Remote Network Setup

Once you have completed the <u>Local Network Setup</u>, you should have an internal IP address for your DVR.

The next step in the process is to forward ports pertaining to the DVR, so that you can see your cameras remotely.

We recommend that you follow the steps in our network tutorial located at <u>www.zmodo.com/network</u>. This video walks through using our network tutorial:

Forward DVR's Ports

1) Log in to your router by entering the gateway IP, such as 192.168.1.1, in to your browser window. Enter the login information for your router. If you cannot remember this, you can check the default username/password combinations for most routers at http://www.pcwintech.com/default-router-modem-passwords. If you are unable to locate this information, please contact your router manufacturer or Internet Service Provider.

2) Once you've logged in to your router, you will need to enter the Port Forwarding section of your router. There, you'll enter the IP address, protocols, and port numbers for your DVR.

IP Address = IP address in your DVR's Network Settings

Protocol = BOTH (TCP/UDP) OR TCP

Service or Application Name can be anything you wish, like DVR1 or DVR2

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Create 1 rule per port number; Start and End Ports will be the same number

Here are the default ports for Zmodo units (last port # is the mobile port):

H9104, H9108, H9106, H9116: 80, 9000, 18004

H9114, H9118: 80, 5050, 6050, 7050

H9124, H9128, DR-SFN6: 80, 9000, 15961

H8000/H8100 series: 80, 7777, 8888

Note: If you are using a DSL internet service, you may need to use port 81 (instead of 80) as your web port. If so, be sure to change this in your DVR's network settings, and restart the unit. Once the port number is changed, you will need to use it when connecting to the unit (ie. <u>http://192.168.1.1</u> becomes <u>http://192.168.1.140:81</u>)

3)Below are screenshot samples of common router's Port Forwarding sections. Please note that exact locations may differ depending on your router's model. If your model is not listed, try looking through Advanced, Firewall, or Forwarding sections in your router to find the exact location.

Applications						Win	eless-G Broad	Iband Reuter	WRETS+SR.	
& Gaming	Setup	Setup Wireless		Security Pastriction		LCOBB Irictions	Applications & Gerning	Administration	Status	
	Port Range F	arward	1	Part Trig	gening	CHIZ	6v5			
Port Range Forward								Port Range To	rwarding:	
				Por	t Range			Central application	tione may require ports in orde	
	Application	510	Start End		Profescel	IP Address	Envaluise	for 8 to function correctly. Examples of these application		
		Û	10	Û.	Both 💌	152.168.10		include servers online games .	and certain Men a reques	
		0	10	0	Both 💌	152.168.10.0		for a certain po the internet, the	ri conac in ta router will ro	
		0	11	0	Both 💌	152.168.10.0		specify. Due to	securey	
		Ù	10	Û	Both 💌	152.168.10		port for wording	to only those	
		0	10	0	Both 💌	192 168 10 0		uncheck the En	while checkling	
		0	10	0	Both 🖂	182 160 10 0		More		
		0	to	0	Both 💌	192.168 10 0				
		0	11	0	Both 💌	192.168.10				
		Û.	10	0	Both M	192.168.10.0				
		1.6	-	1.	[a.]]	17	_			

In Linksys routers, you will typically enter Applications & Gaming, then Port Range Forward. Exact names/places will differ depending on model. Be sure to create forward 1 port range per line, and check the 'Enable' box at the end of the line, then save changes.

Netgear

NETGEAR settings



Router Status Attached Devices Backup Settings Set Password Router Upgrade	Port Forwarding / Port Tri Please select the service type © Port Forwarding © Port Triggering	iggering	Port Forwarding / Port Triggering Help Port Triggering and other internet applications. Port Forwarding can typically be used to enable similar functionality, but it is static and has some limitations. Port Triggering opens an incoming part temporarily and
Wireloss Settings Port Forwarding / Port Triggering WAN Setup LAN IP Setup Dynamic DNS	Service Name A/M	Server IP Address 192.148.1.Add Start Port End Port Server IP Address 0 0 0 0.000	does not require the server on the internet to track your IP address if it is changed by DHCP, for example. Port Triggering monitors outbound traffic. When the router detects traffic on the specified outbound port, it remembers the IP address of the computer that sent the data and 'triggers' the incoming port, incoming traffic on the triggered port is then forwarded to the triggering computer.
Static Routes Remote Management UPnP Wich Support	EditSe	invice Delete Service	Using the Port Forwarding / Port Triggering page, you can make local computers or servers available to the Internet for different services (for example, FTP or HTTP), to play Internet games (like Quake III), or to use Internet applications (like CUseeMe).
Knowledge Base Documentation Logout			Port Forwarding is designed for FTP, Web Server or other server based senices. Once port forwarding is set up, requests from the Internet will be forwarded to the proper server. Port triggering will only allow requests from the Internet after a designated port is triggered. Port triggering

In Netgear routers, you will typically look under Advanced for Port Forwarding/Triggering. Select Port Forwarding as your service type. Then, select 'Add Custom Service' for each port you forward.

