

Secure DME Data Collection and Reporting

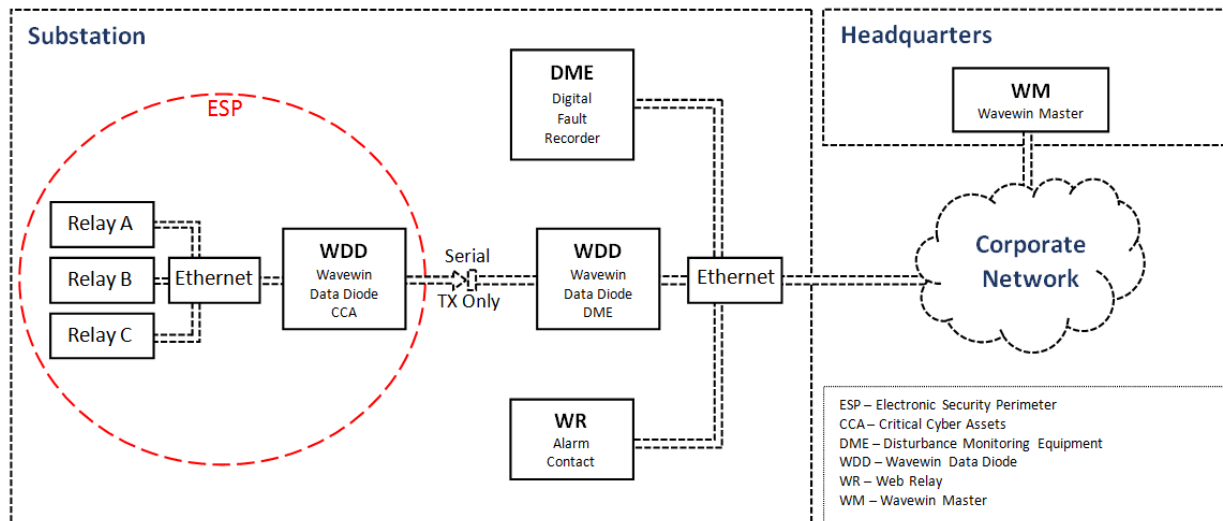


DME Data Collection (Inside ESP)



DME Data Collection (Outside ESP)

Wavewin Data Diode with SEL-3355 Data Concentrators



Wavewin Data Diode Installation and Communications Topology

## Product Description

The Wavewin Data Diode is used to collect fault and disturbance data files from various types of CCA devices within an ESP (such as numerical relays), and then move the collected data to a second Wavewin Diode outside the ESP. The data is moved over a secure, non-routable, serial RS-232 cable (one way transfers).

The second Diode is also used to collect data from various types of devices outside the ESP (DME devices such as digital fault recorders). The resulting data files (from inside and outside the ESP) are then transferred via Ethernet to a shared drive on the company network.

The collected data files include digital fault records, sequence of events records, metering logs, device settings, and health checks. The data files are collected and managed in compliance with NERC PRC and CIP requirements. The product also provides specialized applications for access control and password management.

## Software Specifications (Data Collection)

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Manufacturer:	<a href="http://www.softstuf.com">www.softstuf.com</a>
Part Number:	Wavewin Device Manager (for DME data collection)
Polling Controller:	Polls Up to 100 Devices Simultaneously and/or Sequentially
Communications:	Supports RS232/485 and Ethernet (TCP/IP, SSH, Telnet)
Protocols:	Proprietary (ASCII, Binary) and Standard (MODBUS, DNP, FTP)
Topology:	Supports Star and Multi-Drop Networks
Data Collection:	Collects Fault Records, Sequence of Events, Load, and Settings
Reporting:	Supports Periodic and/or Report by Exception
Health Checks:	Communications Integrity, Access Logs, and Polling Errors
Standards:	Supports IEEE C37.232 (COMNAME) and C37.111 (COMTRADE)
Compliance:	Supports NERC PRC-002 (DME Data) and CIP CCA Data Reporting
Installation and Operation:	Requires 32MB of Storage and uses up to 2GB of Memory

