# **Dray** Tek

# Vigor2760 Series

**High Speed VDSL2 Router** 



Quick Start Guide (RF Model)

# Vigor2760 Series High Speed VDSL2 Router Quick Start Guide (for RF Model)

Version: 2.0

Firmware Version: V3.8.2.2

(For future update, please visit DrayTek web site)

Date: June 26, 2017

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#### Safety Instructions and Approval

#### Safety Instructions

- Read the installation guide thoroughly before you set up the router.
- The router is a complicated electronic unit that may be repaired only be 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.
- Do not stack the routers.
- The router should be used in a sheltered area, within a temperature range of 0 to +45 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.
- Do not deploy the cable for LAN connection outdoor to prevent electronic shock hazards.
- Keep the package out of reach of children.
- When you want to dispose of the router, please follow local regulations on conservation of the environment.

#### 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.



# **Declaration of Conformity**

Hereby, DrayTek Corporation declares that the radio equipment type Vigor2760 series is in compliance with Directive 2014/53/EU.

The full text of the EU Declaration of Conformity is available at the following internet address:

http://www.draytek.com.tw/ftp/Vigor2760/Document/CE/

Manufacturer: DrayTek Corp.

Address: No. 26, Fu Shing Road, HuKou Township, HsinChu Industrial Park, Hsin-Chu County,

Taiwan 303

Product: Vigor2760 Series

Frequency Information for Europe area:

2.4G WLAN 2412MHz - 2472 MHz, max. TX power: 16.00dBm

This product is designed for POTS, DSL and 2.4GHz WLAN network throughout the EC region.



# **Regulatory Information**

Federal Communication Commission Interference Statement

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

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

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.

#### **RF** Exposure Warning

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

#### Caution

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

#### IC Regulatory Information

Product: Vigor2760Vn, Vigor2760n

IC: 20803-V2760

Canadian Representative:

Company Name: Network Systems Solutions Canada Inc. Company Address: 56 Rory Road, North York, ON, M6L 3G1

Company Telephone: 1-647-930-9285

This radio transmitter (IC:20803-V2760) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

■ Dipole antenna, maximum permissible gain: 2.1 dBi

Le présent émetteur radio (IC:20803-V2760) a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

■ Dipole antenna, maximal admissible gain: 2.1 dBi

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

This product meets the applicable Innovation, Science and Economic Development Canada technical specifications.

The Ringer Equivalence Number (REN) indicates the maximum number of devices allowed to be connected to a telephone interface. The termination of an interface may consist of any combination of devices subject only to the requirement that the sum of the RENs of all the devices not exceed five.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Le présent produit est conforme aux spécifications techniques applicables d'Innovation, Sciences et Développement économique Canada.

L'indice d'équivalence de la sonnerie (IES) sert à indiquer le nombre maximal de dispositifs qui peuvent être raccordés à une interface téléphonique. La terminaison d'une interface peut consister en une combinaison quelconque de dispositifs, à la seule condition que la somme des IES de tous les dispositifs n'excède pas cinq.

The antenna/transmitter should be kept at least 20 cm away from human body.

DrayTek Vigor2760 series VDSL2/ADSL2+ routers are compliant with 47 C.F.R. Part 68.



More update, please visit www.draytek.com.

## Be a Registered Owner

Web registration is preferred. You can register your Vigor router via http://www.draytek.com.

# Firmware & Tools Updates

Due to the continuous evolution of DrayTek technology, all routers will be regularly upgraded. Please consult the DrayTek web site for more information on newest firmware, tools and documents.

http://www.draytek.com

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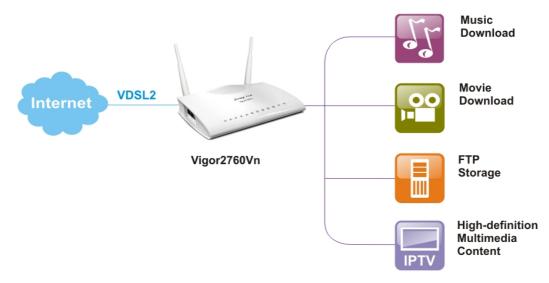
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# 1. Introduction

The Vigor2760n series are the routers with high speed in data transmission through DSL port and LAN ports.

With the development of NGN (Next Generation Network), you may recently hear the news about FTTx deployment in your local area or even have already subscribed the unbundling last mile service (e.g. VDSL2) from local ITSP for FTTx. As adopting FTTx, the main question for end users is whether your legacy router could fully utilize its bandwidth or not.

