POWEREDGE R940xa

Extreme acceleration for Artificial Intelligence and Machine Learning

Rapidly transform data insights into business outcomes with the PowerEdge R940xa. The R940xa accelerates applications with powerful four-socket performance in a scalable 4U design.

Maximize application performance and density

The PowerEdge R940xa drives GPU database acceleration to deliver real-time decisions for compute-intensive applications. By combining four CPUs with four GPUs, the R940xa delivers consistent high performance for demanding applications. The R940xa allows you to dynamically scale capacity and performance as your business-critical workloads evolve including:

- Maximizing performance with Intel® Xeon® Scalable processors, up to 112 cores.
- Choosing up to 4 double-wide GPUs or up to 8 FPGAs for application acceleration.
- Supporting large data sets with up to 48 DIMMs (12 of which can be NVDIMMs) and up to 6TB of memory.
- Scaling on-premise capacity with up to 32 x. 2.5" HDDs/SSDs and up to 4 direct-attached NVMe drives.
- Expanding quickly with up to 12 PCIe slots for external device connections.

Automate maintenance with Dell EMC OpenManage

The Dell EMC OpenManage™ portfolio helps simplify IT operations across your data center, delivering intelligent, automated management of routine tasks. Combined with unique agent-free management capabilities, the R940xa is simply managed, freeing up time for high profile projects.

- Utilize a variety of OpenManage integrations and connections to take advantage of your existing IT management platform.
- Take advantage of QuickSync 2 capabilities and gain access to your servers easily through your phone or tablet.

Guard your data center with built in security

Every PowerEdge server is made with a cyber-resilient architecture, delivering security into all parts of a server's life cycle. The R940xa uses these new security features so you can reliably and securely deliver the right data to where your customers are, no matter where they are. Dell EMC considers each part of system security, from design to end of life, to ensure trust and deliver worry-free systems. Rely on a secure component supply chain to ensure protection from factory to the data center.

- Maintain data safety with cryptographically signed firmware packages and Secure Boot.
- Prevent unauthorized or malicious change with Server Lockdown.
- Wipe all data from storage media including hard drives, SSDs and system memory quickly and securely with System Erase.

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Combines four CPUs with four GPUs in a powerful 1:1 ratio to drive database acceleration

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Features	Technical Specification	
Processor	Up to four Intel® Xeon® Scalable processors, up to 28 cores each	
Memory	48 DDR4 DIMM slots, Supports RDIMM /LRDIMM, up to 2666MT/s, 6TB max Up to 12 NVDIMMs, 384GB Max Supports registered ECC DDR4 DIMMs only	
Storage controllers	Internal Controllers: PERC H730P, H740P, H330 Software RAID (SWRAID) S140 Boot Optimized Storage Subsystem: HWRAID 2 x M.2 SSDs 120GB or 240 GB External PERC (RAID): H840 12Gbps SAS HBAs (non-RAID): External-12Gbps SAS HBA (non-RAID). Internal- HBA330 (non-RAID)	
Drive bays	Front drive bays: Up to 8x 2.5" SAS SATA (HDD/SSD) max 30TB, or up 24 x 2.5" SAS/SATA (HDD/SSD) max 92TB, or up to 32 SAS/SATA (HDD/SSD) with up to 4 NVME PCIe SSD max 132TB	
Power supplies	Platinum: 750W,1100W, 1600W, 2000W, 2400W, Titanium: 750W DC: 1100W	Mix Mode/HVDC: 750W, 1100W[1] Hot plug power supplies with full redundancy option 6 hot plugs fans with N +1 redundancy
Dimensions	Form factor: Rack (4U)	Chassis Length:482mm Chassis Weight: 56kg Chassis depth: 812mm
Embedded management	iDRAC9 with Lifecycle Controller iDRAC Direct	iDRAC RESTful API with Redfish Quick Sync 2 BLE/wireless
Bezel	Optional LCD bezel or security bezel	
OpenManage™ Software	OpenManage Enterprise OpenManage Essentials	OpenManage Mobile OpenManage Power Center
Integrations and connections	Integrations: Microsoft® System Center, VMware® vCenter™, BMC Software (available from BMC), Ansible by RedHat	Connections: Nagios Core & Nagios XI, Oracle Enterprise Manager, Microfocus Operations Manager i (OMi), IBM Tivoli Netcool/OMNIbus
Tools	Dell EMC Repository Manager Dell EMC Update Package Dell EMC System Update Dell EMC Server Update Utility	iDRAC Service Module OpenManage Server Administrator OpenManage Storage Services
Security	TPM 1.2/2.0 optional Cryptographically signed firmware Silicon Root of Trust	Secure Boot System Lockdown Secure Erase
I/O & Ports	Network Daughter Card Options 4 x 1GE, 4 x 10GE, 2 x 10GE+2 x 1GE, or 2 x 25GE Front ports: Video, 2 x USB 2.0, 1 managed (micro-sub), dedicated IDRAC Direct USB.	Rear ports: Video, serial, 2 x USB 3.0 Internal port: 1 x USB 3.0 Video card: VGA PCIe: Up to 12 x Gen3 slots, (6x16 slots or 2x16 + 10x8 slots)
Accelerator Options:	Up to 4 doublewide GPUs or up to 8 full-height FPGAs	GPU: Nvidia Tesla P100, P40, V100 See Dell.com/GPU for latest information.
Supported operating systems	Canonical® Ubuntu® LTS Citrix® XenServer® Microsoft Windows Server® with Hyper-V Red Hat® Enterprise Linux	SUSE® Linux Enterprise Server VMware® ESXi For specifications and interoperability details see Dell.com/OSsupport
OEM-ready version available	From bezel to BIOS to packaging, your servers can look and feel as if they were designed and built by you. For more information, visit Dell.com/OEM.	
Recommended support	Dell ProSupport Plus for critical systems or Dell ProSupport for premium hardware and software support for your PowerEdge solution. Consulting and deployment offerings are also available. Contact your Dell representative today for more information. Availability and terms of Dell Services vary by region. For more information, visit Dell.com/ServiceDescriptions.	

1 Available in China only.

Learn more at Dell.com/PowerEdge

End-to-end technology solutions

Reduce IT complexity, lower costs and eliminate inefficiencies by making IT and business solutions work harder for you. You can count on Dell EMC for end-to-end solutions to maximize your performance and uptime. A proven leader in Servers, Storage and Networking, Dell EMC 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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