DELLTechnologies

10 Reasons why
PowerScale
is ideal for all your file workloads

10 Reasons why PowerScale

Easily handle the most demanding and critical data rich projects with the highly flexible, award winning PowerScale enterprise scale-out file storage platform. Find out why the world's leading companies trust PowerScale to consolidate their unstructured data into a single data lake.

Stop managing your storage and start innovating with your data with PowerScale, the world's most flexible[1] and secure scale-out NAS solution.[2]

[1] Based on Dell analysis of publicly available information sources measured across 7 attributes, February 2023
[2] Based on Dell analysis comparing cyber-security software capabilities offered for Dell PowerScale vs. competitive products, September 2022
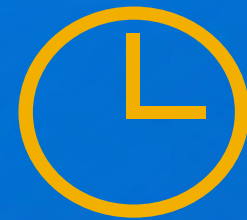
1 Simplicity at any scale
One pool of storage from 3 to 252 nodes...
and up to 186 PB raw capacity

Start small and grow to petabyte scale without downtime. Add new nodes in 60 seconds, add processing, memory, cache and storage to grow with your needs and remain simple no matter how large your data gets. Always stay secure and reliable at any scale.

Any scale
Non-disruptive scaling

No node left behind
Add new and remove old nodes without downtime

Ransomware protection
Stop ransomware real-time with API-integrated solution

Resilient
Sustain multi-node failures designed for 6x9s availability

Efficient
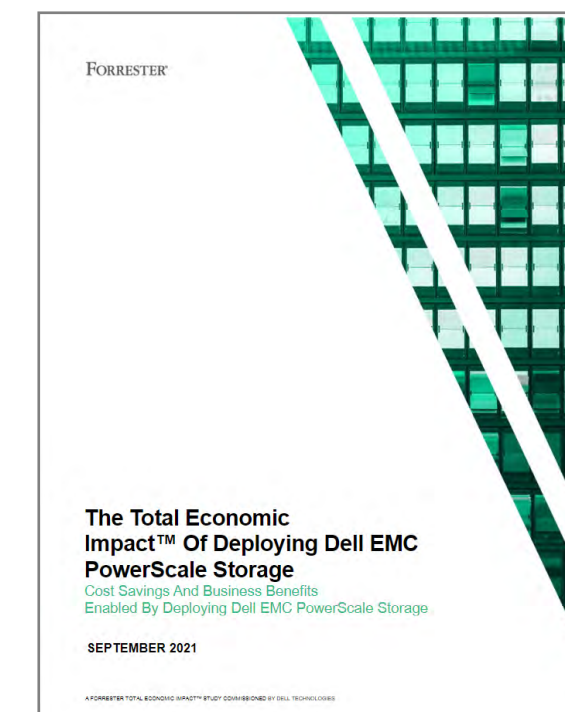Inline data reduction with no hot spots

DevOps ready
Ansible and Kubernetes integrations

"We like that PowerScale is so simple and straightforward to manage. Because we spend less time on storage administration, we have more time to support our scientists in other meaningful ways."

- Simon Binley
Data Center Manager
Wellcome Genome Campus

FORRESTER

The Total Economic Impact™ Of Deploying Dell EMC PowerScale Storage
Cost Savings And Business Benefits Enabled By Deploying Dell EMC PowerScale Storage

