UNLOCKING THE POTENTIAL OF YOUR DATA FOR INDUSTRIAL AUTOMATION (IA) WORKLOADS

Dell EMC PowerScale OneFS
Dell EMC PowerScale nodes
Dell EMC Isilon nodes

GET STARTED
DELL TECHNOLOGIES
OEM SOLUTIONS
SNAPSHOT

WHO WE ARE

WHAT WE DO

HOW WE DO IT

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We are Dell Technologies OEM Solutions. Because Dell Technologies OEM Solutions understands that time-to-market matters, complexity abounds and our customers’ end-users experience is important, we design more Intel-based next-generation solutions to address these issues than any other company in the world.

We believe that the best customer solution is a designed solution. A solution designed to fit all our customers’ needs, including urgent current and future challenges. We understand these needs better because of the depth and scope of our experience with customers who are already facing unique issues.
At OEM Solutions we embed our design capabilities with our customers’ (OEMs) product designs to enable them to be successful beyond what’s achievable themselves. Because our solutions are embedded in our customers’ products, we influence the perceptions and health of their brand and products, or IP, in the marketplace. We recognize this as a highly-trusted position in the partnership, and always work in the best interest of our customers.

Time matters, complexities abound, innovation differentiates and end-user experience is key. This is what OEM Solutions does:

• We design for a compressed time-to-market
• We design for a global scale
• We design to help our customers be even more innovative
• We design to create the best experience for our customer’s customer
HOW WE DO IT

Drawing from our capabilities, we design in-market solutions to differentiate our customers’ products leading to their own customers intuitively recognizing the products as the solution they need. This OEM process treats customers as unique, and recognizes the need of each customer to get their solution to market in a way that results in true differentiation that would be unachievable themselves.

OEM Solutions is uniquely positioned to leverage all of Dell Technologies’ capabilities. Our customers benefit from worldwide service and support, a global supply chain, innovative technologies, access to SMEs and a strong partner ecosystem, including our partnership with Intel®.
Control systems, such as computers or robots, and information technologies for handling different processes and machineries, are the next step after mechanization. There is huge growth potential in the industrial domains of automation, industrial image processing and robotics.

Intelligent assembly and production solutions, as well as the integration of individual domains, are becoming ever more powerful and faster. Dell PowerScale Solutions are built to handle large data loads and power the most intensive applications in the toughest conditions.

PowerScale OneFS
Software developed to lead application and performance needs for unstructured data from the edge (powering PowerScale nodes) to core (powering Isilon nodes), to the cloud (enabling multi-cloud or a cloud native experience).

PowerScale Nodes
Powered by PowerScale OneFS, these new all-flash and all NVMe nodes bring scale-out NAS to the edge, core and beyond.

Isilon Nodes
Powered by PowerScale OneFS, the Isilon nodes store, manage and protect unstructured data in the core with efficiency and massive scalability.
PowerScale OneFS is the scale-out NAS operating system that powers the new PowerScale all-flash and all-NVMe nodes and Isilon all-flash, hybrid and archive nodes.

PowerScale OneFS now goes beyond the datacenter all the way to the edge, core and multi-cloud – so you can deploy wherever you want and enjoy the same experience.

With PowerScale OneFS you can natively replicate data from PowerScale at the edge, to an Isilon in the core, to the cloud by using Dell Technologies Cloud PowerScale for Multi-cloud or Google Cloud. To support your go-to-market requirements, PowerScale OneFS software is OEM-Ready and available de-branded (no Dell branding) or with custom branding (your logo).
PowerScale OneFS

With a single namespace cluster giving you the ability to scale up for capacity, scale down for the edge, and scale out for the cloud, PowerScale OneFS operating system has multi-protocol support for NFS, SMB, HDFS, S3, REST, HTTP, NDMP, and FTP. PowerScale OneFS is DevOps ready with Ansible Kubernetes and OpenShift integration, so developers can now easily code to it.

