

There are two ways connection allow you to watch your device remotely.

- 1. IP/Domain Connection aka IP Port forwarding
- 2. P2P Connection aka PTCloud connection

Here is the comparison table, but personally I prefer to use the IP/Domain access:

	IP/Domain Access	PTCloud connection	Comment	
Connection Speed	Faster	Fair		
Port Forwarding?	Yes, Need	No need	But PTCloud do require connect DVR/NVR to 1st level router only	
Live View Channel	Up to 16	Up to 16		
Playback Channel	4	1		
Browser Support	Internet Explorer only (IE Only)	NA		
Download Video	Support	NA		
Two Ways Audio	Yes, NVR / IPC	Yes, LTS Connect Only		
Push Notification	Х	Yes	NVMS7000 support IP/Domain with Push Notification.	
Fisheye Support	Yes	Х		
Alarm Support	Yes	Х		
PTZ Support	More, Call Preset	Basic		
Share Settings	х	Cloud Access Only		

IP/Domain Port forwarding (UPnP Simple / Manual Port Forward)

There are two ways to program your router port forwarding.

- 1. UPnP Port forwarding using router UPnP function.
- 2. Manually Program Port forwarding from the Router.



This method does require two things:

- 1. Connect DVR/NVR to the 1st Level Router.
- 2. The router must support UPnP port forwarding. (ie. NETGEAR router)



This KB Shows

IP/Domain

Port forwarding Only



Try UPNP first

Simple way Port Forwarding UPnP Port Forwarding

UPnP is the easiest way to do the port forwarding, but you must support these requirements first.

Requirement:

1. Connect DVR to the 1st level Router.

2. Router must support UPNP function.

Configure from the Local DVR Console•

- 1. First, set DVR IP to DHCP. Go to **MENU > Configuration > Network** Enable DHCP, and Apply
- 2. Go to NAT section. Enable UPnP

Change Mapping Type to Manual Mapping, then Apply at the bottom.

泰 General	General PT Cloud PPF	OE DDNS	NTP Email St	MP NAT More Settings		
& Network	Enable UPnP		1			
	Mapping Type		Manual			
\land Alarm	Port Type	Edit	External Port	External IP Address	Port	UPnP Status
,∉ RS-232	HTTP Port			0.0.0.0		Inactive
	RTSP Port	1	8554	0.0.0.0	8554	Inactive
 ▲ Live View 	Server Port	*	8000	0.0.0.0	8000	Inactive
▲ Exceptions	HTTPS Port	1	443	0.0.0.0	443	Inactive
🔹 User						Refresh
10 POS						
▲ Live View					Apply	Back

- 3. Go to General tab, and wait for 10sec. Then, Go back to NAT section again.
- 4. <u>If the UPnP Status section shows all Active</u>, and the External IP address is not 0.0.0.0. Then, <u>the port forward is completed</u>.
- 5. Go back to Network > General tab. Disable DHCP and Apply. Then, you are ready to go!
- 6. If all UPnP status still shows inactive, then you need manual doing the port forwarding from your PC.

•Configure from PC (IE Browser) •

- 1. Go to Configuration > Network > Basic Settings
- 2. Go to NAT, Enable UPNP, Change Port Mapping Mode to Manual. Click Save

Platinum	Live View	Playback	Configuration		
🖵 Local	TCP/IP DDNS	PPPoE Port	NAT		
🚞 System	☑ Enable UPnP [™]	м			
Network	Port Mapping	Mode Manu	al	✓	
Basic Settings	Port Type	External Po	rt External IP /	Address Internal Port	Status
Advanced Settings	HTTP	80	172,001,10	80	Valid
Video/Audio	RTSP	8554	173.94.46	8554	Valid
🔝 Image	Server Port	8000	172,91,10	8000	Valid
Event	HTTPS	443	173.041.10	443	Valid
Storage					
CA VCA					



Manual Port Forwarding Traditional Port Forwarding / Trouble Shooting

There are many kinds of router. I only list one example in there. You can do the same way for all others.

