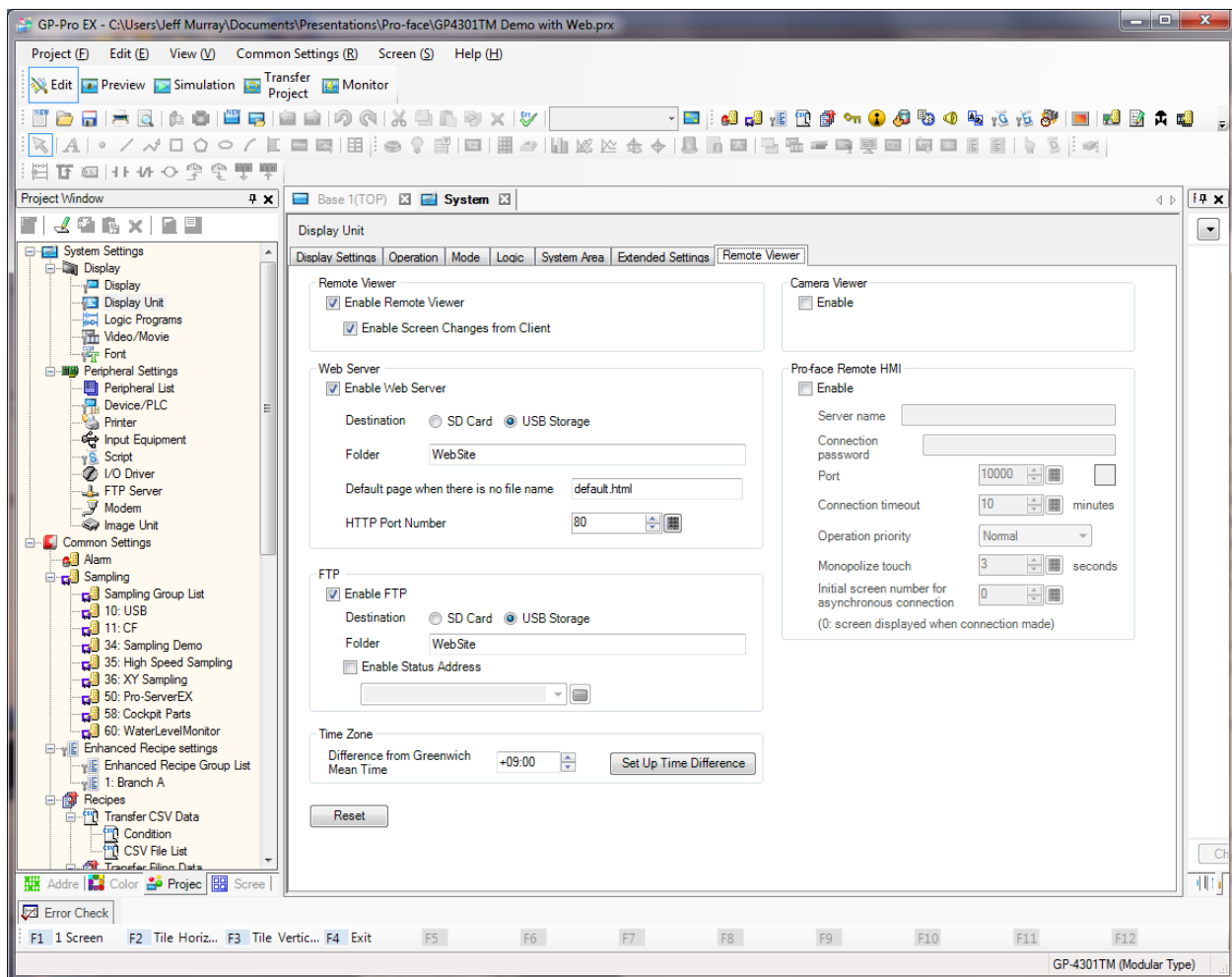


Control Point Technical Note:

Remote Pro-face Connection through Sixnet Cellular Router

Pro-face supports many remote connection options to their operator interface. This article discusses connecting to three: Web Server, FTP Server and GP-Viewer, through Sixnet's Cellular Router.