With Dell EMC PowerScale SmartPools (resource management), SmartDedupe (deduplication), SmartQuotas (quota management), SmartLock (WORM), SyncIQ (replication), CloudPools (tiering to the cloud), DataIQ (insights into data), CloudIQ (insights into the infrastructure) and much more, you have a wealth of rich data services at your disposal.
PowerScale Nodes

Powered by PowerScale OneFS and built on Dell EMC PowerEdge servers using the latest Intel® Xeon® processors, these new PowerScale nodes support deployments at the edge, in the datacenter and enable a multi-cloud operating model. Starting small and seamlessly scaling-out, PowerScale supports a wide variety of unstructured file data types. With a programmable infrastructure that is DevOps ready, and proven resiliency and efficiency, PowerScale is designed to support your OEM go-to-market requirements.

PowerScale is OEM-Ready and is available de-branded (no Dell branding) or with custom branding (your logo) on the hardware, software (user interface), documentation and packaging.
PowerScale Nodes

The new PowerScale F200 and F600 nodes are the smallest and lowest cost all-flash and all-NVMe platforms to run PowerScale OneFS – Dell EMC’s industry leading scale-out NAS storage software.

With support for the latest Intel® NVMe drives, and starting at 11.5TBs raw capacity, PowerScale scales out in 1 rackU node increments, supports 8 protocols (including NFS, SMB, HDFS, S3, REST, HTTP, NDMP, and FTP), inline data reduction and much more.

With network connectivity options of 25Gb or 100Gb, PowerScale can deliver up to 2.7GB/s and up to 61TB raw capacity per node.
Isilon Nodes

Powered by PowerScale OneFS, and utilizing Intel® Xeon® technology, Isilon scale-out data storage nodes are powerful, yet scalable and easy to manage no matter how large your unstructured data environment becomes.

- Manage data simply, regardless of environment size.
- Consolidate file workloads and cut costs with 80% utilization.
- Scale easily from tens of terabytes up to tens of petabytes without disruption.

With a choice of cloud services, and with built-in data analytics support, Isilon nodes allows you to unlock data capital to accelerate the digital transformation.

Isilon Nodes

Powered by PowerScale OneFS, the Isilon nodes store, manage and protect unstructured data in the core with efficiency and massive scalability.
Isilon Nodes

Isilon nodes, with the latest Intel® Xeon® processors and Intel® storage technology, are available in all-flash, hybrid and archive options.

- Two all-flash nodes that deliver extreme performance (up to 205K IOPS and 15 GB/s per chassis), and efficiencies (up to 924 TB capacity per chassis).
- Four hybrid nodes that deliver a balance between performance (ranging from 3 GB/s to 12 GB/s per chassis) and capacity (up to 960 TB capacity per chassis).
- Two archive nodes that lower the cost to store and protect your aging data, while still providing near-primary accessibility.
OEM EDGE-CORE-CLOUD SNAPSHOT

EDGE
- Where data is produced and processed (extracting the value at the point of creation/access)
- Departmental, remote and branch office and small business environments
- End users, employees and the public can often see the products, making branding an important consideration
- Often managed by unskilled IT workers

CORE
- Datacenter & datacenter access
- Products are less visible to end users, employees and the public
- Solutions need to be more scalable and deliver higher performance
- More skilled IT resources needed

CLOUD
- An operating model that is ideal for certain workloads
- Shared resources/cost at scale
- Ability to employ different cloud providers and move data seamlessly across them and the edge/core

PowerScale: Edge ➔ Core ➔ Cloud
INDUSTRIAL AUTOMATION

EDGE
- Processing and storing analytical workloads – Dell EMC PowerScale
- Rugged enterprise computing – Dell EMC PowerEdge XR2
- Industrialized factory floor ready desktop – Dell OptiPlex Desktop XE3