DrayTek launches Vigor2760 series - High speed router, perfectly complied with VDSL2 environment including Vigor2760n and Vigor2760Vn for speed-wanted customers. With high throughput performance and secured broadband connectivity provided by Vigor2760n series, you can simultaneously engage these bandwidth-intensive applications, such as high-definition video streaming, online gaming, and Internet telephony / access.



Vigor2760n series supports VPN tunnel(s) using advanced protocols such as IPSec/PPTP (for remote dial-in only) with AES/3DES for encryption and MD5/SHA-1 for authentication.

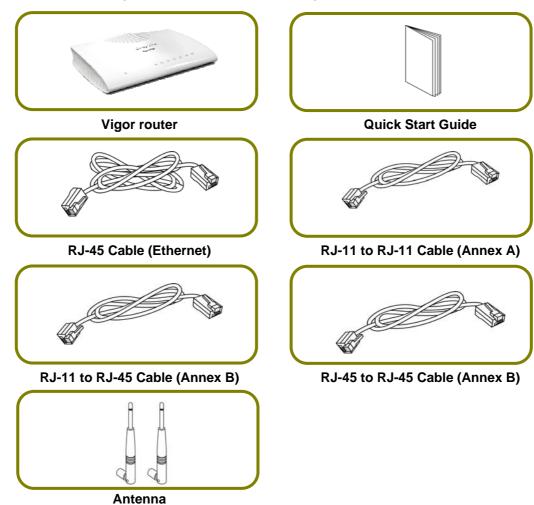
Vigor2760 'n' models comply with 802.11n standards. They support WEP/WPA/WPA2 encryption and MAC Address Control.

Vigor2760 'V' models provide two analogue phone connectors. It supports multiple SIP registrars with high flexible configuration and call handing options.

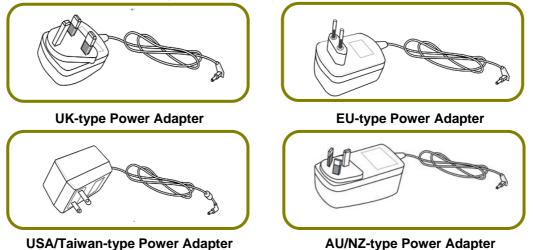
In addition, Vigor2760 series supports two USB interfaces for connecting USB printer to share the printer or USB storage device for sharing files and 3G/4G backup services.

# 2. Package Content

Take a look at the package content. If there is anything missed or damaged, please contact DrayTek or dealer immediately.

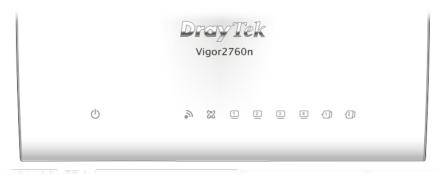


The type of the power adapter depends on the country that the router will be installed. \* The maximum power consumption is *17-23 Watt*.



# 3. Panel Explanation

# 3.1 Vigor2760n

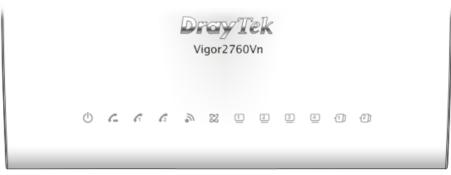


| LED                       | Status                | Explanation   |
|---------------------------|-----------------------|---|
|                           | Blinking              | Explanation  The router is powered on and running normally.               |
| (Activity)                | Off                   | The router is powered off.  |
| (1011111)                 | On (Green)            | The wireless access point is ready.                                       |
| <b>9</b>                  | Blinking<br>(Green)   | The data is transmitting via wireless connection.                         |
| (Wireless LAN On/Off/WPS) | Blinking<br>(Orange)  | Blinks with one second cycle for two minutes. The WPS function is active. |
|                           | Off                   | The wireless access point is turned off.                                  |
| 0.2                       | On                    | The DSL port is connected.  |
| DSL                       | Blinking<br>(Slowly)  | The router is ready.  |
| DSL                       | Blinking<br>(Quickly) | The router is trying to connect to Internet.                              |
|                           | On                    | The LAN port is connected.  |
| 1 4                       | Blinking              | The data is transmitting.   |
| -<br>LAN1/2/3/4           | Off                   | The LAN port is disconnected.   |
| 1 2                       | On                    | A USB device is connected and active.                                     |
| USB1/2                    |                       |   |