The first thing to remember is that the Pro-face display needs to have either a USB stick or SD card for memory, the unit needs to be configured correctly, and the Pro-face configuration must be loaded in the display properly. To configure the display correctly, in GP-ProEX, choose Display – Display Unit – Remote Viewer and ensure that the Remote Viewer, Web Server and FTP Server are enabled.



On the display itself, ensure that the IP address is set correctly and the remote viewer options are enabled. After selecting the transfer tool, choose Transfer Settings, and make sure that "Transfer Site Data" is selected.

For More Information:

www.controlpt.com

207-415-4166

office@controlpt.com

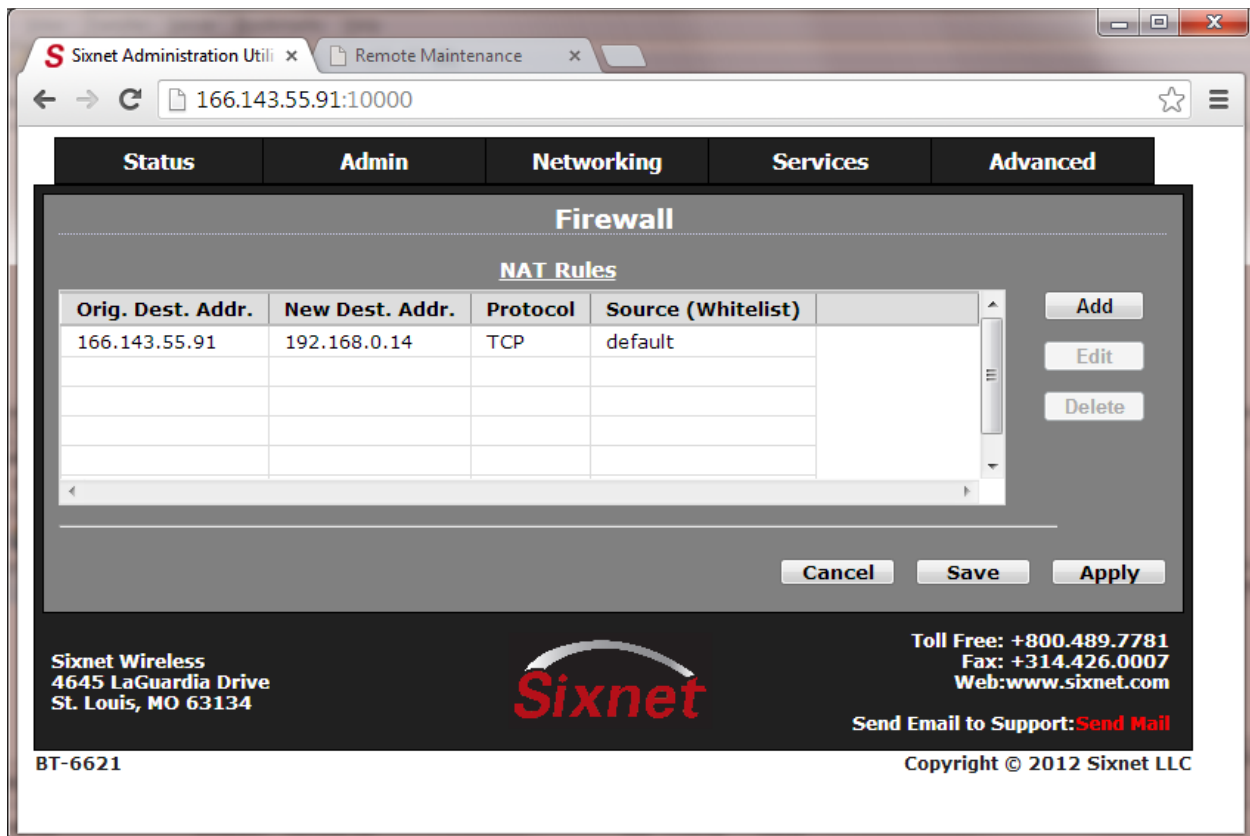
The second thing to understand is that the Sixnet cellular router needs to be configured to allow the necessary communication ports through the built-in firewall. As a quick reference, the remote connections require the following ports:

Web Server – User Defined through GP Pro-Ex - defaults to port 80 (TCP)

FTP Server – Port 21 (TCP)

GPViewer – Port 21 and Ports 8000-8030 (TCP and UDP)

If there is only one device that you need to remotely access behind the Sixnet Router firewall, the simplest approach is to configure a NAT (Network Address Translation) Rule through the firewall that routes all the traffic to the WAN IP to a specific device behind the firewall. The configuration window below shows that configuration.



