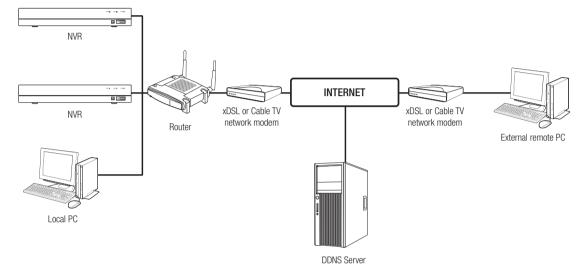
Quick Network Setup Guide

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.

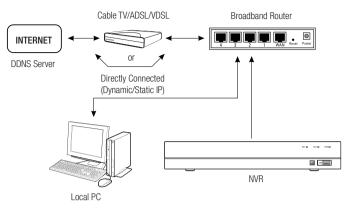
Configure router, PC and NVR device in accordance with the following steps.

- 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.

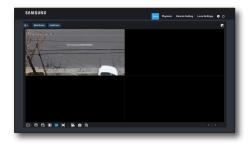
When several NVRs are configured, the <HTTP Port> and <Client Port> settings should be configured respectively for each NVR.

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.

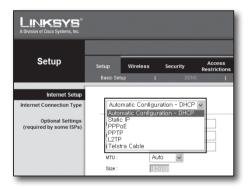
Router Status		
Account Name	WGR614v6	
Firmware Version	V1.0.3_1.0.3	
Internet Port		
MAC Address	00:D0:59:E1:1B:FE	
IP Address	10.1.1.156	
DHCP	DHCPClient	
IP Subnet Mask	255.255.254.0	
Domain Name Server	10.1.1.6 10.1.1.7	

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.

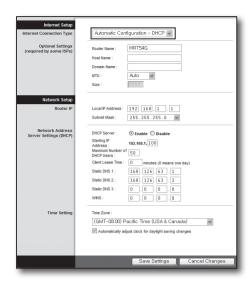


- 3. Click on <Internet Setup>.
- **4.** The setup screen to be displayed varies depending on your Internet Connection type.



Dynamic IP Address Environment

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



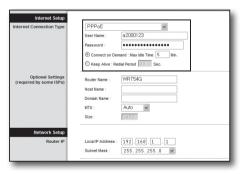
Static IP Address Environment

- 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.



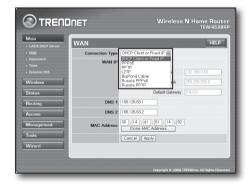
- 1. Run Internet Explorer and enter the IP address of <Default Gateway> found in Step 2 into the address bar, and then press [ENTER].
- 2. When the router login window is displayed, enter your User name and Password.

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.

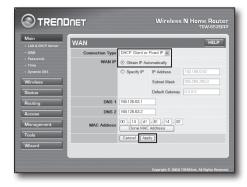
- 3. Click on <WAN> from the menu at the left side of the setup page.
- 4. Select <Connection Type>.



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				

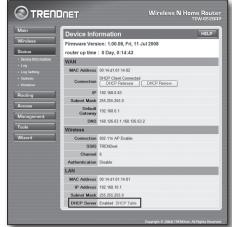
ADSL Environment

- 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		

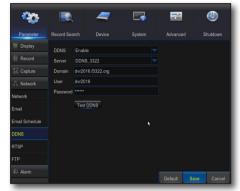


Step 6. Access NVR by Using DDNS Service in Dynamic IP Environment

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.



