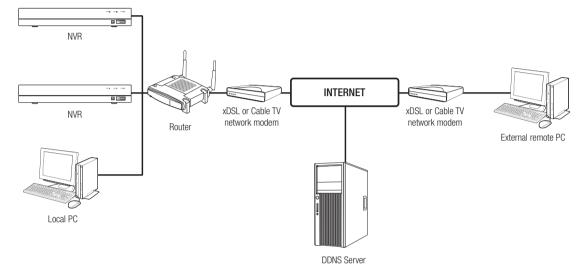
Quick Network Setup Guide

Use Router to Connect to Network

By using a router, you can connect your computer and 1-3 NVRs to the Internet through sharing by using a XDSL or cable TV modem. This guide is intended for the average users other than professional network engineers.



To use the router properly, please closely follow Steps 1-6.

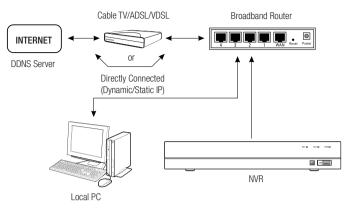
Configure router, PC and NVR device in accordance with the following steps.

- Step 1. Connect the cable
- Step 2. Connect your local computer to the router
- Step 3. Connect the NVR to the router
- Step 4. Connect the router to Internet service line
- Step 5. Configure Port Forwarding for Router

Step 6. Use the DDNS to access the NVR in dynamic IP environment

Step 1. Connect the cable

- 1. Connect the Internet service line (XDSL/cable TV Modem) to the Internet (WAN) port on the router.
- 2. Connect the computer and NVR to the LAN port (1-4) on the router by using an Ethernet cable.



Step 2. Connect local computer to the router

Step 2.1 Connection Settings

- 1. Click [Start] on your computer.
- 2. Access <Control Panel> <Network Connection>. The Network Connection Window is as shown in the figure.
- 3. Select <Local Connection>.
- 4. Right click on the mouse and select < Properties>.



6. Select <Internet Protocol (TCP/IP)>, and then click on [Properties].



| 🕂 Local Area Connection Properties 🛛 🕐 🗙 | | |
|--|--|--|
| General Advanced | | |
| Connect using: | | |
| Attansic L1 Gigabit Ethernet 10/100/ | | |
| This connection uses the following items: | | |
| Glient for Microsoft Networks Glient for Microsoft Networks Glient Staring for Microsoft Networks Glient Government Protocol (TCP/IP) | | |
| I <u>n</u> stall <u>U</u> ninstall <u>Properties</u> | | |
| Description 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 | | |

- 7. Select <Obtain an IP address automatically> and <Obtain DNS server address automatically>, and then click on <OK>.
- **8.** Click on <OK> to finish setting.

| nternet | Protocol (TCP/IP) Properties | < |
|--------------|--|---|
| General | Alternate Configuration | |
| this cap | n get IP settings assigned automatically if your network supports pability. Otherwise, you need to ask your network administrator for propriate IP settings. | |
| 00 | btain an IP address automatically | |
| OUs | se the following IP address: | |
| IP ac | ddress: | |
| Subr | net mask: | |
| Defa | ault gateway: | |
| 0 O <u>t</u> | Lain DNS server address automatically | |
| OUs | se the following DNS server addresses: | |
| Prefe | erred DNS server: | |
| Alten | mate DNS server: | |
| | Ad <u>v</u> anced | |
| | OK Cancel |) |

Step 2.2 Verify connection

- 1. Click [Start] on your computer.
- 2. Click on [Run].
- Enter "cmd" in <Open> text box found within the <Run> dialog box, and then click on [OK].
- 4. Enter "ipconfig" in DOS command line window [cmd.exe] and press [ENTER].

- 5. Run Internet Explorer and enter the IP address of <Default Gateway> in the address bar found in "cmd.exe" window, and then press [ENTER].
- 6. If all connections have been set up properly, a router login page will be displayed.

| Run | ?× |
|-------|--|
| | Type the name of a program, folder, document, or Internet resource, and Windows will open it for you. |
| Open: | cmd |
| | OK Cancel Browse |

| © C:\WINDOWS\system32\cmd.exe | - 🗆 × | |
|--|-------|--|
| licrosoft Windows XP EVersion 5.1.2600] C) Copyright 1985-2001 Microsoft Corp. | | |
| C:\Documents and Settings\ksh>ipconfig | | |
| Windows IP Configuration | | |
| Ethernet adapter Local Area Connection: Connection-specific DMC Enffix. :] asal Submer Meak | | |

| 🖆 http://192.168.1.1/ - | Microsoft Internet Explorer |
|---|------------------------------------|
| File Edit View Favorites | ; Tools Help |
| 🕞 Back - 🌍 - 💌 | 🗟 🕼 🔎 Search 👷 Favorites 🚱 🙆 - 💺 🚍 |
| Address 📓 http://192.168.1. | 4/ |
| Connect to WRT54G User name: Password: | 9 192.168.1.1 |

 If the connection fails, check all cables and return to Step 2.1, and then select <Repair>.

In "Local Connection Status" window, click on <Support> tab and select Default Gateway> (if it matches the gateway as found in [cmd.exe] window, and then check connection again.)



