RETIRED: This document has been officially retired, and the base products listed herein are now considered obsolete and are no longer available for sale. Consequently, the information contained within may no longer be current. This document is provided exclusively for reference and informational purposes.

MODELS

ServerNet II PCI Adapter

Dual-ported, Copper Serial interfaces
174736-B21

ServerNet II Cables

ServerNet II 5-meter Copper Serial Cable Kit
174737-B21

ServerNet II 10-meter Copper Serial Cable Kit
174738-B22

VI Industry-specified compliant Hardware and driver support for efficient server-server messaging.

A PCI adapter supporting the Compaq ServerNet II Interface and Compaq's ServerNet II System Area Network.

OVERVIEW

Usage

The ServerNet II PCI Adapter is used for CPU-efficient, high speed, low latency messaging provided by a ServerNet Systems Area Network. A ServerNet II PCI Adapter ("ServerNet Adapter") allows efficient server-to-server communications between Operating Systems, Middleware and Applications distributed over two or more servers connected in the Systems Area Network.

The ServerNet System Area Network is a point-to-point, packet-switched, wormhole-routed, robust fabric for connecting a collection of industry-standard servers to work together to achieve new levels of performance and scalability. The ServerNet Adapter has two active ports for fault tolerance and additional performance.

Configuration Flexibility

The ServerNet Adapter is used in a point-to-point configuration that can be expanded to very large networks utilizing the Compaq ServerNet II Switch.

Compatibility and Integration Testing

The ServerNet II PCI Adapter has been tested on a variety of Compaq ProLiant and Alpha-based servers and workstations.

Fault Tolerant

Each port in a ServerNet Adapter connects to one of two possible unique fabrics in a ServerNet System Area Network. Messages are assigned a port and routed by a ServerNet fabric to the destination. If a failure occurs in the port or its associated link or that fabric, then the affected messages are automatically and transparently restarted through the second port. Hardware transaction timers and guarantees ensure one time, and only one time delivery by the reliability characteristics of ServerNet.

OVERVIEW *(continued)*

Performance

The ServerNet Adapter delivers advantages over traditional networking providing more efficient (lower) CPU utilization, improved (lower) latency and greater bandwidth.

- Delivered, small message latency approaches 10 microseconds.
- Data can be striped across both ports in the dual ported ServerNet Adapter for simultaneous sustainable transfers of 180 MB/s of applications data. Bandwidth is limited by 66/64 PCI configurations.
- The VIPL interface from ServerNet requires less than 2 percent of the cumulative CPU for sending and receiving at the maximum bandwidth. While traditional networking consumes CPU resources in a manner that is fairly proportional with an increase in message size, ServerNet CPU requirements remain constant as message size increases.

Virtual Interface (VI) Architecture Features

The ServerNet Adapter conforms to the Virtual Interface (VI) Architecture specification (http://www.viarch.org) and implements:

- Reliable Reception
- Remote DMA Read and Write
- Thread-Safe VI Provider
- 64,536 VI Queues
- Hardware Flow Control
- Full ptag support

The VIPL interface is a user-mode interface for programming APIs, typically exported from Operating Systems.

System Area Network Architecture

Servers that have been tested with the ServerNet II PCI Adapter are the PL1600, PL1850R, PL3000, PL5500, PL6400R, PL8000, PL8500, DL360, DL380, DL580, ML370, ML530, and the ML570.

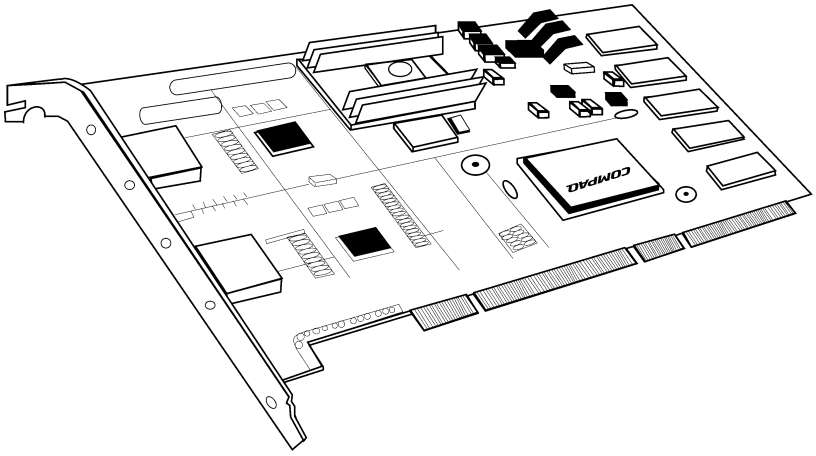
OS Driver Support

- Microsoft Windows 2000 Advanced Server and Datacenter Server
- LINUX

Warranty

Same as the server

SPECIFICATIONS

Signaling and Interfaces		
	PCI	One PCI Rev 2.1 compliant bus-master slot (66 MHz/64 bits, 33 MHz/64 bits or 33 MHz/32 bits)
	ServerNet Links	125 MHz, 512 byte packets
Connectors		Two 8-pin Berg MetaGig connectors
Interface Cables		Cables are IEEE industry standard - Serial 1000Base-CX (up to 25 meters)
Power	From host	+5 V DC 5%
	On card	+5 V, +3.3 V and +2.5V
Physical (HxLxD)		5 x 7.5 x 0.87 in/12.7 x 19.1 x 2.2 cm
Safety and Regulatory Compliance		FCC Class A CISPR 22/EN 55022 C.R.C., c.1374 (Canadian Radio Interference) CE Mark New Zealand Radio Frequency Service, RFS49 EN 50082-1, IEC 801-2,3,4 Council Directive 89/336/EEC IEC 950/EN 60 950 UL 1950 CSA 22.2-950 VDE 0805/IEC950
Environmental Requirements		
	Operating	
	Temperature	41° to 131°F / 5° to 55°C
	Humidity	10% to 85% (non-condensing)
	Altitude	10,000 ft/3,048 m
	Non-Operating	
	Temperature	–40° to 150°F / –40° to 66°C
	Humidity	10% to 95% (non-condensing)
	Altitude	131233 ft/40,000 m
	Shipping Temperature	–40° to 150°F / –40° to 66°C

SERVERNET II PCI ADAPTER