined Ports
			HTTP Port. 80
			Telnet Port: 23
			SSH Port 22



2. Select **Disable** for Allow Management from the WAN.

#### 2.2.8 Observing the Status

To monitor the router's operating status, click the **Status** tab for the information. The screen pops up displaying the current settings of Vigor3300, including three windows – **Basic**, **LAN**, and **WAN**.

1. Go to **System** page and choose **Status**. The **Basic Status** will appear and display the main information of Vigor3300. The related items are Model, Hardware Version, Firmware Version, Build Date&Time, System Uptime, CPU Usage, Memory Size and Memory Usage and Current System Time.

System - Statu	s	
Refresh Option:	No Refresh	
Basic Status	LAN Status WAN Status	
Model :	Vigor3300V+	
Hardware Version :	1.0	
Firmware Version :	2.5.9.9 (EN)	
Build Date&Time :	2009-04-22 13:32:18	
System Uptime :	0 days 0 hours 24 minutes 18 seconds	
CPU Usage :	0.5171%	
Memory Size :	128 MBytes	
Memory Usage :	19.9925%	
Current System Time :	1970-01-01 00:24:18	

#### 2. Click the tab of LAN Status.

Dubic Olulub	LAN Status	WAN Status
LAN1 :		
IP Address :	192.168.1.1	
MAC Address :	00:50:7F:38	:58:6C
High Availability Status	:	
RX Packets :	814	
TX Packets :	922	

It displays the information about the LAN interface, including the **IP address**, **MAC Address**, **High Availability Status**, **RX Packets**, and **TX Packets**.

#### 3. Click the tab of **WAN Status**.

Basic Status	LAN Status	WAN Status		
WAN1:			WAN2 :	
IP Address :	192.168.5.2	3	IP Address :	
MAC Address :	00:50:7f:38:	58:6d	MAC Address :	00:50:7f:38:58:6e
Primary DNS :	168.95.1.1		Primary DNS :	
Secondary DNS :			Secondary DNS :	
Gateway :	192.168.5.1		Gateway :	
RX Packets :	1558		RX Packets :	
TX Packets :	513		TX Packets :	
Connection Status :	connected		Connection Status :	
Up Time :	0 days 0 hou	ırs 22 minutes 0 seconds	Up Time :	
WAN3 :			WAN4 :	
IP Address :			IP Address :	
MAC Address :	00:50:7f:38:	58:6f	MAC Address :	00:50:7f:38:58:70
Primary DNS :			Primary DNS :	
Secondary DNS :			Secondary DNS :	
Gateway :			Gateway :	
RX Packets :			RX Packets :	
TX Packets :			TX Packets :	
Connection Status :			Connection Status :	
Up Time :			Up Time :	

It displays the information for all the WAN interfaces at the same time, including IP address, MAC Address, Primary DNS, Secondary DNS, Gateway, RX Packets, TX Packets, Connection Status and Up Time.

# 3. Trouble Shooting

This section will guide you to solve abnormal situations if you cannot access into the Internet after installing the router and finishing the web configuration. Please follow below sections to check your basic installation stage by stage.

- > Checking if the hardware status is OK or not.
- Checking if the Network Connection Settings on your computer is OK or not.
- > Pinging the Router from your computer.
- > Checking if the ISP Settings are OK or not.
- Backing to factory default setting if necessary.

If all above stages are done and the router still cannot run normally, it is the time for you to contact with your dealer for advanced help.

# 3.1 Checking If the Hardware Status Is OK or Not

Follow the steps below to verify the hardware status.

- 1. Check if the power line and WLAN/LAN cable connections is OK. If not, refer to "**2.1 Hardware Installation**" for reconnection.
- 2. Turn on the router. Make sure the **ACT LED** blinks once per second and the correspondent **WAN/LAN LED** is bright.



3. If not, there must be something wrong with the hardware connection. Simply back to "2.1 Hardware Installation" to execute the hardware installation. And then, try again.

# **3.2 Checking If the Network Connection Settings on Your Computer Is OK or Not**

Sometimes the link failure occurs due to the wrong network connection settings. After trying the above section, if the link is stilled failed, please do the steps listed below to make sure the network connection settings is OK.

#### For Windows

The example is based on Windows XP. As to the examples for other operation systems, please refer to the similar steps or find support notes in **www.draytek.com**.

1. Go to Control Panel and then double-click on Network Connections.



2. Right-click on Local Area Connection and click on Properties.



3. Select Internet Protocol (TCP/IP) and then click Properties.

🕂 eth0 Properties 🔹 💽 🗙
General Authentication Advanced
Connect using:
ASUSTeK/Broadcom 440x 10/100 Ir
This connection uses the following items:
Client for Microsoft Networks     P. File and Printer Sharing for Microsoft Networks     Q. QoS Packet Scheduler     Thernet Protocol (TCP/IP)
Install Uninstall Properties
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
✓ Show icon in notification area when connected ✓ Notify me when this connection has limited or no connectivity
OK Cancel