SEPTEMBER 2021

A FORRESTER TOTAL ECONOMIC IMPACT™ STUDY COMMISSIONED BY DELL TECHNOLOGIES

500 TB/admin
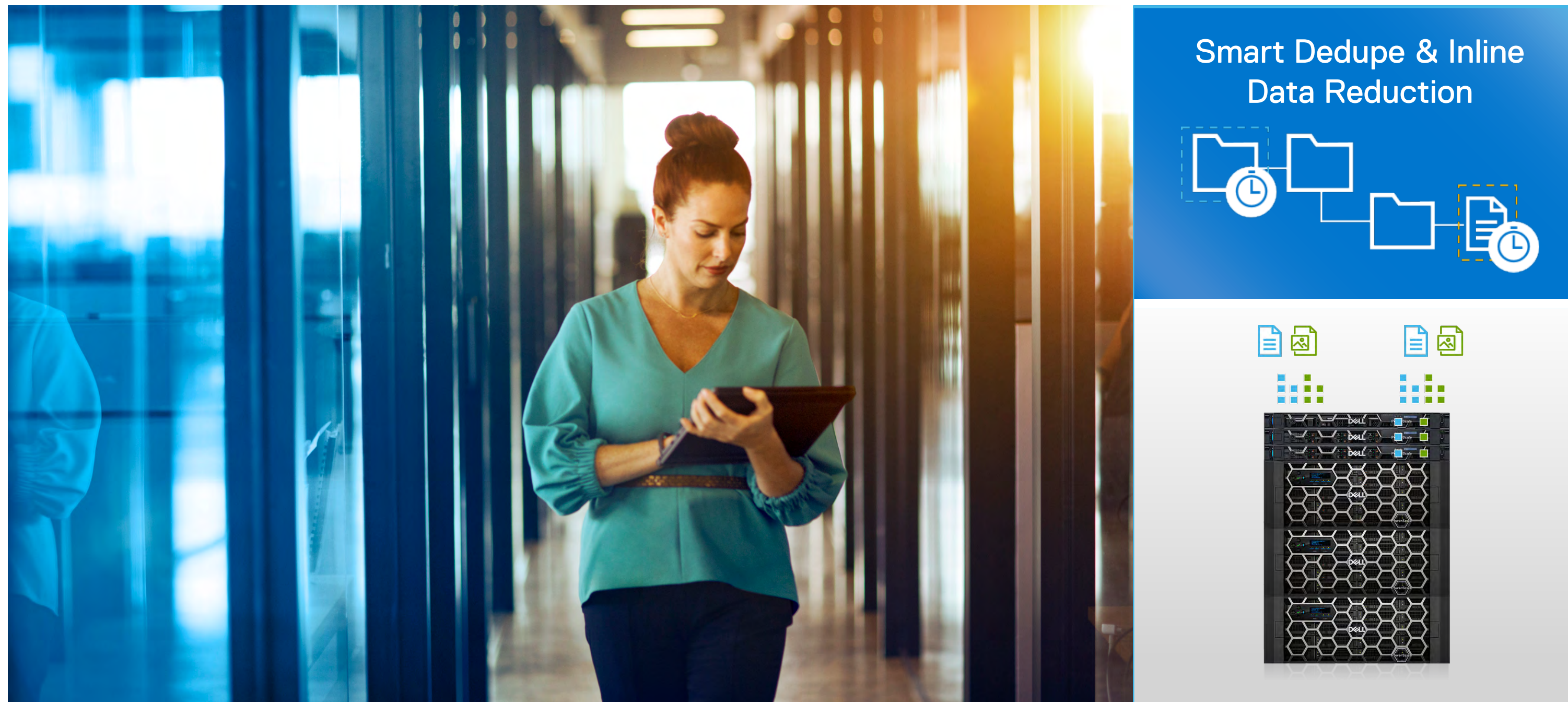Admin-to-capacity ratio prior state

5 PB/admin
with PowerScale

Read this Forrester report on the TEI of PowerScale.

2

Exceptional storage utilization
Up to 80% storage efficiency* for lower costs.
Thank you OneFS.

All PowerScale nodes deliver high-speed in-line data compression and deduplication to improve storage utilization, while a single data lake eliminates data silos for maximum efficiency.

Smart Dedupe & Inline Data Reduction

*Based on Dell Technologies internal analysis conducted in April 2021.

> "We simplified system upgrades greatly with PowerScale OneFS. Once you set up your replication and SmartPools, it just works reliably."
>
> **- Michael Fox**
> Head of Information and Communication Technology
> North Tees and Hartlepool NHS Foundation Trust

