

## *About This User's Manual*

This manual is designed to assist users in using one of the Vigor2900V series of Internet security routers. Information in this document has been carefully checked for accuracy and, however, no guarantee is given as to the correctness of the contents. The information contained in this document is subject to change without notice. Should you have any inquiries, please feel free to contact our support via E-mail, Fax or phone. For the latest product information and features, please visit our website at [www.draytek.com](http://www.draytek.com).

## *Copyright*

### **Copyright © 2004 by DrayTek Corporation**

All rights reserved. The information of this publication is protected by copyright. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language without written permission from the copyright holders.

### **Trademark**

Microsoft is a registered trademark of Microsoft Corp. Windows and Windows 95/98/98SE/Me/NT/XP/2000 are trademarks of Microsoft Corp. Other trademarks and registered trademarks of products mentioned in this manual may be the properties of their respective owners and are only used for identification purposes.

## ***DrayTek Limited Warranty***

We warrant to the original end user (purchaser) that the routers will be free from any defects in workmanship or materials for a period of three (3) 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 to restore the product to proper operating condition. Any replacement will consist of a new or remanufactured 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***

Online web registration at [www.draytek.com](http://www.draytek.com) is preferred. Alternatively, fill in the registration card and mail it to the address found on the reverse side of the card. Registered owners will receive future product and update information.

## *Safety Instructions*

- Please read the installation guide thoroughly before you set up the router.
- The router is a complicated electronic device that may be repaired only by authorized and qualified personnel. Do not try to open or repair the router yourself.
- Do not place the router in a damp or humid place, e.g. a bathroom.
- The router should be used in a sheltered area, within a temperature range from +5 to +40 Celsius.
- Do not expose the router to direct sunlight or other heat sources. The housing and electronic components may be damaged by direct sunlight or heat sources.
- Keep the package out of reach of children.
- When you would like to dispose of the router, please follow the local regulations on conservation of the environment.

## ***European Community Declarations***

DrayTek Corporation declares that the Vigor2900V series of routers is in compliance with the essential requirements and other relevant provisions of R&TTE Directive 99/5/EC. The ISDN interface of Vigor2900Vi and Vigor2900VGi is designed for the Euro-ISDN network throughout the EC-region. The Vigor2900VG/VGi is designed for the WLAN 2.4GHz network throughout EC region, Switzerland, and the restrictions of France.

## *Customer Support*

Please prepare the following information as you contact your customer support.

- Product model and serial number.
- Warranty information.
- Date that you received your router.
- Brief description of your problem.
- Steps that you may take to solve it and their associated SysLog messages.

The information of customer support and sales representatives are [support@draytek.com](mailto:support@draytek.com) and [sales@draytek.com](mailto:sales@draytek.com), respectively.

# Table of Contents

## PART I Basic Setup

### CHAPTER 1. Administration Password Setup

1.1. Introduction.....	1-1
1.2. Changing the Administrator Password .....	1-1

### CHAPTER 2. LAN TCP/IP and DHCP Setup

2.1. Introduction.....	2-1
2.2. LAN IP Network Configuration .....	2-1
2.3. DHCP Server Configuration.....	-4

### CHAPTER 3. ISDN Setup

3.1. Introduction.....	3-1
3.2. Configuring the ISDN Interface .....	3-1

### CHAPTER 4. Wireless LAN Setup

4.1. Introduction.....	4-1
4.2. Configuration .....	4-2
4.3. Configuring the WEP Security .....	4-4
4.4. Configuring the Access Control.....	4-5

## PART II Quick Setup

### CHAPTER 5. Internet Access Setup

5.1. Introduction.....	5-1
5.2. Configuration .....	5-3

### CHAPTER 6. Virtual TA (Remote CAPI) Setup



<b>6.1. Introduction.....</b>	<b>6-1</b>
<b>6.2. Install a Virtual TA Client.....</b>	<b>6-2</b>
<b>6.3. Configure a Virtual TA Client / Server.....</b>	<b>6-2</b>

### **PART III    Advanced Setup**

#### **CHAPTER 7. Dynamic DNS Setup**

<b>7.1. Introduction.....</b>	<b>7-1</b>
<b>7.2. Configuration .....</b>	<b>7-2</b>
<b>7.3. Validation and Troubleshooting.....</b>	<b>7-4</b>

#### **CHAPTER 8. Call Schedule Setup**

<b>8.1. Introduction.....</b>	<b>8-1</b>
<b>8.2. Configuration .....</b>	<b>8-2</b>
<b>8.3. An Example .....</b>	<b>8-3</b>

