Liebert®

PCs, Servers & Network UPS Communications

SOFTWARE AND MONITORING SOLUTIONS FOR UPS UP TO 30 kVA

EMERSON
Network Power

Expanding Networks Need Real Time Power Monitoring For Ongoing Quality Assurance
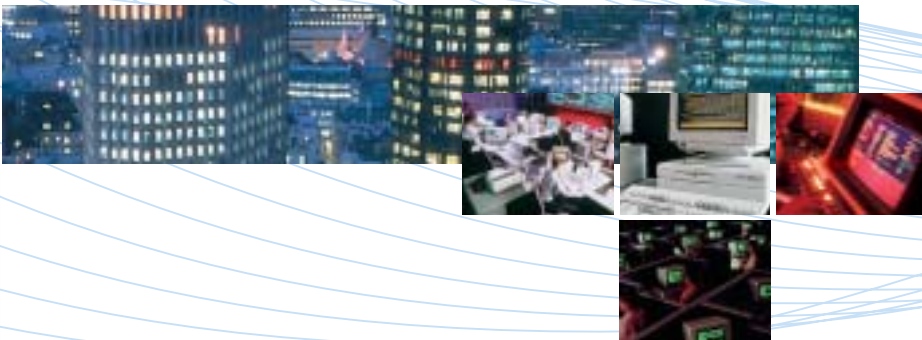
Comprehensive Cover For Critical Network

Whether your network comprises of just a few PCs networked together, or forms a complex enterprise wide installation, effective network power communications and control is vital to your operation. Liebert 's UPS communications products provide protection starting from basic network where only auto-shutdown of the operating system is required through to real time power monitoring and UPS control with network-wide computer shutdown.

All kinds of data and information flowing through your electronic equipment need clean and stable power.

Even a millisecond of dirty power or a low-voltage Power Quality event can cause loss of data, introduce errors, determine an immediate network crash or reduce the lifespan of your equipment.

The cost of protecting the equipment is negligible compared to the cost of interrupted work and down time.

- Basic network power management through to comprehensive power quality monitoring and control for enterprise wide network installations

- SNMP monitoring of power quality, the network environment and all other threats to 100% network up-time

- Solutions compatible with all major network operating systems or network management systems

Liebert MultiLink Version 3.X
Network Shutdown Software For Your UPS

MultiLink 3 is your scalable network power protection solution. Run MultiLink 3 on one machine to monitor your power and ensure a graceful unattended shutdown in the event of an extended power failure. In the one-on-one configuration, MultiLink will monitor a serially connected UPS or an SNMP-enabled UPS over the network. MultiLink 3 can also be upgraded to support your unique needs. Purchasing the MultiLink Network Administration License allows you to monitor multiple UPS and remotely configure other installations of MultiLink 3 throughout your network. Purchasing the MultiLink Network Shutdown License allows you to efficiently manage your power protection on a larger UPS by running MultiLink 3 on one computer and using that computer to coordinate the shutdown of other computers throughout your network.

- User friendly interface

- Simple navigational tree

- Customizable event management

- Interoperates with MultiLink 1.x

- Protects data on one or more computers and monitors every aspect of your power

- Manages and monitors UPSs over the network with optional **Network Administration License**
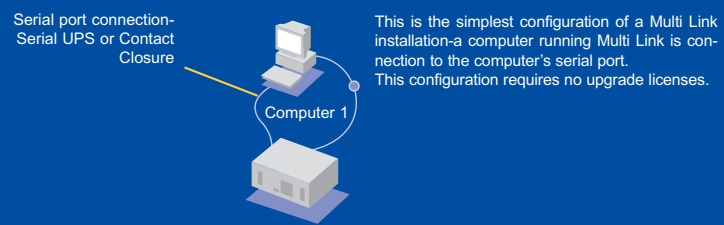

The MultiLink solution provides simple, easy-to-configure protection for your valuable data in either a single-user or multi-platform, networked environment. MultiLink allows you to monitor UPS status, view detailed instrumentation and parametric data and manage the automatic, orderly shutdown of designated computers should a power outage exceed the battery capacity of the UPS.