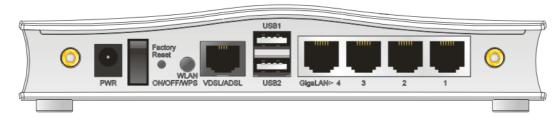


| Interface          | Description   |
|--------------------|---|
| PWR                | Connector for a power adapter.  |
| 1/0                | Power Switch.   |
| Factory Reset      | Restore the default settings.   |
|                    | Usage: Turn on the router (ACT LED is blinking). Press the 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. |
| WLAN<br>ON/OFF/WPS | WLAN On - Press the button and release it within 2 seconds. When the wireless function is ready, the green LED will be on.  |
|                    | WLAN Off - Press the button and release it within 2 seconds to turn off the WLAN function. When the wireless function is not ready, the LED will be off.  |
|                    | WPS - When WPS function is enabled by web user interface, press this button for more than 2 seconds to wait for client's device making network connection through WPS.  |
| VDSL/ADSL          | Connector for accessing the Internet.   |
| USB1~USB2          | Connector for a USB device (for 3G/4G USB Modem or printer).  |
| GigaLAN1~LAN4      | Connectors for local networked devices.   |

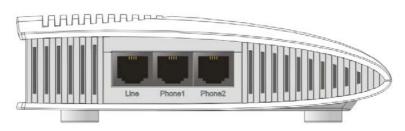
# 3.2 Vigor2760Vn



| LED                   | Status                | Explanation   |
|-----------------------|-----------------------|---|
| 45                    | Blinking              | The router is powered on and running normally.  |
| (Activity)            | Off                   | The router is powered off.  |
| <i>C</i> -            | On                    | A PSTN phone call comes (in and out). However, when the phone call is disconnected, the LED |
| (LINE)                | 0.55                  | will be off for awhile.   |
|                       | Off                   | There is no PSTN phone call.  |
|                       | On                    | The phone connected to this port is off-hook.   |
| <b>6</b> 1 <b>6</b> 2 | Off                   | The phone connected to this port is on-hook.  |
| (Phone1/Phone2)       | Blinking              | A phone call comes.   |
|                       | On (Green)            | The wireless access point is ready.   |
| •21                   | Blinking              | The data is transmitting via wireless   |
| (Wireless LAN         | (Green)               | connection.   |
| On/Off/WPS)           | Blinking              | Blinks with one second cycle for two minutes.   |
| 0117 0117 001 0)      | (Orange)              | The WPS function is active.   |
|                       | Off                   | The wireless access point is turned off.  |
| 013                   | On                    | The DSL port is connected.  |
| 22                    | Blinking              | The router is ready.  |
| DSL                   | (Slowly)              |   |
| DJL                   | Blinking<br>(Quickly) | The router is trying to connect to Internet.  |
|                       | On                    | The LAN port is connected.  |
| 1 4                   | Blinking              | The data is transmitting.   |
| LAN1/2/3/4            | Off                   | The LAN port is disconnected.   |
| 1 2                   | On                    | A USB device is connected and active.   |
| USB1/2                |                       |   |



| Interface          | Description   |
|--------------------|---|
| PWR                | Connector for a power adapter.  |
| 1/0                | Power Switch.   |
| Factory Reset      | Restore the default settings.   |
|                    | Usage: 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. |
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| GigaLAN1~LAN4      | Connectors for local networked devices.   |



| Interface         | Description                                       |
|-------------------|---|
| Line              | Connector for PSTN life line.                     |
| Phone1/<br>Phone2 | Connector of analog phone for VoIP communication. |

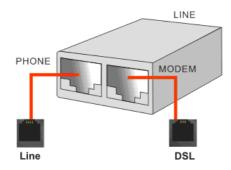
# 4. Hardware Installation

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

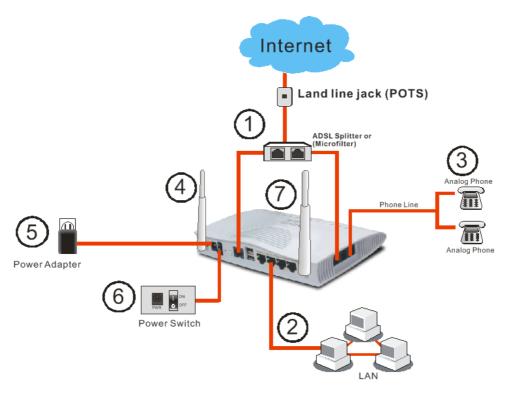
Before starting to configure the router (taking "Vn" model as an example.), you have to connect your devices correctly.

