MultiNet 1000

ROUTER AND MULTI-PORT SERIAL SERVER

Easy, Advanced, and Secure Networking

KEY BENEFITS

- Physically hardened for use in industrial, utility, substation, and other harsh environments
- Support for many routing protocols, including Static, RIP I, RIP II, OSPF and BGP
- VRRP for redundant and backup routing strategies using
- Enables routing between physical networks, virtual networks, and other interfaces
- Supports Cyber Protection and regulatory compliance with Advanced Security Features and Event Logging
- Integrated Stateful IP Firewall for protection from network intrusions
- Supports encrypted traffic for protection of outgoing data, as well as for authorized remote users connecting by VPN

- Flexible options for Ethernet media and port types allow integration into any project requirement
- Integrates with managed switch networks and Network Management Systems using SNMP
- Collection of Modbus and other SCADA data across the routed network using SCADA Frame Forwarding
- Rich Network Management and Security functions
- Fast collection of data via individually-configurable Modbus TCP settings for each serial port.
- Enhanced Reliability with Fast Fault Recovery via Link-Loss Alert (LLA)
- Flexible mounting options allows for easy installation
- Compatible with RADIUS authentication systems using 802.1x

APPLICATIONS

- User-defined interconnection of multiple networks and LANs using routing and firewall functions
- Interconnecting networks with service providers or with business partner networks

- Creating a connection and routing point between VLANs
- Create high-availability remote networks using VRRP for redundant routing

FEATURES

Flexible, Simple Solution

- Provides managed switch, industrial router, and serial port server, all in one device
- Supports both copper and fiber-based Ethernet connections
- T1/E1 wide-area and remote access
- Setup in just a few clicks with configuration software or web-based interface

Managed Networks

- Full switch management for integration with Network Management Systems
- Traffic segregation and priority control using IEE 802.1q and IEE 802.1p
- Fast network recovery with support for RSTP

Industrial Hardened

- -40˚C to +85˚C Operating temperature
- Meets IEC 61850 and IEE 1613 standards for operation in electrical substation environments
- Redundant and Mixed Power Supply options for increased reliability

Secure

- Integrated stateful firewall for protection from network intruders
- Multi-level passwords with levels of privilege and command for different users or groups
- Port Security prevents unauthorized devices from gaining access to the network
- Complete Event Logging for forensic and regulatory auditing and reporting

Digital Energy
Multilin

Hardened for Reliability in Harsh Environments

The MultiNet1000 is purpose-built for extremely harsh environments such as power utility substations, and meets IEEE1613 and IEC 61850-3 specifications for EMI/ ESD protection. With the ability to operate at -40°C to +85°C without open vent holes or fans, and support for both single and dual wide-ranging power supply options, the MultiNet1000 is ready for almost any location challenge.

Advanced Routing & Wide Area Networking

With support for IP routing services in both LAN and WAN applications, each of the MultiNet1000 Ethernet ports can be configured to operate as part of the integrated managed switch, or in routed mode as a discrete interface. IP routing is provided on any combination of physical and virtual interfaces, including per VLAN. WAN interfaces include dual T1/E1 or dual DDS ports using the MultiNet1000's integral CSU/DSU for access to IP-based, TDM, frame relay or MPLS-based services. IP/PPP/a sync is also supported on the WAN interfaces, which provides a dial-up WAN option when combined with external AT-compatible modems.

In addition, the MultiNet1000 can support static routing, as well as dynamic routing via RIP, OSPF, and/or BGP, ensuring easy inter-operation with existing networks and routing schemes.

Powerful Cyber Security

The MultiNet1000's cyber security capabilities cover both security and protection of the router itself as well as electronic perimeter protection for remote sites. With support for stateful IP firewall, IP address translation (NAT/PAT) and encryption options via IPsec, SSH port forwarding and serial port SSL VPNs, the MultiNet1000 provides for authentication, authorization., logging and compliance reporting for remote user access to local devices. Management security includes encrypted interfaces (HTTPS, SSH, SFTP and SNMPv3), multi-level user IDs with support for strong form passwords, authentication via RADIUS, and extensive local and/or remote logging and alerting. A flexible integrated protocol analyzer provides remote trouble shooting and detailed traffic analysis.

Integrated Serial Port Server

In addition to interconnecting Ethernet and WAN networks, MultiNet1000's built in 12-serial port server allows extension of the routed network all the way to end serial devices. MultiNet1000's serial port server provides devices with serial ModBus to ModBus TCP/IP communications capability on an Ethernet network, allowing connection to LAN and WAN network systems via fiber or wire media, which eliminates complex wiring and additional communications converters.
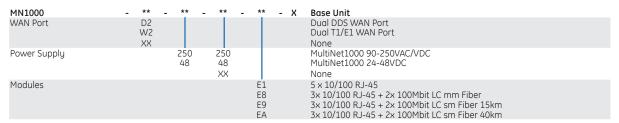
Quick and Easy Setup

MultiNet1000 is supported by GE Multilin's PC Setup Application, a Windows-based software program for installing and configuring the communication drivers that allows complete configuration and setup with a few mouse-clicks.

Full Managed Switch Functions

MultiNet1000's built-in Ethernet switch is fully-managed and configurable and provides users with the ability to finely control, view, and manage MultiNet1000 as part of the switch network. The MultiNet1000's integrated switch supports most 802.1 network management features and are configurable using either Command Line Interface (CLI) or our Web Management Interface. Management functionality includes:

- SNMPv3 for secure switch management
- Web Management Interface for easy administration
- RSTP (802.1w), VLAN (802.1q) and QoS (802.1p) for network traffic optimization

Ordering

MN1000		-	**	-	**	-	**	-	**	-	X	Base Unit
WAN Port			D2									Dual DDS WAN Port
			W2									Dual T1/E1 WAN Port
			XX									None
Power Supply					250		250					MultiNet1000 90-250VAC/VDC
					48		48					MultiNet1000 24-48VDC
							XX					None
Modules									E1			5 x 10/100 RJ-45
									E8			3x 10/100 RJ-45 + 2x 100Mbit LC mm Fiber
									E9			3x 10/100 RJ-45 + 2x 100Mbit LC sm Fiber 15km
									EA			3x 10/100 RJ-45 + 2x 100Mbit LC sm Fiber 40km

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- View Guideform specifications
- Download the instruction manual
- Review applications Notes and support documents
- Buy a MN1000 online
- View the MultiLink Family brochure