Dell PowerEdge XR11 and XR12 Servers for Rugged Environments

DELLTechnologies

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Unlock High Value Insights at the Edge with Dell PowerEdge XR11 & XR12 Servers

As IoT and edge devices proliferate, more and more data is generated far away from the data center. While cloud computing has been extremely beneficial in driving scale and flexibility, aggregating edge data loads to the cloud is not always helpful. Data latency, the need for persistent connectivity, and the cost of high-volume data transmission make cloud computing infeasible for edge applications. Edge infrastructure overcomes these challenges by bringing computing power right to the edge and facilitating data collection, analysis, and real-time insights. Edge environments are different from traditional controlled settings like datacenter and require infrastructure that can withstand variations in temperature, humidity, and connectivity. In addition, edge infrastructure needs to comply with restrictions on noise and footprint.

Dell Technologies OEM Solutions Rugged PowerEdge XR11 & XR12 servers offer enterprise compute capabilities in the toughest of edge environments. The servers are designed to help OEM customers address the edge computing challenges faced outside the data center. Businesses can move workloads to the network edge and run AI algorithms to analyze and act on data close to where it's generated reducing latency and providing quicker access to data for real-time decision-making, saving time and money.

Dell PowerEdge XR servers withstand extreme heat, dust, shock, and vibration of factory floors, construction sites, mobile command centers, and other harsh environments. They meet the most stringent emission standards and are certified for industry, military, and marine usage. XR11 & XR12 models are mountable as single-socket rack servers - the XR11 is available in a dense 1U form factor, while the XR12 is available in a 2U form factor. Powered by 3rd generation Intel® Xeon® Scalable processors, the servers can boost services at the edge with up to 36 x 86 cores with support for accelerators, and the latest Intel® Optane™ memory and drive technologies. The accelerator technology enables parallel computation and even faster decision execution, helping unlock new high-value insights by processing and analyzing data at its source.

Compact, Ruggedized, and Certified for Conditions at the Edge

XR11 Servers

XR12 Servers

High performance based on the latest technologies
– 3rd generation Intel® Xeon® Scalable processor
– Multi-accelerator support

Certified rugged for harsh environments
– Operational in temperature ranges from -5°C to 55°C (23°F to 131°F)
– Reliable in shock, vibration, dust, and other harsh environments
– NEBS Level 3 compliant and MIL-STD qualified

Remote manageability for operational efficiency
– Manage remotely from central locations
– Powerful systems management connectivity

Compact & flexible design
– 400 mm or 16 inches deep
– Reversible mounting with front/rear facing I/O & power supplies
– Supports reversible airflow

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Support New Services in Challenging Locations

Dell PowerEdge and OpenManage solutions integrate tools across the portfolio to help organizations automate the server lifecycle, optimize operations, and scale efficiently. The cyber-resilient architecture of the XR12 and XR11 servers enables built-in security at every phase of the product lifecycle. With intuitive end-to-end tools, the Dell EMC systems management portfolio helps OEMs overcome the complexity of managing and securing IT infrastructure at the edge and focus on growing their core business.

Security and system management

– Platform security features such as Secured Component Verification and Silicon Root of Trust

– OpenManage Secure Enterprise Key Manager and Automatic Certificate Enrollment

– Intelligence, automation, and recovery tools that include iDRAC9 Telemetry, BIOS live scanning, and Rapid OS recovery

Intelligent automation tools include

– Built-in telemetry streaming, thermal management, and RESTful API with Redfish offer streamlined visibility and control for better server management

– Integrated change management capabilities for update planning and seamless, zero-touch configuration and implementation

– Full-stack management integration with Microsoft, VMware, ServiceNow, Ansible and many other tools