#### **CHAPTER 9. NAT Setup**

<b>9.1. Introduction.....</b>	<b>9-1</b>
<b>9.2. NAT Setup .....</b>	<b>9-1</b>
<b>9.3. Configure Port Redirection Table.....</b>	<b>9-3</b>
<b>9.4. DMZ Host Setup .....</b>	<b>9-4</b>
<b>9.5. Open Port Setup.....</b>	<b>9-5</b>
<b>9.6. Well-known Port Number List .....</b>	<b>9-7</b>
<b>9.7. Multi-NAT Setup.....</b>	<b>9-7</b>

#### **CHAPTER 10. RADIUS Setup**

<b>10.1. Introduction.....</b>	<b>10-1</b>
<b>10.2. Configuration .....</b>	<b>10-2</b>

## **CHAPTER 11. Static Route Setup**

<b>11.1. Introduction.....</b>	<b>11-1</b>
<b>11.2. Configuration .....</b>	<b>11-2</b>

## **CHAPTER 12. IP Filter/Firewall Setup**

<b>12.1. Introduction.....</b>	<b>12-1</b>
<b>12.2. An Overview of the IP Filter/Firewall .....</b>	<b>12-1</b>
<b>12.3. General Setup .....</b>	<b>12-3</b>
<b>12.4. Editing the Filter Sets.....</b>	<b>12-5</b>
<b>12.5. Editing the Filter Rules .....</b>	<b>12-6</b>
<b>12.6. An Example of Restricting Unauthorized Internet Services.....</b>	<b>12-9</b>

### **Supplement A. Prevention of Denial of Service Attacks**

<b>A.1. Introduction.....</b>	<b>12-11</b>
<b>A.2. An Overview of DoS Defense Functionality .....</b>	<b>12-11</b>
<b>A.3. Configuration .....</b>	<b>12-12</b>
<b>A.4. Warning Message .....</b>	<b>12-16</b>

### **Supplement B. Prevention of Denial of Service Attacks\_**

<b>B.1. Introduction.....</b>	<b>12-18</b>
<b>B.2. An Overview of URL Content Filtering.....</b>	<b>12-19</b>
<b>B.3. Configuration.....</b>	<b>12-19</b>
<b>B.4. Warning Message .....</b>	<b>12-26</b>

## **CHAPTER 13. VPN and Remote Access Setup**

<b>13.1. Introduction.....</b>	<b>13-1</b>
<b>13.2. Remote Access Control Setup .....</b>	<b>13-3</b>
<b>13.3. PPP General Setup .....</b>	<b>13-4</b>

13.4. VPN IPSec / IKE General Setup.....	13-6
13.5. Creating an Access Account for a Remote Dial-in User.....	13-8
13.6. Creating a LAN-to-LAN Profile .....	13-12
13.7. An Example of LAN-to-LAN VPN Connection.....	13-24
<b>CHAPTER 14. UPnP Service Setup</b>	
14.1. Introduction.....	14-1
14.2. Configuration .....	14-2
<b>CHAPTER 15. VoIP Setup</b>	
15.1. Introduction.....	15-1
15.2. VoIP Settings.....	15-2
15.3. Calling Scenario .....	15-6
15.4. Voice Call Status .....	15-8
<b>CHAPTER 16. VLAN/Rate Control</b>	
16.1. Introduction.....	16-1
16.2. VLAN Configuration .....	16-2
16.3. Rate Control Configuration.....	16-4
<b>PART IV System Management</b>	
<b>CHAPTER 17. Online Status</b>	
17.1. Introduction.....	17-1
17.2. Online Status Descriptions.....	17-1
<b>CHAPTER 18. VPN Connection Management</b>	
18-1. Initiate a VPN connection.....	18-1
<b>CHAPTER 19. Configuration Backup/Restoration</b>	

19.1. Introduction.....	19-1
19.2. Usage.....	19-1
CHAPTER 20. SysLog / Mail Alert Setup	
20.1. Introduction.....	20-1
20.2. Configuration .....	20-1
20.3. Example .....	20-3
CHAPTER 21. Time Setup	
21.1. Introduction .....	21-1
21.2. Configuration .....	21-1
CHAPTER 22. Management Setup	
22.1. Introduction.....	22-1
22.2. Configuration .....	22-1
CHAPTER 23. Diagnostic Tools	
23-1. Introduction .....	23-1
23-2. Descriptions.....	23-2
CHAPTER 24. Reboot System and Firmware Upgrade(TFTP Server)	
24.1. Reboot System .....	24-1
24.2. Firware Upgrade (TFTP Server) .....	24-2