> "This is the best platform we could have for storage utilization. It is affordable and scalable."
>
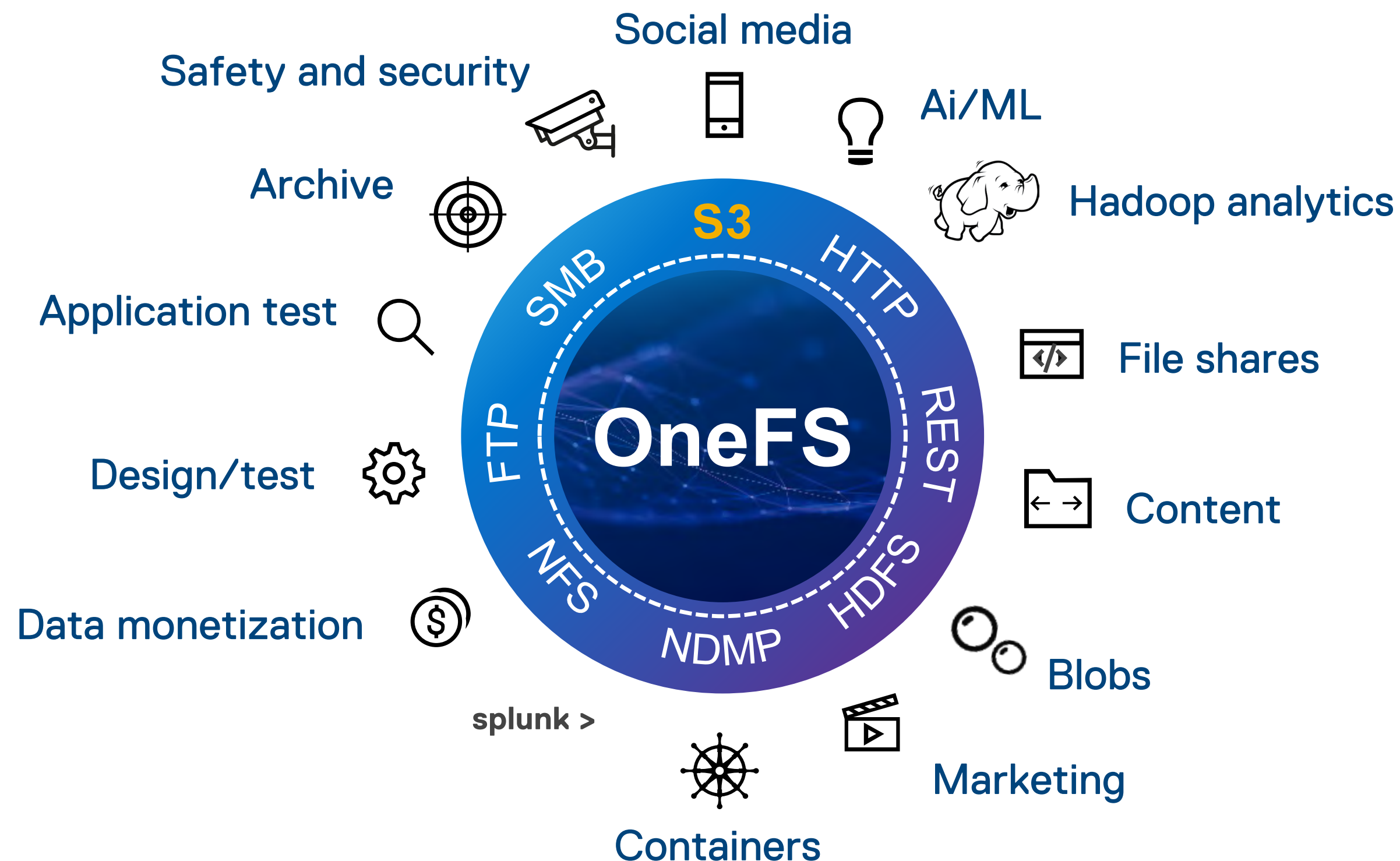> **- Maurizio Davini**
> Chief Technology Officer
> University of Pisa

3

Simultaneous multi-protocol access
End the data silos and enable collaboration.

Support universal access – NFS, SMB, HDFS, S3, NDMP, REST, HTTP, and FTP protocols to the same shared data pool – to create an effective data lake strategy. Keep data connected and accessible to all users with minimal effort. Handle any workloads - from traditional file-based workloads to the most demanding, modern workloads such as AI/ML.

Social media
Safety and security
Ai/ML
Hadoop analytics
Archive
Application test
File shares
Design/test
Content
Data monetization
Blobs
splunk >
Marketing
Containers

S3 SMB HTTP FTP REST NFS HDFS NDMP
OneFS

> *"We create, store and share the big image files we use in cell pathology, hematology and radiology on PowerScale. Care providers and specialists collaboratively review digital slides without worrying about file sizes or storage performance."*

- Professor Graham Evans
Chief Information and Technology Officer and Senior Information Risk Owner
North Tees and Hartlepool NHS Foundation Trust

