

HYPERSCALE-INSPIRED DESIGN

# PowerEdge C6145

The only server in its class with two 4-socket AMD® Opteron® 6100 series processor-based servers in a hyper-efficient 2U; with 10 PCIe slots to ramp up expansion possibilities

## Designed with your needs in mind

With complex problems to solve in mapping, visualization, simulations and rendering, the number of cores, amount of memory and bandwidth can influence whether you see results first or last.

The Dell™ PowerEdge™ C6145 server is the only server in its class with the performance of two 4-socket AMD Magny-Cours processor-based servers in a 2U. It has up to 96 cores, 1TB memory, and 40Gb/second I/O per card slot. It has six PCIe Gen 2 x16 slots, two x8 mezzanine and two dedicated x16 host interface card slots (HICs), so you have 10 total slots to flex with your needs. Best of all, it's all in a hyper-efficient shared infrastructure 2U, so it saves in space, weight and energy.

## Satisfy the need for speed

The pure volume of calculations calls for performance, all the way from the processor to the I/O bandwidth. The PowerEdge C6145 is one of the highest performing 2U rack servers ever, with two 4-socket AMD Opteron® 6100 series processors. These processors have up to 2x the level of AMD's previous generation 6-core processors, including an 88% increase in integer performance and a 119% increase in floating point performance.<sup>1</sup>

It's not just the 755 FLOPS in the PowerEdge C6145 server that make the difference. It can also accommodate up to 1T of memory.

## Satisfy the need for efficiency

The PowerEdge C6145 server packs two high-performance servers in the same 2U space, while its shared infrastructure design can reduce the number individual fans by 1/4 compared to a traditional 2U, and the associated power to cool. Those two 4-socket servers also use less floor space, cabling, and racks.

At the component level, in a comparison between a best-performing 2P competitive processor platform versus a similar best-performing 4P AMD-based processor, the processor has double the performance at 10% less total processor price.<sup>1</sup>

Select Samsung's® latest low-voltage high-density DDR3 memory and you can save more than 70% in energy over previous generation memory solutions.

## Mix, match and maximize connections

Cores and memory just aren't enough without the I/O

bandwidth to quickly compile data and results, and connect to other resources.

The PowerEdge C6145 server ramps up the I/O with 40Gb/second throughput per x16 slot. Each node has five slots: three PCIe Gen 2 x16 slots, one dedicated x16 HIC slot and one x8 slot for a mezzanine card. With two nodes per server, 10 total PCIe slots, you can mix and match RAID controllers, Infiniband cards, 10GE cards, and HIC cards all in the same server.

You can even drive your workloads to the cutting edge. For example, combine the PowerEdge C6145 server with the PowerEdge C410x PCIe expansion chassis and you can double the server to graphics processing unit (GPU) ratio to 1:8 to create a number-crunching powerhouse.


## Global services and support

Dell is dedicated to simplifying IT, and Dell Services can help you manage the complexities of growing and maintaining your scale-out environments. Dell's broad portfolio of planning, implementation and maintenance services can help accelerate your IT initiatives and help

## PowerEdge C6145

- 2x the performance and density of a traditional 2U
- 40% more floating point operations per second compared to the HP SL390 G7
- Shared infrastructure uses less floor space, power and cooling
- 5 PCIe slots/server node, 10 total

grow your business. Options include, but are not limited to, consulting services to help you optimize your data center, custom rack integration specific to your IT environment, and expert-level solution support with Dell Online Self Dispatch.

PowerEdge C6145 Technical Specifications	
Chassis	2U rack mount
Processors	Up to two 4-socket servers, 8 or 12 cores per processor AMD® Opteron® 6100 processor series
Memory	4GB/8GB LV DDR3 (1333 MHz) 32 DIMM slots for up to 256GB L3 cache: 12MB Low-volt DDR3 Samsung® Green Memory available 
Chipset	AMD SR5670 and AMD SR5690
Video	Integrated AST2050 with 64MB RAM
Primary Storage	Maximum internal storage: 48TB SATA or NL 48TB SAS
Drive Bays and Hard Drives	24 x 2.5" or 12 x 3.5" hard drive options 2.5" SAS (15K RPM): 146GB (RTS+) 2.5" SAS (10K RPM): 300GB, 600GB 2.5" SATA II and NL SAS (7.2K RPM): 500GB 2.5" SATA SSD (SLC)(MLC RTS+): 50GB, 100GB 3.5" SATA (7.2K): 500GB, 1TB, 2TB, 3TB (RTS+) 3.5" SAS (15K): 300GB, 600GB 3.5" NL SAS (7.2K): 2TB
Connectivity	Embedded dual port Intel® Kawela™ 82576 1 Gb Ethernet network interface card
Ports - USB	2 USB ports external (rear)
I/O Slots	1 PCIe x8 mezzanine daughtercard slot, 3 x PCIe x16 riser slot, 1 dedicated x16 host interface card (HIC) card per server node Mellanox® ConnectX-2 40Gb/s dual-port QDR IB adapter (optional) Intel® 82559 dual-port 10GbE adapter (optional)
Drive Controller	LSI® 2008 6Gb SAS mezzanine (optional)
RAID Controller	LSI 9260-8i add-in RAID controller
Power Supplies	Dual hot-plug redundant high-efficiency 1100W/1400W power supplies
Fans	Shared redundant cooling with 4 x 80mm speed fans detectable with PWM control
Operating Systems	Novell® SUSE® Linux® Enterprise Server 11 SP1 Red Hat® Enterprise Linux 5.5 Windows® Server® 2008 R2 Enterprise x64 Windows Server 2008 R2 Hyper-V™ Windows HPC Server® 2008 R2 x64
Server Management	Embedded BMC with IPMI 2.0 support with 1 x 10/100 Mbps RJ45 connector
Hypervisors (Optional)	Citrix® XenServer® 5.6 VMware® ESXi v4.1 Windows Server 2008 Hyper-V
Services (Availability varies by region. Please contact your sales representative for details.)	Infrastructure Consulting Services Rack Integration (U.S. only, not available in China) Onsite Deployment Basic Support with Next Business Day Parts and Labor ProSupport for IT with Next Business Day Parts and Labor Keep Your Hard Drive Enterprise Wide Contract Specialized Onsite Services
Dimensions and Weight	Width: 44.8 cm. (17.6 inches) Depth: 79 cm. (31.1 inches) Weight minimum/maximum: 16.5 kg. (36.38 lb.), 42 kg. (92.61 lb.)

The PowerEdge C6145 server 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 lower operational costs. These servers have the right combination of what you need and nothing more. They are purpose-built servers designed for high performance computing, Web 2.0, data analytics, gaming 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, broad enterprise storage, or same-day support.

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PowerEdge C

