



### Virtual Connection

With a Virtual Connection you gain access to your substation devices anytime, anywhere. Log into Wesmaint, run a configuration program for a targeted intelligent electronic device (IED), or retrieve data for any attached IED in the substation *just like you were plugged right into it*. This seemingly direct interface is called the Virtual Connection. With a Virtual Connection you can communicate with any system IED through a single network connection - from the office, from home, or even at the substation! Or wherever you set up a PC. Access is secure and easy to use.

#### Dig up Valuable Data

Today's state-of-the-art, microprocessor-based devices are capable of providing a tremendous wealth of data such as status, events, statistics, etc. that are beyond the interest or capacity of a SCADA system. And realistically, you do not want to burden your SCADA system with non-real-time or historic data. The Virtual Connection provides ready access to valuable substation information through a secure communications channel.

#### Share the Wealth

The Virtual Connection puts information into the hands of those who need it when they need it. Various departments within the organization, such as Management, Operations, and Planning are able to extract data from targeted devices for better decision-making and timely execution of routine procedures. Sharing this information across the enterprise means transferring knowledge to those who will be able to use it to ultimately boost operational efficiency and system reliability.

#### Reap the Rewards of a Networked System

A Virtual Connection is a vital component of a fully integrated substation automation system and open local/wide area network solution. It enables remote access for system maintenance, configuration and data retrieval for any GE Energy Services device or other vendor IEDs. Because this offering also supports non-GE Energy Services devices, you can choose the "best in class" device for your application. A Virtual Connection can be implemented for new or legacy devices, as long as they meet the basic criteria for supported devices.

Remote monitoring, protection and control, power quality and digital fault recorder on-line configuration, local or remote operator workstations, and web-based SCADA are a few of today's high-profile applications that rely on a Virtual Connection for facilitating system communications. All these applications rely on remote access to realize the benefits of reduced response times to system problems, reduced operations and maintenance costs related to eliminated site visits, improved data availability for engineering and planning, and achieving just-in-time maintenance. Added to these is increased safety for employees and sensitive apparatus by avoiding visits to hazardous locations that require working around high-voltage equipment and cabling.

#### Keep it Simple, Seamless and Safe

The Virtual Connection is a user-friendly tool that requires no training. Even a new user can get quickly on-line. With a simple "point and click", the Windows program starts; the Virtual Connection automatically establishes communications and launches the IED configuration and viewer programs. The user chooses from a list of IEDs, and then carries out tasks as required. Although access is easy and open, security is ensured with user login and password security features.

## Virtual Connection Features

### PC

Client/server implementation  
Server = Administrator for configuring sessions (IEDs), users and security  
Client = User/Remote PC  
Windows interface  
IED manufacturer's configuration and viewer software

### Supported platforms

Any D2X system/gateway  
iSCS Ethernet LAN (one or more nodes)

### Supported devices

Dual-ported IEDs: 1 port for SCADA, 1 port for maintenance  
(Exceptions – Single-ported IEDs: 1 port for SCADA and maintenance using ASCII protocol e.g. SEL)  
No more than one "hop" from LAN  
Well-behaved Windows® IED configuration program

### Applications/Functions

Log into Wesmait to configure, maintain and view data on any GE Energy Services device  
Configure any IED attached to a GE Energy Services device (and other functions as per functionality of IED software)  
Obtain single point of access to the substation through dial-in modem to Local PC or GE Energy Services device  
Add system security  
Configure D25 DFR/PQ on-line  
Enable Web-based SCADA e.g. Virtual Substation  
Add local/remote PowerLink workstation

### Communications

Over Ethernet local area network/wide area network using Telnet session  
Dial-in via Server over phone lines/PPP  
Dial-in modem direct to Wesmait

### Options

Add-on client licenses



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