



# VIPER - DVRNS Set-up for Remote Access via Dynamic IP Address



## INTRODUCTION

Remote access to an NVR\DVR is usually via ADSL using just a single dynamic registered IP address. This address can change every 24-hours!

Therefore, for reliable connectivity via a remote app, a static and predicatable Domain name must be given and used to connect to the NVR\DVR – usually via a **DDNS** service.

Despite some DDNS services being free of charge, many require you frequently to login to their Web site to keep the free DDNS name active and usable!

Viper's own DVRNS feature provides a free alternative that only requires initial set-up.



**Note: DVRNS (like DDNS) still requires you to set-up port-forwarding on your firewall!**

## SETUP PROCEDURE

### ROUTER\FIREWALL

- Log in to the Internet router as administrator and go to the firewall or port-forwarding menu.
- Create a new rule to provide the following INWARD port forward rule and then save it;

Type	Ports from	Ports translate to	Allow\deny	Forward to
TCP & UDP	<b>80, 9350 (note 1.)</b>	80, 9350	Allow	x.x.x.x (note2.)

- On smaller networks, default firewall rules may have NO restriction on the outgoing ports an “inside” device, such as Viper, can open out to the Internet. However, if your network or firewall has stronger security policy, then also add an **OUWARD** firewall policy to allow Viper to originate the below ports out to the Internet.

Type	Ports from	From	Allow\deny	To:
TCP & UDP	<b>9091, 9891</b>	x.x.x.x (note2.)	Allow	All Internet Hosts

**1. Confirm router not already forwarding 80 or 9350 for another device! Change Viper to use different ports if so!**

**2. Replace x.x.x.x with IP address of your Vipers WAN interface; under Network > Basic config! Refer to next paragraph**



## VIPER

- Next, login to Viper recorder as admin.
- Right-click in the Live screen and select **[Setup]** from the menu.
- Click menu **[Network]** then **[Basic]** and use **fig 1**. to confirm IP address, default TCP (9350) & HTTP (80) are as expected and set in your previous firewall port forward rule!

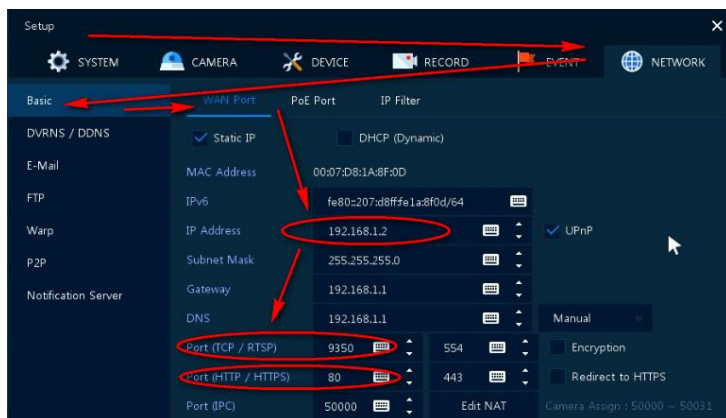


Figure 1

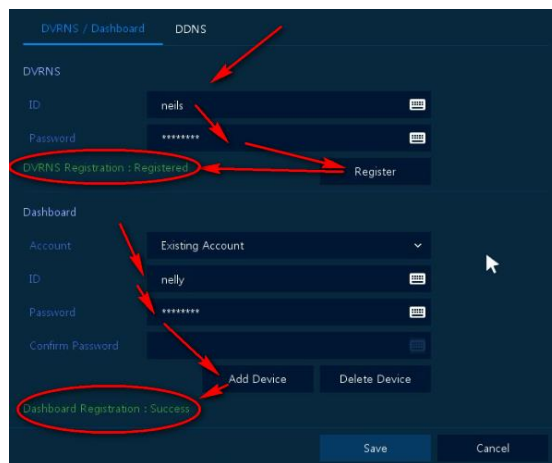


Figure 2

- Click **[Save]** if any changes were made, then click the **[DVRNS / DDNS]** tab
- Refer to **fig 2**. create a DVRNS ID (to help identify the recorder) and enter the Vipers Admin password.
- Now click **[Register]** and confirm Viper responds with “Registered”!  
If not, confirm all network settings on Viper and a valid DNS server is set before proceeding any further!

Once DVRNS is registered; it is optional if you wish to set-up a Dashboard Account, though consider;

- Setting one can help diagnose any issue if at the end of this procedure DVRNS is not working.
- The Installer can register and connect to all Viper sites he manages from one Dashboard account.
- The Customer can use the Dashboard account to manage all their Vipers from one place.

- Refer to **fig 2**. and under Dashboard, select either Existing or New Account.
- Enter a required Dashboard ID and password, then click **[Add Device]** to add the Viper ID to the Dashboard account – confirm “Success” is returned!
- Click **[Save]** to complete the setup. Continue to add now add the Viper recorder to a mobile device etc.