Step 3. Connect NVR to the router

Step 3.1 Configure NVR router settings

- 1. Select [Main Menu → Parameter].
- 2. Select <Network> window.
- 3. Select <Static>. The connection setting window will be displayed.
- **4.** Move the cursor to the desired item.
- 5. Manually input <IP address> when static connection is selected. The IP address consists of 4 fields, and the first 3 fields should be same to those of <Default Gateway> address of your computer which can be found in Step 2, and the last field should be an unoccupied figure between 2 and 254. For example, IP: 192.168.1.200.
- Enter <Gateway> and < Subnet Mast> (the same parameters as found in your computer in Step 2).
- Set <Client Port> and <HTTP Port>. Refer to the next page for setting up the Client port and HTTP port.

| | 1 | | | _ | - |
|----------------|----------------|-----------------|--------|-------|----------|
| Parameter | | | | | Shutdown |
| Display | O PPPoE | | Static | | |
| Record | Client Port 09 | 9000 | | 00080 | |
| Capture | | | | | |
| Network | IP Address | 192.168.002.128 | | | |
| | | 255.255.255.000 | | | |
| Network | Gateway | 192.168.002.001 | | | |
| Email | | 221.005.088.088 | | | |
| | DNS2 | 008.008.008.008 | | | |
| Email Schedule | | | | | |
| | | | | | |
| RTSP | | | | | |
| | | | | | |
| I Alarm | UPNP Enabl | | | | |

What's a Port?

Port 80 is generally used for <HTTP Port> in the HTTP protocol.

If no port is set, it will be automatically set to 80 in the HTTP protocol.

For example, http://www.yahoo.com and http://www.yahoo.com:80 will be deemed as equal.

Therefore, if < HTTP Port> has been set to any port other than 80, then you have to specify the address in the following form: http://<IP address>:<HTTP Port>,

For example, http://192.168.1.200:80 to connect to the NVR using internet browser. It is recommended to set <HTTP Port> to a port number between 1024 and 65535.

If the port is not set to 80, access may be limited (depending on the security strategy or firewall configuration of your ISP).

NVR uses <HTTP Port> and <Client Port> for Web connection.

<HTTP Port> is used for access to NVR through the Web Browser.

<Client Port> is used to receive video sent from NVR through the Web browser.

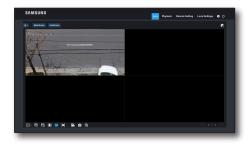
When several NVRs are configured, the <HTTP Port> and <Client Port> settings should be configured respectively for each NVR.

For example, NVR #1: 4520, HTTP port: 80

NVR #2: 4529, HTTP port: 2000

Step 3.2 Check NVR Connections on Computer

- Run Internet Explorer, and enter the <IP Address> and <HTTP Port> of NVR into the address bar, and then press [ENTER]. For example, http://192.168.1.200: 80.
- If the connection has been set up correctly, the Web Viewer screen will be displayed.
- 3. If the connection fails, check Step 1, 2 and 3 to verify connection settings.



Step 4. Connect the router to Internet service line

Internet connection setup and procedure may vary depending on the specific router. Please check your router setup method.

Connection type depends on your Internet service

Set Internet connection based on the type of Internet service. Check your environment and choose the proper connection type before you proceed.

- DHCP: Dynamic IP environment (allocate IP address automatically).
- Static (fixed) IP: IP environment where public IP address is used.
- PPPoE: commonly used in DSL environment, requiring ADSL access ID and password. For your user ID and password, consult your ISP.
 Name of each type stated above may vary depending on router manufacturer.

Step 4.1 Connection guide (by router)

Step 4.1-Case 1. D-Link DIR-330

- 1. Run Internet Explorer and enter the IP address of <Default Gateway> found in Step 2 in the address bar, and then press [ENTER].
- 2. When the router login screen is displayed, enter your User name and Password. For your User name and Password, refer to the user manual for the router.

| Connect to 192.1 | 68.0.1 ? X |
|-----------------------------------|--|
| R | GR |
| password. Warning: This server | 0.1 at DIR-330 requires a username and is requesting that your username and an insecure manner (basic authentication inection). |
| User name: | 😰 admin 💌 |
| Password: | Remember my password |
| | OK Cancel |

- **3.** Select Internet connection method from connection setup wizard and manual setup. Selecting the Internet Connection Setup Wizard automatically moves to the next step.
- 4. Click on <Manual Setting>.



| INTERNET CONNECTION T | YPE: | |
|--|--|--|
| Choose the mode to be used by the router to connect to the Internet. | | |
| My Internet Connection is : Dynamic IP (DHCP) | | |
| DYNAMIC IP (DHCP) INTERNET CONNECTION TYPE : | | |
| Use this Internet connection type if your Internet Service Provider (ISP) didn't provide you with IP Address information and/or a username and password. | | |
| Host Name : | | |
| MAC Address : 0 | 0 - 00 - 00 - 00 - 00 - 00 (optional) Clone MAC Address | |
| Primary DNS Address : | | |
| Secondary DNS Address : | (optional) | |
| MTU: 1 | 500 | |

Dynamic IP Address Environment

- 6. Select < Dynamic IP (DHCP)>.
- 7. Click on [Save Settings].

| INTERNET CONNECTION TYPE : | | |
|---|--|--|
| Choose the mode to be used by the router to connect to the Internet. | | |
| My Internet Connection is : Dynamic IP (DHCP) | | |
| DYNAMIC IP (DHCP) INTERNET CONNECTION TYPE : | | |
| Use this Internet connection type if your Internet Service Provider (ISP) didn't provide you with IP Address information and/or a username and password. | | |
| Host Name : | | |
| MAC Address : 00 - 00 - 00 - 00 - 00 (optional) | | |
| Primary DNS Address : | | |
| Secondary DNS Address : (optional) | | |
| MTU: 1500 | | |

Static IP Address Environment

- 8. Select <Static IP>.
- 9. Enter the <IP Address>, <Subnet Mask> and <ISP Gateway Address> allocated by your ISP.
- 10. Click on [Save Settings].

