

# HP BladeSystem c-Class enclosures

Family data sheet



HP BladeSystem c3000 enclosure



HP BladeSystem c7000 enclosure

Choosing a BladeSystem over traditional server and storage alternatives is a choice to transform your infrastructure into something more simple and useful to your business.

The BladeSystem enclosure is the secret behind that transformation.

By consolidating everything from the start, BladeSystem enclosures tackle four big problems, before your infrastructure grows out of control.

- **Cost:** high cost to buy, even higher costs to run and maintain
- **Time:** low productivity, downtime and slow reaction to new opportunities
- **Change:** inflexible and hard-wired with complex processes and multiple people needed to grow or adapt
- **Energy:** inefficient, power-hungry systems that create rising electricity cost and stress the power and cooling capacity of your site

Today, HP offers two versatile enclosures to match the unique needs of large or small IT environments. Each one repackages the moving parts of your infrastructure – cables, power supplies and fans, networking, redundancy and more – to give greater convenience. This means a BladeSystem costs less to buy, plus it adds useful features that save you time, hassles and energy while making change easy.

Each BladeSystem enclosure is easy to upgrade and customise. Inside, you can mix and match almost any combination of ProLiant, Integrity and StorageWorks blades to run your choice of thousands of applications and connect to your same networks, but with 94 per cent fewer cables.<sup>1</sup> You can share and swap the same blades and network options between other BladeSystem enclosures and manage it all with the same tools.

<sup>1</sup>Comparing all cable requirements of 16 c-Class server blades versus 16 standard 1U servers



### How to pick the right enclosure for you

Choose the HP BladeSystem c3000 for smaller sites without special power and cooling needs or with a small staff. The c3000 is the right choice if:

- You only need four to eight servers at a time
- You add fewer than four servers, slowly over time
- Your server room only supports low-line wall outlets, 110 volts for example
- You require DC power (48 volts)
- You need to connect to a UPS
- Your server room has limited air conditioning

Choose the HP BladeSystem c7000 for larger data centres and dynamic, complex environments.

The c7000 is the right choice if:

- You need more than eight servers at a time
- Your environment is growing rapidly, with frequent server purchases
- You require AC redundancy
- You require more than 1 TB of direct-attached storage per server

### Why HP over other blade choices?

Our unique innovations solve your biggest challenges. HP has the good stuff built in from the start. We combined the best technology from across HP to make BladeSystem not only easy to use, but also useful to you. You get the same useful, powerful innovations regardless of whether you choose the c3000 or c7000 enclosure.

- **Thermal Logic technologies:** Smart technology saves you energy every second and lightens the load on your air conditioners, saving 30 per cent in power.<sup>2</sup>
- **Virtual Connect architecture:** Wire once, then add, replace or recover blades on the fly, without impacting networks and storage or creating extra steps.
- **Insight Control management:** Simple, single package provides all the tools to streamline operations and increase administrator productivity up to tenfold.
- **NonStop midplane:** The same million-dollar reliability that helps run Wall Street is built-in to keep your business up and running.
- **Onboard Administrator:** Wizards get you up and running fast, and are paired with useful tools to simplify daily tasks, warn of potential issues and assist you with repairs.

<sup>2</sup>Sine Nomine Associates, "Comparison of HP BladeSystem with Thermal Logic Technologies to Competitive Systems", February 2007.

## HP BladeSystem c3000 enclosure



## HP BladeSystem c7000 enclosure



<b>Device bays</b>	Up to 4 full-height Up to 8 half-height Mixed configurations supported	Up to 8 full-height Up to 16 half-height Mixed configurations supported
<b>Interconnect bays</b>	1x Ethernet only 3 interconnect bays with support for any I/O fabric	8 interconnect bays with support for any I/O fabric
<b>Power</b>	Integrated in enclosure, single-phase, low-line or high-line; DC option	Integrated in enclosure, 3-phase or single-phase
<b>Cooling</b>	Centralised redundant fans	Centralised redundant fans
<b>Management</b>	Single onboard administrator – LAN and serial access	Redundant onboard administrator – LAN and serial access
<b>Rack height</b>	6U	10U
<b>Enclosure power</b>		
<b>Input voltage</b>	Low-line: 100VAC to 120VAC High-line: 200VAC to 240VAC	High-line: 200VAC to 240VAC
<b>3-phase North America and Japan model power connections</b>	Not offered	2 x NEMA L15-30p
<b>3-phase international model power connections</b>	Not offered	2 x IEC-309 5-pin, 6h, red, 16A
<b>Single-phase model power connections</b>	6 x IEC-320 C14	6 x IEC-320 C20
<b>Interconnects</b>		
<b>Ethernet</b>	HP Virtual Connect Ethernet Module, HP 1Gb Ethernet Pass-Thru Module, Cisco Catalyst Blade Switch 3020 for HP, HP GbE2c Ethernet Blade Switch	HP Virtual Connect Ethernet Module, HP 1Gb Ethernet Pass-Thru Module, Cisco Catalyst Blade Switch 3020 for HP, HP GbE2c Ethernet Blade Switch
<b>Fibre Channel</b>	HP Virtual Connect Module, HP 16 port 4Gb FC Pass-Thru Module, Brocade 4 Gb SAN Switch	HP Virtual Connect Module, HP 16 port 4Gb FC Pass-Thru Module, Brocade 4 Gb SAN Switch
<b>InfiniBand</b>	HP 4X DDR IB Switch Module	HP 4X DDR IB Switch Module
<b>Enclosure dimensions</b>		
<b>Height</b>	6U – 10.4 in (265 mm)	10U – 17.4 in (442 mm)
<b>Width</b>	17.5 in (445 mm)	17.5 in (445 mm)
<b>Depth</b>	32 in (813 mm)	32 in (813 mm)
<b>Warranty (parts/labour/on-site)</b>	3-year/3-year/3-year	3-year/3-year/3-year

