

Description: Guide to Setting up GenBroker to go through a firewall using the TCP/IP protocol

OS Requirement: Win 2000, XP Pro, Server 2003, Vista, Server 2008, Windows 7

General Requirement: Overall knowledge of network architecture; an open port on your firewall, usually 38080

Introduction

Many times, there is a firewall that an outside client must bypass to access data on an internal network. This document will detail how to do this with GenBroker. Before we begin, please read the assumptions below to get an idea of the network setup.

We will assume that you have a WebHMI server machine inside your network with an internal IP address (we will use 192.168.1.1) and a router or firewall with an external IP address (we will use 12.13.14.15). We will also assume that all publishing is to the internal address. You will most likely need to publish locally because if you try to publish to the external interface of the firewall you will have a loop back issue and it will not work. Note that once finished, clients inside the network will NOT be able to use these same published WebHMI pages.

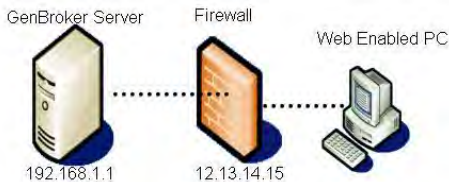


Figure 1 - Network Setup

Setting up the WebHMI Server

1. Open the GenBroker Client Configuration by going to Start → Programs → ICONICS WebHMI → Client Configuration
2. Make sure that the primary node for the administrative servers is set to your Server’s internal IP Address.

Administrative Servers:			
Server	Primary	Backup	
Security	192.18.1.1	<none>	
Licensing	192.18.1.1	<none>	
Global Aliasing	192.18.1.1	<none>	
Language	192.18.1.1	<none>	
Events	192.18.1.1	<none>	

Figure 2 - Administrative Server Settings

3. In the tree control on the left-hand side, click on Channels.
4. In the right-hand pane, click on “Add TCP Channel...”
5. Type in the IP Address of your firewall or router in the Select a Node window that popped up and clicks “OK”. Click “OK” in the next screen that pops up.

6. Right-click on the channel and select “Add Node...”
7. In the Select a Node window that popped up, type in the IP Address of your local computer.
8. Right-click on the channel and select “Set As Default”.

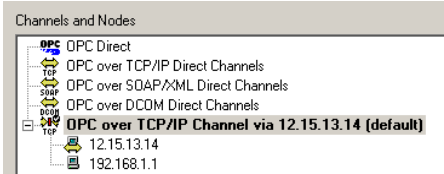


Figure 3 - GenBroker Client Channels

9. Save the configuration and exit.
10. In the GraphWorX32 displays, all of your tags need to use the internal address for OPC server references.



Figure 4 - OPC Tag Path Syntax

11. Publish your pages. If you need help publishing your pages, please refer to the application note entitled *WebHMI – Web Publishing Wizard Quick Start*.
12. Open the Change Host Name Utility by going to Start → Programs → ICONICS WebHMI → Change Host Name Utility
13. In the “Find what” field, type in your local IP Address and in the “Replace with” field, type in your Firewall IP Address. Select HTML in the file types, we will only replace the IP Address in the HTML files.

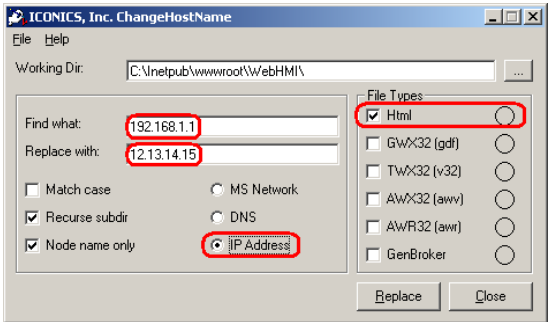


Figure 5 - Change Host Name Utility

Setting up the Firewall

1. The HTTP port (80 by default) must be open and redirected to the WebHMI server machine for typical web serving communications
2. The GenBroker port (38080 by default) must be open for two-way TCP/IP communication and redirected to the WebHMI server machine.