

# HP BladeSystem c-Class Ethernet network adapters

Family data sheet



HP NC552m 10 Gb Dual Port Flex-10 Ethernet Adapter



HP NC551m Dual Port FlexFabric 10 Gb Converged Network Adapter



HP NC550m 10 Gb Dual Port PCIe x8 Flex-10 Ethernet Adapter



HP NC542m Dual Port Flex-10 10GbE Multifunction BL-c Adapter

No matter what your business priorities are, it is safe to expect that demands for increased network reliability and improved bandwidth will only accelerate—along with pressure for infrastructure simplification, enhanced performance, and reduced costs. We can help.

With innovations like HP multifunction networking and support for HP Virtual Connect technology, HP BladeSystem c-Class Ethernet network adapters provide an unequalled combination of features for today's business organizations.

HP BladeSystem c-Class has one of the most robust network portfolios in the industry. A total of ten c-Class Gigabit Ethernet (1 GbE) and 10-Gigabit Ethernet (10GbE) mezzanine adapter options provide an extensive network adapter portfolio for server blades. Additionally, ProLiant c-Class customers have the choice of an HP network adapter that uses either a Mellanox, Intel®, Emulex, ServerEngines, QLogic,

or Broadcom controller. The portfolio of mezzanine adapters, as well as the Ethernet adapters embedded on the servers, support a wide selection of c-Class BladeSystem Ethernet interconnects, including switches, pass-thru, and Virtual Connect.

## Achieving greater density with Flex-10

Flex-10 reduces infrastructure costs by breaking the barriers of rigid network connections, speeds, and NIC ports providing unparalleled server scale out, virtualization, and network efficiency in the data center. With Flex-10, up to four physical function NICs can be configured per port, increasing the number of NICs in your servers more than fivefold. Up to 32 FlexNICs can be supported on a single half-height server offering unlimited VMware network scalability and configuration flexibility. Each physical function NIC can be tuned for any bandwidth from 100 Mb up to 10 Gb.



## Building network reliability

A wide variety of redundant network I/O configurations are possible with BladeSystem Ethernet network adapters. Our adapters provide up to four network ports on a single mezzanine card that can be transmitted to up to four separate interconnect modules. For even greater redundancy, configurations are possible where 8 to 16 Ethernet ports per server are transmitted to eight separate interconnect modules. Additionally, one or more ports on a single mezzanine card, embedded adapter, or across multiple adapters can be combined for simple failover to more advanced teaming capabilities.

## Multifunction networking

HP offers 1 GbE and 10GbE multifunction adapters for BladeSystem c-Class server blades featuring stateful TCP/IP offloading. This moves the processing of data in the TCP protocol stack from the server processor to the network card, freeing CPU cycles for other activities. With TCP/IP offloading, network communications are improved and server efficiency is increased.

The 1 GbE multifunction adapters also include iSCSI network boot (iSCSI boot), which allows a server to boot from a remote OS image located on a SAN. The server uses an iSCSI firmware image (iSCSI boot option ROM) making the remote disk drive appear as a local, bootable C drive. The server is configured to connect to and boot from the iSCSI target disk on the network, and download the OS image from the iSCSI target disk. The iSCSI boot-option ROM is provided by HP at no extra cost. Additionally, the HP iSCSI boot solution includes scripts to simplify the installation process.

## Mezzanine adapter overview

Eleven add-on mezzanine adapters are currently offered for HP BladeSystem c-Class ProLiant servers: the 1 GbE NC325m, NC326m, NC360m, NC364m, and NC382m, and the 10GbE NC522m, NC532m, NC542m, NC550m, NC551m, and NC552m. Multiple mezzanine adapters per server are supported, including a combination of the different Gigabit Ethernet cards as well as a mixture of 1 GbE and 10GbE speeds. Additionally, the NC551i FlexFabric 10 Gb Converged Network Adapter (CNA) LAN on Motherboard (LOM) is available for HP BladeSystem AMD G7 servers. This dual-port adapter delivers the performance benefits and cost savings of converged network connectivity.