**Remember always write down the info what you find into the Notepad.

Windows PC version:



 Now, type Notepad <Enter> to open the notepad program Write down all the information you need to know.

📗 Untitled - Notepad	—	×
File Edit Format View Help		
THIS PC 192.168.0.5		^
GW 192.168.0.1		
DVR (find the IPv4 from the DVR)		
PORT		
80		
8000		
8554		
OUTSIDE IP:		
		~
<		>



CMD

- Now, find out and write down the DVR/NVR IP address into the notepad.
 For example, my DVR IP is 192.168.0.200
- Please watch out the DVR IP address! <u>192</u>. <u>168</u>. <u>0</u>. xxx First 3 group of ip# must be same as your PC address. If it is not the same, troubleshoot first. see Appendix 2 – How to set up DVR/NVR IP address

/ Unti	tled - Notepad —	×
File Ed	it Format View Help	
THIS P	C 192.168.0.5	^
GW	192.168.0.1	
DVR	192.168.0.200	
PORT		
80	If you don't know the DVR/NVR, see	
8000 8554	Appendix 1 - How to find the DVR/NVR IP	
OUTSID	E IP:	
======		~
1		N

5. Open Browser and type DVR IP (for example, 192.168.0.200) address to verify it first.

						×
(→)	\rightarrow	Search 🔎	-	fi 🗲	t 🛱	<u>.</u>
🖉 Login 🛛 🗙 🍸 🚭						
		Sign in with your account admin [Login		English		~

Make sure you can see this login page first.

6. Open another browser tab. Now, we need to program the Port forwarding in your Router. Usually, your GW (Gateway) IP is your router IP. For example, 192.168.0.1 (ARRIS Router)

	192.16	58.0.1	\times	+ ~										-	
\rightarrow	Ö	ώ	i) 192.1	68.0.1/								□ ☆	≵≡	L	ß
		AR	RIS		Wireless	HSD	Logo	ut							
		Login													
		LOGIN			Login The default user as \$, !, ?, &, #, @	name is 'admin'. Va ②, and others.)	alid character	s are the numbers	0 to 9, the le	tters a through :	z, and printal	ble special cha	racters (suc	:h	
					Login										
					User Name			admin		?					
					Password			•••••	۲	?					
					Apply										
		-	-	-	-	-	-		-	-			-		
								••••••	Φ	\$					

Default router username & password: admin password

7. After Login to the router. Go to Firewall > VIRTUAL SERVERS / PORT FORWARDING

ARRIS	Wireless	HSD	Logout				
asic Setup WAN Setup	LAN Setup	Wireless 2.4 GHz	Wireless 5 GHz	Firewall	MoCA	Utilities	
FIREWALL	Firewa	II Settings	i -				
FIREWALL SETTINGS	Your Router is	equipped with a firev	wall that will protect yor	ur netwo	/ide array of commo	n hacker attacks includin	ig Ping of
VIRTUAL SERVERS / PORT						Turning off the firewall p	
PORT TRIGGERS	not leave your	network completely v	ulnerable to hacker at	tacks, but it is recon	mmended that you to	urn the firewall on whene	ver possibl
CLIENT IP FILTERS							
CLIENT IPV6 FILTERS	Firewall	Enable/Disabl	e				
DMZ	Enable Firew	wall	2				
PARENTAL CONTROLS				/			
ALG	DoS Atta	ck Protection					
				5			

(Note: ARRIS router must enable the Firewall. If you disable the firewall, it also disabled the port forwarding)

8. Then, adding the Port Forward rule. Common Ports: 8000, 8554 and 80

isic Setup WAN Setup	LAN Setup Wireless 2.4 GH	z Wireless 5 GHz Firewall	MoCA	U	tilities
REWALL	Virtual Servers	Port Forwarding			
REWALL SETTINGS		e external (Internet) calls for services s	uch as a web serve	er (port 80), FT	P server (Port 21), or oth
ARTUAL SERVERS / PORT	Add Vistual Secure	n valir internal actuary			
PORT TRIGGERS	Add Virtual Server			111	
LUENT IP FILTERS	Description	DVR8000	3	(11)	
CLIENT IPV6 FILTERS	Inbound Port	8000 to 8000	3	Address	Local Port
MZ	Format	TCP ~ 3		0.150	8008-8008
PARENTAL CONTROLS	Private IP Address	192.168.1.200	2	0.150	555-555
		8000 to 8000	2	0.150	878-878

9. After finish adding. Go to <u>www.CanYouSeeMe.org</u> to check the Port# (for example, 8000) forward is a success or fail. If it is **success**, then you just finish the port forwarding. Use your smartphone to view.