> *"It scales seamlessly... Now creating or expanding a PowerScale cluster is almost immediate."*
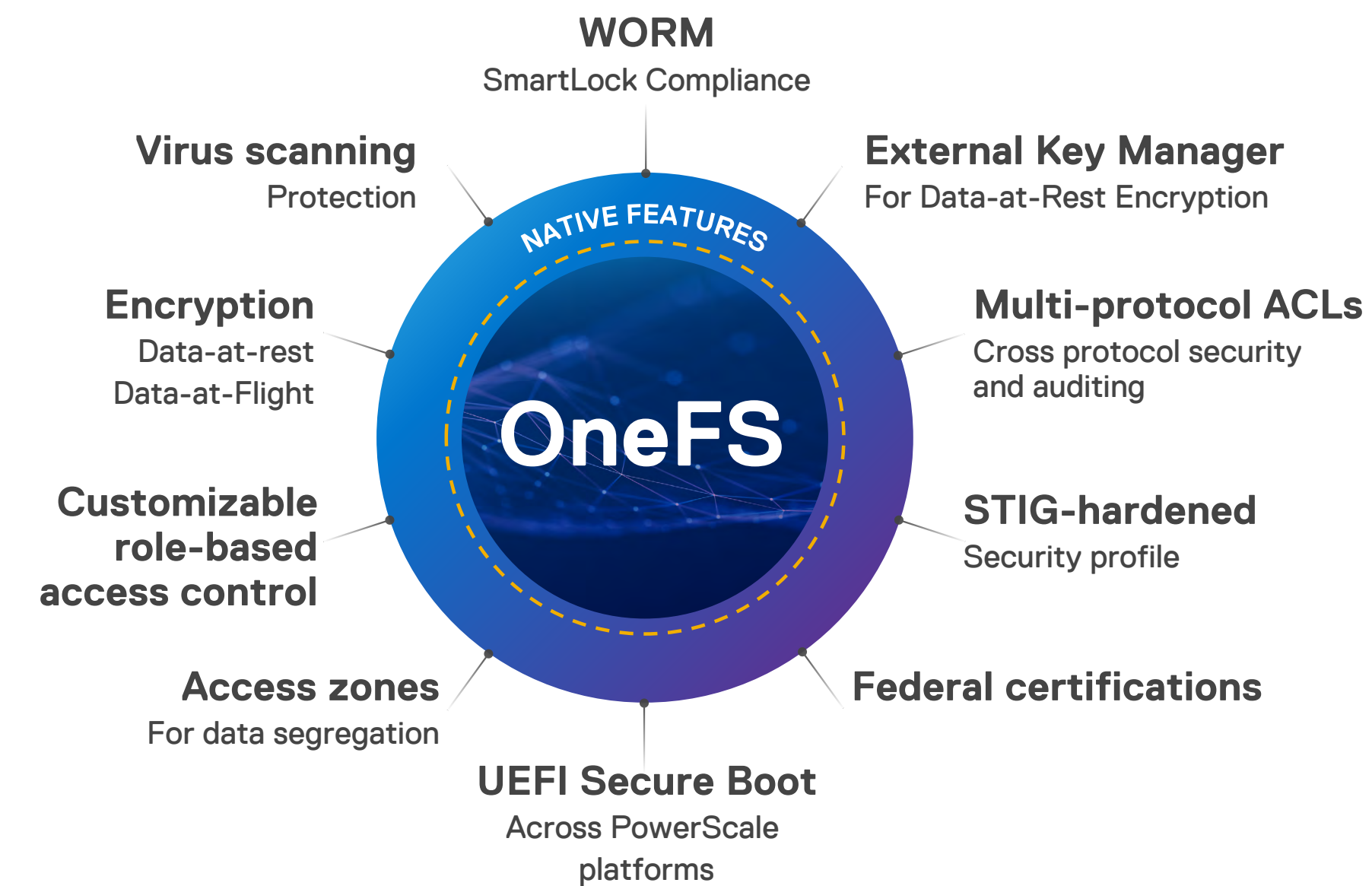