#### 4.1 Network Connection

 Connect the XDSL interface to the external XDSL splitter with an XDSL line cable for all models. For Vigor2760Vn, also connect Line interface to external XDSL splitter.



- 2. Connect one port of 4-port switch to your computer with a RJ-45 cable. This device allows you to connect 4 PCs directly.
- 3. Connect Phone port to a conventional analog telephone (for V model only).
- 4. Connect detachable antennas to the router for Vigor2760 series.
- 5. Connect one end of the power cord to the power port of this device. Connect the other end to the wall outlet of electricity.
- 6. Power on the router.
- 7. Check the ACT and DSL, LAN LEDs to assure network connection.

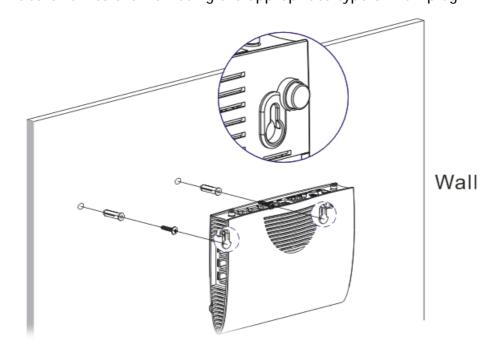


(For the detailed information of LED status, please refer to section 1.1.)

#### 4.2 Wall-Mounted Installation

Vigor2760 series has keyhole type mounting slots on the underside.

- 1. A template is provided on the Vigor2760 packaging box to enable you to space the screws correctly on the wall.
- 2. Place the template on the wall and drill the holes according to the recommended instruction.
- 3. Fit screws into the wall using the appropriate type of wall plug.





Note

The recommended drill diameter shall be 6.5mm (1/4").

4. When you finished about procedure, the router has been mounted on the wall firmly.

# 5. Software Configuration

To access Internet, please finish basic configuration after completing the hardware installation.

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

Make sure your PC connects to the router correctly.



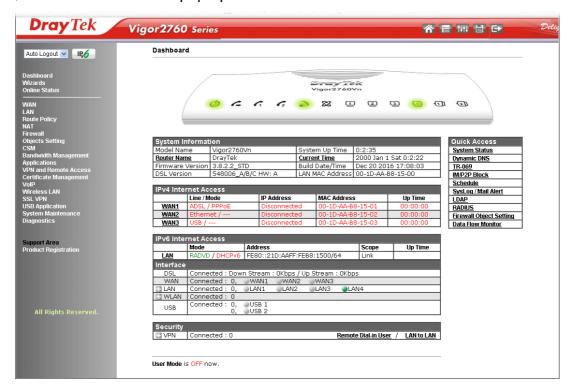
Note

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 section - Trouble Shooting in the User's Guide.

Open a web browser on your PC and type http://192.168.1.1. A pop-up window will open to ask for username and password. Please type "admin/admin" as the Username/Password and click Login.



Now, the Main Screen will pop up. Click Wizards>>Quick Start Wizard.

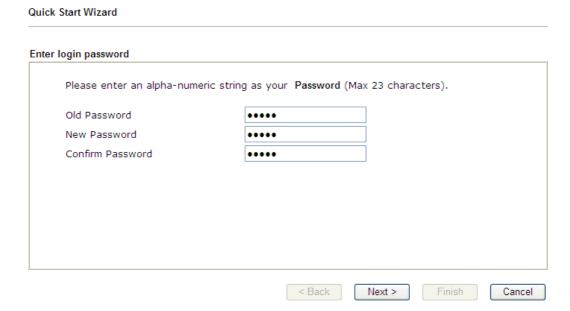




**Note** 

The home page will change slightly in accordance with the router you have.

The first screen of **Quick Start Wizard** is entering login password. After typing the password, please click **Next**.



