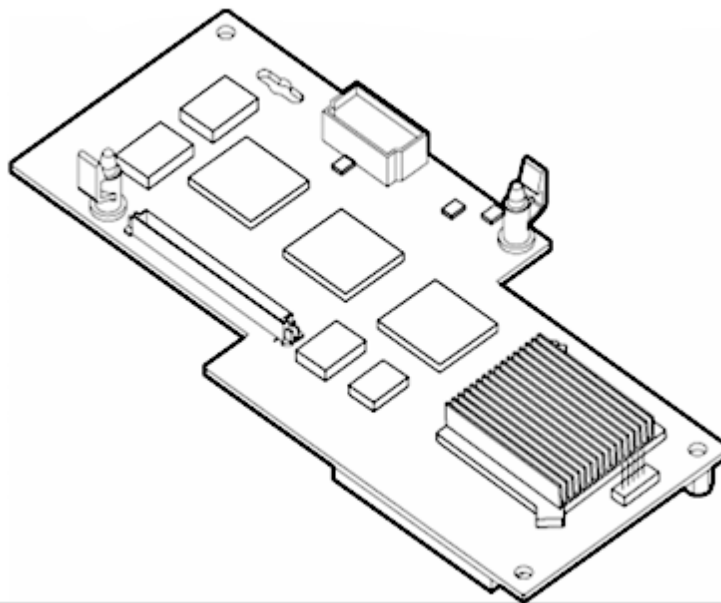
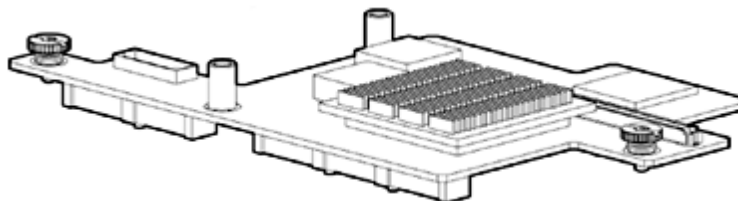


Overview

The HP BladeSystem NC370i Multifunction Network Adapters are high-performance, dual port networking devices that support Gigabit Ethernet, TCP/IP Offload Engine (TOE) for Windows, accelerated iSCSI for Windows, and Remote Direct Memory Access (RDMA) for Windows. Each port on the NC370i is a 64-bit/100MHz PCI-X adapter delivering 10/100/1000Mbps auto-negotiated speed, as well as, Wake-on-LAN, PXE support, and LED indicators showing link, speed, and activity. Additionally, it supports IEEE 802.3u, 802.3x, 802.3ab, 802.3ad, 802.3p, and 802.1Q.



HP ProLiant BL20p G3 Dual NC370i Multifunction network adapter



HP ProLiant BL25/35/45p Dual NC370i Multifunction network adapter

At A Glance

- Support for RDMA (Remote Direct Memory Access)
- Updated list of supported BladeSystem servers

Models

HP ProLiant BL25/35/45p Dual NC370i Multifunction network adapter

384043-B21

NOTE: The HP BladeSystem Multifunction iSCSI and RDMA features are not currently supported in a Linux environment.

Kit Contents

Dual NC370i Multifunction Network Adapter
Quick Install Card
Product Warranty Statement

Overview

Standard Features

Server Support

HP ProLiant BL20p G3
Dual NC370i

- HP ProLiant BL20p G3
- HP ProLiant BL20p G4

Multifunction network
adapter

HP ProLiant BL25/35/45p
Dual NC370i

- HP ProLiant BL25p
- HP ProLiant BL25p G2
- HP ProLiant BL35p
- HP ProLiant BL45p
- HP ProLiant BL45p G2

Multifunction network
adapter

Performance

Gigabit Ethernet Throughput

Up to 1000Mbps Ethernet transfer rate delivers outstanding network performance that improves response time and removes bottlenecks across the entire network.

TCP/IP Offloading

TCP/IP Offload Engine (TOE) for Windows moves the processing of data in the TCP protocol stack from the server CPU to the network card, freeing CPU cycles for other duties. The NC370i supports TOE when Windows TOE Chimney is installed. With TOE, network communications are improved, and server efficiency is increased.

Accelerated iSCSI

Accelerated iSCSI allows the NC370i to deliver performance well beyond that of software iSCSI initiators. Acceleration is made possible by virtue of the iSCSI driver sitting on top of the TOE driver, thereby freeing the server CPU for other duties.

HP ProLiant Essentials RDMA Pack for Multifunction Gigabit Server Adapter

The HP ProLiant Essentials RDMA Pack enables Remote Direct Memory Access (RDMA) on an HP Multifunction server adapter. RDMA is a communications protocol that provides direct transmission of data from the memory of one computer to the memory of another with minimal demands on the host CPU. RDMA provides a high-speed, high-performance connection between servers on the same network. RDMA Pack licenses are port-based; the licensed seats are available to individual ports on the Multifunction server adapter.