### **NC325m**

The NC325m is a quad-port 1 GbE adapter ideal for virtualization, security, server consolidation, network segmentation, and other applications requiring high throughput and port density. The total aggregate throughput of 4-gigabit Mbps meets the needs of customers who desire high bandwidth but are not yet ready to move to 10GbE. It is supported on all HP ProLiant c-Class server blades in all mezzanine slots for up to 16 1 GbE ports per full-height server and 8 ports per half-height server. This generates an impressive total of 128 Ethernet ports per c7000 enclosure.

### **NC326m**

The NC326m is a dual-port 1 GbE adapter designed for a wide range of applications requiring more Gigabit Ethernet ports than are provided on the server. Like all 1 GbE mezzanine c-Class adapters, the NC326m is supported on all HP ProLiant c-Class server blades in all mezzanine slots.

### **NC360m**

The NC360m provides two 1 GbE ports on a single mezzanine card supported on ProLiant c-Class server blades in all mezzanine slots. It is the first dual-port mezzanine adapter option for HP BladeSystem c-Class based on an Intel controller. ProLiant c-Class customers now have the choice of a c-Class dual-port mezzanine adapter that uses either an Intel or Broadcom controller.

### **NC364m**

The HP NC364m is a c-Class network adapter providing four 1 GbE ports on a single card, saving valuable server mezzanine slots for other purposes. The NC364m is supported on both Integrity and ProLiant c-Class server blades in all mezzanine slots. For Integrity c-Class servers, it is the first network adapter mezzanine option available providing up to 16 Gigabit Ethernet ports per BL860c server, and 128 and 64 ports per c7000 and c3000 enclosures, respectively. For ProLiant c-Class server blades, the NC364m is the first adapter option for c-Class offering ProLiant customers a choice of a 4-port card that uses either an Intel or Broadcom controller.

**NC382m**

The NC382m is a dual-port multifunction 1 GbE adapter providing TCP offload engine (TOE) and accelerated iSCSI. It also provides iSCSI boot capability allowing a ProLiant c-Class server blade to boot from a remote OS image located on a SAN. Designed as a replacement to the NC373m, it offers the latest Broadcom controller featuring a maximum power usage of 4 watts (a 73 percent savings compared to the NC373m at 15 watts). The NC382m is particularly suitable for I/O-intensive applications, including server-to-server, server-to-switch, and server-to-workstation communications.

**NC542m**

The HP NC542m Dual Port Flex-10 10GbE BL-c Adapter is the most powerful member of the c-Class 10 Gb adapter portfolio. Based on the latest version of the Mellanox ConnectX family, the HP NC542m delivers the highest overall throughput and the lowest latency of all the 10GbE adapters. A right choice for mission-critical applications such as financial services and virtualized environments—the adapter works with all BladeSystem c-Class G6 servers. When paired with the new HP ProCurve 6120XG Blade Switch, the combination provides a comprehensive high-bandwidth and high-performance interface between the server edge and the network.

**NC550m**

The HP NC550m 10 Gb Dual Port PCIe x8 Flex-10 Ethernet Adapter is a new member in the c-Class 10 Gb adapter portfolio. Based on the Blade Engines 2 controller, the HP NC550m delivers superior throughput and is one of the highest performing adapters in the 10GbE portfolio.

For organizations seeking virtualized server environments, high-performance networks, and data center consolidation, the HP NC550m is the right choice. It offers TOE support for low CPU utilization and works well with all HP ProLiant c-Class G6 servers. The NC550m, when paired with the new 10 Gb Virtual Connect Module, provides up to 4 physical function NICs per port that can be configured to operate at any speed from 100 Mbps to 10 Gbps.

