

Network Setup/Connection for Sigmoid DVR

To Access Sigmoid DVR remotely through Internet connection, the following requirements are necessary:

DVR (server) side:

High speed Internet connection (DSL, ISDN, T1, Cable modem, etc.)

Client side:

1. Any Internet connection.
2. Installation of Sigmoid Client software, Remote Center.

If a direct phone line is used for the internet connection, no setup is required for the DVR server. Otherwise, set up the network as follows:

Set up server network **WITHOUT** a router

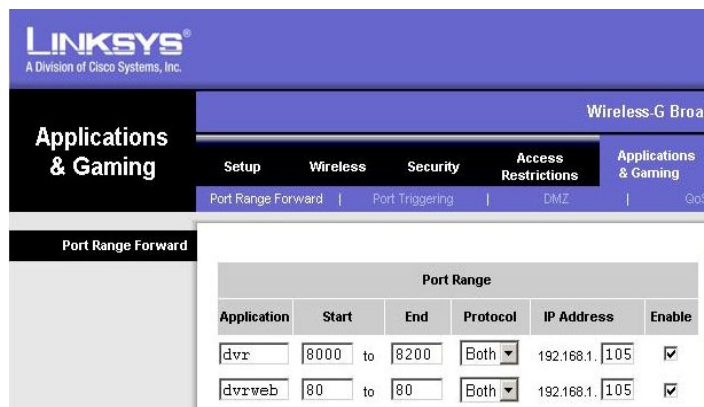
1. Obtain a high speed Internet service with either a static IP address (follow step 2 and 3 to complete setup) or a dynamic IP address (follow step 2, 3 and 4 to complete setup).
2. Connect the DVR network port to or via a hub to Internet access point (or the DSL modem if a DSL service is used) with a Cat 5 patch cable.
3. If you must put the DVR behind a firewall, make sure the following ports are enabled (forwarded): 8000, 8100, and 8200 for the DVR access and 80 for web browser support.
4. For users of Internet service with dynamic IP addresses assigned each time they log on to the Internet, they need to go to www.dyndns.org and register and obtain free Dynamic DNS service that allows users to alias a dynamic IP address to a static hostname via which they can access the DVR anytime regardless of varying IP addresses.

Set up server network **WITH** a router in use

1. Obtain a high speed Internet service with either a static IP address (follow step 2, 3, 4, 6 and 7 to complete setup) or a dynamic IP address (follow step 2, 3, 5, 6 and 7 to complete setup).
2. Connect the DVR network port to a router that connects directly to Internet access point.
3. Open Internet Explorer and type the router's default IP address (e.g. 192.168.1.1) in the address field to connect to the router (username and password may be needed for authentication).
4. In Basic Setup, follow the instructions provided by the ISP to select proper Internet connection type and enter static IP address in proper field. Then go to step 6 for packet forwarding setup.
5. In Basic Setup, follow the instructions provided by the ISP to select proper Internet connection type and enable "DDNS Service". Go to www.dyndns.org and register and obtain free Dynamic DNS service that allows users to alias a dynamic IP address to a static hostname

via which they can access the DVR anytime regardless of varying IP addresses.

- Set up Packet Forwarding in router configuration to allow external users to reach DVR server with a private IP address (inside LAN) via appropriate ports. Check User Guide for particular router to enable packet forwarding and configure port numbers: 8000, 8100 and 8200 for DVR server and 80 for web browser support. Take Linksys WRT54G as an example, under **Applications & Gaming** tab, click **Port Range Forwarding** and enter "dvr" and "dvrweb" in **Application** column. Put "8000" and "8200" in **start** and **end** field for "dvr", and "80" in **start** and **end** field for "dvrweb". In **IP Address** field enter local IP address assigned for DVR. See configuration of Linksys WRT54G below.



Save all the changes made and close Internet Explorer window.

IP Setup can be accomplished by following the procedures below:

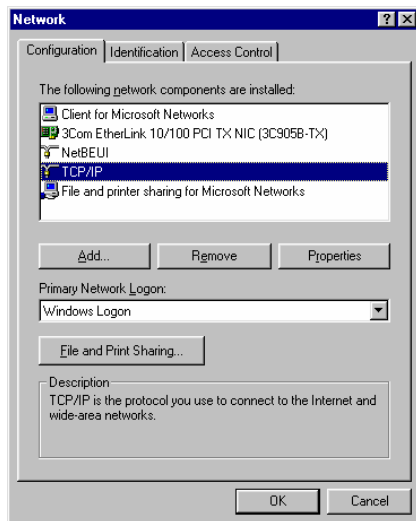


Figure 1-1 Advanced Networking Setup

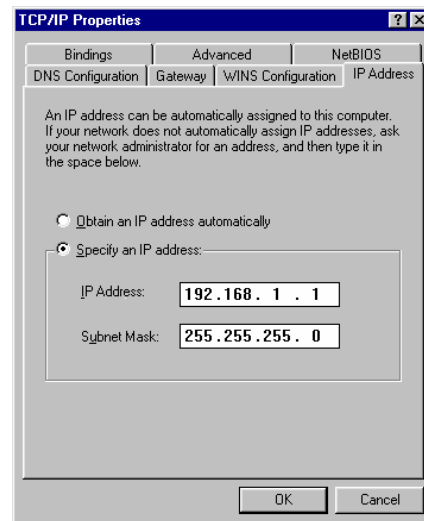


Figure 1-2 TCP/IP Properties

Under Windows 98/Me :