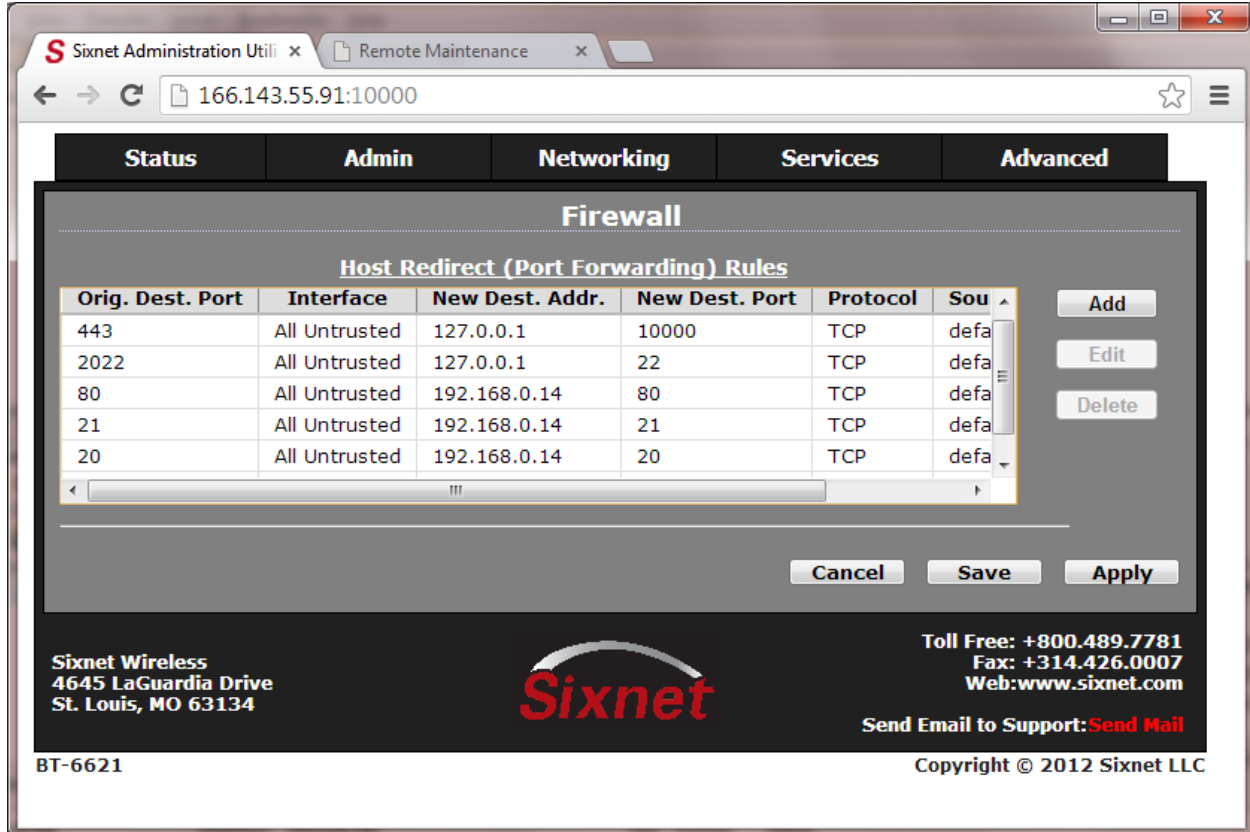
The screenshot shows the Sixnet Administration Utility interface. The browser address bar displays `166.143.55.91:10000`. The main navigation menu includes Status, Admin, Networking, Services, and Advanced. The Firewall section is active, displaying the NAT Rules configuration window. The NAT Rules table is as follows:

Orig. Dest. Addr.	New Dest. Addr.	Protocol	Source (Whitelist)
166.143.55.91	192.168.0.14	TCP	default

Buttons for Add, Edit, and Delete are visible to the right of the table. At the bottom of the configuration window are buttons for Cancel, Save, and Apply. The footer of the utility includes the Sixnet logo, contact information (Sixnet Wireless, 4645 LaGuardia Drive, St. Louis, MO 63134), toll-free number (+800.489.7781), fax number (+314.426.0007), website (www.sixnet.com), and a link to Send Mail to Support. The version number BT-6621 and copyright notice (Copyright © 2012 Sixnet LLC) are also present.