D-Link

Product: DSL-27408					Firmware Version: EU_5.17
D-Lin	K				
DSL-27408	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
Port Forwarding	PORT FORWARD	ING			Helpful Hints
Application Rules	This is the ability to ope	n ports in your router and re-dire	t data through those ports	to a single PC on your	Check the Application
QoS Setup	network.				a list of predefined
Outbound Pilter	PORT FORWARD	can still easily define a new rule.			
Inbound Filter	Remaining number	of rules that can be created:	48		Hore
Wireless Filter					
DNS Setup	Name	1	External Port TCP	Internal Port TCP	
Firewall & DMZ		< Application Name .		1	
Advanced Internet	IP Address	<< Computer Name	UDP	UDP	
Advanced Wireless	line Testanfaran		8 J	1. 19	
Advanced LAN	Use Internaces	[bbboa_0/bbboa0]			
SVMP Setup		Add/Ap	phy		
Remote Management					
Routing Setup	ACTIVE PORT FO	RWARDING RULES			
Wii-Fi Protected Setup	Name Address	External Port Internal Port	Protocol WAN Inter	face Edit Remove	
Logout					
8 () () () () () () () () () (

For D-Link Routers, you will enter Advanced, then Port Forwarding. Click 'Add/Apply' when you have finished each rule.

Belkin

BELKIN	Ro	uter Setup Utility	r Ho	ne Help Log	poet Internet Status: Con	nected
LAN Setup LAN Settings DHCP Clear List	Firewall >	Virtual servers	route external (Internet) Det applications finder	calls for service	es such as a web server (p	off
And an owned with the	into					
Connection Type			Clear Chances Ann	ly Chances		
		Add Active World	*	0 con fee		
MAC Address		Clear estry 1	1		Clear	
Window	East	n Description	Tobaund and	Tumo	Principal TR address	Private neet
Channel and SSID	Enaist	e bescription	Integens port	Type	Trivate IF address	Private port
	1. E			BOTH -	192.168.2.	
	2, 🗀			BOTH -	192.168.2.	-
	a. E			BOTH .	192.160.2	
MAC Address Control	u					
Firewall	4. 🖸		-	BOTH -	192.168.2.	-
Virtual General Clerit P Fitters	s. 🗉			BOTH .	192.168.2.	
	6. 🖂		-	BOTH .	192.168.2.	-
				Donu		100
	7.			BOIH .	192.168.2.	
	a. 🖂			BOTH -	192.168.2.	
	a 17			BOTH -	102 148 2	101
Utilities	<i>n</i> D			DO IN Y	192.100.2.	
the second se	press,				the second se	and the second sec

For Belkin routers, access port fowarding under Firewall, Virtual Servers. Be sure to check the 'Enable' box, then hit the 'Set' button, and save your changes.

2-Wire

For 2-Wire modems, enter Firewall, then Advanced Settings.



First, look for the DVR's IP address under (1) Select a computer. If you do not see the DVR's IP address here, you may need to go in to the DVR's Network Settings, and set the DVR to DHCP (instead of Static), then reboot the DVR. Once the unit reboots, check it's IP address in the Network Settings, then go back to your router to select the DVR from the list.

Next, you will need to click on "Add a new user-defined application", to come to the this new screen:

Profile Name						
Inter a name for th	e annlicat	ion profile	that you	are creat	ina	
Application Name:						
Definition						
Choose a protocol ADD DEFINITION to application requires need to add multipl	and enter add the o s multiple e definitio	the port(s definition t ports or b ms.) for this to the D oth TCF	application efinition Li: and UDP	on, then clic st. If the ports, you v	k Will
lote: In some rare in changes in addition to oppears in the applica	stances, o simple por tion type m	ertain appli 1 forwardin enu below	g. If the i	pes require application y ommended t	specialized f ou are addin hat you selec	irewa 9 ± it
Protocol:	@ TC	P	C	UDP		
Port (or Range):	From:		To:			
Protocol Timeout seconds):				default 8640 default 600	00	
Map to Host Port			Defa abov	ult = the sar =.	ne port as de	fined
Application Type:	None	(Defeul	τ)	09 		•

Create your rule, and click 'Add Definition'. Create a rule for each port. Then, click Back.

