



POWEREDGE C6320

Greater performance and improved energy efficiency with optimized compute, processors and memory for the most demanding high-performance computing and scale-out workloads. Features the Intel Xeon processor E5-2600 v4 product family and iDRAC8 with Lifecycle Controller.

Optimized for HPC

High-performance computing workloads such as scientific simulations, seismic processing and data analytics rely on compute performance, memory bandwidth and overall server efficiency to reduce processing time and data center costs. The next-generation Dell PowerEdge C6320 provides an optimized compute and storage platform for HPC and scale-out workloads with up to four independent two-socket servers with flexible 24 x 2.5" or 12 x 3.5" high-capacity storage in a compact 2U shared infrastructure platform.

With up to 44 cores per node, dynamic drive assignment, dual-port Intel 82559ES 10GbE LOM, and embedded systems management automation with the iDRAC8 with Lifecycle Controller, the C6320 is a scale-out modular compute workhorse.

Ideal balance of compute, memory, local storage and management automation

Computationally intense workloads demand performance, from processors to memory to connected devices. In addition to a leap in processor performance with the next-generation Intel® Xeon® processor E5-2600 v4 product family, the C6320 has increased core counts over prior E5-2600 v3 models. C6320 supports up to 512GB of memory per server node, for a total of 2TB of memory in a highly dense and modular 2U solution.

The C6320 leverages the scale and cost efficiencies of the integrated Dell Remote Access Controller 8 (iDRAC8) with Lifecycle Controller, proven by operation in millions of servers worldwide. iDRAC8 with Lifecycle Controller delivers intelligent management and configuration automation for hyper-converged solutions and appliances, and enables you to select the management functions you need, to streamline operations by reducing the time and number of steps to deploy, monitor, and update C6320 servers throughout their entire lifecycle.

Flexibly mix workloads in one chassis

With numerous options for compute, storage and connectivity in one advanced shared infrastructure 2U chassis, the C6320 provides flexibility to configure servers for your specific workloads. Tailor the C6320 for your scale-out workload requirements with up to 44 cores per node, memory bandwidth up to 2400MHz and dynamic drive assignment.

The C6300 enclosure supports up to 24 x 2.5" or 12 x 3.5" drives with multiple SATA, SAS and SSD options. With the expander backplane option, dynamic drive assignment for 2.5" drives provides even more flexibility by zoning any number of drives to each node, giving nodes additional or fewer storage resources as workloads demand. The x8 PCIe 3.0 mezzanine slot in each node supports a variety of options for 1Gb and 10GbE, Mellanox® InfiniBand®, or additional drive controllers while the x16 PCIe 3.0 slot adds even more flexibility.

The PowerEdge C6320 server joins Dell's award-winning and groundbreaking PowerEdge C server line. The C6320 is designed to bring the most compute power in the least amount of space with the least energy draw to lower operational costs. These performance-optimized servers are purpose-designed for the most demanding HPC, Web 2.0, hosting, data analytics and cloud building use cases.

PowerEdge C6320

- Intel Xeon processor E5-2600 v4 product family
- Support for 2400MT/s DDR4 DIMMs
- Flexible 2.5" or 3.5" high-capacity drive configurations
- iDRAC8 with Lifecycle Controller (Express or Enterprise)