## ACCESS VIPER FROM MOBILE DEVICE AND OTHER CLIENTS

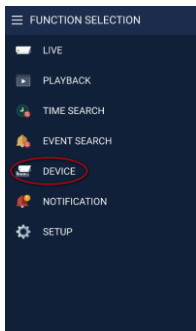
You should now be able to use the DVRNS name to add the Viper to the below for remote access;

- Viper Remote (Android/iOS)
- Viper Central (Windows)
- IE Web Browser (Windows)

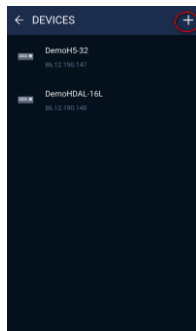


### MOBILE DEVICE (Android example)

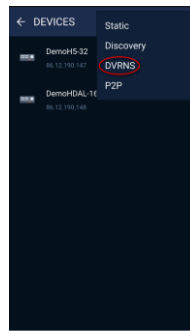
- Open Viper Remote - install it first from Google Play Store if you have not already done so.
- Tap [Device], then the + icon (*step 1 & 2*)



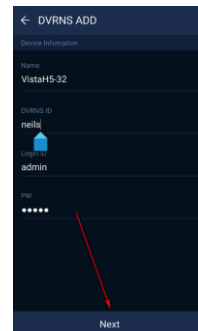
Step 1



Step 2



Step 3



Step 4

- Select DVRNS (Step 3.), then complete the dialogue boxes using **Step 4** above and the below for guidance;

<b>Name</b>	Anything you choose to identify the recorder in your device list.
<b>DVRNS ID</b>	The Vipers DVRNS ID you registered when clicking the <b>[Register]</b> button!
<b>Login ID &amp; PW</b>	This is an ID and password set “locally” on the Viper i.e. the default <b>admin</b> and <b>admin</b> , or you may have created an account for your customer to use.

The Viper should now be available on the device to view via the **Live** and/or **Playback** menus. If not, refer to the section titled **Web browser access via DVRNS** and use it to confirm the Viper had fully registered!

### Viper Central (Windows PC) via DVRNS

If you have Viper Central installed on a Windows PC and wish to add the new Viper, follow the below;

- Open Viper Central and login as admin. Right-click the Set-up icon *fig 3*. then click [Add Device] – *fig 4*.

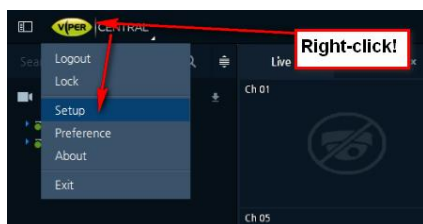


Figure 3

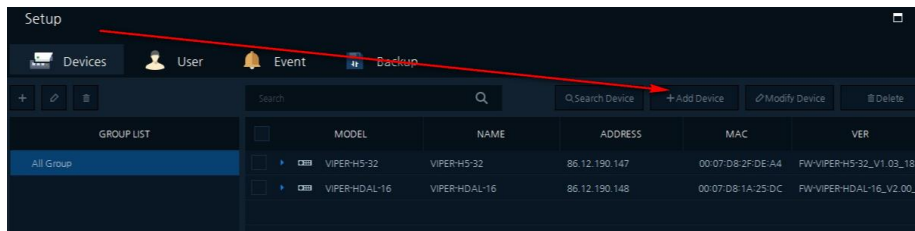


Figure 4

- Use below example to enter details for your recorders DVRNS settings – note the suggested order!



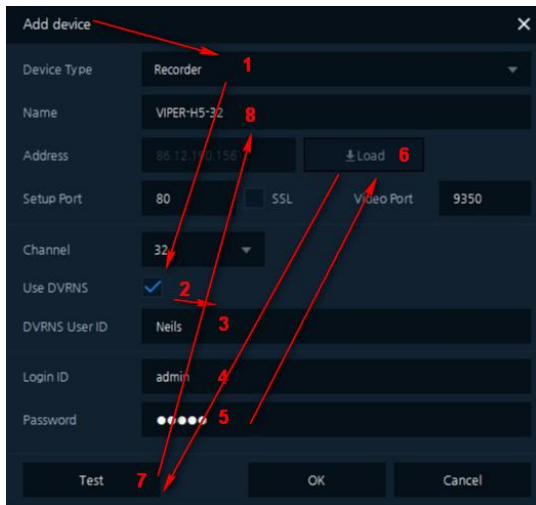


Figure 5

1. **[Device Type]** select Recorder from drop down.
2. Click **[Use DVRNS]**
3. **DVRNS User ID** = ID you created when clicking “register”.
4. Login ID = the Vipers local admin or user ID!
5. Password = the Vipers local admin or user password!
6. Click **[Load]** and confirm “Load Success” is reported!
7. Click **[Test]** and confirm “Connect Success” is reported!
8. Amend the **Name** as required
9. Click **[Ok]**, then **[Cancel]**

This completes the procedure and Viper should appear in the device list, so it may be dragged onto a Live or Playback tab and viewed.