**NC551m**

The HP NC551m FlexFabric 10 Gb mezzanine adapter delivers the performance benefits and cost savings of converged network connectivity for HP BladeSystem servers. The dual-port NC551m helps optimize network and storage traffic with hardware acceleration and offloads for stateless TCP/IP, TOE, FCoE, and iSCSI. When connected to a Convergence Enhanced Ethernet (CEE) capable switch, Fibre Channel (FC), and Ethernet, I/O are separated and routed to the corresponding network. For iSCSI storage, the NC551m supports full protocol offload

providing better CPU efficiency when compared to software initiators, enabling the server to handle increased virtualization workloads and compute-intensive applications. The NC551m also supports Virtual Connect Flex-10 that allows each 10 Gb port to be divided into four physical NICs to help optimize bandwidth management for virtualized servers. This combination of high-performance network and storage connectivity reduces cost and complexity, and provides flexibility and scalability for BladeSystem servers.

**NC552m**

The HP NC552m 10 Gb Dual Port Flex-10 Ethernet Adapter is the latest member of the c-Class 10 Gb adapter portfolio. Based on the Blade Engines 3 controller, the NC552m delivers superior throughput compared to all the other adapters in the 10GbE portfolio. With Flex-10 technology, the NC552m is the right choice for organizations seeking virtualized server environments, high-performance networks, and data center consolidation. It offers TOE support for low CPU utilization and works well with all HP BladeSystem c-Class G7 servers. Also, when paired with any of the new Ethernet switches, the combination provides high bandwidth, enhanced performance, and reduced power and cooling cost.

**NC522m**

The HP NC522m is a dual-port 10-Gigabit Ethernet network adapter for ProLiant c-Class BladeSystem based on the NetXen 3031 controller. The NC522m is supported by the HP Virtual Connect Flex-10 10 Gb Ethernet Module for BladeSystem c-Class to enable up to 8 physical function NICs per adapter that can be configured to operate at any speed from 100 Mbps to 10 Gbps. The NC522m ships with support for virtual LAN (VLAN) tagging, quality of service (QoS), 9K jumbo frames, teaming (bonding), Receive Side Scaling (RSS), and preboot execution environment (PxE).

The NC522m adapter is supported in most ProLiant c-Class server Type II (x8 PCI Express) mezzanine slots.

**NC532m**

The NC532m is 10-Gigabit Ethernet network adapter for the ProLiant c-Class BladeSystem. The adapter is a dual-port 10GbE mezzanine that, when paired with the new 10 Gb Virtual Connect Module, provides up to 8 physical function NICs that can be configured to operate at any speed from 100 Mbps to 10 Gbps. The NC532m also offers TOE and iSCSI support. The adapter ships with support for VLAN tagging, QoS, 4K jumbo frames, teaming (bonding), RSS, and PxE. The NC532m adapter is supported in ProLiant c-class server Type I and II mezzanine slots.

