ZMD-DD-SBN4
Remote Network Setup

Once you have completed the [Local Network Setup](#), 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 www.zmodo.com/network. 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

ZMD-DD-SBN4

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. http://192.168.1.1 becomes http://192.168.1.140:81)

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.

Linksys

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

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

ZMD-DD-SBN4

Product: DSL-2740B   Firmware Version: EU_S.17

D-Link

| DSL-2740B | **SETUP** | **ADVANCED** | **MAINTENANCE** | **STATUS** | **HELP** |

Port Forwarding

Application Rules

QoS Setup

Outbound Filter

Inbound Filter

Wireless Filter

DNS Setup

Firewall & DMZ

Advanced Internet

Advanced Wireless

Advanced LAN

SNMP Setup

Remote Management

Routing Setup

Wi-Fi Protected Setup

Logout

PORT FORWARDING

This is the ability to open ports in your router and re-direct data through those ports to a single PC on your network.

PORT FORWARDING RULES CONFIGURATION

Remaining number of rules that can be created: 48

		External Port	Internal Port
		TCP	TCP
Name	<< Application Name		
IP Address	<< Computer Name	UDP	UDP
Use Interface:	pppoa_0/pppoa0		

Add/Apply

ACTIVE PORT FORWARDING RULES

| Name | Address | External Port | Internal Port | Protocol | WAN Interface | Edit | Remove |

Helpful Hints...

Check the Application Name drop down menu for a list of predefined applications. If not you can still easily define a new rule.

More...

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

Belkin

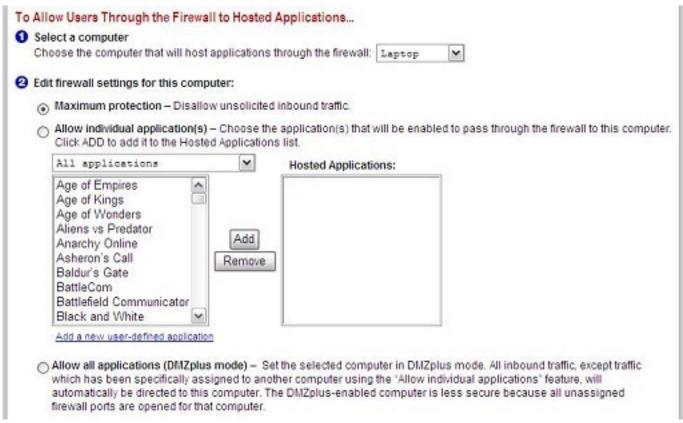For Belkin routers, access port fowarding under Firewall, Virtual Servers. Be sure to check the 'Enable' box, then hit the 'Set' button, and save your changes.

2-Wire

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

ZMD-DD-SBN4

To Allow Users Through the Firewall to Hosted Applications...

1 Select a computer
Choose the computer that will host applications through the firewall: [Laptop ▼]

2 Edit firewall settings for this computer:

○ Maximum protection – Disallow unsolicited inbound traffic.

○ Allow individual application(s) – Choose the application(s) that will be enabled to pass through the firewall to this computer. Click ADD to add it to the Hosted Applications list.

[All applications ▼]

```
Age of Empires
Age of Kings
Age of Wonders
Aliens vs Predator
Anarchy Online
Asheron's Call
Baldur's Gate
BattleCom
Battlefield Communicator
Black and White
```

[Add]
[Remove]

Hosted Applications:

Add a new user-defined application

○ Allow all applications (DMZplus mode) – Set the selected computer in DMZplus mode. All inbound traffic, except traffic which has been specifically assigned to another computer using the 'Allow individual applications' feature, will automatically be directed to this computer. The DMZplus-enabled computer is less secure because all unassigned firewall ports are opened for that computer.

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:

Settings

Profile Name

Enter a name for the application profile that you are creating.

Application Name: [   ]

Definition

Choose a protocol and enter the port(s) for this application, then click ADD DEFINITION to add the definition to the Definition List. If the application requires multiple ports or both TCP and UDP ports, you will need to add multiple definitions.

Note: In some rare instances, certain application types require specialized firewall changes in addition to simple port forwarding. If the application you are adding appears in the application type menu below, it is recommended that you select it.

Protocol:	⦿ TCP	○ UDP
Port (or Range):	From: [ ]	To: [ ]
Protocol Timeout (seconds):	[ ]	TCP default 86400 UDP default 600
Map to Host Port:	[ ]	Default = the same port as defined above.
Application Type:	None (Default) ▼	

[ADD DEFINITION]

[BACK]

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

To Allow Users Through the Firewall to Hosted Applications...

1 Select a computer
Choose the computer that will host applications through the firewall: `Laptop` ▼

2 Edit firewall settings for this computer:

○ Maximum protection – Disallow unsolicited inbound traffic.

○ Allow individual application(s) – Choose the application(s) that will be enabled to pass through the firewall to this computer. Click ADD to add it to the Hosted Applications list.

`All applications` ▼

Application List	Hosted Applications:
Age of Empires	
Age of Kings	
Age of Wonders	
Aliens vs Predator	
Anarchy Online	
Asheron's Call	
Baldur's Gate	
BattleCom	
Battlefield Communicator	
Black and White	

[Add]
[Remove]

Add a new user-defined application

○ Allow all applications (DMZplus mode) – Set the selected computer in DMZplus mode. All inbound traffic, except traffic which has been specifically assigned to another computer using the 'Allow individual applications' feature, will automatically be directed to this computer. The DMZplus-enabled computer is less secure because all unassigned firewall ports are opened for that computer.

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.

ZMD-DD-SBN4

Home > Configure

netopia.

Quickstart
LAN
WAN
Advanced

To make configuration changes, follow these steps:

1. Make a change to a field or parameter.
2. Click Submit. This change isn't permanent; you'll save it later. The Alert button (top right corner) appears.
3. Make more changes, if desired.
4. Click the Alert button. The Save Changes page appears.
5. If your changes are validated, you can save them. If not, a descriptive message appears.
6. Choose Save and Restart. The Gateway restarts with your changes.

Quickstart	For most users, Quickstart includes everything needed to configure a connection to your Service Provider.
LAN	Configuration options for the Local Area Network side of the Gateway.
WAN	Configuration options for the Wide Area Network connection on the Gateway.
Advanced	Advanced configuration options for the Gateway. Consult the user documentation or help text before changing any of these configuration options.

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Next, click on Advanced.

Home > Configure > Advanced

netopia.

Quickstart
LAN
WAN
Advanced

Network Configuration	
IP Static Routes	Build IP static route table
IP Static ARP	Build IP static ARP table
NAT	
Pinholes	Set up pinholes through NAT
IPMaps	Set up NAT one-to-one IP address mappings
Default Server	Set up NAT default server options
NAT Table Monitoring	Set up NAT Table Monitoring options
Services	
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 server options
SNMP	Set up SNMP community, trap and system group options
IGMP	Set up IGMP options
Access Control	Set up Access Control
UPnP	Enable or disable Universal Plug'n'Play
LAN Management (TR-064)	Enable or disable DSL Forum LAN-Side DSL CPE Configuration services
Ethernet Bridge	Set up ethernet MAC bridge
Miscellaneous	

ZMD-DD-SBN4

From the Advanced menu, click on Pinholes.

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 http://www.yougetsignal.com/tools/open-ports/

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

ZMD-DD-SBN4

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.

Unique solution ID: #1003
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Last update: 2014-10-01 15:41