## Hardware Specifications (Substation Computers)

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Manufacturer:	<a href="http://www.selinc.com">www.selinc.com</a>
Part Number:	3355#KKND (Key: 0000)
Hardware Line:	Rugged / Fan-Less / No Moving Parts
Dimensions:	19" Rack Mount, 3U (L11.49" x H5.22" x W18.31)
Operating Temperature:	-40 to 75°C
Processor Speed:	2.4 GHz
System Memory:	8GB DDR3 1333MHz ECC
Primary Storage:	120GB Industrial Grade SLC SSD
Serial Ports:	2 COM Ports (RS232 DB9), 4 USB Ports (3.0)
Ethernet Ports:	2 RJ-45 10/100/1000 MBPS, and 2 SFP Fiber
Operating System:	Microsoft® Windows® 10 IoT Enterprise LTSB
Antivirus Protection:	McAfee embedded (authorized code only – Attachment A)
Antivirus Whitelist:	SEL Application Guide (Volume VII AG2016-18 – Attachment B)
Accessory Relays:	Alarm/ Watchdog (X-WR-1R12, <a href="http://www.controlbyweb.com">www.controlbyweb.com</a> )
Accessory Monitor:	KVM Drawer (LCD1U17-32-n, <a href="http://www.Rackmountmart.com">www.Rackmountmart.com</a> )

## Network Specifications (Ethernet Switches)

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Manufacturer:	<a href="http://www.selinc.com">www.selinc.com</a>
Part Number:	2730M#0201 (2730M0ARAX2222AAAAX0) (Key 3176)
Hardware Type:	Managed 24-Port Ethernet Switch
Dimensions:	19" Rack Mount, 1U (L9.4" x H1.25" x W18.31)

Operating Temperature: -40 to 85°C  
Ethernet Ports: 6 RJ45, 2 100BASEFX Multimode, 16 100BASEFX Multimode

## Support Services

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- **Technical Support** - Standard technical support services are available at 800.818.3463 or at [support@softstuf.com](mailto:support@softstuf.com).
- **Custom Services** – For custom development services please contact our support team at [support@softstuf.com](mailto:support@softstuf.com).
- **Training** – We offer a variety of training classes, for information on these classes please use this link [www.softstuf.com/wavewinclasses.html](http://www.softstuf.com/wavewinclasses.html). For other training inquiries please contact our support team at [support@softstuf.com](mailto:support@softstuf.com).
- **Warranties** - Softstuf warrants that the product will substantially achieve the functionality as advertised and described in the Manuals. In the event any future deficiency is discovered in the product then Softstuf shall at its own sole expense make the changes necessary to correct said deficiency within a reasonable time of being notified.

## Ordering Information

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<i>Item</i>	<i>Part Number</i>	<i>Description</i>
1	SDC-ESP-100	<i>Complete Wavewin Diode Package /w:</i> <ul style="list-style-type: none"><li>• Two (2) Copies of the Wavewin Device Manager Software</li><li>• Two (2) SEL 3355 Data Concentrators /w 125VDC Supply</li><li>• Two (2) Keyboard/Video Monitor Drawers (KVM)</li><li>• Two (2) Ethernet Switches /w 24 Ports Total, 18 Fiber</li><li>• One (1) Web Relay /w Multiple Contacts (Health Check Alarms)</li><li>• Cables (Power, 2 Fiber, and 2 RS232 Null Modem)</li></ul>

## Contact Us

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Sales: [sales@softstuf.com](mailto:sales@softstuf.com)  
Support: [support@softstuf.com](mailto:support@softstuf.com)  
Phone: 800.818.3463  
Fax: 609.677.8736  
Hours: Monday thru Friday, 9:00 am to 5:00 pm EST