- Maurizio Davini
Chief Technology Officer
University of Pisa
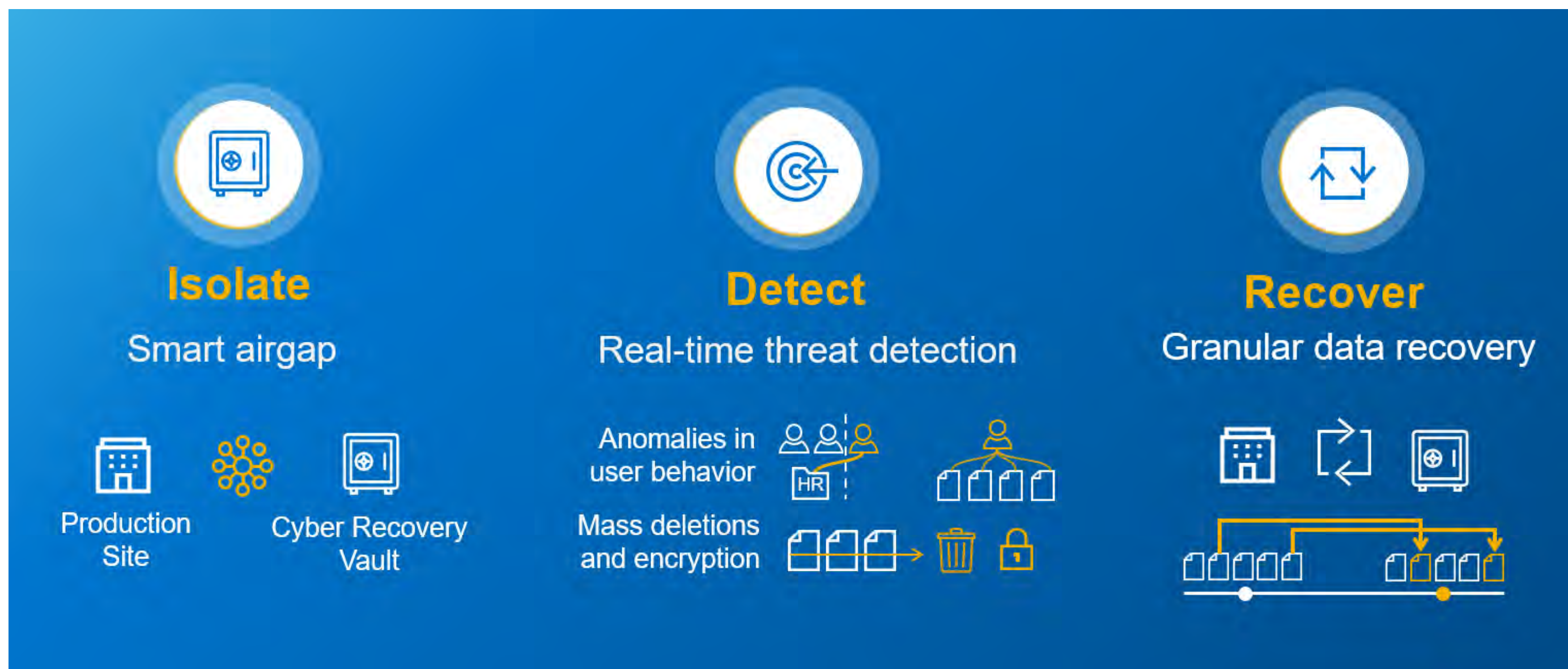
4 Always protected, secure, compliant

