WebHMI – Redirection Using Terminal Services

APPLICATIONS NOTE

October 2013

Description: Guide to redirect WebHMI clients inside a local area network (LAN) out to the World Wide Web using terminal services
OS Requirement: Win 2000 Server, Windows Server 2003, Windows Server 2008
General Requirement: All WebHMI standard requirements apply. The WebHMI Client/Terminal Server should have an internet connection and Internet Explorer 5.5 or above.

Introduction

WebHMI allows GENESIS32 applications to be web enabled by using GenBroker technology. GenBroker communication occurs over port 38080 by default. This port must be open in order to use WebHMI across the World Wide Web. This could some times create difficulties in situations where the company policy does not allow port openings.

Windows Terminal Services is a solution; it opens a window for using WebHMI across the World Wide Web by allowing copied sessions of the WebHMI client across the internet. This reduces the security risks by eliminating the need to open ports other than the HTTP port (80).

Figure 1 is an example of how your network might be setup. There is a GENESIS32 system and a WebHMI server (could be the same or different machines), a WebHMI client that is a Terminal Server, and any number of Terminal Clients across the internet. The WebHMI Server and Client should reside in the same LAN, while the Terminal Clients could be outside of the LAN. Optionally, there could be a firewall between the Terminal Server and terminal clients.

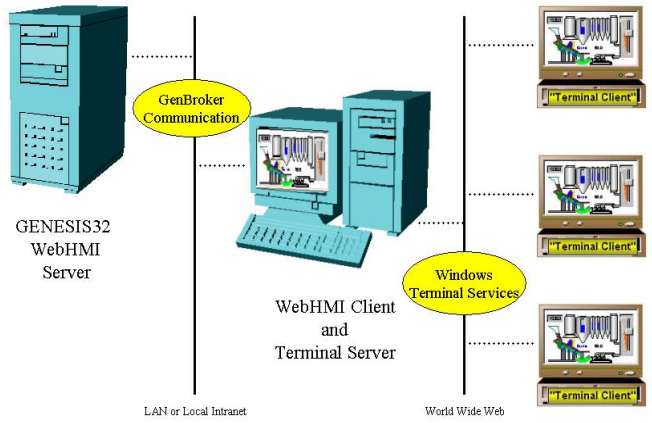

Figure 1 - Example of Network Setup

NOTE: Using this method of redirecting WebHMI via Terminal Services allows a firewall to exist between the WebHMI client and the World Wide Web with no special ports opened.

WebHMI Server Setup

You should setup your WebHMI Server as you would normally. For more information on how to setup a WebHMI Server machine, please refer to the application note entitled *WebHMI – Setting up the Web Server and Client*.

Terminal Server (WebHMI Client) Setup

The Terminal Server will act as the WebHMI client to view your WebHMI displays. Each time a terminal client logs into a terminal session and browses to WebHMI displays by launching the Internet Explorer on the Terminal Server, this terminal session becomes a WebHMI client.

You should enable Terminal Services in Application Server Mode so that applications, such as Internet Explorer, can run multiple sessions. This allows terminal clients to run Internet Explorer inside a terminal session with multiple instances running at the same time.

NOTE: Please refer to the Microsoft Windows 2000/2003/2008 Server Documentation on enabling Terminal Services in application server mode.

Terminal Clients

Terminal clients are machines that have the terminal client software installed on them. They serve as thin client stations that the user can log into the terminal server and use the server machine resources to run applications. Because of this, all you need to have is a power user account on the server machine.

NOTE: Please refer to Microsoft documentation and support for information on how to setup your terminal clients.

License Information

Terminal clients are essentially WebHMI clients; therefore, you will need license to cover each of your terminal clients as full WebHMI clients. These licenses function exactly like WebHMI client licenses, which are not specific to a particular machine or user. When you purchase a license for WebHMI, you will receive licensing for two simultaneous client connections and WebHMI will be checked in your License Utility. If you are using Terminal Sessions for redirection as described here, the license will allow two simultaneous terminal session running WebHMI displays. Thus, you do not need any additional ICONICS licensing or special licensing.

However, you will need to license Terminal Services through Microsoft in order to allow enough simultaneous terminal sessions to run your application. Please contact Microsoft for more information.