



HYPERSCALE-INSPIRED DESIGN

PowerEdge C8220 Compute Sled

See results fast with up to 24 cores, 512GB memory, and two PCIe 3.0 expansion slots in a compact single-wide compute sled designed for the 4U Dell™ PowerEdge™ C8000 chassis.

Keep up with increasing demand

More than 30 billion pieces of content are shared on social media sites every month.¹ One second of high-definition video generates more than 2,000 times more bytes than a single page of text.² Research simulations can generate terabytes of big data to process. Hosting and high performance computing workloads are becoming more resource-intensive as they try to keep up with increasing demand.

With the Dell PowerEdge C8220 single-wide compute sled, you get the cores, memory and I/O expansion flexibility you need to quickly meet the needs of the most demanding workloads.

Speed up workloads

The PowerEdge C8220 single-wide compute sled features dual Intel® Xeon® E5-2600 or E5-2600 v2 processors with up to 12 cores each, 16 DIMM slots for up to 512GB of memory, 2.5-inch SATA SSDs for up to 2TB of storage, PCIe 3.0, and dual-port embedded Gigabit Ethernet controllers.³

Speed results: the Intel Xeon processor E5 product family can boost server performance by up to 80% over previous-generation processors, accelerate data availability to the processing cores, reducing latency by up to 30%, while delivering up to 70% more performance per watt.⁴

Do more with less

Pack more compute power in the same space, with up to eight PowerEdge C8220 single-wide compute sleds in one 4U PowerEdge C8000 chassis.

The C8000 4U shared infrastructure chassis is designed for efficiency, using 94% platinum-certified power supplies, and fewer, high-efficiency fans than more traditional servers. Compute, GPU and storage sleds all share chassis, power and cooling, helping save on the total cost of ownership.⁵ Help save even more by refreshing components, without having to replace the entire chassis.

Flex your IT muscle

Run a mix of hosting or Web tiers per chassis, or run blocks of tiers per chassis. Easily reconfigure the C8000 series and/or scale out as needed over time, by mixing and matching compute, GPU, storage, and power supply sleds within one chassis, multiple chassis, and/or across racks to help get results fast while saving on space, power and cooling.

The PowerEdge C8000 series is part of Dell's hyperscale-inspired PowerEdge C server line designed to bring the most compute power in the least amount of space with the least energy draw to help lower operational costs. These servers offer the right combination of what you need and nothing more. They are purpose-built servers designed for high performance computing, Web 2.0, hosting, data analytics, and cloud building. They are best for rack deployments, large homogenous cluster/cloud application environments where the software stack provides primary platform availability and resiliency. The PowerEdge C server line does not come with features you don't need in a scale-out environment like comprehensive systems management, or broad enterprise storage.

- Up to 4x density and 3x Spec_int performance compared to two HP DL380P G8 in 4U⁶
- Intel Xeon E5-2600 and E5-2600 v2 processors can boost performance by up to 80%⁴
- Reduce total cost of ownership with shared infrastructure⁵