DVR-H8106UV



When done, select each application you have created, and click 'Add', so that you see the desired applications in the Hosted Applications table. When finished, click 'Done' at the bottom of the screen.

Netopia

For Netopia routers, click on the Configure tab at the top of the page.

Home	Configure Troubles	shoot Security Install	Restart Help						
notonia	Home - Configure		Δ						
Duickstart LAN WAN Advanced	 To make configuration changes, follow these steps: Make a change to a field or parameter. Click Submit. This change isn't permanent; you'll save it later. The Alert button (top right corner) appears. Make more changes, if desired. Click the Alert button. The Save Changes page appears. If your changes are validated, you can save them. If not, a descriptive message appears. Choose Save and Restart. The Gateway restarts with your changes. 								
	Quickstart	For most users, Quickstart includes everything needed to configure a connec Provider.	tion to your Service						
	LAN	Configuration options for the Local Area Network side of the Galeway.							
	WAN	Configuration options for the Wide Area Network connection on the Gateway.							
	Advanced	Advanced configuration options for the Gateway. Consult the user document before changing any of these configuration options.	ation or help text						
		@ 2005 Netopla, Inc.							

Next, click on Advanced.

Home	Configure Troubleshoot Security Install	Restart	Help
	Home × Configure × Advanced		
netopia.	Network C	onfiguration	
	IP Static Routes Build IP static route t	able	
Quickstart	IP Static ARP Build IP static ARP to	ble	
WAN	No. 1	AT	
Advanced	Pinholes Set up pinholes thro	ugh NAT	
	PMaps Set up NAT one-to-o	ne IP address mappings	
	Default Server Set up NAT default s	erver options	
	NAT Table Monitoring Set up NAT Table Mo	nitoring options	
	Sei	vices	
	Differentiated Services Set up Differentiated	Service options	
	DNS Set up DNS options		
	DHCP Server Set up DHCP server	and relay-agent options	
	RADIUS Server Set up RADIUS serv	er options	
	SNMP Set up SNMP comm	unity, trap and system group options	
	IGMP Set up IGMP options		
	Access Control Set up Access Control	ol	
	UPnP Enable or disable U	niversal Plug'n'Play	
	LAN Management (TR-064) Enable or disable D	3L Forum LAN-Side DSL CPE Configuration services	
	Ethernet Bridge Set up ethernet MAC	bridge	
	Miscel	laneous	

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From the Advanced menu, click on Pinholes.

Home	Configure	Troubleshoot	Security	Instal			Restart	Help
	Home Cor	nfigure > Advance	ed > Pinholes	i > Edit	Pinhole			
netopia.			P	inhole	Entry			
Quickstart		P	Pinhole Name					
LAN		F	Protocol Selec	x (тср 🛟			
Advanced		E	External Port S	Start)			
		E	External Port E	End)			
		le de la della d	nternal IP Add	dress	192.168.1.0			
		Ir	nternal Port	C	D			
				Subr	mit			
						-		

Create your rule, then hit 'Submit', and repeat for each port. When you have completed, click on the yellow triangle with an '!' inside (located at the top righthand corner) to save your changes.

Checking Your Connection

4) Once you have forwarded all ports necessary for your DVR, you'll want to check and make sure each of these ports was successfully opened. To check this, go to <u>http://www.yougetsignal.com/tools/open-ports/</u>

Here, you will see fields for **Remote Address** and **Port Number**.

To check that your ports are open, enter each port you've forwarded (one at a time) in to the Port Number field, and click 'Check'.

If you see a green flag, and a statement "Port X is open on XXX.XXX.XXX.XXX", you have fowarded your ports correctly. You are now able to view your DVR remotely.

If you see a red flag, the port is not open. Go back in to your router, and double check at all information is correct. In some cases, a port may be blocked by your ISP. To find out why, or to request it opened, please contact your ISP.

Important: The Remote Address that you see is **your DVR's external IP address**. This is the address that you will use to access your DVR from a different computer. Write this down!! And remember, ActiveX settings must be changed on each new computer that you are viewing from before you'll be able to bring your DVR up.

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