1. Select the proper TCP/IP network component from the list and click the "Properties" button. This will open the TCP/IP Properties window (Figure 1-2).
2. Select "Specify an IP address", and enter the Static IP address into the "IP Address" box. Also set the "Subnet Mask" to the value provided by the ISP.
3. Click the "Gateway" tab on the top, and set the gateway IP address to the value provided by the ISP.
4. Click the "DNS Configuration" tab to add DNS Server address.
5. Click the "OK" button to close the TCP/IP Properties window.
6. Click the "OK" button to close the Advanced Networking Setup window.

Under Windows XP/2000 :

1. Right click Connection icon (Figure 1-3) and select "Properties" tab to bring up Connection Properties window (Figure 1-4).

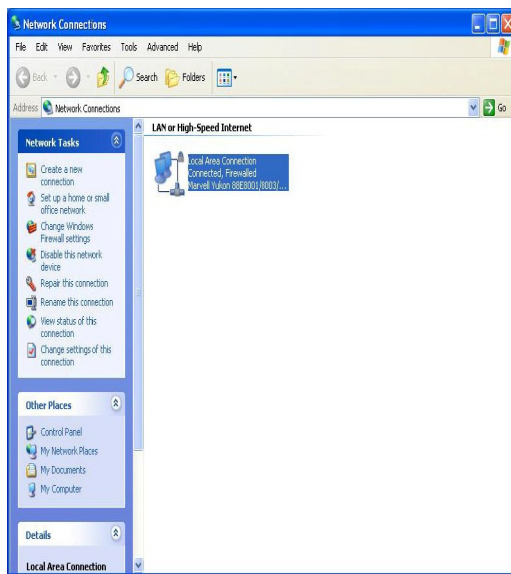


Figure 1-3 Connection icon

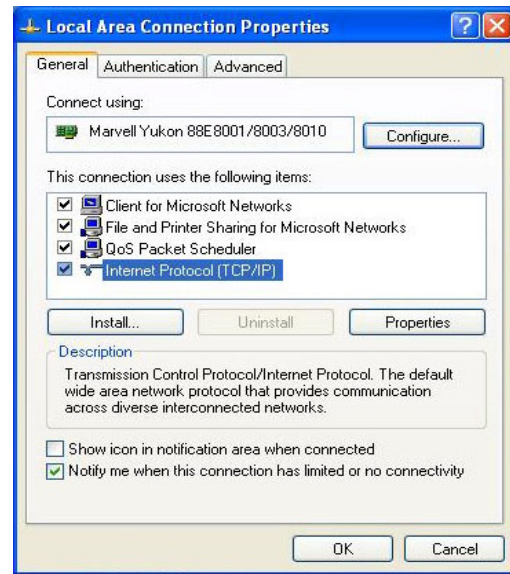


Figure 1-4 Connection Properties

2. Select the Internet Protocol (TCP/IP) component from the list and click the "Properties" button. This will open the TCP/IP Properties window (Figure 1-5).
3. Fill in IP address, Subnet mask, Default gateway, DNS server address in the TCP/IP Properties window.
4. Click the "OK" button to close the TCP/IP Properties window.

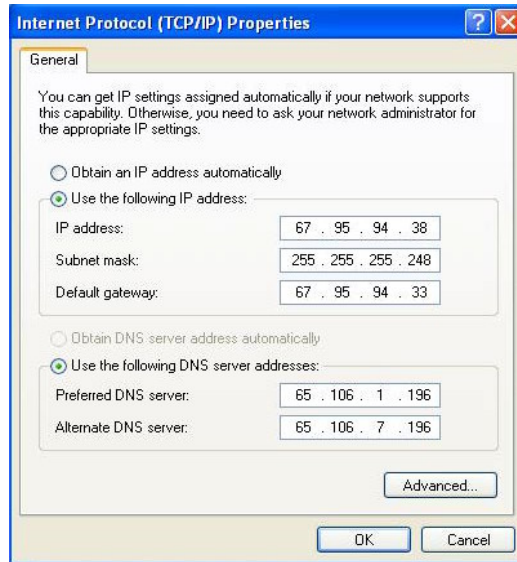


Figure 1-5 TCP/IP Properties

Click the "OK" button to close the Advanced Networking Setup window.

