Dell S5000 Series Models S5508 and S5516 Servers

Dell S5000 Series servers offer exceptional real-time performance, unique scalable architecture, and the security and reliability needed for the largest, most demanding mission critical applications.

Power the largest, most demanding workloads

Dell S5000 Series servers, powered by the 4th Generation Intel® Xeon® Scalable processors, deliver modern performance and security that smoothly scales-up with your changing business needs. The up to eight-socket Dell S5508 and S5516 rack server supports a maximum of 480 cores and 16 TB of memory, and the up to 16-socket Dell S5516 19U rack server supports a maximum of 960 cores and 32 TB of memory. Dell S5000 Series servers are available with a choice of processors for the best fit in terms of frequency, number of cores, or power consumption. Combined with the expertise and value-add services from Dell Technologies, the Dell S5000 is the optimal platform to meet business processing needs now and easily scale for tomorrow.

Scale-up with two-socket granularity for maximum flexibility

When capacity needs to be increased, there is no need to invest in a new blade chassis. Based on a very flexible architecture, Dell S5000 Series servers are built around a 2U two-socket compute module, choice of processor, and memory capacity from 16 to 60 cores and 6 TB to 32 TB memory, that allow the assembly of two to eight modules for a total of 16 sockets thanks to two types of interconnects. An Intel® "glueless" interconnect for up to four modules, allowing glueless topology to support up to eight sockets with up to four UltraPath Interconnect (UPI) links per CPU. For larger configurations, there is an eXternal Node controller (XNC) technology for scalability to 16 sockets.

Cyber-resilient architecture for zero-trust IT environments and operations

Security is integrated into every phase of the server lifecycle, including protected supply chain and factory-to-site integrity assurance. Silicon-based root of trust anchors end-to-end boot resilience while Multi-Factor Authentication (MFA) and role-based access controls ensure trusted operations.

Dell S5000 Series servers

Market-proven Dell S5508 and S5516 servers offer powerful compute, high-speed memory, and capacity for demanding workloads and applications.

- SAP HANA
- Database analytics
- OLTP
- Oracle performance intensive workloads

Dell S5000 Series server technical specifications

Feature	Dell S5508	Dell S5516
Product		
Processor	2 to 8 Intel Xeon Scalable processors, Gen 4 (Sapphire Rapids), 8444H, 8460H, and 8490H	8, 10, 12, 14 or 16 Intel® Xeon® Scalable processors, Gen 4 , 8444H, 8460H, and 8490H (Sapphire Rapids),
Maximum number of cores / threads	480 cores / 960 threads	960 cores / 1,920 cores
Maximum number of compute modules	Two to four modules with 2 x sockets	4-8 modules with 2 x sockets
Hardware partitioning	Yes	Yes
Memory	• 128 maximum memory slots • 96 GB, and 128 GB • Up to 16 TB RAM	• 256 maximum memory slots • 96 GB, 128 GB • Up to 32 TB RAM
Power supplies	• 80 PLUS Titanium, up to 95% efficiency • 2 PSU slots per 2-socket module (1+1 redundancy) • 220 W or 3000 W according to configuration • 100−120 V / 200−240 V @ 50−60 Hz	
Fans	12 fans per 2-socket module (N+1 redundancy)	12 fans per 2-socket module (N+1 redundancy)
Dimensions (HxWxD) in mm (2U 2-socket compute module)	• Height - 355 mm • Width - 447 mm • Depth - 855 mm	• Height - 355 mm • Width - 447 mm • Depth - 855 mm
Weight (maximum)	Up to 421 lbs (191 kb)	Up to 974 lbs (442 kg)
Form factor	19in 8U rack server	19in 21U rack server
Embedded management	• BMC server management processor, Aspeed AST2600 • Remote management - Redfish API, web GUI server Hardware Console based on OpenBMC, HTML5 remote console display, virtual drives • Management software - Ansible playbooks, Zabbix templates	
Type of interconnect	Intel UPI 2.0: 4 usable links per socket (3 links only for 6-sockets), up to 16 GT/s	External Node Controller (XNC) to ultra-scalability from 8 to 16 processors
Security	Platform firmware resiliency TPM 2.0, secure boot, root-of-trust, trusted execution architecture	
RAS features	Integrated features to prevent, detect and correct various memory, CPU, I/O, system and UPI errors (Add/Remove/Swap), PIROM for System Information Storage	
NIC adapter	2 to 4 x 25Gb DP Eth-CTX6-LX-SR RBlades 2 to 4 x 25Gb DP Eth Board-CTX6-LX-DAC	4 x 25Gb DP Eth-CTX6-LX-SR RBlades 4 x 25Gb DP Eth Board-CTX6-LX-DAC
Ports	2 x USB 3.1 per hardware partition	2 x USB 3.1 per hardware partition
PCIe	Up to 16 PCIe Gen5 x8 and 10 PCIe Gen5 x16 or up to 20 PCIe Gen5 x16	Up to 32 PCIe Gen5 x16 and 20 PCIe Gen5 X32 or up to 40PCIe Gen5 x32
Operating system	Red Hat® Enterprise Linux® (RHEL), SUSE® Linux Enterprise Server (SLES)	

Find the configuration that fits your need

Dell Technologies offers a range of predefined S5508 and S5516 server configurations that are optimized for rapid deployment and faster time to value. Additionally, there are predefined configuration upgrade offers to add modular two-socket sleds and to upgrade in place up to 16-socket capacity. If you have questions about specific configurations or upgrades, consult with your Dell Technologies sales representative.

Dell S5000 Series predefined configurations

Model	Num CPU	Intel® Xeon® processor	Memory size (DRAM)	Total memory	Weight of rack included where applicable
S5508	4-Socket	8444H	96 GB or 128 GB	6 TB to 8 TB	100 kg
		8460H	96 GB or 128 GB	6 TB to 8 TB	100 kg
		8490H	96 GB or 128 GB	6 TB to 8 TB	100 kg
	8-Socket	8444H	64 GB/96 GB/128 GB	4 TB to 16 TB	191 kg
		8460H	64 GB/96 GB/128 GB	4 TB to 16 TB	191 kg
		8490H	64 GB/96 GB/128 GB	4 TB to 16 TB	191 kg
S5516	12-Socket	8444H	96 GB/128 GB	9 TB to 24 TB	351 kg
		8460H	96 GB/128 GB	9 TB to 24 TB	351 kg
		8490H	96 GB/128 GB	9 TB to 24 TB	351 kg
	16-Socket	8444H	96 GB/128 GB	12 TB to 32 TB	442 kg
		8460H	96 GB/128 GB	12 TB to 32 TB	442 kg
		8490H	96 GB/128 GB	12 TB to 32 TB	442 kg

Recommended Dell Technologies Services

Select Dell ProSupport for comprehensive reactive, proactive, and predictive support for your Dell S5000 Series solutions. For business-critical systems where reliability and performance are paramount, we recommend our premier offer, Dell ProSupport Plus with mission critical support. In addition to comprehensive support services, we offer consulting and deployment services designed to optimize your technology investment and streamline your IT operations. Contact your Dell representative today for more information. Availability and terms of Dell Services vary by region.
For more information, visit Dell.com/Services.

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