| INTERNET CONNECTION | TYPE : | | |
|--|--|--|--|
| Choose the mode to be use | Choose the mode to be used by the router to connect to the Internet. | | |
| My Internet Connection is : | Static IP | | |
| STATIC IP ADDRESS IN | STATIC IP ADDRESS INTERNET CONNECTION TYPE : | | |
| Enter the static address information provided by your Internet Service Provider (ISP). | | | |
| IP Address : | 0.0.0.0 (assigned by your ISP) | | |
| Subnet Mask : ISP Gateway Address : | 0.0.0.0 | | |
| MAC Address : | 00 - 00 - 00 - 00 - 00 (optional) | | |
| Primary DNS Address : | Clone MAC Address | | |
| Secondary DNS Address : | (optional) | | |
| MTU : | 1500 | | |

ADSL Environment

- 11. Select < PPPoE (Username/Password)>.
- **12.** Enter your User name and Password. For your User name and Password, consult your ISP.

| Choose the mode to be used by the router to connect to the Internet. | | |
|--|---|--|
| My Internet Connection is : PPPoE (Username / Password) | | |
| PPPOE : | | |
| Enter the information provide | ad by your Internet Service Provider (ISP). | |
| Enter the information provide | ed by your internet Service Provider (ISP). | |
| | Oynamic PPPoE O Static PPPoE | |
| User Name : | | |
| Password : | ••••• | |
| Retype Password : | ••••• | |
| Service Name : | (optional) | |
| IP Address : | 0.0.0.0 | |
| MAC Address : | 00 - 00 - 00 - 00 - 00 - 00 (optional) | |
| | Clone MAC Address | |
| Primary DNS Address : | | |
| Secondary DNS Address : | (optional) | |
| Maximum Idle Time : | 5 Minutes | |
| Huxingin the time . | | |

Step 4.1-Case 2. NETGEAR WGR614SS

- Run Internet Explorer and enter the IP address of <Default Gateway> found in Step 2 into the address bar, and then press [ENTER].
- **2.** When the router login window is displayed, enter your User name and Password.

For your User name and Password, refer to the user manual for the router.

| Connect to 10.0. | 0.1 ?X |
|--|----------------------|
| Provide the second seco | G |
| NETGEAR WGR614S | 5 |
| User name: | |
| Password: | |
| | Remember my password |
| | |
| | OK Cancel |

 Click on <Setup> - <Basic Settings> from the menu on the left side. Click <Setup Wizard> for automatic setup.

| | - | for model WGR614v9 | | | |
|---------------------------------------|---|--------------------|--|--|--|
| Setup Wizard | Basic Settings | | | | |
| etup Basic Settings | Does Your Internet Connection Require A Login | ? | | | |
| Wireless Settings ontent Filtering | | | | | |
| Logs | - | | | | |
| Block Sites | Account Name (If Required) | WGR614V9 | | | |
| Block Services Schedule | Domain Name (If Required) | | | | |
| | Internet IP Address | | | | |
| Router Status | Get Dynamically From ISP | | | | |
| Attached Devices | O Use Static IP Address | | | | |
| Backup Settings | IP Address | 66 188 116 164 | | | |
| Set Password | P Subnet Mask | 255 255 254 0 | | | |
| Router Upgrade | Gateway IP Address | 66 100 116 1 | | | |

Dynamic IP Address Environment

- 4. Select <Get Dynamically From ISP>.
- 5. Click on [Apply].

| Maintenance | Internet IP Address | |
|--------------------------------------|--|------------------|
| Router Status | Get Dynamically From ISP | |
| Attached Devices | O Use Static IP Address | |
| Backup Settings | IP Address | 66 188 116 164 |
| Set Password Router Upgrade | IP Subnet Mask | 255 255 254 0 |
| Advanced | Gateway IP Address | 66 188 116 1 |
| Wireless Settings | 1 | |
| Port Forwarding / Port Triggering | Oomain Name Server (DNS) Address Get Automatically From ISP | |
| WAN Setup | O Use These DNS Servers | |
| LAN IP Setup | Primary DNS | 0 0 0 0 |
| Dynamic DNS | Secondary DNS | |
| Static Routes | And the second s | |
| Remote | Router MAC Address | |
| Management UPnP | Use Default Address | |
| UPnP | O Use Computer MAC Address | |
| Veb Support | O Use This MAC Address | 00:1B:2F:ES:60:C |
| Knowledge Base Documentation | Apply Cance | el (Test) |

Static IP Address Environment

- 6. Select < Use Static IP Address>.
- 7. Enter <IP Address>, <IP Subnet Mask> and <Gateway IP Address>.
- 8. Click on [Apply].

| Use Static IP Address | | | | |
|-----------------------|-----|-------|-------|-------|
| IP Address | 10 | 1 | . 1 | . 156 |
| IP Subnet Mask | 255 | . 255 | . 254 | |
| Gateway IP Address | 10 | . 1 | .1 | . 13 |
| | | | | |
| | | | | |

9. All changes will now be saved.

Check Connection

Upon connection, the status indicator <DHCP Client> will be displayed at the top of the screen.

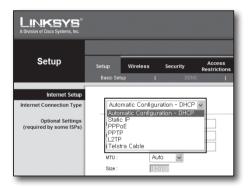
| Router Status | | |
|--------------------|----------------------|--|
| Account Name | WGR614v6 | |
| Firmware Version | V1.0.3_1.0.3 | |
| Internet Port | | |
| MAC Address | 00:D0:59:E1:1B:FE | |
| IP Address | 10.1.1.156 | |
| DHCP | DHCPClient | |
| IP Subnet Mask | 255.255.254.0 | |
| Domain Name Server | 10.1.1.6 10.1.1.7 | |

Step 4.1-Case 3. LINKSYS WRT54G

- 1. Run Internet Explorer and enter the <Default Gateway> found in Step 2 into the address bar, and then press [ENTER].
- 2. When the router login screen is displayed, enter your User name and Password.
 - For your ID and password, refer to the user manual for the router.