- Prevents the loss of valuable data by performing unattended, orderly shutdown on one computer or multiple networked computers with optional **MultiLink License Kit**

- Configurable responses to UPS status changes

- Notification via alphanumeric pagers, e-mail, on-screen messages and SMS

- Support for standards such as SNMP (Simple Network Management Protocol)

- Developed with Java™ technology

- Supports both serial interface and contact closure interface

- Ready-made or user-made cables

- Multilink software CD is included in the packaging of all Liebert UPS up to 30 kVA
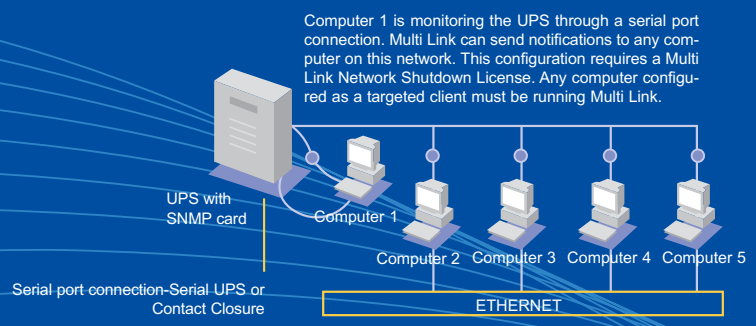

Compatible Operating System: Microsoft Windows NT/2000/XP/95/98/Me for Intel; Novell NetWare 4.11+, 5.0+; SunSoft Solaris for SPARC, 2.6, 7, 8; Hewlett Packard HP-UX for HP 9000, 11.0; IBM AIX for RISC System/6000, 4.3, 5L; Linux for Intel, 2.2-2.4 Kernel
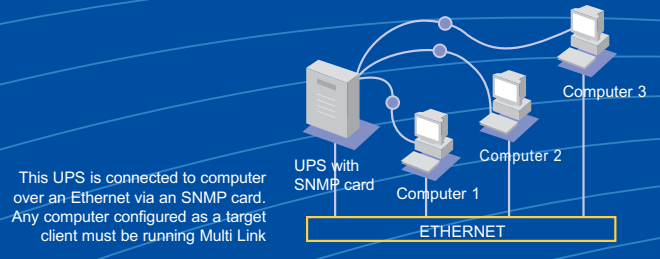
MultiLink can be configured to monitor the UPS, and, if utility power fails or another problem arises, MultiLink can notify to the connected Computer and personnel about the problem. In the event of a serious power problem, MultiLink can be configured to prompt the shutdown of the Computer's operating system

Serial port connection-
Serial UPS or Contact
Closure

Computer 1

This is the simplest configuration of a Multi Link installation-a computer running Multi Link is connection to the computer's serial port.
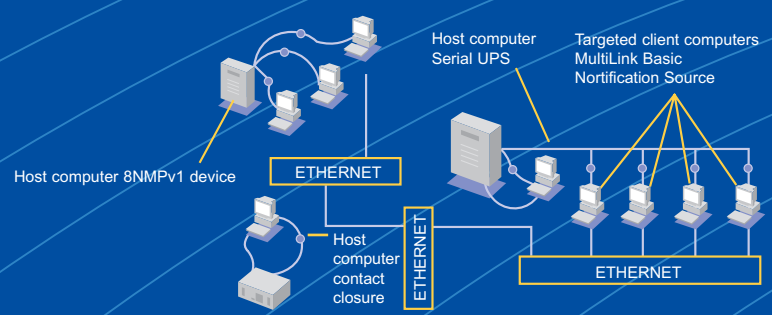This configuration requires no upgrade licenses.

With either serial communications or a contact closure connection, MultiLink can send notifications to all computers on a network. These computers must be running MultiLink. With a MultiLink Network Shutdown License on the Computer connected directly, MultiLink can send notifications to those computers when needed.