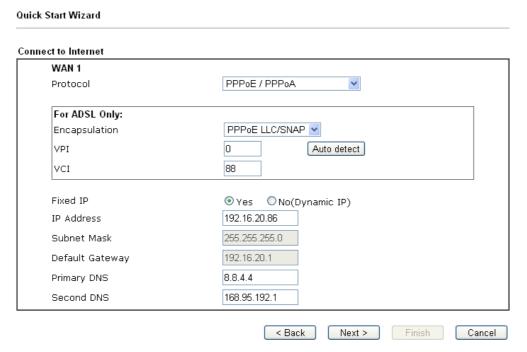
On the next page as shown below, please select the WAN interface that you use. If DSL interface is used, please choose WAN1; if Ethernet interface is used, please choose WAN2; if 3G USB modem is used, please choose WAN3. Then click Next for next step. WAN1, WAN2 and WAN3 will bring up different configuration page. Here, we take WAN1 (ADSL/VDSL2) as an example.

| Interface  |   |
|--|---|
| WAN Interface: Display Name: Physical Mode: DSL Mode: Physical Type: VLAN Tag insertion (ADSL): VLAN Tag insertion (YDSL2): Tag value Priority | WAN1  ADSL / VDSL2 Auto Auto  Auto negotiation  Disable  Enable  0  (0~4095) 0  (0~7) |
|  |   |

On the next page as shown below, please select the appropriate protocol according to the information from your ISP. For example, you should select PPPoE mode if the ISP provides you PPPoE interface. Then click Next for next step.

#### PPPoE/PPPoA

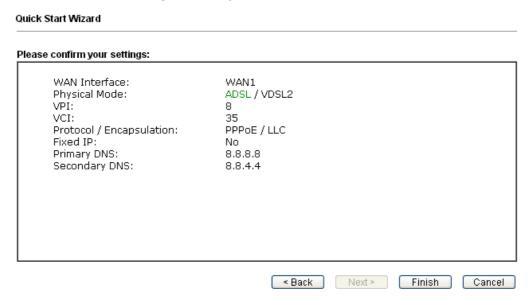
1. Choose **WAN1** as WAN Interface and click the **Next** button; you will get the following page.



2. After finished the above settings, simply click Next.

| Quick Start Wizard      |                             |   |
|-------------------------|-----------------------------|---|
| Set PPPoE / PPPoA       |                             |   |
| WAN 1                   |                             | Т |
| Service Name (Optional) | 2760                        |   |
| Username                | 84005755@hinet.net          |   |
| Password                | ******                      |   |
| Confirm Password        | •••••                       |   |
|                         |                             |   |
|                         |                             |   |
|                         |                             |   |
|                         |                             |   |
|                         |                             |   |
|                         |                             |   |
|                         |                             |   |
|                         |                             | _ |
|                         | < Back Next > Finish Cancel |   |

3. Please manually enter the Username/Password provided by your ISP. Then click **Next** for viewing summary of such connection.



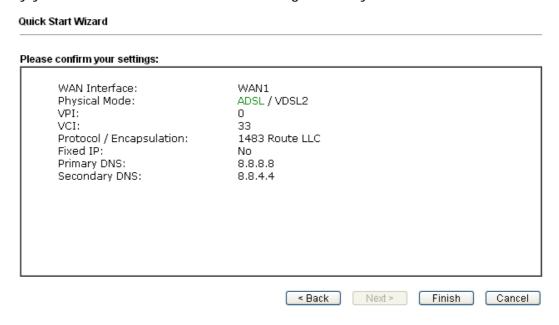
- 4. Click Finish. A page of Quick Start Wizard Setup OK!!! will appear. Then, the system status of this protocol will be shown.
- 5. Now, you can enjoy surfing on the Internet.

#### MPoA / Static or Dynamic IP

1. Choose **WAN1** as WAN Interface and click the **Next** button; you will get the following page.

| et to Internet<br>WAN 1 |                               |
|-------------------------|-------------------------------|
| Protocol                | MPoA / Static or Dynamic IP 💌 |
| For ADSL Only:          |                               |
| Encapsulation           | 1483 Bridged IP LLC           |
| VPI                     | O Auto detect                 |
| vcI                     | 88                            |
| Fixed IP                |                               |
| IP Address              | 192.16.20.86                  |
| Subnet Mask             | 255.255.255.0                 |
| Default Gateway         | 192.16.20.1                   |
| Primary DNS             | 8.8.4.4                       |
| Second DNS              | 168.95.192.1                  |

2. Please type in the IP address/mask/gateway information originally provided by your ISP. Then click **Next** for viewing summary of such connection.



- 3. Click Finish. A page of Quick Start Wizard Setup OK!!! will appear. Then, the system status of this protocol will be shown.
- 4. Now, you can enjoy surfing on the Internet.

# 6. Customer Service

If the router cannot work correctly after trying many efforts, please contact your dealer/DrayTek for further help right away. For any questions, please feel free to send e-mail to support@draytek.com.