## Web Browser access via DVRNS

Viper can also be accessed remotely via Internet Explorer using the DVRNS ID;

- Open IE on your PC and enter the url [www.securityddns.com](http://www.securityddns.com)
- Login entering the DVRNS ID Name and then the Vipers local ID and password i.e. admin\admin **fig 6**.
- You should eventually receive Live video and be able to Playback and enter the Setup Menu of the Viper.

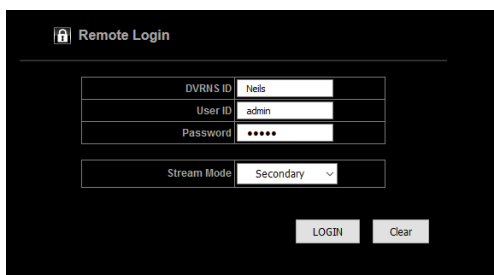


Figure 6

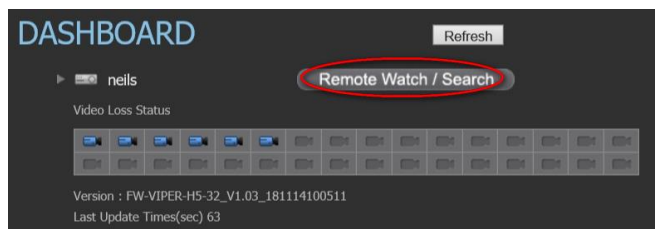


Figure 7

## Via Dashboard

If you registered a Dashboard account earlier, while registering the Viper's DVRNS, you can also login via;

- Open Internet Explorer and enter the url; [www.securityddns.com/dashboard](http://www.securityddns.com/dashboard)
- Enter the Dashboard ID and password you created earlier – not the individual Viper's DVRNS ID!
- You should see similar to **fig 7**. – the new Viper listed and highlighting which channels are receiving video.

Dashboard status **fig 7**. is good confirmation your Viper has at least registered correctly as part of any fault-finding.

End of procedure – Use Fault-finding help below if need be.



## FAULT-FINDING

### VIPER FAILS TO REGISTER

- Confirm network settings on the Viper are correct. Pay special attention to Subnet mask, Default gateway and DNS settings! Seek IT help to determine what you need to enter – if unknown!
- Confirm a PC on the same internal network can web browse into Viper
- Confirm DNS setting on Viper – normally it is the same IP address as the default gateway. Try to PING [www.securityddns.com](http://www.securityddns.com) from the Viper's own Network menu to confirm DNS. This should return "Successful" (as long firewall allows PINGs to be sent!)
- Try PING 211.243.115.106. If this is successful, but [www.securityddns.com](http://www.securityddns.com) is UNSUCCESSFUL, then DNS is definitely an issue!
- Your firewall rules must allow Viper to originate and send out TCP\UDP ports **9891** and **9091** for DVRNS registration to work! If in doubt, add an additional and explicit firewall rule to allow the single WAN IP address of Viper to open ports 9891 and 9091 outward.
- Once DVRNS registration reports "Successful", then all the above has been proven to be correct.

### VIPER REGISTERS DVRNS OK, BUT CAN'T CONNECT FROM MOBILE APP etc

- Your firewall must have an INWARD rule and port forward for TCP\UDP **80** and **9350** to allow remote App access!
- If your ISP network provision is more complex – especially if it provides the site with multiple external registered IP addresses instead of just one – then you may need to add a "symmetrical" port forward rule to ensure the outward registered IP address of the Viper (registered with DVRNS) is the very same registered external IP address so that it matches your incoming port forward rule on the firewall! Refer below to "Symmetrical firewall rule"
- Note when connecting from a mobile device via 3G/4G etc, some Telecom providers may "block" and deny certain ports passing through their networks causing such remote access to be denied! Try the connection from a different device and Telecom provider. Or load Viper Central for free onto a PC and access via the Internet as a test.

### **"Symmetrical firewall rule"**

The below example shows "symmetrical" rules to ensure a Viper on the internal address 192.168.1.30 will consistently be converted to and from the external IP address 62.23.45.67 regardless if the TCP connection is "outgoing" (DVRNS registration) and "incoming" (remote mobile Apps attempting to connect)

#### Incoming Port Forward Rule

From	To External IP	To	Forward to Internal	Ports	Allow\deny
Internet	62.23.45.67	LAN	192.168.1.30	80, 9350	Allow

#### Outgoing Port Rule

From	To External IP	To	Use External Address	Ports outward	Allow\deny
LAN	192.168.1.30	Internet	62.23.45.67	9891, 9091	Allow