Load Balancing

Transmit Load Balancing (TLB) and Switch-Assisted Load Balancing (SLB) are two advanced features used to build a bigger pipe for improved networking bandwidth. These port bonding techniques enable users to install a dual NC370i adapter in a ProLiant BL server blade and aggregate their throughput up to a theoretical maximum of 4 Gigabits per second full-duplex transmission. The NC370i can be configured to work with other NC-series Ethernet server adapter teams supported on ProLiant BL server blades.

Checksum and Segmentation Offloads and Interrupt Coalescing

The NC370i features TCP Checksum Offloads as well as TCP Segmentation Offloads and Interrupt Coalescence. These features reduce the load on the CPU for overall improved system response.

Interrupt Coalescence is a feature that groups multiple packets and issues a single interrupt to the host. This process improves host efficiency.

Scalability and Reliability

Tri-Speed Support

Because the NC370i supports 10Mbps Ethernet and 100Mbps Fast Ethernet in addition to Gigabit Ethernet, users are guaranteed end-to-end protocol support across their enterprise. Like all HP server adapters, the NC370i adheres to open industry standards, insuring that it will work seamlessly with any network devices that also support IEEE standards.

QuickSpecs

HP BladeSystem Dual NC370i Multifunction Network Adapters

Simplifying the Infrastructure

Auto-negotiation	The NC370i automatically senses the speed of the device to which it is attached. It also automatically configures for half or full duplex, depending on the duplex mode of the switch, hub, or router at the other end of the cable.
Management Support	Like all HP server adapters, the NC370i ships with drivers and agents that can be managed from all versions of HP Systems Insight Manager, as well as using any management application that supports SNMP.
Server Integration	HP Systems Insight Manager can recognize the NC370i individually or in port-bonded teams, and can collect and report SNMP statistics on the adapter events. Additionally, Integrated Management Log (IML) support is provided by the NC370i for critical event logging on HP servers.
Configuration Utilities	Each NC370i ships with a suite of OS-tailored configuration utilities that allow the user to run initial diagnostics and configure adapter teams for Network Fault Tolerance, Transmit Load Balancing, or Switch-Assisted Load Balancing.
Intelligent Networking Pack (INP)	The NC370i supports the ProLiant Essentials Intelligent Networking Pack (INP). INP is a software upgrade that improves the reliability and performance of ProLiant servers by enabling them to adapt to and change the network path in their infrastructure. INP can detect and analyze network bottlenecks or broken network linkages, and then steer traffic to the optimum route based on network conditions.

Service and Support, HP Care Pack, and Warranty Information

Warranty

Additional information regarding worldwide limited warranty and technical support is available at: <http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html>

HP Software Support

HP Care Pack offering combines comprehensive ProLiant Essentials and Insight Control software support with convenient access to ProLiant Essentials and Insight Control software updates.

Expert support for performance, availability, and productivity optimization

ProLiant Essentials and Insight Control software technical support brings timely assistance and trustworthy advice on issues such as product features and use, problem diagnosis and resolution, and software defect identification. Service highlights include:

- **Ready access to technical resources** - Connect with experienced HP IT Response Center engineers via telephone, electronic communication, or fax for help with ProLiant Essentials and Insight Control implementation or operations problems.
- **Problem analysis and resolution** - HP Services provides corrective support to resolve identifiable and reproducible ProLiant Essentials and Insight Control product problems, and to help you identify problems that are difficult to reproduce. You can also receive help with trouble-shooting and setting configuration parameters.
- **Software features and operational support** - HP provides information on the latest ProLiant Essentials and Insight Control features and known problems and solutions, plus operational advice and assistance.
- **Escalation management** - Established escalation procedures enlist specialized expertise from HP and selected third-parties.

Installation advisory - Advisory support is available for help with installing and updating standalone or networked ProLiant Essentials and Insight Control products.

- **Choice of coverage windows** - Service is available 13x5 Monday-Friday or 24x7.

Productivity-enhancing software updates

This multifaceted service also brings updated ProLiant Essentials and Insight Control software products, patches, and technical manuals as they become available. And it includes licensing to use and copy the new updates. Subscription-based purchasing gives you substantial savings vs. the cost of individual updates.

Service highlights include:

- **Software updates** - Complete ProLiant Essentials and Insight Control product and documentation updates are made available to your system manager.
- **Software licensing** - You receive a license to use and copy updates for all systems covered by your original software license.
- **Electronic software information** - Access HP's electronic support facility for ProLiant Essentials and Insight Control software patches, a symptom-solution database, product descriptions, specifications, technical literature, and more.

This service gives the opportunity to obtain software updates faster and more efficiently with http://www.hp.com/software/releases/releases-media2/SUM/How_to_be_a_SUM_customer.htm Software Update Manager provides online access to view support entitlements, manage release notification profile, and immediately download new updates.

