DELL TECHNOLOGIES OEM SOLUTIONS

UNLOCKING THE POTENTIAL OF YOUR DATA FOR HEALTHCARE AND LIFE SCIENCES 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
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.
WHAT WE DO

In 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
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 design 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®.
Knowledge and data needs are increasing day by day in healthcare and life sciences. Genomic Sequencing is becoming standard practice, with the amount of knowledge to be integrated in clinical analysis increasing exponentially. To this is added Wearables & IOT, collecting and transmitting data from the field, AR/VR to display patient in videos to family, virtual work teams and Doctor-on-demand services.

Additionally, artificial Intelligence has a demand for fast data access and analysis, while more powerful scanners require new levels of resolution and corresponding file size. For all of this, Dell PowerScale solutions are perfectly placed to operate successfully.
PowerScale OneFS

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).
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 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 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 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).

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

PowerScale OneFS
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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.
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.

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

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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
HEALTHCARE & LIFE SCIENCES

EDGE
- Edge image store – Dell EMC PowerScale
- Rugged enterprise compute – Dell EMC PowerEdge XR2
- Fully modular zero footprint desktop solution – Dell OptiPlex 7070 Ultra

CORE
- Scalable image storage – Dell EMC Isilon
- Accelerated compute – Dell EMC PowerEdge C4140
- Image viewing and rendering – Dell Precision 5820 XL

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

Single user experience – PowerScale OneFS
- Powering PowerScale nodes
- Powering Isilon nodes
- Providing cloud access
HEALTHCARE & LIFE SCIENCES

At The Edge
Department, satellite office, branch office or small business

- Edge-based image and digitized store
  - Click here to learn more about storing and digitizing with PowerScale solutions

- Processing and rendering at the edge
  - Click here to learn more about compute at the edge with PowerEdge XR2

- End user image access
  - Click here to learn more about end user access with OptiPlex 7070 Ultra
HEALTHCARE & LIFE SCIENCES

PowerScale Nodes

Powerful appliance-based image and digitized storage for the edge.

Designed for edge, core and cloud deployments, the Intel® based Dell EMC PowerScale delivers a unified consolidated storage system across multiple healthcare and life sciences applications, such as PACS, VNA, Clinical NGS and digital pathology, as well as critical IT workloads such as billing systems, video workloads, file shares, etc.

Thanks to the PowerScale OneFS operating system, PowerScale nodes can be easily attached to the existing Isilon systems already trusted by healthcare and life sciences organizations around the world. It is OEM-Ready, with options for Dell Technologies branding, debranding, or your customized PowerScale branding on the hardware, user interface, documentation, packaging, etc. Together we can design a solution that meets your technology and go-to-market requirements.
PowerScale Nodes

Powerful appliance-based image and digitized storage for 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 healthcare workflows.

Powered by the PowerScale OneFS operating system, these solutions provide enterprise-grade features such as data deduplication, automated tier-to-tier media migrations, security, metadata management, and encrypted replication, all within a system that is fully scalable, highly efficient, and easy to manage. It also offers true multiprotocol access to all data at the same time from 8 protocols, including NFS, SMB, HDFS, S3, REST, HTTP, NDMP, and FTP.

HEALTHCARE & LIFE SCIENCES
PowerEdge XR2

Short-Depth Enterprise Compute processing at the Edge.

PowerEdge XR2 is an OEM-Ready solution giving you the choice to apply personalized characteristics to the physical system, its software, associated documentation and packaging. You have the option to ship this system as your own, complete 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 and EMR at the EDGE. XR2 was built on tier 1 industry proven technology using the latest Intel® Xeon® processors and can provide enterprise level compute closer to where it’s needed, the sources of data.

More ›
Healthcare & Life Sciences

PowerEdge XR2

Short-Depth Enterprise Compute processing at the Edge

The Intel® Xeon® based PowerEdge XR2 is specifically designed for rugged 1U short-depth computing software-defined storage and for space-constrained installations. Deliberately designed to take the hardest conditions head-on, 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 more of what’s important.

PowerScale solutions

Edge-based image and digitized store

Processing and rendering at the edge

End user image access

Healthcare & Life Sciences Introduction › HCLS at the Edge › HCLS in the Core › HCLS in the Cloud › Resources ›
HEALTHCARE & LIFE SCIENCES

OptiPlex 7070 Ultra

Powerful desktop with near zero footprint for image access at the edge.