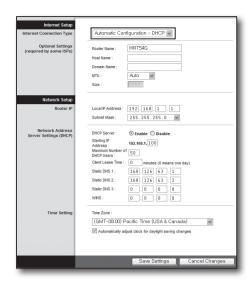


- 3. Click on <Internet Setup>.
- **4.** The setup screen to be displayed varies depending on your Internet Connection type.



Dynamic IP Address Environment

- 5. Select <Automatic Configuration-DHCP>.
- 6. Click on [Save Settings] at the bottom.



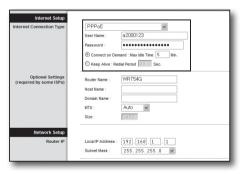
Static IP Address Environment

- 7. Select <Static IP>.
- 8. Enter the <Internet IP Address>, <Subnet Mask> and <Gateway> allocated by your ISP.
- 9. Click on [Save Settings] at the bottom.

| Internet Setup | | |
|--------------------------|--------------------------|---------------------|
| Internet Connection Type | Static IP | * |
| | Internet IP Address : | 192.168.0.66 |
| | Subnet Mask : | 255 . 255 . 255 . 0 |
| | Gateway : | 192.168.0.1 |
| | Static DNS 1 : | 168 . 126 . 63 . 1 |
| | Static DNS 2 : | 168.126.63.2 |
| | Static DNS 3 : | 0.0.0.0 |

ADSL Environment

- 10. Select <PPPoE>.
- **11.** Enter your User name and Password. For your User name and Password, consult your ISP.
- **12.** Click on [Save Settings] at the bottom.



13. Upon completion, a completion page will be displayed.

| Settings are successful. |
|--------------------------|
| Continue |
| |
| |
| |

Step 4.1-Case 4. BELKIN F5D8236-4

1. Run Internet Explorer and enter the IP address of <Default Gateway> found in Step 2 into the address bar, and then press [ENTER].

2. Click on <WAN> - <Connection Type>. Select your Internet Service type.





Dynamic IP Address Environment

- 3. Select <Dynamic> as the connection type and click on [Next].
- Enter <Host Name>and click on [Apply Changes].
 If your ISP provided you with a specific DNS address, please click on <WAN>
 - <DNS> and enter the DNS address.

| BELKIN | Hame Help Logout Internet Status: Not connecte |
|--|--|
| AN Setup AN Setups 2402 Clean List | WAN > Connection Type > Dynamic IP |
| nternet WAA | Te enter your Dynamic IP settings, type in your information below and click 'Apply changes'. More into |
| NS IAC Acconst | Hool Nerne > |
| Mindess Device and 550 | Host Name • A name that some internet Service Providers require for connection to their system. |
| Channel and SSD Security (n. F) Historiaes Stellup | Change WAN MAC Address |
| Ise as Access Point (AC Access Control | Clear Changes Apply Changes |

Static IP Address Environment

- 5. Select <Static> as the connection type and click on [Next].
- 6. Enter the <IP Address> allocated by your ISP.
- 7. Enter <Subnet Mask> and <ISP Gateway Address>.
- 8. Click on [Apply Changes].

| AN Setup | WAN > Connection Type > : | Statia ID |
|--|--|--|
| | WAR > Connection Type > 1 | Statut IP |
| | To enter your Static IP settings, type in yo | our information below and click "Apply changes". More info |
| | IP Address > | 192 168 0 68 |
| AC Adoresa Redessa | Submet Mask > | 255 255 256 0 |
| | ISP Gateway Address > | 192 168 0 1 |
| | | |
| | Click here to enter your DNS Settings | |
| se as Access Park AC Address Costol | | |
| rewall | | Clear Changes Apply Charges |
| | | |
| | | |
| | | |

ADSL Environment

- 9. Select <PPPoE> as the connection type and click on [Next] button.
- 10. Enter your User name and Password. For your User name and Password, consult your ISP.
- **11.** Click on [Apply Changes].

| | | Home Help Logost Internet Status: Not connect |
|---|---|---|
| LAN Setup LAN Setups | WAN > Connection Type > F | PPoE |
| DHCP Clent List Internet WAN | To enteryour PPPoE settings, type in yo | ur information below and click: "Apply changes". More Info |
| Consector Type 015 | User Name > | |
| WAC ACCESS | Password > | |
| Wireless Channel and 55D | Retype Password > | |
| Security | Get IP By DHCP> | R |
| Wi-Fi Protected Setup Use as Access Paint | Service Name (Optional) > | |
| WAC ACCINES CONTROL | HTU (500-1500) > | 1454 |
| Forwall Virtual Servers Client IP Fitters | Do not make changes to the MTU setting More Info | punkess your ISP specifically requires a different setting than 1454. |
| IIAC Address Filtering DHZ | Disconnect after minutes of | no activity. More info |

Check Connection

Once connected, the status indicator <Connection> will be displayed at the top of the interface.



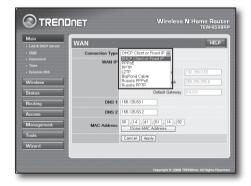
- 1. Run Internet Explorer and enter the IP address of <Default Gateway> found in Step 2 into the address bar, and then press [ENTER].
- 2. When the router login window is displayed, enter your User name and Password.