Computer 1 is monitoring the UPS through a serial port connection. Multi Link can send notifications to any computer on this network. This configuration requires a Multi Link Network Shutdown License. Any computer configured as a targeted client must be running Multi Link.

UPS with
SNMP card

Computer 1

Computer 2 Computer 3 Computer 4 Computer 5

Serial port connection-Serial UPS or
Contact Closure

ETHERNET

UPS with SNMP connection. Any computer running MultiLink can monitor the status of the UPS and send notifications to the other computers. Some SNMP cards impose a limit on the number of computers that can receive notifications.

Computer 3

This UPS is connected to computer over an Ethernet via an SNMP card. Any computer configured as a target client must be running Multi Link

UPS with
SNMP card
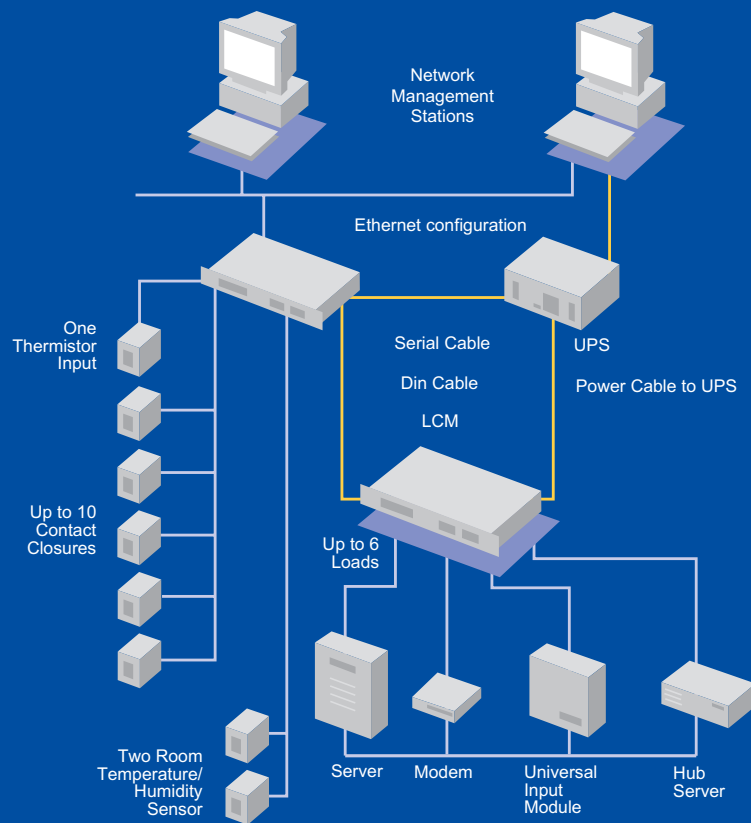
Computer 2

Computer 1

ETHERNET

A computer can be set up to monitor and control more than one UPS models requiring different types of connections. For example, with network connections and the appropriate upgrade licenses, any computer could monito the status of any UPS on the network and send notifications to other computers, allowing them to shut down if needed

Host computer
Serial UPS

Targeted client computers
MultiLink Basic
Nortification Source

Host computer 8NMPv1 device

ETHERNET

Host
computer
contact
closure

ETHERNET

ETHERNET

SiteNet® Integrator™

SNMP Monitoring Of Power, The Environment & All Other Threats To Your Network

As computing and telecommunication networks become more complex, and more vital to the success of your business,the range of possible threats increases significantly. SiteNet Integrator enables a network administrator to monitor not only network power, but also environmental systems, smoke alarms,threat detection sensors, access control systems …and virtually any other digital sensor. Available in desk-top or rack-mount configurations, the SiteNet Integrator is designed to suit all IT and telecommunication environments. Its SNMP monitoring capabilities will ensure precise management of your networking environments, allowing you to maximise system uptime and keep your business in business.