## HP Services

HP Care Pack services for BladeSystem are easy-to-buy, useful packaged services that extend and enhance the warranty coverage on your HP BladeSystem solution.

To help deliver speedy project implementation, fast problem resolution and ongoing system performance optimisation, we developed a portfolio of HP Care Pack services to support the full lifecycle of your BladeSystem solution. Service options include:

- **VMware Capacity Planning Assessment service** – supports migration planning and provides assessment of your current IT infrastructure.
- **HP Thermal Quick Assessment for HP BladeSystem Environments** – leverages sophisticated modelling tools and techniques to determine the unique thermal conditions within your data centre to help optimise your BladeSystem environment.
- **Installation and Startup for HP BladeSystem Infrastructure service** – helps get your BladeSystem up and running with less disruption to your IT operations.
- **Enhanced Network Installation and Startup service** – verifies correct implementation of network protocols and provides access to advanced features that can enhance the performance, scalability and reliability of your network.
- **BladeSystem hardware support services** – provide fast, reliable problem resolution and are available for the enclosure, ProLiant BL server blade, BladeSystem SAN switches and StorageWorks tape blades.
- **Proactive BladeSystem service** – delivers the reliability and operational efficiency your business needs to simplify management and enhance performance.

Experienced HP Services professionals work with you to:

- Align the performance, reliability and asset utilisation of your HP blade technology with your IT operational objectives
- Simplify IT operational procedures by leveraging HP best practices
- Enable cost-effective management of your HP blade solution with ongoing advice from HP technical experts
- Improve your IT staff skills through targeted HP technical or training services

Service coverage spans all of your BladeSystem equipment including enclosures, power supplies, server blades (ProLiant and Integrity), storage blades, and blade SAN and network switches.

For more information, visit [www.hp.com/services/bladessystemservices](http://www.hp.com/services/bladessystemservices).

## No-compromise capability

Share the same components with other HP BladeSystem enclosures to make it fast and easy to create, customise and grow.

- **Run your same business applications** with industry standards to support your operating systems and thousands of application choices.
- **Trust the same server and storage blades.** ProLiant, Integrity, StorageWorks and more can be mixed and matched in a single box.
- **Connect to your same networks.** Use the latest Ethernet, Fibre Channel and InfiniBand standards and trusted brands.
- **Get more blades with more capability.** HP BladeSystem enclosures get more – two to four times more – features into each blade; plus HP offers two more blades per enclosure than IBM and six more than Dell.<sup>3</sup> That means less infrastructure to buy for the same number of blades.

## HP Financial Services

HP Financial Services is a smart, economical way to help you plan and manage your BladeSystem investment. Get the most out of your IT budget with financial services that help you manage your cash flow, improve your return on investment and avoid being stuck with obsolete technology. Our flexible leasing options can help you adapt to your business needs, avoid maintenance fees and depreciation expenses. For more information on these services, contact your HP representative, or visit [www.hp.com/go/hpfinancialservices](http://www.hp.com/go/hpfinancialservices).

## For more information

For more information about HP BladeSystem enclosures please contact your local HP representative, or visit [www.hp.com/go/bladessystem/enclosure](http://www.hp.com/go/bladessystem/enclosure).

<sup>3</sup>Based on published specifications of IBM BladeCenter chassis with 14 slots versus HP BladeSystem c7000 enclosure with 16 slots versus Dell 1955 blade enclosure with 10 slots.

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To learn more, visit [www.hp.com/go/bladessystem/enclosure](http://www.hp.com/go/bladessystem/enclosure)

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