For your ID and password, refer to the user manual for the router.

| | | House (Help Logant - Inferiori Mature Connect |
|--|-----------------------------|---|
| LAN Selup LAN Selup | Wireless > Channel | I and SSID |
| Dec2 Circl 14 | | |
| below and \$535 | To make changes to the we | incless settings of the router, make the changes here. Click "Apply |
| Correction From | Changes' to save the settin | nga. Minre kafa |
| DVS | | |
| MALC Address | Wedges Charged > | 6 m |
| Westess | | |
| Owner and \$280 | Extension Channel > | 2 10 |
| Sinculty | son y | Dekin, N. Wweless, 8051 E1 |
| Use as Access Port | 3360 - | period Crimens Storics |
| MAC Address Control Filternal | Weeless Mode > | 00211b600211g600211n m More Me |
| Venal Carvery | | |
| Optil Philes | Dandwidth + | 40MP12 94 |
| MAC Address Tiberine | Brandward SSD > | P there info |
| 2+2 | | |
| pondi | Protected Mode > | OFF W More Info |
| rints the Disaling | 882.116 WMM 0x5 > | CN m store tuto |
| Security Log | | Cont and a set |
| Unites | | |
| Fectal Picture Environmentation | | Gear Changes Apply Changes |
| Sectore Factory Defaults Servicibiochies Sottings | | |
| Earcow Parcings Settings | | |
| Freedore Jackie | | |
| System Satings | | |
| | | |
| Contraction of the local division of the loc | | |
| | | |
| | | |

| | Wireless N Home Router TEW-6528RP |
|---------------------------------------|--|
| Log in to the router User Poser | Login) |
| | Dagwight © 2003 TRENDius: All Rights Reserved. |

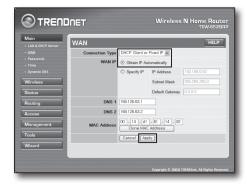
- 3. Click on <WAN> from the menu at the left side of the setup page.
- 4. Select <Connection Type>.



Dynamic IP Address Environment

- 5. Select <DHCP Client or Fixed IP>.
- Click on <Obtain IP Automatically>.
 If your ISP provided you with a specific DNS address, please click on <WAN>

 <DNS> and enter the DNS address.
- 7. Click on [Apply] button at the bottom.



Static IP Address Environment

- 8. Select < DHCP Client or Fixed IP>.
- 9. Select <Specify IP>.
- 10. Enter <IP Address>, <Subnet Mask> and <Default Gateway>.
- 11. Enter <DNS1> and <DNS2>. If your ISP provided you with a specific DNS address, please click on <WAN> - <DNS> and enter the DNS address.
- 12. Upon completion, click on [Apply] button at the bottom.

| | DNET | | Wireless | N Home Rout TEW-652B |
|-------------------|-----------------|--|-----------------|-------------------------|
| LAN & DHCP Server | WAN | | | HELP |
| | Connection Type | DHCP Client or | Fixed IP 👻 | |
| Password | WAN IP | O Obtain IP Automatically | | |
| | | ③ Specify IP | IP Address | 192.168.0.63 |
| Vireless | | | Subnet Mask | 255.255.255.0 |
| tatus | | | Default Gateway | 0.0.0.0 |
| outing | DNS 1 | 168.126.63.1 | | |
| ccess | DNS 2 | 168.126.63.2 | | |
| lanagement | MAC Address | 00 . 14 . d1 . 61 . 14 . 82 Clone MAC Address | | |
| pols | | Cancel Ap | ply | |
| Vizard | | | | |
| | | | | |
| | | | | |

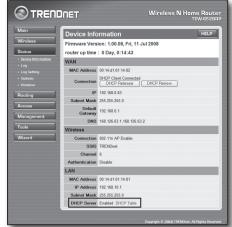
ADSL Environment

- 13. Select <PPPoE>.
- 14. Select appropriate method of obtaining <WAN IP> address.
- **15.** Enter <Service Name>, <User Name> and <Password>. For your User name and Password, consult your ISP.

| | NET | Wireless N Home Router TEW-6528RP |
|---------------------------------------|-----------------|---|
| Main LAN & DHCP Server | WAN | HELP |
| • WAN | Connection Type | PPPoE v |
| • Password • Time • Dynamic DNS | WAN IP | Obtain IP Automatically Specify IP |
| Wireless | Service Name | |
| Status | User Name | |
| Routing | Password | ••••• |
| Access | Retype Password | ••••• |
| Management | DNS | Primary 168.126.63.1 Secondary 168.126.63.2 |
| Tools | Auto-reconnect | O Always-on O Manual O Connect-on Demand |
| Wizard | Idle Time Out | 5 Minutes |
| | MTU | 1492 |
| | | Cancel Apply |
| | | |
| | | Copyright © 2008 TRENDrut. All Rights Reserved. |

Check Connection

16. Click on <Status> - <Device Information> from the menu on the left side, and check the current status of server at <DHCP Server> under LAN type. When the connection is set up successfully, the <Enabled DHCP Table> will be displayed.



Step 4.2 Check connection to Internet

- 1. Run Internet Explorer on your computer.
- Enter the IP address of <Default Gateway> found in Step 2 into the address bar, and then press [ENTER].
- 3. Click on Status tab on router menu.
- 4. Check the WAN (Internet) connection status and WAN (Internet) IP address.
- When the connection is set up successfully, a message <DHCP Client Connected> will be displayed, and an address will be displayed for the WAN (Internet) IP.
- TRENDET I TWO 652000 I Main I LAN & DICP Server Microsoft Internet Explorer

 B EX 390 Fourier 300 Bb
 Content 300 Bb
 Content 300 Bb
 Content 300 Bb
 Content 400 Bb
 Content

| WAN | |
|--------------------|--|
| MAC Address | 00:13:77:01:13:7A |
| Connection | DHCP Client Connected DHCP Release DHCP Renew |
| IP | 192.168.0.71 |
| Subnet Mask | 255.255.255.0 |
| Default Gateway | 192.168.0.1 |
| DNS | 168.126.63.1,168.126.63.2 |

- 6. Use Internet Explorer to access Yahoo, Google and other Web servers.
- 7. If the connection has been set up correctly, Internet Explorer will properly display the page on the Web server accessed.
- 8. If connection fails, please return to Step 4 and check it again.