**Technical specifications**  
(Add-on mezzanine adapters)

**HP NC325m Quad Port  
Gigabit Ethernet Adapter**

**HP NC326m Dual Port  
Gigabit Ethernet Adapter**

**HP NC360m Dual Port  
1 GbE BL-c Adapter**

Hardware features			
<b>Part number</b>	416585-B21	406771-B21	445978-B21
<b>Ports and transfer rate</b>	4 @ 2000 Mbps	2 @ 2000 Mbps	2 @ 2000 Mbps
<b>Supported servers</b>	All ProLiant c-Class except BL2x220 G5	All ProLiant c-Class	All ProLiant c-Class
<b>Supported mezzanine slots</b>	Type I mezzanine slots	Type I mezzanine slots	Type I mezzanine slots
<b>Supported interconnects</b>	HP 1/10 Gb Virtual Connect Ethernet Module (399593-B22) HP Virtual Connect Flex-10 10 Gb Ethernet Module (455880-B21) HP 1/10 Gb-F Virtual Connect Ethernet Module (447047-B21) HP ProCurve 6120XG Blade Switch (516733-B21) HP ProCurve 6120G/XG Blade Switch (498358-B21) Cisco Catalyst Blade Switch 3120G for HP (451438-B21) Cisco Catalyst Blade Switch 3120X for HP (451439-B21) Cisco Catalyst 3020 Blade Switch (410916-B21) HP GbE2c Layer 2/3 Ethernet Blade Switch (438030-B21) HP 1 Gb Ethernet Pass-Thru Module (406740-B21) HP 10GbE Pass-Thru Module (538113-B21)		
<b>Supported enclosures</b>	c3000 and c7000	c3000 and c7000	c3000 and c7000
<b>Form factor</b>	Type I card, x4 PCIe	Type I card, x4 PCIe	Type I card, x4 PCIe
<b>Network controller</b>	2 Broadcom 5715S	1 Broadcom 5715S	1 Intel 82571EB
Software features			
<b>iSCSI boot</b>			
<b>VMware ESX support</b>	•	•	•
<b>VMware ESX iSCSI boot support</b>			
<b>TCP/IP stateful offload engine</b>			
<b>Receive Side Scaling</b>			
<b>ProLiant adapter teaming</b>	•	•	•
<b>Preboot execution environment (PxE)</b>	•	•	Virtual Connect only
<b>Wake-on-LAN (WOL)</b>	•	•	•
<b>Jumbo frames</b>	9K	9K	9K
<b>802.1Q VLANs</b>	•	•	•
<b>802.1p QoS</b>	•	•	•
<b>802.3ad link aggregation</b>	•	•	•
<b>802.1x flow control</b>	•	•	•
<b>TCP checksum and segmentation offloads</b>	•	•	•
<b>Interrupt coalescence</b>	•	•	•
<b>Dual address cycles (DAC)</b>	•	•	•
<b>Warranty (parts/labor/onsite)</b>	Warranty of the server that holds the adapter		

**Technical specifications**  
(Add-on mezzanine adapters)

**HP NC364m Quad  
Port 1 GbE BL-c  
Adapter**

**HP NC382m Dual Port  
Multifunction Gigabit  
Ethernet Adapter**

**HP NC542m Dual Port  
Flex-10 10GbE Multifunction  
BL-c Adapter**

Hardware features			
<b>Part number</b>	447883-B21	453246-B21	539856-B21