Open Port Check Tool									
This is a free utility for remotely verifying if a port is open port forwaring and check to see if a server is running o									
		Commo	n Ports						
Success: I can see your service on the boll by the on port		FTP	21						
(8000)		SSH	22						
Your ISP is not blocking port 8000		Telnet	23						
Your IP:		SMTP	25						
		DNS	53						
Port to Check: 8000		Yo	ur Outsid is Here	le IP					



Appendix 1 – How to find DVR/NVR IP Address



IPv4 is your current DVR/NVR IP address

Trouble Shooting: If your network IP address is 192.0.0.64, then you need to check your network signal first. Either it is not connected to the router, or the cable is broken.

Appendix 2 - How to Setup DVR/NVR IP Address

Go to DVR/NVR,

MENU > Configuration > Network

D 🗘	Ē	5		Ш [©]	1	Ø	٠.	Φ	Co	nfigurat	ion			
థ General			Genera	I PT Cloud	PPPOE	DDNS	NTP	Email	SNMP	NAT M	lore Settii	ngs		
& Network			NIC	Type ble DHCP				10M/		0M Self-ad	laptive			v
\land Alarm		NEW	IPv4	Address								IPv6 Address 1	fe80::2a57:beff:fe89:6a66/64	
∉ RS-232	IPv4 Subnet Mask 255.255.0						IPv6 Address 2							
IPv4 Default Gateway 192.168.1 .1						IPv6 Default Gateway								
Playback	•		MAC	MAC Address				28:57	7:be:89:6a	1:66				
土 Export	•		мти	(Bytes)				1500	1500					
005 VCA Search	•	General	Enat	le DNS DHCF				~						
📮 Manual	•	Network	Prefe	erred DNS Ser	ver			192.1	192.168.1.1					
HDD	•	Alarm	Alter	nate DNS Sen										
🖙 Record	•	RS-232	Inter	nal NIC IPv4 A	ddress			192.	168.188.	.1				
Camera	•	Live View											-	
 Configuration Maintenance 		Exceptions User											3	
 Shutdown 		POS											Apply	Back

Reference:

• C www.routerlogin.net/adv_inc	dex.htm				Q 🖣 🔂 📈
NETGEAR	denie.				Logout
WNR2000v5	geme				Firmware Version V1.0.0.2
BASIC ADVANCED	2				Auto
ADVANCED Home	Port Forwarding / Po	ort Triggering			
Setup Wizard	Please select the service typ	De.			
WPS Wizard	Port Forwarding				
▶ Setup	Port Triggering				
► Security	Service Name	Server IP Address 192 . 168 . 1	+ Add		
► Administration	#	Service Name	External Ports	Internal Ports	Internal IP a
 Advanced Setup 		Service Name	External Forts	internari orta	
Wireless Settings	Edit Service	X Delete Service	+ Add Cust	om Service	Arrange by interr
Wireless AP Port Forwarding / Port Triggering Dynamic DNS					
Static Poutes					

Linksys

Fire and I	Apps and Gaming	later a fin			
Firewall		Internet filters			
IPv4 SPI firewall protect		Filter anonymous Internet requests			
IPv6 SPI firewall protec	tion 📝 Enabled	ed 🔲 Filter multicast			
VPN Passthrough		Filter Internet NAT redirection			
IPSec Passtbrough Z Enabled		Filter ident (Port 113)			
PPTP Passthrough	Enabled				
L2TP Passthrough	Z Enabled				
IPv6 Port Services					
Description	Protocol	IPv6 Address	Allow	Enabled	