Step 5. Port Forwarding

Port forwarding should be configured for accessing from the outside of the router network to a computer or NVR which is connected to the router.

Configure router port forwarding in accordance with the following instructions.

What's port forwarding?

It is a port mapping from <WAN (Internet) IP: port of Router> to <IP: port of NVR>. It helps start the communication channel between the interior and exterior of private LAN.

As a NVR uses two ports for communication, port forwarding should be set up for two ports.

If port forwarding is configured only for the <HTTP Port>: the Web Viewer can be accessed through the Web browser, but the video cannot be received, because port forwarding is not configured for <Client Port> which is used for video data communication. If port forwarding is configured only for <Client Port>: the Web Viewer cannot be accessed through the Web browser, because port forwarding is not configured for <Client Port>: the Web Viewer cannot be accessed through the Web browser, because port forwarding is not configured for <Client Port>: the Web Viewer cannot be accessed through the Web browser, because port forwarding is not configured for <HTTP Port>, which is used for communication. The Port forwarding method for each type of router is described below. For other routers not guided herein, refer to the user manual for the router.

Step 5.1 Port Forwarding Guide (by router)

Run Internet Explorer and enter the IP address of <Default Gateway> found in Step 2 into the address bar, and then press [ENTER].

Step 5.1-Case 1. D-LINK DIR-330

- 1. Select <Advanced>.
- 2. Set port forwarding for <HTTP Port>.
 - 2-1. Find the <Check box> and check it.
 - 2⁻². Enter a name for the NVR port in the <Name>field. For example, "NVR 1"
 - In <Public Port>, enter the <HTTP Port> defined in Step 3. For example, 80-80
 - 2⁴. In <Private Port>, enter the <HTTP Port> defined in Step 3. For example, 80-80
 - $\mathbf{2}^{\text{-5.}}$ In <IP Address>, enter the IP address defined for NVR in Step 3. For example, 192.168.1.200
 - 2⁻⁶. Select <Any> for <Traffic Type>.
- 3. Set port forwarding for <Client Port>.
 - 3-1. Find the <Check box> and check it.
 - **3**⁻². Enter a name for the NVR port in the <Name> field. For example, "NVR 2"
 - ${\bf 3}^{\text{-}3}.$ In <Public Port>, enter the <Client Port> defined in Step 3. For example, 4520~4524
 - $\mathbf{3^{4}}.$ In <Private Port>, enter the <Client Port> defined in Step 3. For example, 4520~4524
 - $\mathbf{3}^{\text{-5}}$. In <lP Address>, enter the IP address defined for NVR in Step 3. For example, 192.168.1.200
- 4. Upon completion, click on [Save Settings].

| rewall | and redirect data | on is used to open a single port through those ports to a single n't Save Settings | | |
|--------|-------------------|--|------------------------|--------------|
| !5 - P | ORT FORWARI | DING RULES | | |
| | | | Port | |
| | | | | |
| | Name | Fel testation Name Fel | Public Port | Traffic Type |
| 1. 🗹 | Name DVR1 | Application Name | Public Port 80 ~ 80 | Traffic Typ |

| | | | Port | |
|------|-----------------------------|-----------------------|----------------------------|--------------------|
| | Name DVR1 | Section Name | Public Port 80 ~ 80 | Traffic Type |
| 1. 🗹 | IP Address 192.168.1.200 | Computer Name | Private Port 80 ~ 80 | Schedule Always |
| | Name DVR2 | Section Name | Public Port 4520 ~ 4524 | TCP |
| 2. 🗹 | IP Address 192,168,1,200 | Section Computer Name | Private Port | Schedule Always |

Step 5.1-Case 2. NETGEAR 614SS

- 1. Click on [Port Forwarding / Port Triggering] from the menu on the left side.
- 2. Select <Port Forwarding>.
- 3. Set port forwarding for <HTTP Port>.
 - **3**⁻¹. Set port forwarding for <Add Custom Service>.

| 3 -2. | In <service name=""> field enter a name for NVR.</service> |
|--------------|--|
| | For example, "NVR 1" |

- 3-3. Enter <Starting Port> and <Ending Port> matching the <HTTP Port> defined in Step 3. For example, 80
- 3⁴. In <Server IP Address>, enter the IP address defined for NVR in Step 3. For example, 192.168.1.200
- 3⁻⁵. Click [Apply] to finish setting.
- 4. Set port forwarding for <Client Port>.
 - 4⁻¹. Click on <Add Custom Service> button.
 - 4⁻². In <Service Name> field, enter a name for <Client Port> of NVR. For example, "NVR 2"
 - 4⁻³. Enter <Start Port> and <End Port> matching the <Client Port> defined in Step 3. For example, 4520, 4524.
 - 4-4. In <Server IP Address>, enter the IP address defined for NVR in Step 3. For example, 192.168.1.200
 - 4-5. Click [Apply] to finish setting.