The world's most cyber-secure scale-out NAS solution is designed for up to 6x9s availability.

Protect and secure critical data assets from outages and cyber attacks with enterprise-grade availability, redundancy, security, data protection and replication. API-integrated ransomware protection solution with Smart AirGap and Cyber Recovery Vault helps to defend and protect data from cyber attacks. We take data protection seriously with HIPPA, PCI DSS and CCPA compliance built-in. Testing for federal certifications including DISA Federal APL, Common Criteria List and USGv6R1 are in progress.

Isolate
Smart airgap

Production Site

Cyber Recovery Vault

Detect
Real-time threat detection

Anomalies in user behavior

Mass deletions and encryption

Recover
Granular data recovery

WORM
SmartLock Compliance

Virus scanning
Protection

External Key Manager
For Data-at-Rest Encryption

Encryption
Data-at-rest
Data-at-Flight

NATIVE FEATURES

OneFS

Multi-protocol ACLs
Cross protocol security and auditing

Customizable role-based access control

STIG-hardened
Security profile

Access zones
For data segregation

UEFI Secure Boot
Across PowerScale platforms

Federal certifications

Added with PowerScale OneFS 9.5:
- **Multi-factor authentication** with support for CAC/PIV
- Software-based **firewall**
- **SSO** for administrative WebUI
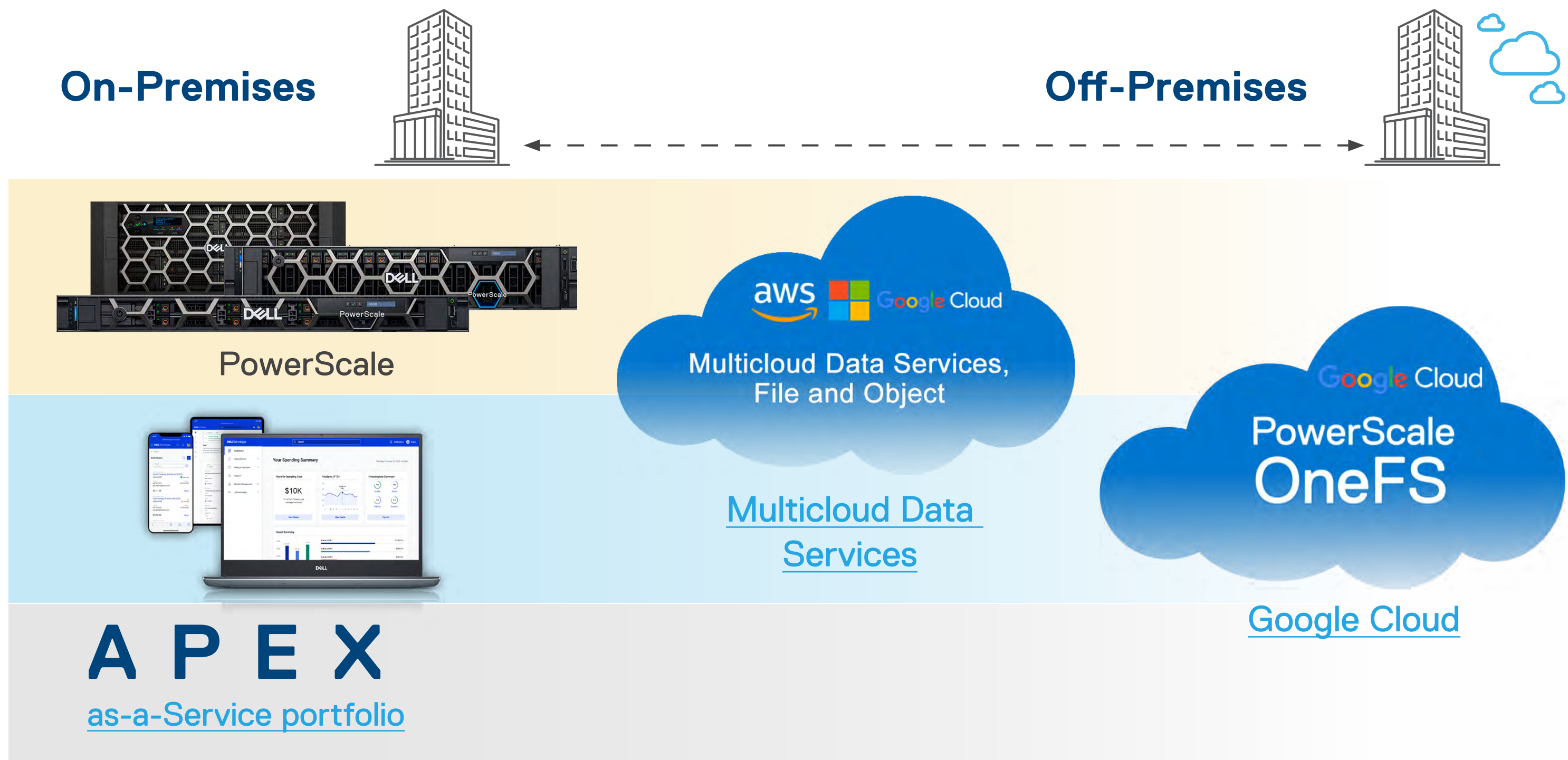- FIPS-compliant d**ata in flight**
- **QLC SED drives**

Edge, core, cloud deployment flexibility
Handle any data, anywhere.

On-premises or public cloud, PowerScale can handle it all. Keep pace with demanding data workloads with powerful all-NVMe and all-flash solutions with NVIDIA GPUDirect support. Handle large, active archives with our dense, efficient archive nodes. Consume as an appliance, in APEX, Multicloud Data Services or in the cloud. Your data, your choice.