Feature	Technical specification	
Form factor	2U rack mount	
Dimensions and weight	H: 8.68 cm (3.42 in), W: 44.8 cm (17.6 in) D: 79.0 cm (31.1 in)	Weight (maximum configuration): 41 kg (90.4 lbs) Weight (empty): 15.1 kg (33.3 lbs)
Processor	Intel® Xeon® processor E5-2600 v4 product family Up to 4 x 2-socket servers: 4, 6, 8, 10, 12, 14, 16, 18, 20, 22 cores per processor Intel C612 chipset	
Memory	16 DIMM slots for up to 512GB per node: 8GB/16GB/32G DDR4 DIMM (up to 2400MT/s)	
Primary storage	Maximum internal storage: 72TB SATA or nearline 48TB SAS	
Drive bays/hard drives	24 x 2.5" or 12 x 3.5" hard drive options 24 x 2.5" hard drive option with variable drive allocation Supports 7.2K, 10K, 15K RPM 2.5"/3.5" SAS Supports 7.2K RPM 2.5"/3.5" SATA 2.5" SATA (7.2K): 250/500GB, 1TB/2TB 2.5" SAS (7.2K): 1TB/2TB	2.5" SAS (10K): 600GB/1.2TB 2.5" SAS (SAS12): 200/400/800GB 2.5" SATA SSD: 120/160/200/400/800/960/1200/1600/1920/3840GB 2.5" SAS SSD: 200/400/480/800/960/1600/3840GB 3.5" SATA (7.2K): 1TB/4TB/6TB
Embedded network connectivity	Intel 82599ES 10GbE dual-port SFP+	
USB ports	2 external USB 2.0 ports	
I/O slots	1 x16 PCIe 3.0 half-height, half-length 1 x8 PCIe 3.0 mezzanine	
I/O adapter options	1GbE: Intel Powerville I350 dual-port 1GbE (PCIe adapter) Intel Powerville I350 dual-port 1GbE PCIe (mezzanine) 10GbE/25GbE/40GbE: Intel X540 Dual Port 10GbE 10Base-T (mezzanine and PCIe adapter) Mellanox ConnectX®-3 Pro dual-port 10GbE SFP+ (mezzanine) Chelsio Dual Port T520-CR 10Gb SFP+ (PCIe adapter) Mellanox ConnectX-4 Dual port 25Gb DA (PCIe adapter) QLogic FastLinQ QL45212-DE Dual Port 25Gb SFP28 (PCIe adapter)	10GbE/25GbE/40GbE (continued): Broadcom 57404 25Gb SFP28 Dual Port PCIe adapter Mellanox ConnectX-3 Pro dual port 40Gb (PCIe adapter) Mellanox ConnectX-4 Dual Port 100GbE (PCIe adapter) InfiniBand: Mellanox ConnectX-3 VPI single and dual port FDR/40GbE QSFP+(PCIe adapter) Mellanox ConnectX-3 dual port, VPI FDR (mezzanine) Mellanox ConnectX-4 single and dual port EDR (PCIe adapter) Omni-Path: Intel Omni-path HBA 100 Series Single Port (PCIe adapter)
Drive and RAID controllers	Intel C612 chipset SATA: AHCI SATA drives RAID: 0, 1,5,10 PERC H330: SATA and SAS drives, x8 PCIe 3.0 RAID: 0, 1,5,10, 50 (optional) PERC H730: SATA and SAS drives, x8 PCIe 3.0 RAID: 0, 1,5,10, 50, 60 (optional)	LSI® SAS 2008 Controller 6Gbs: mezzanine (optional) RAID: 0, 1, 10, JBOD (optional) SATA DOM boot device (64GB) SAS SSD boot device (120GB)
Power supplies	Dual hot-plug redundant high-efficiency 1400W or 1600W power supplies (200–220 VAC, 240VDC)	
Fans	Shared cooling with quick-disconnect 4x60mm speed fans	
Operating systems	Microsoft® Windows Server® 2012 Microsoft Windows Server 2012 R2	Novell® SUSE® Linux Enterprise Server Red Hat® Enterprise Linux®
Hypervisors	Microsoft Windows Server 2012 (with Hyper-V® enabled) VMware® vSphere® ESXi®	
Systems management	Remote management: iDRAC8 with Lifecycle Controller iDRAC8 Express (default) iDRAC8 Enterprise (upgrade option)	Systems management: IPMI 2.0 compliant Dell OpenManage Essentials Dell OpenManage
Services (Availability varies by region. Please contact representative for details.)	Data Center Consulting Services Rack Integration (U.S. only, not available in China) Rack Design Verification Configuration Services/CFI Onsite Online Self Dispatch Basic Support ProSupport Plus ProSupport Flex for Data Center	4-Hour Support Keep Your Hard Drive Support Assist: Proactive Automated Support Enterprise Wide Contract IT Remote Advisory Service Certified Data Destruction Specialized Onsite Services

Recommended services

ProSupport Plus with SupportAssist provides proactive and predictive support for critical systems. ProSupport provides comprehensive hardware and software support. Get more from your technology starting on day one with ProDeploy Enterprise Suite deployment offers. For more information, visit Dell.com/itlifecycleservices.

End-to-end technology solutions

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