



Setting Up GenBroker TCP/IP through a Firewall

APPLICATIONS NOTE

August 2004



Description: Guide to setting up GenBroker to work through a firewall using the TCP/IP protocol.

OS Requirement: The operating system required is Windows NT4/2000/XP/2003.

General Requirement: Overall knowledge of network architecture.

Setting Up the WebHMI Server

To setup GenBroker through a firewall (router), 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 in our example) 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.

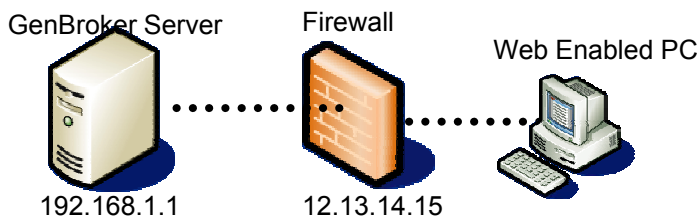


Fig. 1: Network Setup

1. The GenBroker client configuration (.gbx) file needs to be setup properly:
 - a. The mediator channel has the external address, and the internal address is added as a node to that channel, as shown in Fig. 2.

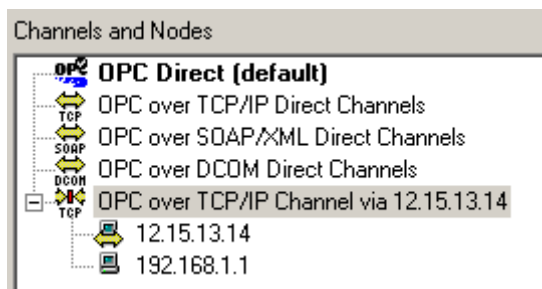


Fig. 2: GenBroker Client Configuration

- b. The Primary Servers have the internal address, as shown in Fig. 3.

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>

Fig. 3: Administrative Server Settings

2. The GraphWorX32 displays all need to use the internal addresses for OPC server references.



Fig. 4: OPC Tag Path Syntax

3. The published HTML pages use the external address for HTTP servers. This can be accomplished by going to **Start → Programs → ICONICS WebHMI → Change Host Name Utility**, entering in the internal address as the **Find what** field and the external address in the **Replace with** field, and selecting only HTML files on the right.

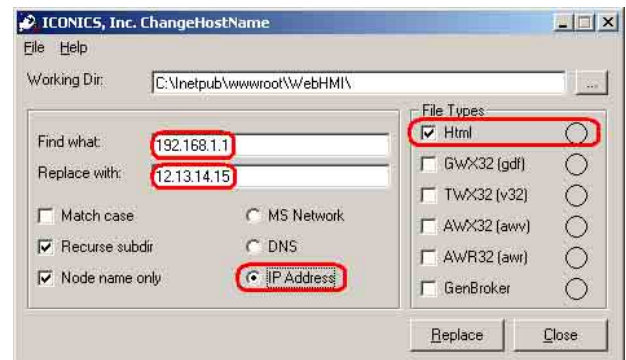


Fig. 5: Change Host Name Utility

Setting Up the Firewall

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