CORE
- Scalable image storage – Dell EMC Isilon
- Accelerated computing – Dell EMC PowerEdge C4140
- Scalable mission critical workstation – Dell Precision 5820 XL

CLOUD
- Multi-cloud access w/ Dell Technologies Cloud PowerScale for Multi-cloud
- Native cloud services w/ Dell Technologies Cloud PowerScale for Google cloud

Single user experience – PowerScale OneFS
- Powering PowerScale nodes
- Powering Isilon nodes
- Providing cloud access

Industrial Automation Introduction • IA at the Edge • IA in the Core • IA in the Cloud • Resources
INDUSTRIAL AUTOMATION

At The Edge
Factory floor, processing department, branch office or small business

- Storing and processing analytic workloads:
  Click here to learn more about storing and processing analytic workloads with PowerScale solutions

- Rugged enterprise computing at the edge:
  Click here to learn more about short-depth compute at the edge with PowerEdge XR2

- Factory floor ready desktops:
  Click here to learn more about the industrialized OptiPlex Desktop XE3

Industrial Automation Introduction › IA at the Edge › IA in the Core › IA in the Cloud › Resources ›
Dell EMC PowerScale

Powerful appliance-based storage for unstructured data at the edge

Designed for edge, core and cloud deployments, Dell EMC PowerScale delivers a unified consolidated storage system across the entire design, analytic, job profiling and batch processing workflows. Thanks to the PowerScale OneFS operating system, the Intel based PowerScale nodes can be easily attached to existing Isilon systems already trusted by organizations around the world.

PowerScale is OEM-Ready, with options for Dell Technologies branding, de-branding or your customized branding on the hardware, user interface, documentation, packaging, etc. We can design a solution together that meets your technology and go-to-market requirements. More ›

Storing and processing analytic workloads

Click here › to learn more about storing and processing analytic workloads with PowerScale solutions

Rugged enterprise computing at the edge

Click here › to learn more about short-depth compute at the edge with PowerEdge XR2

Factory floor ready desktops

Click here › to learn more about the industrialized OptiPlex Desktop XE3
Powerful appliance-based storage for unstructured data at the edge

Built with the Isilon DNA, the PowerScale nodes provide compact edge storage solutions starting at 11.5TB raw, that meet the rapidly increasing security, image availability, performance, and scalability requirements of modern industrial workflows. Powered by the PowerScale OneFS operating system, these solutions provide the performance and availability required by industrial automation application workflows, all within a system that is fully scalable, highly efficient, and easy to manage. Get true multiprotocol access to all data at the same time from 8 protocols including NFS, SMB, HDFS, S3, REST, HTTP, NDMP, and FTP.
Dell EMC PowerEdge XR2

Short-Depth Enterprise Compute at the Edge

PowerEdge XR2 is an Intel® Xeon® powered OEM-Ready solution which means you have the choice to apply personalized characteristics to the physical system, its software, associated documentation and packaging. You can ship this system as your own, with supporting documentation, splash screens and other personalized systematic characteristics.

Physically this system is built to withstand elements outside the data center and is pivotal in supporting the new generation of compute including Hybrid Multi-Clouds, EMR at the EDGE. You can be confident knowing the XR2 was built on tier 1 industry proven technology and can provide enterprise level compute closer to where it’s needed, the sources of data.

More ›

Storing and processing analytic workloads
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Rugged enterprise computing at the edge
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Industrial Automation Introduction › IA at the Edge › IA in the Core › IA in the Cloud › Resources ›
The Intel®-based PowerEdge XR2 is specifically designed for rugged 1U short-depth computing. It has software-defined storage and can easily function in space-constrained installations. It's deliberately designed to take the hardest conditions head-on and its new features include the GPU capability bringing together the best combination of functionality and value in the industry.

