GenBroker – Working with Dual DNS

APPLICATIONS NOTE

October 2013

Description: Guide to configuring GenBroker to work through a firewall
OS Requirement: Win 2000, XP Pro, Server 2003, Vista, Server 2008, Windows 7
General Requirement: Overall knowledge of network architecture and DNS server administration

Introduction

The goal of this document is to demonstrate how one can make WebHMI pages available to clients both inside and outside the firewall when using DNS servers. You can setup GenBroker using TCP/IP or SOAP/XML with the configuration describe in this document.

Network Setup

The general architecture is that the published displays will use one DNS name (webhmi.mycompany.com) that is resolvable both internally and externally to the same WebHMI server. For this example, we will assume that the common DNS name is "webhmi.mycompany.com", the internal IP address of the WebHMI server is "192.168.1.10", and the external IP address of the firewall/router that takes care of redirection is "12.15.10.100".

The internal DNS server needs to resolve webhmi.mycompany.com to the internal IP address of the WebHMI server 192.168.1.10.

The external DNS Server will resolve all the requests coming from outside the firewall. Webhmi.mycompany.com will be resolved to 12.15.10.100.

The firewall/router needs to take the incoming requests and route them to the WebHMI server accordingly. If SOAP/XML channel is being used, then port 80 needs to be open and if TCP/IP channel is being used then both ports 80 and the GenBroker port (38080 by default) needs to be open.

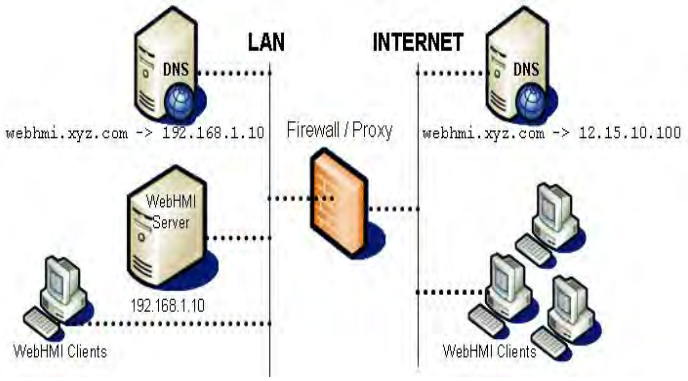

Figure 1 - Network Architecture

GenBroker Configuration Setup

The GenBroker Configuration file *.gbx that is downloaded to the WebHMI client needs to be configured with a VIA channel (either SOAP or TCP/IP depending on your setup). The name of the channel needs to be the DNS name, webhmi.mycompany.com in our example.

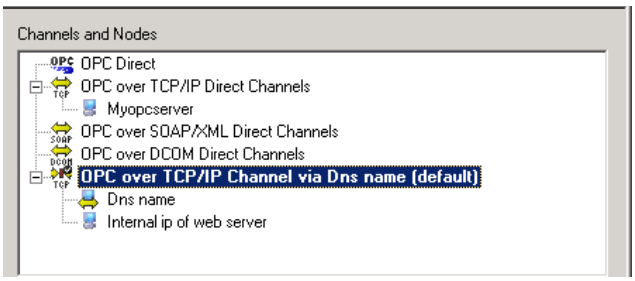

Figure 2 - GenBroker Configuration Setup

Added to that channel should be the internal IP address of the WebHMI server and its local node name. You should make this mediator channel the default channel. This ensures that all client GenBroker requests will go through the DNS name.

In your displays, the internal IP address or node names should be used for all OPC server names. This will be in tag names and in server names for the AlarmWorX32 Viewer and in the TrendWorX32 Viewer.