Industries and Applications

Retail and commercial buildings

Video security

Industrial automation

Telecommunications

Transportation and marine

Aerospace and defense

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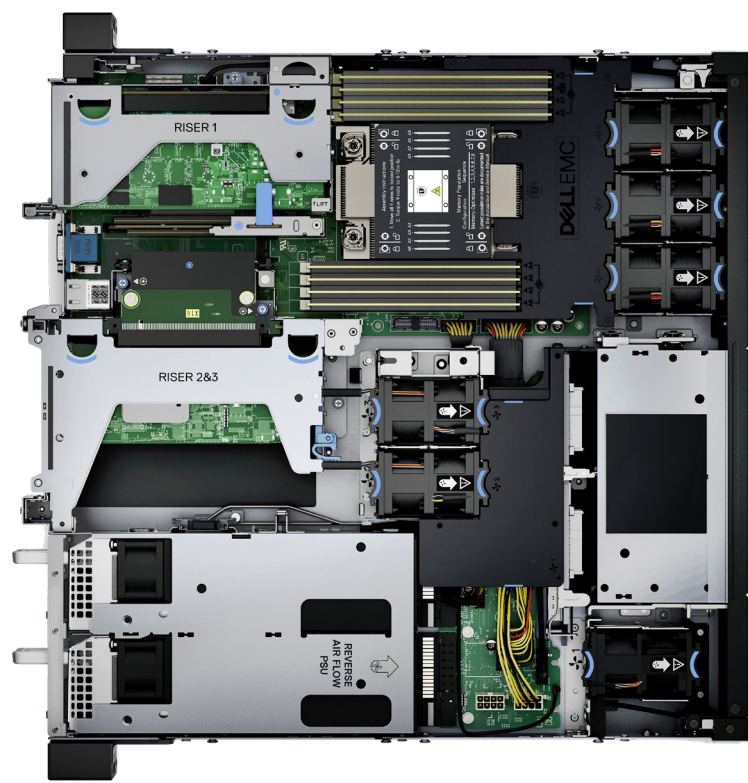
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Features and Specifications

PowerEdge XR12 Rack Server

Expandable and ruggedized

– Single-socket, 2U
– 3rd Gen Intel® Xeon® Scalable Processors
– Expanded GPU options with support for up to two NVIDIA® T4 cards or up to two NVIDIA A100, A10, or A40 GPU cards
– Intel® Optane™ Persistent Memory 200 series
– Flexible I/O choices with five PCIe Gen 4 slots
– Offers up to 36 x 86 cores, 2x 70 W, 150 W or 2x 300 W double wide accelerators and up to 6 drives (SAS/SATA/NVMe SSDs)
– Operating temperature: -5ºC to 55ºC or 23ºF to 130ºF
– Industry Certified
  – Rugged MIL-STD and Marine
  – NEBS Level 3

PowerEdge XR11 Rack Server

Compact and ruggedized

– Single-socket, 1U
– 3rd Gen Intel® Optane™ Scalable Processors
– Up to two NVIDIA® T4 GPU cards
– Intel® Optane™ Persistent Memory 200 series
– Three PCIe Gen 4 slots
– Offers up to 36 x86 cores, 2x 70 W accelerators, and up to 4 drives (SAS/SATA/NVMe SSDs)
– Operating temperature: -5ºC to 55ºC or 23ºF to 130ºF
– Industry Certified
  – Rugged MIL-STD and Marine
  – NEBS Level 3

Resources:

– [eBook: Resilient Solutions for the Edge](#)
– [eBook: Gaining an Edge in Retail](#)
– [Dell Rugged PowerEdge XR11 and XR12 Servers](#)

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Get Customized Dell Solutions for Your Unique Needs

Efficient and robust hardware infrastructure choices need expert design and deployment support to maximize business outcomes. A host of service mechanisms can help OEMs succeed in their new product initiatives, from ensuring the right design trade-offs between cost and functionality to implementing field upgrades.

Arrow Intelligent Solutions has been building and integrating technology solutions for over 20 years and enabling our customers' business growth by simplifying the technology experience. As a solution orchestrator, we support the entire lifecycle — from ideation, development, prototyping, and new product introduction (NPI) to manufacturing and global distribution.

Design Engineering
Shorten time to market through one-on-one collaboration with Arrow's expert engineering team, creating innovative technology solutions to satisfy your customer requirements and needs. We guide the process from the initial idea to the final product, including certifications.

Manufacturing
From planning to integrating, our technical and operational teams anticipate needs and exceed expectations across all sides of your business. Reduce cost and improve productivity where it matters the most, enabling you to expand into new markets with a scalable infrastructure.

Fulfillment
Ensure you always have the right product at the right place at the right time, without guesswork. Arrow's capabilities and services, along with robust financing programs, support new initiatives, simplify budgeting, and shorten sales cycles.

Professional Services
Our comprehensive turnkey services and dedicated global teams provide secure, reliable support and complete management from the time the product arrives in the field.

Support Services
Improve customer satisfaction and maximize sales with 24/7 personalized support from Arrow's technical experts.

Financing Services
Plans include a mix of operational expense (OpEx), capital expense (CapEx), and outcome-based models to meet key financial metrics.

With a footprint in 90+ countries, Arrow can support you from any location and help you expand to international markets. Scale globally with Arrow on several fronts — logistics, support, installations, compliance, and regulations.

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Click on the Link Below to Request a Quote or to Get More Information

Online: www.arrow.com/ais/dell-oem-solutions/xr11-and-xr12

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