| Please select the service typ | be la |
|-------------------------------|---|
| Port Forwarding | |
| O Port Triggering | |
| Service Name | Server IP Address |
| Age-of-Empire | 192 168 1 Add |
| # Service Name | Start Port End Port Server IP Address |
| # Service Name | Start Port End Port Server IP Address |

| Service Name | DVR1 |
|-------------------|---------------|
| Service Type | TCP/UDP |
| Starting Port | 80 (1~65534) |
| Ending Port | 80 (1~65534) |
| Server IP Address | 192 168 1 200 |

| Port | select the service typ Forwarding Triggering | pe | | |
|--------|--|------------|------------|-------------------|
| ervice | Name | Server | IP Address | |
| Age-o | f-Empire 💌 | 192 | 168 1 | Add |
| | Service Name | Start Port | End Port | Server IP Address |
| # | | | | |
| # | DVR1 | 80 | 80 | 10.0.0.200 |

Step 5.1-Case 3. LINKSYS WRT54G

- 1. Click on < Application & Gaming>.
- 2. Set port forwarding for <HTTP Port>.
 - $2^{\text{-1}}.$ In <Application> field, enter a name for NVR port. For example, "NVR 1"
 - $2^{\,\text{2}}.$ In <Start> and <End> fields, enter <HTTP Port> defined in Step 3. For example, 80
 - 2-3. Select [Both] for <Protocol>.
 - $\mathbf{2^{-4}}.$ In <IP Address>, enter the IP address defined for NVR in Step 3. For example, 192.168.1.200
 - 2⁻⁵. Select the check box in the <Enable> column for the specified port.

| Setup | Wirele | ss | Securi | ty _R | Access lestrictions | | olications Saming |
|--------------|--------|------|-----------|-----------------|------------------------|--------------|----------------------|
| Port Range F | orward | 1 | Port Trig | gering | DMZ | Q.0 | S |
| | | | | | | | |
| | | | Port | t Range | | | |
| Application | Start | | End | Protoco | IP Addr | ess | Enable |
| dvr | 80 | to | 80 | Both 🔹 | 192.168. | 1.200 | ~ |
| dvr1 | 4520 | to | 4524 | Both N | 192.168. | 1.200 | ~ |
| | 0 | to | 0 | Both 🔹 | 192.168. | 1.0 | |
| | 0 | to | 0 | Both 🔹 | 192.168. | 1.0 | |
| | 0 | to | 0 | Both 🔹 | 192.168. | 1.0 | |
| | 0 |] to | 0 | Both | 192.168. | 1.0 | |
| | 0 |] to | 0 | Both | 192.168. | 1.0 | |
| | 0 | to | 0 | Both 🔹 | 192.168. | 1.0 | |
| | 0 | to | 0 | Both N | 192.168. | 1. 0 | |
| | 0 | to | 0 | Both N | 192.168. | 1.0 | |
| | | | | | | | |
| | | | Save | Settings | Can | cel Cha | inges |

- 3. Set port forwarding for <Client Port>.
 - 3-1. In <Application> field, enter a name for NVR port. For example, "NVR 2"
 - $\mathbf{3}^{\text{-2}}.$ In <Start> and <End> fields, enter <Client Port> defined in Step 3. For example, 192.168.1.200
 - 3-3. Select [Both] for <Protocol>
 - 3⁴. In <IP Address>, enter the IP address defined for NVR in Step 3. For example, 192.168.1.200
 - 3.5. Select the check box in <Enable> column for the specified port.
- 4. Click on [Save Settings] at the bottom.
- 5. Upon completion, the completion screen will be displayed.



Step 5.1-Case 4. BELKIN F5D8236-4

1. Click on <Firewall> - <Virtual Servers> from the menu at the left side.

| Firewall | 2 |
|-----------------------|---|
| Virtual Servers | 3 |
| Client IP Filters | 4 |
| MAC Address Filtering | |
| DMZ DDNS | 5 |
| WAN Ping Blocking | 6 |
| Security Log | 7 |

- 2. Set port forwarding for <HTTP Port>.
 - **2**⁻¹. Select <Enable> check box to mark the selected port.
 - $2^{\text{-2.}}$ In <Description> field, enter a name for NVR port. For example, "NVR 1"
 - 2⁻³. In <Inbound Port>, enter the <HTTP Port> defined in Step 3. For example, 80
 - 2-4. Select <Any> for <Type>.
 - 2⁻⁵. In <Private IP Address>, enter the IP address defined for NVR in Step 3. For example, 192.168.1.200
 - $\mathbf{2^{6}}.$ In <Private Port>, enter the <HTTP Port> defined in Step 3. For example, 80
- 3. Set port forwarding for <Client Port>.
 - $\mathbf{3}^{-1}$. Select <Enable> check box to mark the selected port.
 - **3**⁻². In <Description> field, enter a name for NVR port. For example, "NVR 2"
 - **3**³. In <Inbound Port>, enter the <Client Port> defined in Step 3. For example, 4520, 4521, 4522, 4523, 4524.
 - **3**⁻⁴. Select <Any> for <Type>.
 - $\mathbf{3}^{\text{-5}}.$ In <Private IP Address>, enter the IP address defined for NVR in Step 3. For example, 192.168.1.200
 - **3**⁶. In <Private Port>, enter the <Client Port> defined in Step 3. For example, 4520, 4521, 4522, 4523, 4524.
- 4. Upon completion, click on [Apply Changes].

| | | | | | | ces such as a web se ternal network. More | |
|-----|----------|---------------|--------------|---------------|---|--|--------------|
| | 1 | Clear Charger | 5 | Apply Changes | | | |
| dd | Active | Worlds | | * | | | Add |
| lea | ar entry | 1 💌 | | | | | Clear |
| | Enable | Description | Inbound port | Туре | | Private IP address | Private port |
| | Γ | DVR1 | 80 | TCP | ¥ | 192.168.2 200 | 80 |
| 2 | | | | TCP | ¥ | 192.168.2. | |
| 3 | | | | TCP | - | 192.168.2. | |
| | | | | TCP | | 192.168.2 | |