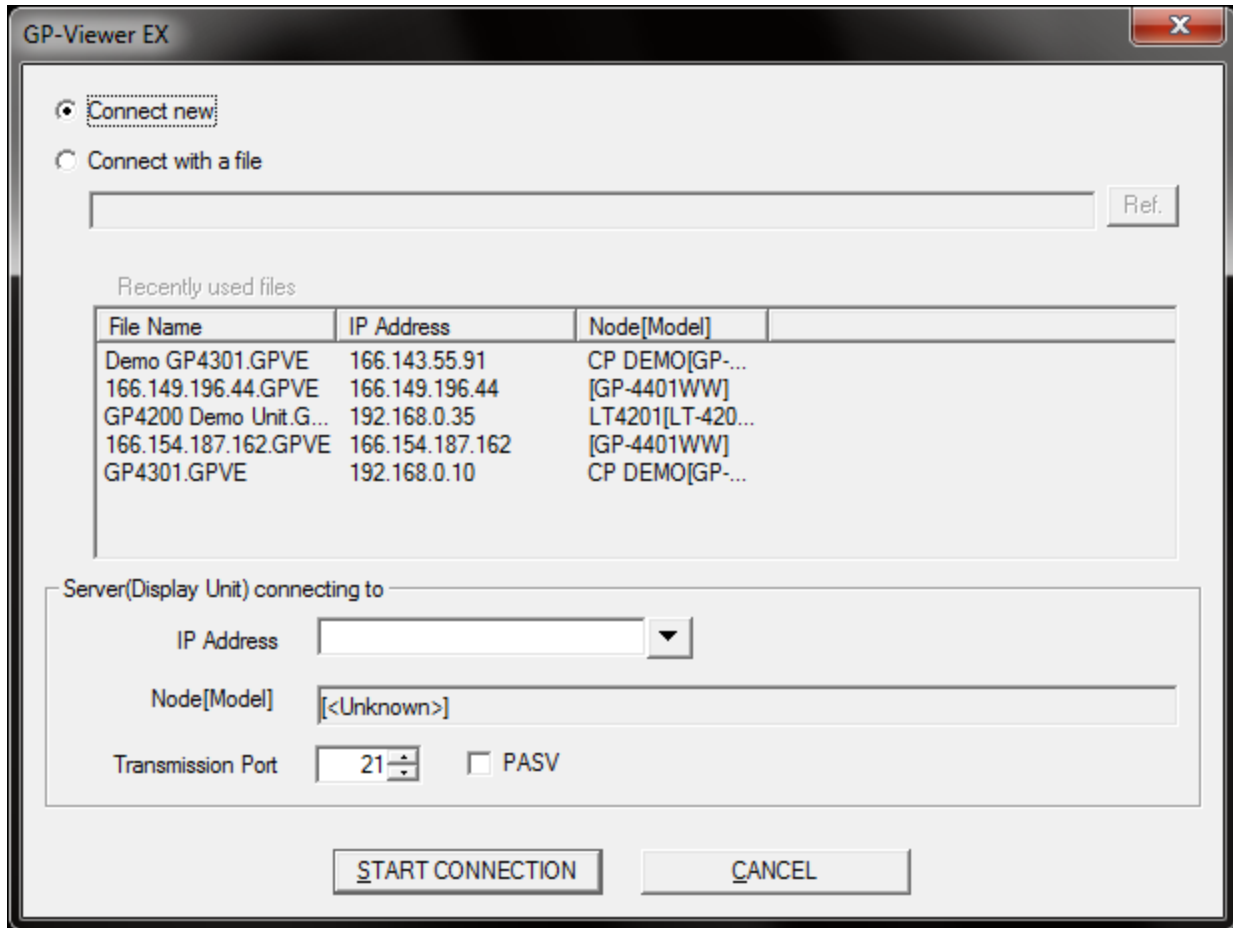
If you have multiple devices behind the router, you can determine which ports are routed to which IP addresses by using Host Redirect (Port Forwarding) Rules. Host Redirect Rules take effect before the NAT rules explained previously, so they will override certain ports if both are configured. The

configuration below shows port forwarding for the web server and FTP server along with a couple of internal ports in the router.