<b>Ports and transfer rate</b>	4 @ 2000 Mbps	2 @ 2000 Mbps	2 @ 20,000 Mbps
<b>Supported servers</b>	All ProLiant c-Class except BL2x220 G5	All ProLiant c-Class	All ProLiant c-Class
<b>Supported mezzanine slots</b>	Type I mezzanine slots	Type I mezzanine slots	Type I and Type II mezzanine slots
<b>Supported interconnects</b>	HP Virtual Connect Flex-10 10 Gb Ethernet Module (455880-B21) HP 1/10 Gb Virtual Connect Ethernet Module (399593-B22) HP 1/10 Gb-F Virtual Connect Ethernet Module (447047-B21) HP ProCurve 6120XG Blade Switch (516733-B21) HP ProCurve 6120G/XG Blade Switch (498358-B21) Cisco Catalyst Blade Switch 3120G for HP (451438-B21) Cisco Catalyst Blade Switch 3120X for HP (451439-B21) Cisco Catalyst 3020 Blade Switch (410916-B21) HP GbE2c Layer 2/3 Ethernet Blade Switch (438030-B21) HP 1 Gb Ethernet Pass-Thru Module (406740-B21) HP 10GbE Pass-Thru Module (538113-B21)		HP Virtual Connect Flex-10 10 Gb Ethernet Module (455880-B21) HP ProCurve 6120XG Blade Switch (516733-B21) HP 10GbE Pass-Thru Module (538113-B21) <b>Note:</b> The adapter operates at 1 Gb when connected to the supported devices listed below: HP 1/10 Gb Virtual Connect Ethernet Module (399593-B22) HP 1/10 Gb-F Virtual Connect Ethernet Module (447047-B21) HP ProCurve 6120G/XG Blade Switch (498358-B21) Cisco Catalyst Blade Switch 3120G for HP (451438-B21) Cisco Catalyst Blade Switch 3120X for HP (451439-B21) Cisco Catalyst 3020 Blade Switch (410916-B21) HP GbE2c Layer 2/3 Ethernet Blade Switch (438030-B21) HP 1 Gb Ethernet Pass-Thru Module (406740-B21)
<b>Supported enclosures</b>	c3000 and c7000	c3000 and c7000	c3000 and c7000
<b>Form factor</b>	Type I card, x4 PCIe	Type I card, x4 PCIe	Type I card, x8 PCIe 2.0
<b>Network controller</b>	2 Intel 82571EB	2 Broadcom 5709S	Mellanox ConnectX EN B0
Software features			
<b>iSCSI boot</b>		•	
<b>VMware ESX support</b>	•	•	•
<b>VMware ESX iSCSI boot support</b>			
<b>TCP/IP stateful offload engine</b>		Windows	
<b>Receive Side Scaling</b>		•	•
<b>ProLiant adapter teaming</b>	•	•	•
<b>Preboot execution environment</b>	Virtual Connect only	•	•
<b>Wake-on-LAN</b>	•	•	
<b>Jumbo frames</b>	9K	9K*	9K
<b>802.1Q VLANs</b>	•	•	•
<b>802.1p QoS</b>	•	•	•
<b>802.3ad link aggregation</b>	•	•	•
<b>802.1x flow control</b>	•	•	•
<b>TCP checksum and segmentation offloads</b>	•	•	•
<b>Interrupt coalescence</b>	•	•	•
<b>Dual address cycles</b>	•	•	NA
<b>Warranty (parts/labor/onsite)</b>	Warranty of the server that holds the adapter		