Firewall > Virtual Servers

This function will allow you to route external (Internet) calls for services such as a web server (port 80), FTF server (Port 21), or other applications through your Routerto your internal network. More info

| | Active | Add | | | | |
|-----|----------|-------------|--------------|-------|--------------------|--------------|
| Cle | ar entry | 1 | | | | Clear |
| | Enable | Description | Inbound port | Туре | Private IP address | Private port |
| | | DVR1 | 80 | Any 💌 | 192.168.2 200 | 80 |
| 2 | | DVR2 | 4524 | Any 💌 | 192.168.2 200 | 4524 |
| 3 | | | | Any 💌 | 192.168.2. | |
| 4 | | | | Any 💌 | 192.168.2 | |

| 18 🔲 🗌 | TCP 💌 | 192.168.2. |
|--------|-------|------------|
| 9 🗆 | TCP | 192.168.2. |
| 20 🔳 | TCP 💌 | 192.168.2. |

Step 5.1-Case 5. TRENDNET TEW-652BRP

- 1. Click on <Access> and then <Virtual Servers> from the menu on the left side.
- 2. Set port forwarding for <HTTP Port>.
 - 2-1. Select [Enable] for item <Enable>.
 - 2⁻². In <Name> field, enter a name for NVR port. For example, "NVR 1"
 - 2-3. Select [TCP] for item < Protocol>.
 - In <Private Port> and <Public Port> fields, enter <HTTP Port> defined in Step 3.
 For example, 80
 - 2⁻⁵. In <IP Address>, enter the IP address defined for NVR in Step 3. For example, 192.168.1.200
 - 2⁻⁶. Click on [ADD].
- 3. Set port forwarding for <Client Port>.
 - 3-1. Select [Enable] for item < Enable>.
 - 3⁻². In <Name> field, enter a name for NVR port. For example, "NVR 2"
 - 3-3. Select [TCP] for item < Protocol>.
 - 3⁻⁴. In <Private Port> and <Public Port> fields, enter the <Client Port> defined in Step 3.
 - For example, 4520, 4521, 4522, 4523, 4524.
 - $\mathbf{3^{-5}}$. In <LAN Server>, enter the IP address defined for NVR in Step 3. For example, 192.168.1.200
 - 3⁻⁶. Click on [ADD] button.
- 4. Finish setting.

Step 5.2 Check Port Forwarding on Computer

- 1. Re-verify the <WAN (Internet) IP> selected in Step 4.2.
- 2. Re-verify the <HTTP Port> selected for NVR in Step 3.1.
- 3. Run Internet Explorer and enter "http://<WAN (Internet) IP>:<HTTP Port> into the address bar and then press [ENTER].
- 4. If the port forwarding configuration has been set up correctly, the Web Viewer screen for the NVR will be displayed.
- 5. If you fail to access Web Viewer or, you can access it but the video fails to be displayed, return to Step 5.1 and check it again.
 - If port forwarding is configured only for <HTTP Port>: the Web Viewer can be accessed through Web browser, but the video cannot be received, because Port Forwarding is not configured for <Client Port> which is used for video data communication.
 If port forwarding is configured only for <Client Port>: the Web Viewer cannot be accessed through Web browser, because port forwarding is not configured for <HTTP Port>: the Web Viewer cannot be accessed through Web browser, because port forwarding is not configured for <HTTP Port>: the Web Viewer cannot be accessed through Web browser, because port forwarding is not configured for <HTTP Port>: the Web Viewer cannot be accessed through Web browser, because port forwarding is not configured for <HTTP Port> which is used for communication.

| Main | Virtual Serve | er HELP | | |
|------------------------------|---------------|--------------------------|--|--|
| Wireless | Enable | | | |
| Status | Name | | | |
| Routing | Protocol | TCP w | | |
| Access | Private Port | 80 | | |
| Filter Virtual Server | Public Port | 80 | | |
| Special AP | LAN Server | | | |
| • DMZ • Firewall Settings | | Add Update Delate Cancel | | |

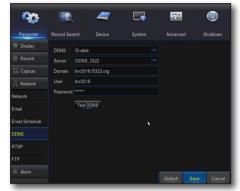


Step 6. Access NVR by Using DDNS Service in Dynamic IP Environment

As WAN IP address of router may be different in XDSL/cable TV network connection where dynamic IP allocation is applied, DDNS (Dynamic Domain Name Service) is provided for access to NVR with fixed DDNS address in dynamic IP network environment.

Step 6.1 NVR DDNS Configuration

- Access <Network> window, select <DDNS>, and the DDSN setting page will appear.
- DDNS: select Enable. Server: HANWHA-SECURITY, DDNS_3322, DYNDNS, NO_IP, CHANGE IP or DNSEX IT may be chosen. Enter domain name, user name and password provided by DDNS service provider. For example, Domain name: NVR2016.no-ip.org User name: NVR2016. Password: 123456
- 3. Upon completion of DDNS setting, press <OK>.



Step 6.2 Access NVR by Using DDNS Address

- 1. Run Internet Explorer and enter the DDNS address found in Step 6.1 into the address bar, and then press [ENTER].
- 2. The Live screen for NVR will be displayed.
- **3.** If failed with accessing, return to Step 6.1 and check the setting again.
- It may take 10 minutes to update IP address of the router recorded in DDNS server. When failed with accessing, retry after 10 minutes. NVR will report its IP address to DDNS server once every 10 minutes.

Configuration is finished.

By remembering the DDNS address, ID and password, you can connect to your NVR from any computer that is connected to the internet.

For more information on operation, refer to the user manual for the router.