4. Select **Obtain an IP address automatically** and **Obtain DNS server address automatically**.

Internet Protocol (TCP/IP) Properti	es 🛛 🤶 🔀
General Alternate Configuration	
You can get IP settings assigned automati this capability. Otherwise, you need to ask the appropriate IP settings.	cally if your network supports your network administrator for
Obtain an IP address automatically	
Use the following IP address:	
IP address:	
S <u>u</u> bnet mask:	a a a a a a a a a a a a a a a a a a a
Default gateway:	a a a
Obtain DNS server address automatic	cally
Use the following DNS server addres	ses:
Preferred DNS server:	
Alternate DNS server:	
	Advanced
	OK Cancel

#### For MacOs

- 1. Double click on the current used MacOs on the desktop.
- 2. Open the **Application** folder and get into **Network**.
- 3. On the **Network** screen, select **Using DHCP** from the drop down list of Configure IPv4.

0 0	Network	0
Show All	Displays Sound Network Startup Disk	
	Location: Automatic	
	TCP/IP PPPoE AppleTalk Proxies Ethernet	
	IP Address: 192.168.1.10 Renew DHCP Lea	se
	Subnet Mask: 255.255.255.0 DHCP Client ID: Router: 192.168.1.1 (If required)	
	DNS Servers: (Opt	ional)
Sea	arch Domains: (Opt	ional)
	IPv6 Address: fe80:0000:0000:0000:020a:95ff:fe8d:72e4	
	Configure IPv6	?
📔 Clie	ck the lock to prevent further changes. Assist me Apply	Now

## **3.3 Pinging the Router from Your Computer**

The default gateway IP address of the router is 192.168.1.1. For some reason, you might need to use "ping" command to check the link status of the router. **The most important thing for this command is that the computer will receive a reply from 192.168.1.1 for correct link.** If not, please check the IP address of your computer. We suggest you setting the network connection as **get IP automatically**. (Please refer to the section 3.2)

Please follow the steps below to ping the router correctly.

#### **For Windows**

- 1. Open the **Command** Prompt window (from **Start menu>> Run**).
- 2. Type **command** (for Windows 95/98/ME) or **cmd** (for Windows NT/ 2000/XP). The DOS command dialog will appear.



- 3. Type **ping 192.168.1.1** and press [Enter]. If the link is OK, the line of **Reply from 192.168.1.1:bytes=32 time<1ms TTL=255** will appear.
- 4. If the line does not appear, please check the IP address setting of your computer.

#### For MacOs (Terminal)

- 1. Double click on the current used MacOs on the desktop.
- 2. Open the **Application** folder and get into **Utilities**.
- 3. Double click **Terminal**. The Terminal window will appear.
- 4. Type **ping 192.168.1.1** and press [Enter]. If the link is OK, the line of **64 bytes from 192.168.1.1: icmp\_seq=0 ttl=255 time=xxxx ms** will appear.



000	Terminal — bash — 80x24	
Last login: Sat Jan Welcome to Darwin! Vigor10:~ draytek\$ ; PING 192.168.1.1 (1) 64 bytes from 192.1 64 bytes from 192.1 64 bytes from 192.1 64 bytes from 192.1 64 bytes from 192.1	3 02:24:18 on ttyp1 ping 192.168.1.1 92.168.1.1): 56 data bytes 68.1.1: icmp_seq=0 ttl=255 time=0.755 ms 68.1.1: icmp_seq=1 ttl=255 time=0.697 ms 68.1.1: icmp_seq=2 ttl=255 time=0.716 ms 68.1.1: icmp_seq=3 ttl=255 time=0.731 ms 68.1.1: icmp_seq=4 ttl=255 time=0.72 ms	S
<pre>^C  192.168.1.1 pin 5 packets transmitt round-trip min/avg/ Vigor10:~ draytek\$  </pre>	g statistics ed, 5 packets received, 0% packet loss max = 0.697/0.723/0.755 ms	

## 3.4 Checking If the ISP Settings Are OK or Not

- 1. Go to the web configuration GUI (http://192.168.1.1), click Network >> WAN to check your ISP settings for IP modes.
- 2. Make sure the **Active** check box has been selected.

Load Balance :       Image: Organization Disable       Enable       Enable         #       Edit       IP Mode       Active       Default Route       Load Balance         WAN1       Image: Organization DHCP       Image: Organization D	Netwo	ork - WAN				
Backup :       IP Mode       Active       Default Route       Load Bala         WAN1       IP Mode       Active       Default Route       Load Bala         WAN1       IP Mode       IP IP IP       IP       IP       IP         WAN1       IP Mode       IP IP       IP       IP       IP       IP         WAN2       IP IP       IP	Load Bala	nce :	💿 Disable 🔘	Enable ( 🗌 A	uto Weight)	
#     Edit     IP Mode     Active     Default Route     Load Bala       WAN1     Image: Comparison of the state of the s	Backup :		💿 Disable 🔘	Enable		
WAN1     Image: Constraint of the state of t	#	Edit	IP Mode	Active	Default Route	Load Balance
WAN2         Not Set         O         I           WAN3         Image: Set in the set in th	WAN1	<b>S</b>	DHCP		۲	
WAN3         Not Set         O         O           WAN4         Image: Set the se	WAN2	Ś	Not Set			
WAN4 Not Set 🗌 🔿	WAN3	Ś	Not Set			
	WAN4	Ś	Not Set			

#### For PPPoE Mode

- 1. Check if **Username** and **Password** are entered with correct values that you **got from** your **ISP**.
- 2. Check if the setting of **Authentication** is correct or not. You may need to try both **PAP** and **CHAP**.
- 3. Check if **Service Name** (optional) is correct or not. It is required by some ISPs.