\*At this time, jumbo frames may not be used concurrently with the TCP/IP stateful offload engine.

**Technical specifications**  
(Add-on mezzanine adapters)

**HP NC550m 10 Gb Dual Port PCIe x8 Flex-10 Ethernet Adapter**

**HP NC551m Dual Port FlexFabric 10 Gb Converged Network Adapter**

**HP NC552m 10 Gb Dual Port Flex-10 Ethernet Adapter**

Hardware features			
<b>Part number</b>	581204-B21	580151-B21	610607-B21
<b>Ports and transfer rate</b>	2 @ 20,000 Mbps	2 @ 20,000 Mbps full duplex	2 @ 20,000 Mbps
<b>Supported servers</b>	All ProLiant c-Class	All c-Class BL G6/G7 servers; G5 (BL 680c only)	All ProLiant c-Class
<b>Supported mezzanine slots</b>	Type I and Type II mezzanine slots	Type I mezzanine slots	Type I and Type II mezzanine slots
<b>Supported interconnects</b>	<p>HP Virtual Connect Flex-10 10 Gb Ethernet Module (455880-B21)</p> <p>HP ProCurve 6120XG Blade Switch (516733-B21)</p> <p>HP 10GbE Pass-Thru Module (538113-B21)</p> <p><b>Note:</b> The adapter operates at 1 Gb when connected to the supported devices listed below:</p> <p>HP 1/10 Gb Virtual Connect Ethernet Module (399593-B22)</p> <p>HP 1/10 Gb-F Virtual Connect Ethernet Module (447047-B21)</p> <p>HP ProCurve 6120G/XG Blade Switch (498358-B21)</p> <p>Cisco Catalyst Blade Switch 3120G for HP (451438-B21)</p> <p>Cisco Catalyst Blade Switch 3120X for HP (451439-B21)</p> <p>Cisco Catalyst 3020 Blade Switch (410916-B21)</p> <p>HP GbE2c Layer 2/3 Ethernet Blade Switch (438030-B21)</p> <p>HP 1 Gb Ethernet Pass-Thru Module (406740-B21)</p>	<p>HP Virtual Connect FlexFabric 10 Gb/24-port Module (571956-B21)</p> <p>HP Virtual Connect Flex-10 10 Gb Ethernet Module (455880-B21)</p> <p>HP ProCurve 6120XG Blade Switch (516733-B21)</p> <p>HP 10GbE Pass-Thru Module (538113-B21)</p> <p><b>Note:</b> The adapter operates at 1 Gb when connected to the supported devices listed below:</p> <p>HP 1/10 Gb Virtual Connect Ethernet Module (399593-B22)</p> <p>HP 1/10 Gb-F Virtual Connect Ethernet Module (447047-B21)</p> <p>HP ProCurve 6120G/XG Blade Switch (498358-B21)</p> <p>Cisco Catalyst Blade Switch 3120G for HP (451438-B21)</p> <p>Cisco Catalyst Blade Switch 3120X for HP (451439-B21)</p> <p>Cisco Catalyst 3020 Blade Switch (410916-B21)</p> <p>HP GbE2c Layer 2/3 Ethernet Blade Switch (438030-B21)</p> <p>HP 1 Gb Ethernet Pass-Thru Module (406740-B21)</p>	<p>HP Virtual Connect Flex-10 10 Gb Ethernet Module (455880-B21)</p> <p>HP ProCurve 6120XG Blade Switch (516733-B21)</p> <p>HP 10GbE Pass-Thru Module (538113-B21)</p> <p><b>Note:</b> The adapter operates at 1 Gb when connected to the supported devices listed below:</p> <p>HP 1/10 Gb Virtual Connect Ethernet Module (399593-B22)</p> <p>HP 1/10 Gb-F Virtual Connect Ethernet Module (447047-B21)</p> <p>HP ProCurve 6120G/XG Blade Switch (498358-B21)</p> <p>Cisco Catalyst Blade Switch 3120G for HP (451438-B21)</p> <p>Cisco Catalyst Blade Switch 3120X for HP (451439-B21)</p> <p>Cisco Catalyst 3020 Blade Switch (410916-B21)</p> <p>HP GbE2c Layer 2/3 Ethernet Blade Switch (438030-B21)</p> <p>HP 1 Gb Ethernet Pass-Thru Module (406740-B21)</p>
<b>Supported enclosures</b>	c3000 and c7000	c3000 and c7000	c3000 and c7000
<b>Form factor</b>	Type I card, x8 PCIe 2.0	Type I card, x8 PCIe 2.0	Type I card, x8 PCIe 2.0
<b>Network controller</b>	Blade Engines 2	Blade Engines 2	Blade Engines 3
Software features			
<b>iSCSI boot</b>		•	
<b>VMware ESX support</b>	•	•	•
<b>VMware ESX iSCSI boot support</b>		•	
<b>TCP/IP stateful offload engine</b>		•	•
<b>Receive Side Scaling</b>	•		•
<b>ProLiant adapter teaming</b>	•		•
<b>Preboot execution environment</b>	•		•
Wake-on-LAN			
<b>Jumbo frames</b>	9K	9K	9K
<b>802.1Q VLANs</b>	•	•	•
<b>802.1p QoS</b>	•	•	•
<b>802.3ad link aggregation</b>	•	•	•
<b>802.1x flow control</b>	•	•	•
<b>TCP checksum and segmentation offloads</b>	•	•	•
<b>Interrupt coalescence</b>		•	•
<b>Dual address cycles</b>		•	•
<b>Warranty (parts/labor/onsite)</b>	Warranty of the server that holds the adapter	Warranty of the server that holds the adapter	Warranty of the server that holds the adapter