Care Packs services for ProLiant Essentials Operating Environment provides support for the following products.

Service and Support, HP Care Pack, and Warranty Information

NOTE that supported products may change over time, the list of products:

- Rapid Deployment Pack Windows Edition
- Workload Management Pack
- Performance Management Pack
- Systems Insight Manager
- SmartStart
- SmartStart Scripting ToolKit
- iLO Advanced Pack
- iLO Select Pack
- Vulnerability and Patch Management Pack
- Intelligent Networking Pack
- Virtual Machine Management Pack
- Server Migration Pack
- HP Insight Control Linux Edition
- Server Migration Pack - Physical to ProLiant Edition (P2P)
- Insight Control Environment
- iLO Power Management Pack

QuickSpecs

HP BladeSystem Dual NC370i Multifunction Network Adapters

Related Options

Intelligent Networking Pack for Windows	ProLiant Essentials Intelligent Networking Pack, Windows Edition - single server license	436225-B21
	ProLiant Essentials Intelligent Networking Pack , Windows Edition flexible license	436227-B21
	ProLiant Essentials Intelligent Networking Pack, - Windows Edition - tracking license	372951-B21
Intelligent Networking Pack for Linux	ProLiant Essentials Intelligent Networking Pack, Linux Edition - single server license	436229-B21
	ProLiant Essentials Intelligent Networking Pack, Linux Edition- flexible license	436231-B21
	ProLiant Essentials Intelligent Networking Pack, Linux Edition - tracking license	397006-B21
ProLiant Essentials RDMA	HP ProLiant Essentials RDMA Pack for Standup Multifunction Gigabit Server Adapters - single port license	407481-B22
	NOTE: For additional ProLiant RDMA License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12573_div/12573_div.HTML	
Service and Support Offerings (HP Care Pack Services)	ProLiant Essentials Operating Environment, - 1 year, 9x5 Unlimited SW Support - includes SW updates - per server	UF512E
	ProLiant Essentials Operating Environment, - 1 year, 24x7 Unlimited SW Support - includes SW updates - per server	UF513E
	ProLiant Essentials Operating Environment, - 3 year, 9x5 Unlimited SW Support - includes SW updates - per server	UF514E
	ProLiant Essentials Operating Environment, - 3 year, 24x7 Unlimited SW Support - includes SW updates - per server	UF515E
	NOTE: For more information, customer/resellers can contact http://www.hp.com/hps/carepack/services/	

Technical Specifications

Compliance	IEEE 802.3ab, 802.3u, 802.3x, Dynamic 802.3ad, 802.3p, 802.1Q PCI 2.3 PCI-X 1.0a ACPI 1.1a	
General Specifications	Communications Processor	Broadcom 5706
	On-board memory	92KB per port
	Data path	64-bit, 100MHz PCI-X
	Interrupt levels	INTA
	Connector	RJ-45
	Distance	Up to 328 ft (100 m)
	Wiring	Category 5 or better UTP
	Dimensions (L x W)	6.92 x 3.23 in (17.6 x 8.2 cm) - BL20p G3 adapter 6.82 x 3.97 in (17.3 x 10.1 cm) - BL25/35/45p adapter
Power and Environmental Specifications	Operating	Temperature 32° to 131° F (0° to 55° C) Humidity 10% to 90% non-condensing
	Non-operating	Temperature -40° to 185° F (-40° to 85° C) Humidity 5% to 95% non-condensing
	Power requirement	Operating Voltage: 3.3V +/- 5% Maximum: 1.5A @ 3.3V(DC)
	Emissions Classifications	Class B
	Agency Approvals	USA FCC (CFR 47 part 15) and UL 60950 Canada ICES-003 and CSA60950 Japan VCCI Korea MIC (RRL), EMC Registration Australia ACA, AS/NZS3548/EN55022:1998, EN55024:1998 EU EN55022:1998 (CISPR 22), EN55024:1998, and IEC60950:1999 (EN60950:2000)
Operating System Support Standard Gigabit Ethernet	<ul style="list-style-type: none"> • Microsoft® Windows 2000 Server, Windows Server 2003, Windows Server 2003 ES, Windows Server 2003 - 64-bit • Microsoft certified miniport and teaming drivers • Red Hat Enterprise Linux 3 and 4 • NDIS 2 for DOS unattended operating system install (43K or less in size) • Netware 6.5 	
	TCP/IP Offload	<ul style="list-style-type: none"> • Microsoft Windows Server 2003 • Windows Server 2003 ES • Microsoft certified miniport and teaming drivers (Supported only with the availability of "TOE Chimney" in Microsoft's Scalable Networking Pack.)
	Accelerated iSCSI	<ul style="list-style-type: none"> • Microsoft Windows 2000 Server • Windows Server 2003 • Windows Server 2003 ES • Windows Server 2003 - 64-bit • Microsoft certified miniport and teaming drivers

Technical Specifications

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