Static/DHCP Configuration	PPPoE/PPTP Configuration	DMZ Configuration
User Name :	889966666	@hinet.net
Password :	•••••	
Authentication :	PAP	*
Service Name :		
PPPoE IP Alias :	Enable	
MTU :	1442	



4. After finishing the settings, go to **System - Status** page and click **WAN Status**. You will get a correct web page of WAN settings.

Basic Status	LAN Status	WAN Status
WAN1:		
IP Address :	218.168.228.	27
MAC Address :	00:50:7f:28:80	D:e6
Primary DNS :	168.95.1.1	
Secondary DNS :		
Gateway :	61.230.192.2	54
RX Packets :	95	
TX Packets :	40	
Connection Status :	connected	
Up Time :	0 days 0 hour	s 4 minutes 45 second:

#### For Static Mode

1. Check if the values of **IP Address**, **Subnet Mask**, **Gateway IP Address** and **Primary DNS** that you got from ISP are set properly or not. If you forget, please contact with ISP for getting new ones.

Static/DHCP Configuration	PPPoE/PPTP Configuration	DMZ Configuration	
IP Address :	172.16.3.2	29	Host Name :
Subnet Mask :	255.255.25	55.0	Domain Name :
Default Gateway :	172.16.3.4		(Host Name and Domain Name are required for some ISPs.)
Primary DNS :			
Secondary DNS :			
MTU :	1500		

- 2. If anything wrong, please retype correct values and try the network connection again.
- 3. After finishing the settings, go to **System Status** page and click **WAN Status**. You will get a correct web page of WAN settings.

Basic Status	LAN Status	WAN Status
WAN1 :		
IP Address :	220.130.52.2	21
MAC Address :	00:50:7f:28:8	0:e4
Primary DNS :	168.95.1.1	
Secondary DNS :		
Gateway :	220.130.52.2	09
RX Packets :	708	
TX Packets :	384	
Connection Status :	connected	
Up Time :	0 days 0 hou	rs 5 minutes 7 seconds



#### For PPTP Mode

- 1. Check if the settings of Username and Password are correct or not.
- 2. Check if the setting of **Authentication** is correct or not. You may need to try both **PAP** and **CHAP**.
- 3. Check if the value of **PPTP Local Address**, **PPTP Subnet Mask**, and **PPTP Remote Address** are correct or not.

Static/DHCP Configuration	PPPoE/PPTP Configuration	DMZ Configuration		
User Name :	889966666	@hinet.net	PPTP Local Address :	10.0.0.2
Password :	•••••		PPTP Subnet Mask :	255.255.255.0
Authentication :	PAP	~	PPTP Server Address :	10.0.0.1
Service Name :				
PPPoE IP Alias :	Enable			
MTU :	1442			

4. After finishing the settings, go to **System - Status** page and click **WAN Status**. You will get a correct web page of WAN settings.

Basic Status	LAN Status	WAN Status	
WAN1 :			
IP Address :	61.230.208.202		
MAC Address :	00:50:7f:28:80:e7		
Primary DNS :	194.109.6.66		
Secondary DNS :	194.98.0.1		
Gateway:	61.230.208.245		
RX Packets :	341		
TX Packets :	86		
Connection Status :	connected	connected	
Up Time :	0 days 0 hours 4 minutes 39 seconds		

# 3.5 Backing to Factory Default Setting If Necessary

Sometimes, a wrong connection can be improved by returning to the default settings. Try to reset the router by software or hardware.



**Warning:** After pressing **factory default setting**, you will loose all settings you did before. Make sure you have recorded all useful settings before you pressing. The password of the factory default is null.

#### **Software Reset**

You can reset router to factory default via Web page.

1. Go to **System** page and choose **Reboot**.



System - Reboot	
System rebooting will take 20 seconds	
Reset to factory default	
	Apply

- 2. Check **Reset to factory default** to retrieve the factory settings or uncheck this box to invoke the newly configured settings.
- 3. Click **Apply**.

#### **Hardware Reset**

While the router is running (ACT LED blinking), press the **Factory Reset** button and hold for more than 5 seconds. When you see the ACT LED blinks rapidly, please release the button. Then, the router will restart with the default configuration.



After restore the factory default setting, you can configure the settings for the router again to fit your personal request.

## **3.6 Contacting Your Dealer**

If the router settings are correct at all, and the router still does not connect to internet, please contact your ISP technical support representative to help you for configuration.

Also, if the router still cannot work correctly, please contact your dealer for help. For any further questions, please send e-mail to <u>support@draytek.com</u>.