The innovative OptiPlex 7070 Ultra compute device offers performance and function in a patented zero footprint design that makes it ideal for connected health environments. Ultra combines the beauty of an all-in-one with the upgradability of a traditional desktop. It's the best of both worlds – full power capability, plus all the key features needed and in the smallest possible size. More

Edge-based image and digitized store
Click here to learn more about storing and digitizing with PowerScale solutions

Processing and rendering at the edge
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End user image access
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HEALTHCARE & LIFE SCIENCES

OptiPlex 7070 Ultra

Powerful desktop with near zero footprint for image access at the edge.

The first-of-its-kind OptiPlex 7070 Ultra completely hides the PC in the monitor stand and features swappable elements for ultimate flexibility ideal for connected health and drives ideal performance with 8th Gen Intel® Core™ vPro® mobile processors. The Ultra’s flexible feature set provides support for the latest technology, including Intel® Wi-Fi 6, memory options up to 64GB of RAM and up to 2 TB SSD, all with less power consumption than a standard desktop.

Edge-based image and digitized store

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Processing and rendering at the edge

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In The Core

Scalable Image Storage
Click here › to learn more about scalable image storage with Isilon solutions

Processing and Render Image Optimization
Click here › to learn more about optimized acceleration with PowerEdge C4140

Image Viewing and Rendering
Click here › to learn more about image viewing and rendering with Precision 5820 XL

HEALTHCARE & LIFE SCIENCES
Isilon Nodes

Overview
Isilon nodes, powered by PowerScale OneFS, provide a scalable storage system to help healthcare and life sciences organizations consolidate storage systems across multiple applications and critical IT workloads. Isilon already supports healthcare and life sciences providers across the world with all their digital, clinical, surgical, medical and administrative applications.

We can design an Isilon solution that meets your healthcare technology and go-to-market requirements, with options for Dell Technologies branding, de-branding (remove all Dell branding) or your customized branding. More ›

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Isilon nodes

Isilon all-flash, hybrid or archival nodes, powered by OneFS, address the rapidly increasing security, image availability, performance and scalability requirements of healthcare and life sciences applications such as PACS, VNA, Clinical NGS digital pathology, etc., as well as IT workloads such as 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. Back

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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 PowerEdge C4140 is an accelerator-optimized, 1U rack server designed for the most demanding workloads. PowerEdge C4140 is ideal for cognitive workloads such as artificial intelligence, machine learning and deep learning to accelerate the 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 more of what’s important.

Back ›

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

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

Click here › to learn more about image viewing and rendering with Precision 5820 XL
Dell Precision 5820 XL

The Precision 5820 XL is ideal for Image Viewing connected to medical imaging equipment, such as PACs workloads, MRI machines, etc. The Precision 5820 XL provides the critical stability and long-life needed, with up to an 18-month extended transition between product generations, locked key components and in-advance visibility to important product changes. Features crucial in highly-regulated, security-sensitive environments and complex solutions. More ›

In The Core

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In The Core

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Healthcare & Life Sciences Introduction › HCLS at the Edge › HCLS in the Core › HCLS in the Cloud › Resources ›
The Dell Precision 5820 XL delivers high performance for the most demanding image viewing applications, with highest performing NVIDIA® Quadro® professional graphics and support for up to 600W of graphics power. Along with the latest Intel® Xeon® processors and up to 256GB of faster 2667MHz expandable memory. The Dell Precision 5820 XL provides support for multiple displays with mission critical 24/7 reliability. The revolutionary multichannel thermal design delivers advanced cooling and acoustics for longer productivity under heavy workloads.
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 the 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.
Dell Technologies Cloud PowerScale for Google Cloud
(Native cloud integration for file)

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 access 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)
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

- Storage brochure for OEMs
- Solutions brochure for OEMs
- PowerScale Spec Sheet
- PowerScale OneFS white paper
- OEM Engineering video
- Dell Technologies Cloud PowerScale for Google Cloud
- PowerScale for Digital Pathology
- PowerScale for encounter based imaging
- Deep Learning with Dell Technologies Cloud OneFS for Google Cloud
- Healthcare Information Technology eBook
- Transforming The Future of Healthcare - Brief

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To learn more about Dell Technologies OEM Solutions storage options, go to delltechnologies.com/oemstorage