Feature	PowerEdge C8220 compute sled technical specifications	
Chassis	4U rack mount chassis holds up to 8 PowerEdge C8220 sleds	
Processors	One 2-socket server, 4, 6, 8, 10 or 12 core Intel® Xeon® processor E5-2600 or E5-2600 v2 product family	
Memory	16 DIMM slots for up to 512GB per node: 4GB/8GB/16GB/32GB LV DDR3 RDIMM (1333MT/s) 4GB/8GB/16GB (1866MT/s 1.5V or 1600MT/s 1.35V) DDR3 RDIMM	
Chipset	Intel C602 chipset	
Video	Integrated AST2300 with up to 16MB video RAM	
Primary storage	Maximum internal storage: 2TB SATA II or 1.6TB SATA SSD	
Drive bays and hard drives	2 x 2.5" hard drive options 2.5" SATA SSD (eMLC): 100GB, 200GB, 400GB, 800GB 2.5" SATA SSD (MLC): 120GB, 160GB, 240GB, 300GB, 480GB, 600GB, 800GB 2.5" Enterprise SATA (7.2K): 500GB, 1TB	
Connectivity	Intel Ethernet Controller I350 - 2 x 1Gb Ethernet 1 x 100Mb Ethernet dedicated management port	
USB ports	2 external ports (front)	
I/O slots	1 x8 PCI Express 3.0 custom mezzanine 1 x16 PCI Express 3.0 half-height (low-profile), half-length slot Infiniband (optional) <ul style="list-style-type: none"> Mellanox® ConnectX®-2 dual-port quad data rate (QDR) InfiniBand® mezz Mellanox ConnectX-3 dual-port full data rate (FDR) InfiniBand mezz QLogic single-port QDR QLE7340 adapter 	1Gb Ethernet (optional) <ul style="list-style-type: none"> Intel I350 quad-port 1GbE low-profile NIC adapter 10Gb Ethernet (optional) <ul style="list-style-type: none"> Intel 82599 10GbE controller dual-port mezz Intel X520-DA dual-port 10GbE SFP+ adapter Intel X540 DP 10GbE Base-T adapter
Drive controller	Intel C602: SATA or SSDs only <ul style="list-style-type: none"> LSI® 2008 6Gb SAS mezzanine (optional) LSI 9202-16e add-in controller (optional) LSI 9211-8i add-in controller (optional) 	
RAID controller	<ul style="list-style-type: none"> LSI 9265-8i add-in RAID controller (optional) LSI 9280-8e add-in RAID controller (optional) LSI 9285CV-8e add-in RAID controller (optional) 	
Operating systems	Microsoft® Windows Server® 2012 Microsoft Windows Server 2012 R2 (includes Hyper-V®) Microsoft Windows Server 2008 R2 Enterprise x64 SP1 (includes Hyper-V)	Microsoft Windows® HPC Server 2008 R2 x64 SP1 Novell® SUSE® Linux Enterprise Server 11 SP3 Red Hat® Enterprise Linux® 6.4
Server management	Embedded BMC with IPMI 2.0 support with 1 x 10/100 Mbps RJ45 connector Intel Node Manager 2.0 compliant	
Hypervisors (optional)	Citrix® XenServer® 5.6 SP2 VMware® vSphere® ESXi™ 5.5 Microsoft Hyper-V Server 2008 R2 SP1	
Dimensions and weight	Height: 42.5 mm (1.67 in.) Width: 171.6 mm (6.76 in.)	Depth: 682.5 mm (26.87 in.) Weight (maximum configuration): 4.99 kg (11 lb.)

1. <http://www.searchenginejournal.com/the-growth-of-social-media-an-infographic/32788/>

2. McKinsey Global Institute, Big data: the next frontier for innovation, competition, and productivity, May 2011

3. GB means 1 billion bytes and TB equals 1 trillion bytes; actual capacity varies with preloaded material and operating environment and will be less.

4. <http://www.intel.com/content/www/us/en/processors/xeon/xeon-processor-5000-sequence.html?cid=sem116p12533>

5. http://www.dell.com/downloads/global/products/edge/en/Shared_Infrastructure_Scale_Out_Advantages_and_Effects_on_TCO.pdf

6. Actual performance will vary based on configuration, usage and manufacturing variability. Performance: SPECint_rate2006 of 5152 in 4U as compared to two HP ProLiant DL380P G8: SPECint_rate2006 of 644 in 4U. SPEC® and the benchmark name SPECint® are registered trademarks of the Standard Performance Evaluation Corporation. Competitive benchmarks stated above reflect results published or submitted to www.spec.org as of July 23, 2012. The comparison presented above is based on the best performing 2-chip x86 servers. For the latest SPECint_rate2006 benchmark results, visit <http://www.spec.org/cpu2006>.

Density: Dell PowerEdge C8000 chassis can support up to eight C8220 Server Sleds in a 4U Chassis compared to a HP ProLiant DL380P G8 2U chassis. Claim is based on overall server density in a 4U of rack space.

Global services and support

Reduce IT complexity, lower costs and eliminate inefficiencies by making IT and business solutions work harder for you. You can count on Dell for end-to-end solutions to maximize your performance and uptime. A proven leader in Servers, Storage and Networking, Dell Enterprise Solutions and Services deliver innovation at any scale. And if you're looking to preserve cash or increase operational efficiency, Dell Financial Services has a wide range of options to make technology acquisition easy and affordable. Contact your Dell Sales Representative for more information.

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