



BladeSymphony® 320 Pushing Consolidation to the Edge

Powered by Dual-Core and Quad-Core Intel® Xeon® Processors





Introducing BladeSymphony[®] 320

Simple, reliable compute power for the enterprise, the branch, or the remote office.

Consolidation just doesn't get any simpler. Or more efficient. The Hitachi BladeSymphony 320 blade server delivers a combination of compute density and enterprise-class reliability that far exceeds the capabilities of rack-mount servers and other blade servers—with a level of simplicity that is absolutely unprecedented. It's the ideal platform for consolidating applications at the edge and application tier of the enterprise data center.

110-Volt Option for Simple Deployment and Lower Cost

The 6U BladeSymphony 320 is far simpler to deploy and manage than rack-mount servers or other blade solutions. It is the only blade system with a 110-volt power option, so it plugs right in to standard power outlets with no special equipment or adapters. It is also the lightest 6U system on the market. That means you can make changes to your configurations quickly and easily without breaking your budget or your back.

And you'll save on power costs with BladeSymphony 320. With its electrically efficient 6U form factor it draws significantly less power than any rack-mount server delivering comparable performance; and a fully loaded BladeSymphony 320 draws far less power than fully loaded competitive blade systems.

Redefines "Power Packed"

BladeSymphony 320 packs more power into a smaller space than any comparable solution: up to 10 two-socket, quad-core servers in a single 6U chassis—with 60% space savings compared to rack-mount server solutions. For large configurations the system can pack 70 two-socket, quad-core servers in a single standard 42U rack—that's up to 560 cores in a single rack.

And you can run your most demanding applications with confidence because BladeSymphony 320 has built-in reliability, availability, and serviceability (RAS) features that keep you up and running at high performance 24/7. From hot-swap components and multi-configurable power supplies to Hitachi's unique N+M cold stand-by feature for automated system failover.

The system also includes two on-board, hot-swappable Serial-Attached SCSI (SAS) drives, providing high performance and application flexibility; four Gigabit Ethernet ports per blade for high network throughput; and up to 16 GB of fully buffered memory.

Integrated Components, Centralized Management

BladeSymphony 320 is also easier to administer than alternative systems, saving you time and money. In fact, a BladeSymphony 320 server can be installed and brought up in a few minutes rather than the few hours it would take for a rack-mount server.

A wide range of optional capabilities and components are available, such as a LAN pass-through option, Fibre Channel ports and switch modules for connecting to a SAN, and remote IP KVM. These compo-

nents are all built in, so there's less cabling, less complexity, and less work required of administrators. And all of the core modules are made by Hitachi, so there are no space-consuming external devices to purchase and configure, no compatibility issues to deal with, and no worries about integrating with the management system.

BladeSymphony's® optional management software suite provides centralized management and control of all server, network, and storage resources, including the ability to setup and configure servers, monitor server resources, integrate with enterprise management software via SNMP,

provide automatic failure notification, and manage server assets. So there are no hassles integrating diverse resources into your management system. And you can use it to manage multiple 6U chassis, so you can scale up without moving to a new management platform.

And BladeSymphony 320 includes an L3 redundant Gigabit Ethernet Switch, delivering the gigabit networking required in today's enterprise data centers. The switch provides 10/100/1000 Mbps ports for connecting BladeSymphony server modules to other networked resources within the corporate networking structure and delivers high throughput.

Uncover a Hidden Asset: Your Floor Tiles

When you're looking to consolidate compute-intensive workloads in your enterprise data center, BladeSymphony 320 gives you something you never expected: unoccupied data center floor tiles.

Now you can consolidate on a platform that exceeds your expectations for performance, reliability, scalability, and manageability. You can deploy new Web services, OLTP and Internet commerce applications, media-rich, compute-intensive workloads, or database-tier applications. You can cut your risk of technology obsolescence by taking advantage of industry standards such as Intel®, Windows®, and Linux®.