All PowerEdge Servers are managed using the Dell EMC OpenManage systems management portfolio enabling peak efficiency for PowerEdge servers, through intelligent, automated management of routine IT tasks. Combined with the unique, agent-free management capabilities of the embedded iDRAC9 with Lifecycle Controller it frees up time to manage what's important.
Dell OptiPlex Desktop XE3

Industrial PC with scalable performance at the Edge

Its industrialized attributes with extended operating temperature, dust filters and long life make the OptiPlex XE3 ideal for factory floor use. Whether it be for robotics or process control, it provides key industrialized attributes for this non-IT type of environment and allows OEM solution providers the opportunity to buy this product de-branded or have it easily rebranded, straight out of the Dell factory with the XE3's OEM-Ready option. More ›

Click here › to learn more about the industrialized OptiPlex Desktop XE3

Click here › to learn more about storing and processing analytic workloads with PowerScale solutions

Click here › to learn more about short-depth compute at the edge with PowerEdge XR2

Factory floor ready desktops

Click here › to learn more about the industrialized OptiPlex Desktop XE3
Dell OptiPlex Desktop XE3

Industrial PC with scalable performance at the Edge

The OptiPlex XE3 is ideal for factory floor use, given its industrialized attributes that this type of environment requires. These key attributes range from extended operating temperatures for low air flow environments, whether in a cabinet or next to a robotic arm, to bezel dust filters, to a remote power button for easier on/off access when tucked in a tight place, and extremely long life of up to 5 years.

Click here to learn more about the industrialized OptiPlex Desktop XE3.
INDUSTRIAL AUTOMATION

In The Core

Scalable Storage for Analytical workloads
[Click here ›] to learn more about scalable storage with Isilon solutions

Accelerated Computing
[Click here ›] to learn more about optimized acceleration with PowerEdge C4140

Mission Critical Workstation
[Click here ›] to learn more about our mission critical Precision 5820 XL Tower Workstation
Dell EMC Isilon

Overview
Isilon nodes, powered by PowerScale OneFS, provide a unified, consolidated storage system to help Industrial Automation (IA)/manufacturing organizations with multiple application needs; (Manufacturing Execution Systems (MES), High-Frequency-Impulse-Measuring (HFIM), CAD/CAM, Deep Learning, Smart Factory Building Tech, etc.). Together we can design an Intel® powered Isilon solution that meets your technology and go-to-market requirements with options for Dell Technologies branding, de-branding (remove all Dell branding) or your customized branding. More
Dell EMC Isilon

Isilon all-flash, hybrid or archival nodes, Powered by OneFS and available with the latest Intel® technology, address the rapidly increasing security, image availability, performance and scalability requirements of industrial applications and IT workloads (like billing systems, video surveillance, file shares, etc.). With features such as data duplication, automated tier-to-tier media migrations, security, metadata management, and encrypted replication, all within a system that is fully scalable and highly efficient, Isilon is a trusted leader in scale-out NAS.

Get true multiprotocol access to all data at the same time from 8 protocols including NFS, SMB, HDFS, S3, REST, HTTP, NDMP, and FTP.

Scalable Storage for Analytical workloads
Click here › to learn more about scalable storage with Isilon solutions

Accelerated Computing
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Mission Critical Workstation
Click here › to learn more about our mission critical Precision 5820 XL Tower Workstation
Dell EMC PowerEdge C4140

PowerEdge C4140 is an OEM Enabled solution which means you can choose and apply personalized characteristics to the physical system, its software, associated documentation and packaging. You have a choice to ship this system as your own, with supporting documentation, splash screens and other personalized systematic characteristics. Physically the Intel® Xeon® powered PowerEdge C4140 is an accelerator-optimized, 1U rack server designed for the most demanding workloads. It is ideal for cognitive workloads such as artificial intelligence, machine learning and deep learning to accelerate your most complex solutions. More »
Dell EMC PowerEdge C4140

The PowerEdge C4140 is an ultra-dense, accelerator optimized 1U rack server platform designed to accommodate your choice in FPGA's or GPU's. It features a redesigned look with front facing slots, providing a convenient way to connect peripheral devices easily and quickly to offload processor workloads.

