Maretron®

Requirements for N2KView® Remote Internet Connectivity

Using N2KView® to remotely access the vessel can be done one of two ways:

1) Dedicated Hosting Services (available Q3 2011 with monthly subscription) is a no-hassle, seamless approach to remote vessel monitoring and control. As long as the vessel and the remote N2KView® have access to the Internet, a connection is automatically performed from anywhere in the world.

2) Free via the Internet. The second method for remotely accessing the vessel is free via the Internet although the following requirements must be met (please consult with an IT specialist):

A. Incoming Connections: You need to ensure that your ISP (Internet Service Provider) allows incoming connections to your boat's local network external IP address. Some ISP's allow this only for business networks. You need to check the Terms of Service agreement with your ISP for details on this.
   a. Wired Network (Cable/DSL): You need to check with your ISP whether incoming connections are supported on your service.
   b. Cellular Network: If you connect to the Internet through a cellular connection (AT&T Wireless, Verizon Wireless) you generally need to make arrangements through the cellular ISP to allow "Mobile terminated data", usually at an extra cost.
   c. Marina Wireless Provider: If you connect through a marine Wi-Fi provider, you will need to make special arrangements with the marina, usually asking them to set up a static IP address for your boat's network on the marina's router (See the IP Addressing: Static IP address discussion below). In addition, the marina will need to enable port forwarding on their router for both N2KServer and all IP cameras (see the Port Forwarding discussion below).

B. Port Address Translation: You need to ensure that your ISP will allow incoming connections on port 6544 for N2KView and port 80 for the camera. If not, you will require a router capable of doing Port Address Translation. If you have more than one camera (or more than one video server) you will need a router capable of doing Port Address Translation. Make sure that your ISP allows sufficient incoming ports for each camera or video server and N2KView.

C. IP Addressing: You have two choices:
   a. Static IP address: Normally, your ISP assigns a "dynamic" external IP address to your boat's network which can change from time to time. A Static IP Address is an external IP address for your network that always remains constant and is allocated through your ISP. You need to make arrangements with your ISP to have a static IP address allocated for your boat's network, usually at an extra cost.
   b. Dynamic DNS addressing: This is a service (offered free by dyndns.org) that allows you to register a domain name (such as myboat.dyndns.org) with the IP address used by your network. A computer on your local area network must run a dynamic DNS client for the dynamic DNS service you are using, which periodically checks the external IP address assigned to your boat's network and will update the information in the dynamic DNS service's servers. This allows use of the domain name to access your N2KServer® and the dynamic DNS service translates this name to the currently registered IP address.

D. Port Forwarding: The N2KServer® listens for N2KView® clients on TCP port 6544. You need to program your boat's router to forward any incoming connections to port 6544 to the same port on the computer running N2KServer®. Not all routers are capable of port forwarding for all ports. Make sure you check with the documentation for your boat's router to ensure that it is capable of arbitrary port forwarding.

E. Firewall: You need to ensure that your computer is set up to allow incoming connections to N2KServer® on TCP port 6544. The N2KServer® installation program creates this opening on Windows Firewall, but you will have to manually configure other firewall software to open this port. This step is not necessary for the IPG100.

F. IP Cameras: If you are using Axis IP Cameras on your network, you will need to enable port forwarding on your boat's router for each of the cameras you wish to view from the Internet on your N2KView® client. Please consult the Axis camera documentation for the ports used.