Specifications

BladeSymphony 320

Chassis	Size	6U (Rack Mountable)					
	Server Blade Modules	Up to 10 server blade modules					
	Dimensions (W x D x H)	17.3in (440mm) x 30.7in (780mm) x 10.3in (262mm)					
	Weight (Max.)	Approx. 216lbs / 98kg					
	Power Supplies	110V or 220V Hot Swappable, N+1 or Fully Redundant configurable power supplies					
	I/O Modules	1Gbps Ethernet Switch Module, 1Gbps/10Gbps Ethernet Switch Module, 1Gbps LAN Pass-through Module, Fibre Channel Switch Module,					
Server Blade	Processor	Dual-Core Intel® Xeon® Processor E5205	Dual-Core Intel® Xeon® Processor X5260	Quad-Core Intel® Xeon® Processor L5320	Quad-Core Intel® Xeon® Processor E5405	Quad-Core Intel® Xeon® Processor E5430	Quad-Core Intel® Xeon® Processor E5450
	Processor Frequency	1.86GHz	3.33GHz	1.86GHz	2GHz	2.66GHz	3GHz
	Number of Processors	Min. 1 (2 cores) / Max. 2 (4 cores)			Min. 1 (4 cores) / Max. 2 (8 cores)		
	Cache	L2 : 6MB		L2 : 2 x 4MB	L2 : 2 x 6MB		
	System Bus (FSB) Frequency	1,066MHz	1,333MHz	1,066MHz	1,333MHz		
	Main Memory	ECC DDR2-667 FB-DIMM Chipkill / Memory Mirroring					
	Capacity	Max. 16GB					
	Internal Hard Disk	Up to 146GB: Two 2.5" 73GB(10,000min-1) SAS HDD Up to 294GB: Two 2.5" 147GB(10,000min-1) SAS HDD					
	Internal Expansion Slot	Optional Two Port 4Gbps Fibre Channel Mezzanine Card					
	Network Interface	Up to 4 Gigabit Ethernet (SERDES) ports					
	Operating Systems	Microsoft® Windows Server® 2003 R2, Standard Edition SP2 Microsoft® Windows Server® 2003 R2, Enterprise Edition SP2 Microsoft® Windows Server® 2003 R2, Standard x64 Edition SP2 Microsoft® Windows Server® 2003 R2, Enterprise x64 Edition SP2 Red Hat Enterprise Linux® 4					



Equally important, you can reap the rewards of lower acquisition, administration, and licensing costs. You can avoid additional capital expenditures because you can scale up on demand in fine-grained increments. You can reduce the expense of configuring, administering and managing large numbers of discrete systems. You can fine-tune your capacity planning and put off unnecessary hardware purchases. And you can protect your previous investments while keeping your options wide open.



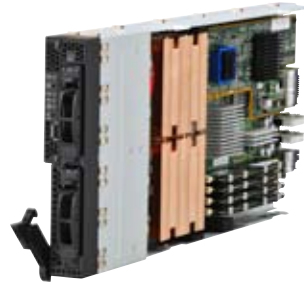
So if you're looking for a simple, manageable, cost-efficient way to deploy compute power when and where you need it—or if you're just looking for some extra space in your data center—you've found it. BladeSymphony® 320 from Hitachi. We're pushing consolidation right to the edge.

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From Hitachi, the Ideal Partner for Growth

Hitachi is one of the world's largest, most diverse technology companies. When you purchase BladeSymphony servers, you benefit directly from Hitachi's rich heritage as a server market leader—a legacy of expertise in computers ranging from mainframes and supercomputers to PC servers. You also position your organization to take full advantage of the breadth and depth of Hitachi's multiple product lines, including industry-leading storage systems; award-winning consulting services; strategic alliances with third-party technology vendors worldwide; and Hitachi's unmatched reputation for responsive, comprehensive service and support.

Simply put, you can rest assured that your IT investment will be secure and that your organization will be well positioned to capitalize on new technologies as they emerge.

BladeSymphony 320 at a Glance

Far simpler to deploy and manage

- Only blade server on the market with a 110-volt power option for no-hassles deployment at the branch, the remote office, or the enterprise data center
- Less cabling, less complexity, less work for administrators

Better platform for consolidation

- Packs up to 560 cores into a standard 42U rack (up to 10 two-socket, Dual-Core or Quad-Core server modules per 6U chassis)
- Up to 60% space savings compared to rack-mount servers

More reliable for enterprise-class workloads

- Hot-swap components, redundant switch and management modules, N+M cold stand-by feature, N+1 and fully redundant power supplies and hot-swappable fan modules

More cost efficient

- Lower power draw than rack servers or fully loaded competitive blade systems for lower power costs
- Integrated, interoperable, manageable SAN and network components for lower administration costs
- Support for industry standards: Intel®, Windows®, Linux®
- Higher server utilization rates delay new capital expenditures
- Net result: exceptionally low TCO

Better investment protection

- 6U chassis can support a mix of Dual-core or Quad-core intel® Xeon® Processor-based blades
- Chassis is designed to support next-generation processors