Network Management Stations

Ethernet configuration

One Thermistor Input

Serial Cable

Din Cable

LCM

UPS

Power Cable to UPS

Up to 10 Contact Closures

Up to 6 Loads

Two Room Temperature/ Humidity Sensor

Server

Modem

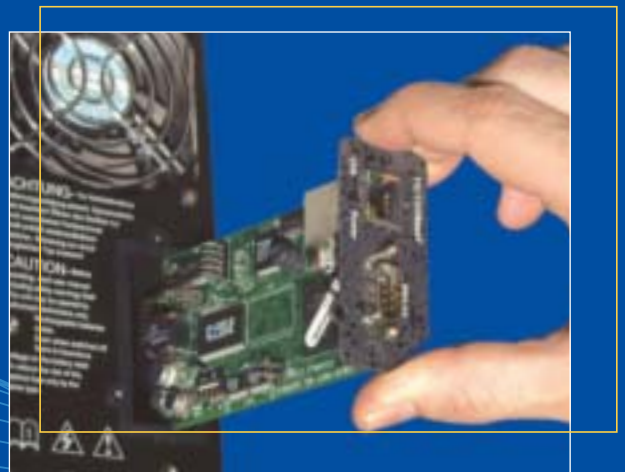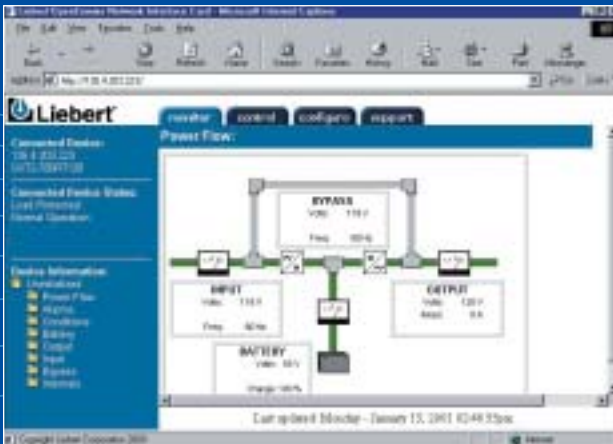Universal Input Module

Hub Server

- Provides SNMP Management and control to all Liebert UPS.

- Temperature and humidity monitoring with optional sensors.

- Ten digital inputs allow monitoring of any computer room devices.

- Output relay contacts allow control of any computer room device via SNMP SET commands.

- Compatible with all major network management systems.

- Available in desk-top and rack-mount configurations.

- The Load Control Module (LCM) allows remote power management of up to six pieces of connected equipment.

- The LCM allows remote rebooting and on/off control of connected equipment with direct control or shutdown through pre-set SNMP alarm conditions.

Intellislot SNMP/Web Card

The Intellislot SNMP/Web Card provides SNMP and web-based management to your UPS. The card gives you the power to monitor and control your Liebert UPS from not only your Network Management Station, but from any PC running Microsoft® Internet Explorer™, or MultiLink 3.0. Connecting to your UPS is a simple as launching a web browser.

The Intellislot SNMP/Web Card is the first UPS monitoring card to truly unleash the power of the Web, with its graphical Power Flow. The animated Power Flow allows you to quickly determine the condition of your power and the operating state of your UPS. You don't need to sort through pages of text, so we've built a card that does Web like the Web was designed - with graphics and text together, giving you a window into your power.

General Features

- 10/100 Network Interface Card
- Hot swappable, Intellislot
- SNMP and HTTP compatible
  - MIB 2 Network Management System
  - Internet Explorer web client
  - RFC 1628 compliant
- Interfaces with Multilink Software
- Firmware can be flash upgraded
- DHCP and bootp configurable
- Configuration cable included with the Web Card
- DB-9 to DB-9 null modem cable
- All configurations parameters can be set up either via Hyper Terminal or web interface

Multilink Licenses

Multilink License Kits enable enhancements and additional features to be added to the standard Multilink Installation. Purchasing the Multilink Network Shutdown License allows you to efficently manage power protection on a UPS by running Multilink on one computer and using that computer to notify other computers throughout the network of UPS conditions. Purchasing the Multilink Network Administration License allows Multilink 3.0 to monitor multiple UPSs and remotely configure and monitor other installations of Multilink 3.0 throughout the network.