**Technical specifications**  
(Add-on mezzanine adapters)

**HP NC522m Dual Port  
Flex-10 10GbE Multifunction  
BL-c Adapter**

**HP NC532m Dual Port  
Flex-10 10GbE  
Multifunction BL-c Adapter**

Hardware features		
Part number	467801-B21	467799-B21
Ports and transfer rate	2 @ 20,000 Mbps	2 @ 20,000 Mbps
Supported servers	All ProLiant c-Class except BL2x220c	All ProLiant c-Class
Supported mezzanine slots	Type II mezzanine slots	Type I and Type II mezzanine slots
Supported interconnects	<p>HP Virtual Connect Flex-10 10 Gb Ethernet Module (455880-B21)</p> <p>HP ProCurve 6120XG Blade Switch (516733-B21)</p> <p>HP 10GbE Pass-Thru Module (538113-B21)</p> <p><b>Note:</b> The adapter operates at 1 Gb when connected to the supported devices listed below:</p> <p>HP 1/10 Gb Virtual Connect Ethernet Module (399593-B22)</p> <p>HP 1/10 Gb-F Virtual Connect Ethernet Module (447047-B21)</p> <p>HP ProCurve 6120G/XG Blade Switch (498358-B21)</p> <p>Cisco Catalyst Blade Switch 3120G for HP (451438-B21)</p> <p>Cisco Catalyst Blade Switch 3120X for HP (451439-B21)</p> <p>Cisco Catalyst 3020 Blade Switch (410916-B21)</p> <p>HP GbE2c Layer 2/3 Ethernet Blade Switch (438030-B21)</p> <p>HP 1 Gb Ethernet Pass-Thru Module (406740-B21)</p>	<p>HP Virtual Connect Flex-10 10 Gb Ethernet Module (455880-B21)</p> <p>HP ProCurve 6120XG Blade Switch (516733-B21)</p> <p>HP 10GbE Pass-Thru Module (538113-B21)</p> <p><b>Note:</b> The adapter operates at 1 Gb when connected to the supported devices listed below:</p> <p>HP 1/10 Gb Virtual Connect Ethernet Module (399593-B22)</p> <p>HP 1/10 Gb-F Virtual Connect Ethernet Module (447047-B21)</p> <p>HP ProCurve 6120G/XG Blade Switch (498358-B21)</p> <p>Cisco Catalyst Blade Switch 3120G for HP (451438-B21)</p> <p>Cisco Catalyst Blade Switch 3120X for HP (451439-B21)</p> <p>Cisco Catalyst 3020 Blade Switch (410916-B21)</p> <p>HP GbE2c Layer 2/3 Ethernet Blade Switch (438030-B21)</p> <p>HP 1 Gb Ethernet Pass-Thru Module (406740-B21)</p>
Supported enclosures	c3000 and c7000	c3000 and c7000
Form factor	Type II x8 PCI 2.0	Type I x8 PCI 2.0
Network controller	NetXen NX3031	Broadcom 57711
Software features		
iSCSI boot		
VMware ESX support	•	•
VMware ESX iSCSI boot support		
TCP/IP stateful offload engine		•
Receive Side Scaling	•	•
ProLiant adapter teaming	•	•
Preboot execution environment	•	•
Wake-on-LAN		•
Jumbo frames	9K	4K
802.1Q VLANs	•	•
802.1p QoS	•	•
802.3ad link aggregation	•	•
802.1x flow control	•	•
TCP checksum and segmentation offloads	•	•
Interrupt coalescence	•	•
Dual address cycles		
Warranty (parts/labor/onsite)		Warranty of the server that holds the adapter

## HP Financial Services

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## HP Services

### When technology works, business works.

The challenge of virtually every IT organization is similar: to develop and maintain an agile, virtualized, and efficient server and network infrastructure that delivers the service levels your business needs.

HP Technology Services offers a comprehensive portfolio of HP Care Pack services to help design, deploy, manage, and support your blades-based virtualized environment.

### Minimum recommended HP Care Pack service offerings

- 3-year, 4-hour response onsite, 24x7 hardware support
- Blades Infrastructure plus Enhanced Network installation and startup services

### Enhanced service-level Care Pack service offerings

- **3-year Support Plus 24:** Integrated 24x7 hardware and software support
- **HP Proactive Select:** Access to HP first-rate technical consultants; purchase service credits and obtain expertise as needed.

### Benefit from HP Care Pack services can help you:

- Reduce deployment time for faster return on investment (ROI)
- Increase uptime, performance, and server availability to your business
- Detect and diagnose problems automatically, resulting in quick repairs—saving time, money, and resources

For more information, visit:

<http://www.hp.com/services/bladessystem>

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