Systems management is key, so this and all PowerEdge Servers are managed using the Dell EMC OpenManage systems management portfolio enabling peak efficiency through intelligent, automated management of routine IT tasks. This, combined with the unique, agent-free management capabilities of the embedded iDRAC9 with Lifecycle Controller, frees up time to manage what's important to you.
Dell Precision 5820 XL Tower Workstation

The Precision 5820 XL Tower is ideal for an Industrial Automation Control Center as it offers the OEM XL tenets that benefit a more industrial environment where long-life and minimized change are highly valued.

The Precision 5820 XL Tower provides an extended transition of up to 18 months between product generations, locked key components (like the processor and chipset) and up to 6 months visibility to key component change.

Click here › to learn more about scalable storage with Isilon solutions

Click here › to learn more about optimized acceleration with PowerEdge C4140

Click here › to learn more about our mission critical Precision 5820 XL Tower Workstation
Dell Precision 5820 XL Tower Workstation

The Precision 5820 XL Tower is ideal for an Industrial Automation Control Center thanks to its ability to support up to 16 displays with Mission critical 24/7 reliability. It offers the highest performing and VR-ready graphics, with up to 256GB of 2666Mhz RDIMM memory, front access storage with the new FlexBay design that supports a range of modules. All based on the latest Intel® Xeon® architecture.
Dell Technologies Cloud PowerScale for Google Cloud
(Native cloud integration for file)

Dell Technologies Cloud PowerScale for Multi-cloud
(Directly connected to the cloud)
You can now host high-performance file workloads that traditionally have only run on-premises with PowerScale for Google Cloud. This solution offers a full-fidelity PowerScale experience and its familiar enterprise class features, while taking advantage of Google Cloud's elastic compute, GPU instances and analytics services, all without having to make any changes to your applications. Dell Technologies Cloud PowerScale for Google Cloud provides massive scale-out capacity of up to 50PB in a single namespace, performance at scale with up to 97 MB/s per TB throughput, and sub-millisecond latency access to Google Cloud. More ›
PowerScale for Google cloud delivers native cloud experience for high-performance file workloads

Plus, there are enterprise-class data features such as native replication, high availability, multi-protocol (NFS, SMB and HDFS) file access and built-in data protection with snapshots – enabling easy point in time recovery.

- Scale-out capacity up to 50PB in a single namespace
- Scale-out performance up to 97 MB/s per TB throughput
- Fully integrated with Google Cloud
- Enterprise-class data features
PowerScale Multi-cloud removes complexity from cloud environments

PowerScale OneFS provides seamless integration with Dell Technologies Cloud PowerScale for Multi-cloud, giving you the flexibility to make real-time decisions about the public cloud services you want to consume. Whether you want to use a specific imaging, analytical, or archiving application, or you want to leverage multiple cloud(s) to maximize business outcomes, PowerScale for Multi-Cloud can help. A solution that offers traditional cloud benefits without vendor lock-in, high egress charges, migration risk or time requirements to move data. More 😼

Dell Technologies Cloud PowerScale for Multi-cloud
(Directly connected to the cloud)
PowerScale Multi-cloud removes complexity from cloud environments

We can help you extend your customers’ data locations to the cloud using enterprise-class storage, and empower them to drive innovation into their workflows, while reducing risk and maintaining complete control of data.

- Consistent Infrastructure: Simplify workload migrations and avoid application rework tax with a consistent IT infrastructure
- Consistent Operations: Eliminate silos and cut operations costs with tools that give you consistent management of all your clouds.
- Consistent Services: Plan and execute your Cloud strategy with our expert help plus flexible, consumption-based pricing.
ADDITIONAL RESOURCES
DOWNLOADS
To learn more about Dell Technologies OEM Solutions storage options, go to delltechnologies.com/oemstorage