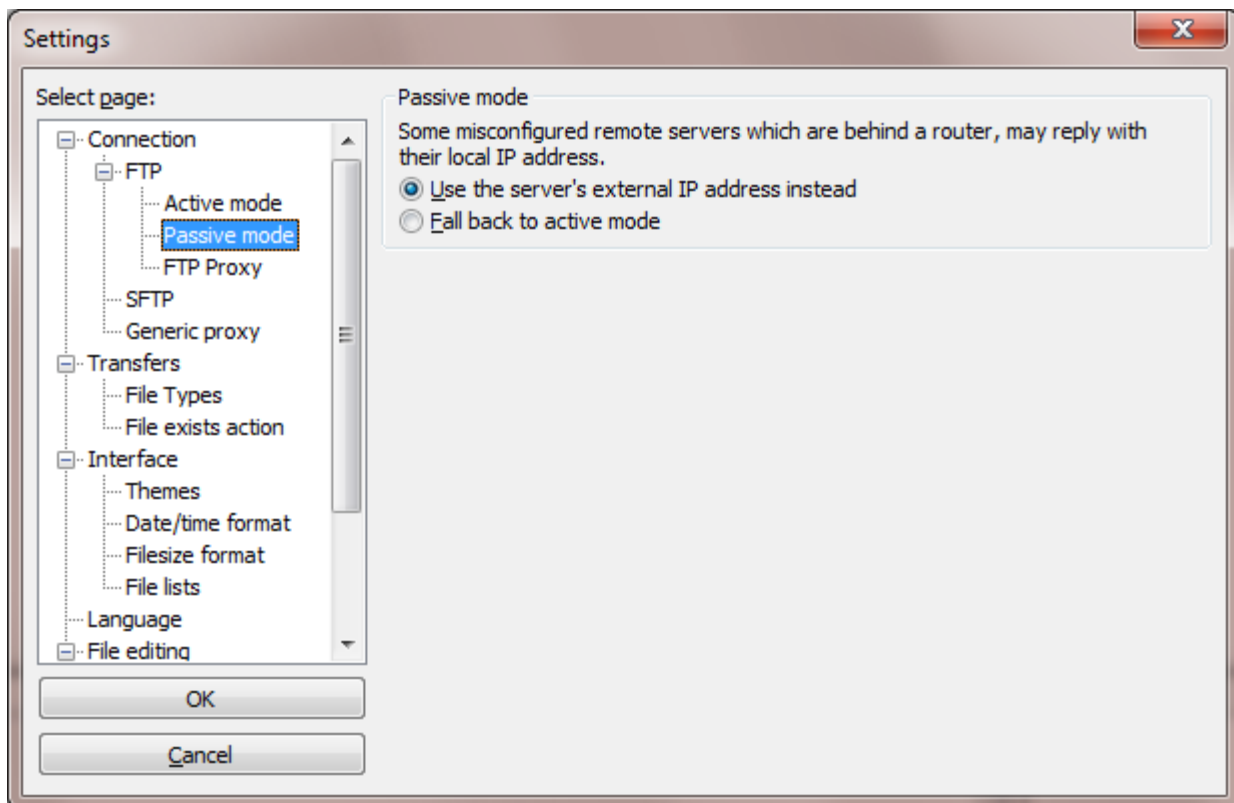
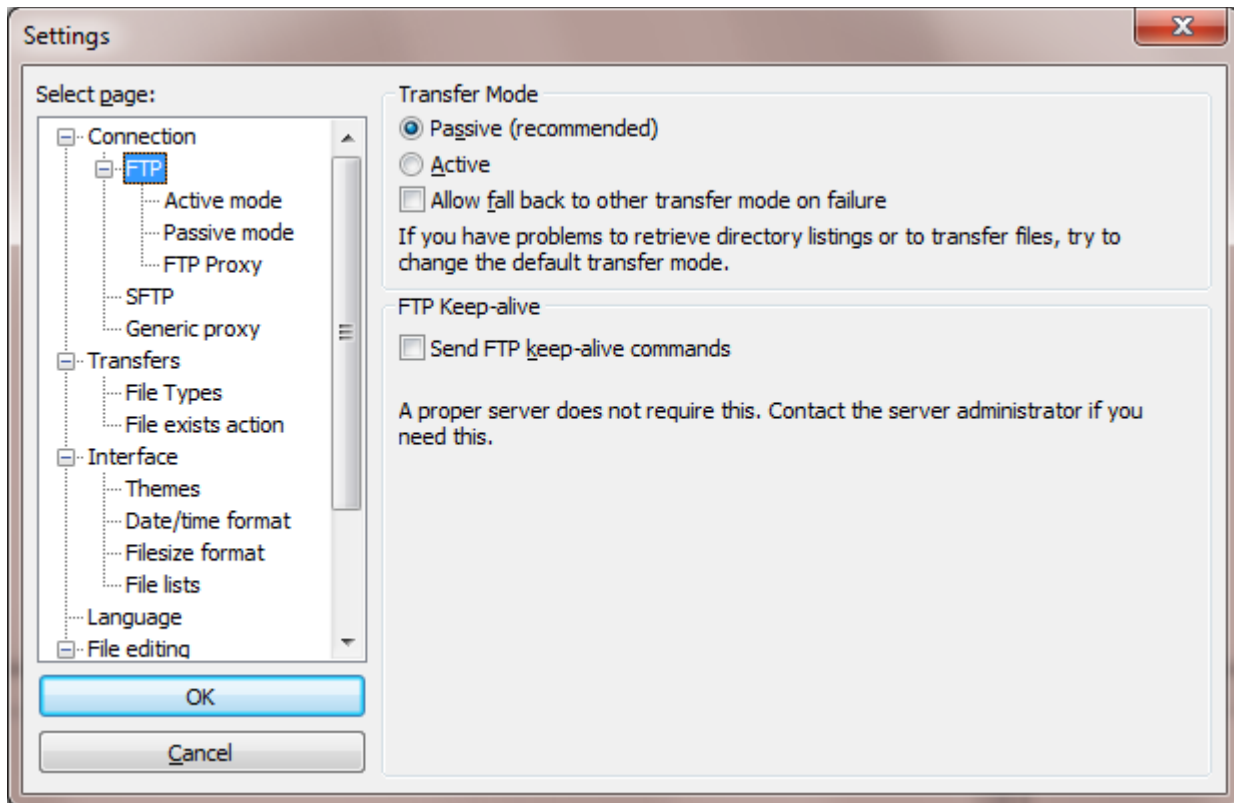


Once configured, to access the web server, you simply need to open a browser and enter the IP address of the WAN port on the cellular router. The default port for the browser is port 80, so your request will be forwarded to the web server on the Pro-face display.

To activate GP-Viewer EX, start the GP-View EX application and either choose a file to connect with or select Connect New. Enter the WAN IP address of the cellular router, leave the default (21) Transmission Port and select Start Connection. In some cases I have found selecting the PASV (Passive Mode) connection has resolved communications issues.



Finally, to connect with the FTP Server, I have used FileZilla as an FTP Client. It is free and easy to use with a quick install from the web. The only configuration changes I made to the default setup in FileZilla are through the Edit – Settings Menu. I chose to NOT “Allow fall back to other transfer mode on failure” which was the default configuration under Connection – FTP. I also chose to “User the Servers External IP Address instead” under the Connection – FTP – Passive Mode menu item.



CONTROL POINT

"Solutions to keep your business on target"

Once these configuration changes are made, enter your Sixnet Cellular Router WAN IP address in the Host field and select Quick Connect. The menu structure for the files on the Pro-face USB or SD Card will be visible as shown in the final picture.