On-Premises   **Off-Premises**

PowerScale

Multicloud Data Services,
File and Object

Multicloud Data Services

PowerScale
OneFS

Google Cloud

APEX
as-a-Service portfolio

> *"The beauty of our multi-cloud solution is we pay for only what we consume. My team no longer has to manage storage and security and instead can focus more on innovation."*
>
> **- Matt Douglas**
>   Chief Enterprise Architect
>   Sentara Healthcare

> *"The solution provides us with the flexibility to add the right tier of storage at the right time for data that resides at the edge, core, or cloud."*
>
> **- Keith Bradley**
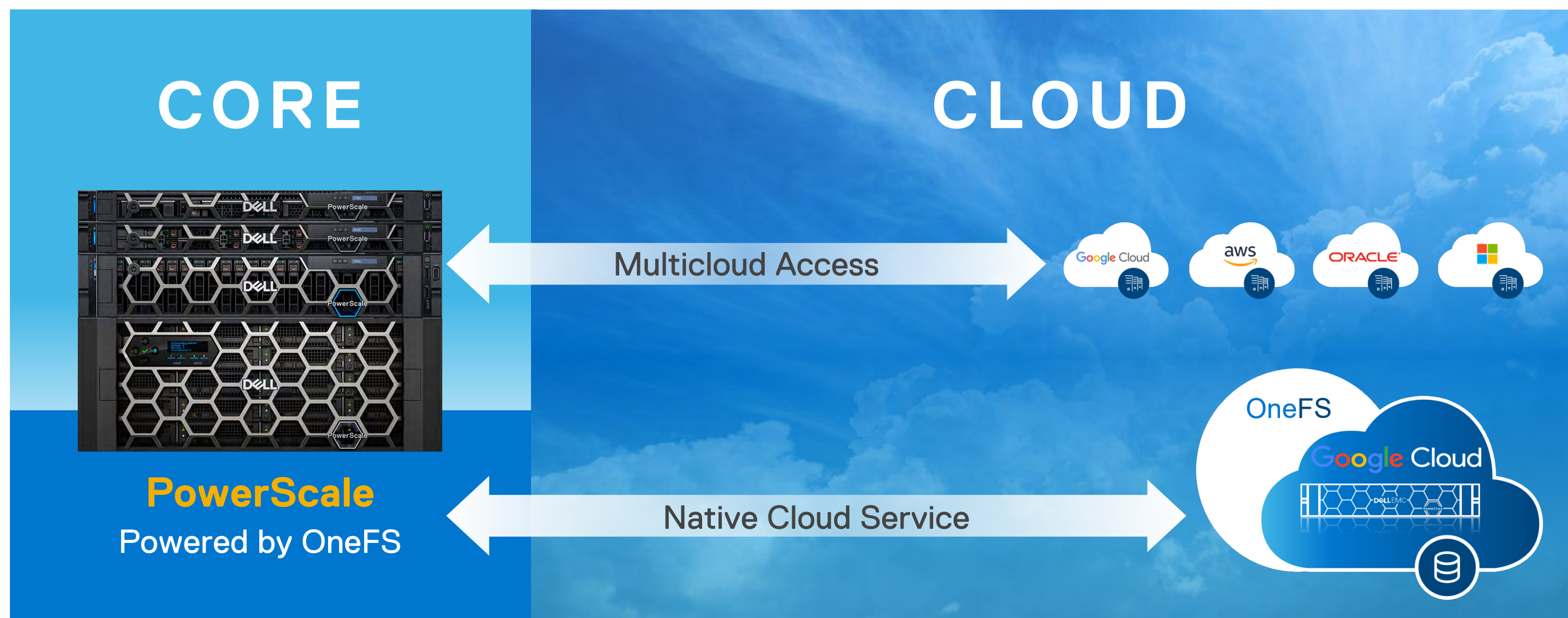>   Director of IT
>   Nature Fresh Farms

Public cloud storage with data control

Save up to 89%* in storage costs.

Give AWS, Google Cloud, Microsoft Azure and Oracle Cloud compute workloads the storage they need at a fraction of the cost of public cloud storage – all while retaining complete control of your data. Handle demanding public cloud services with cloud-scale performance, reliability and multi-petabyte scale – delivered by PowerScale.

CORE

CLOUD

Multicloud Access

PowerScale
Powered by OneFS

Native Cloud Service

OneFS

Google Cloud

*Based on a January 2022 ESG Technical Review commissioned by Dell Technologies, "Solving Big Data Challenges for File Services with Multi-Cloud Data Services." Actual results may vary. See ESG report here.