AS 400 Card - Interface Kit for Relay Contacts

Optional interface card for communicating to devices such as PLCs (Programmable Logic Controllers) that require a true relay contact interface rather than opto couplers. In addition to "on-battery" and "low-battery" signals, the card also provides an "on-bypass","on-UPS", and "summary alarm" signal, if installed in a UPS with an internal bypass feature. The Intellislot™ Interface Kit includes the Intellislot™ Interface card and the user's manual. The RELAYCARD-INT will work with the PowerSure Interactive, UPStation GXT, UPStation GXT 2U, GXT 6 & 10 and Nfinity.

SiteNet MultiPort 4

The SiteNet MultiPort 4 provides UPS communications to four additional computer systems attached to a single UPS. With basic signaling for recognizing On-Battery and Low-Battery conditions, the SiteNet MultiPort 4 delivers orderly shutdown to connected computers running Liebert's MultiLink™. The RS-232 port remains active with the SiteNet MultiPort 4 installed allowing more sophisticated monitoring with Liebert's MultiLink™ 3.0 software. The SiteNet MultiPort 4 supports UPSs equipped with a Liebert Intellislot™ port: PowerSure Interactive, UPStation GXT, UPStation GXT 2U and Nfinity - plus it's user-installable and hot installable. The SiteNet MultiPort 4 ships with the Intellislot™ size communications board, a one-foot four-port cable (one DB25 to four DB9s).

MultiPort 8

The MultiPort 8 Interface Unit provides eight DB9 ports to monitor dry-contact signals (on-battery, low-battery) for computers running MultiLink™. One of the eight ports also has the ability to transmit serial data, which allows UPS instrumentation to be displayed on a computer running MultiLink™ 3.0 software. MultiPort 8 units can be daisy-chained together to accommodate more than eight computer systems. In a daisy-chained configuration, only the first MultiPort 8 can provide serial data for instrumentation to a computer system using MultiLink™ 3.0 Software.

Multilink UPS Interface Compatibility Table

UPS Model	Serial Interface	Contact Closure Interface	SNMPE3	SNMPWEBCARD
PowerSurePersonal XT		Multilink 3.0		
PowerSureProactive		Multilink 3.0		
PowerSureProactive 1000	Multilink 3.0			
PowerSureInteractive	Multilink 3.0			Multilink 3.0
UPSStation GXT	Multilink 3.0			Multilink 3.0
UPSStation GXT 2U	Multilink 3.0			Multilink 3.0
Nfinity	Multilink 3.0			Multilink 3.0
Hinet	Multilink 3.0		Multilink 1.5	

"Appropriate cable included in UPS box: for PowerSurePersonal XT and PowerSureProactive contact closure cable, for all other UPS serial cable"

Multilink 3.0 vs Multilink 1.5 Comparison

Feature	Multilink 1.5	Multilink 3.0
Operating System Shutdown	Yes	Yes
Graphical User Interface	Yes	Yes
Shutdown Multiple Computers Across the Network	Yes / with License	Yes / with License
Monitor Multiple UPSs	Yes / Contact Closure Information Only	Yes / Requires Network Administration License
Monitor and Control Multiple Multilink Installations	No	Yes / Other Multilink 3.0 Installation Only and Requires Network Administration License
Event Base Scripting	Yes	Yes
View Parametric Data	No	Yes
Types of Communications		
Contact Closure	Yes	Yes
Serial	No	Yes
SNMP	Yes / On-Battery & Low-Battery Only	Yes
Pager/SMS	No	Yes / Alphanumeric and Numeric
E-Mail	No	Yes
Customizable Messages	No	Yes
Event Logging	Yes	Yes
Data Logging	No	Yes
UPS Control		
Battery Test	No	Yes
Alarm Silence	No	Yes
Auto-Restart	No	Yes
Runs as a Background Service / Daemon	Yes	Yes

http://ups.liebert-hiross.com