"*The excellent elasticity of the PowerScale solution for multi-cloud supported front-line workers with the tools and data they need to care for patients. By modernizing our infrastructure with the PowerScale solution for multi-cloud, we reduced our costs by $5 million and raised the performance.*"

- Matt Douglas
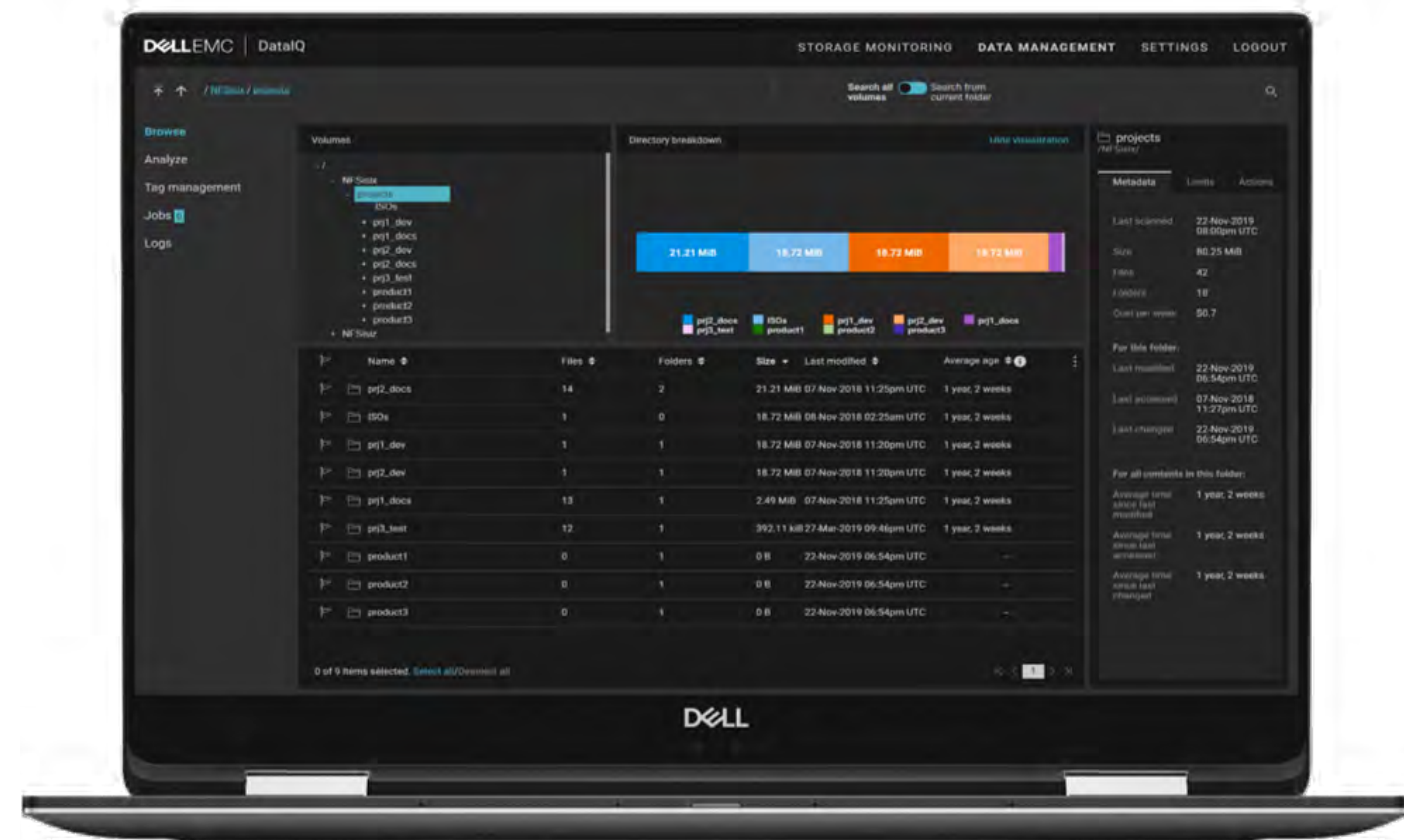Chief Enterprise Architect
Sentara Healthcare

7 Intelligent insights into your data
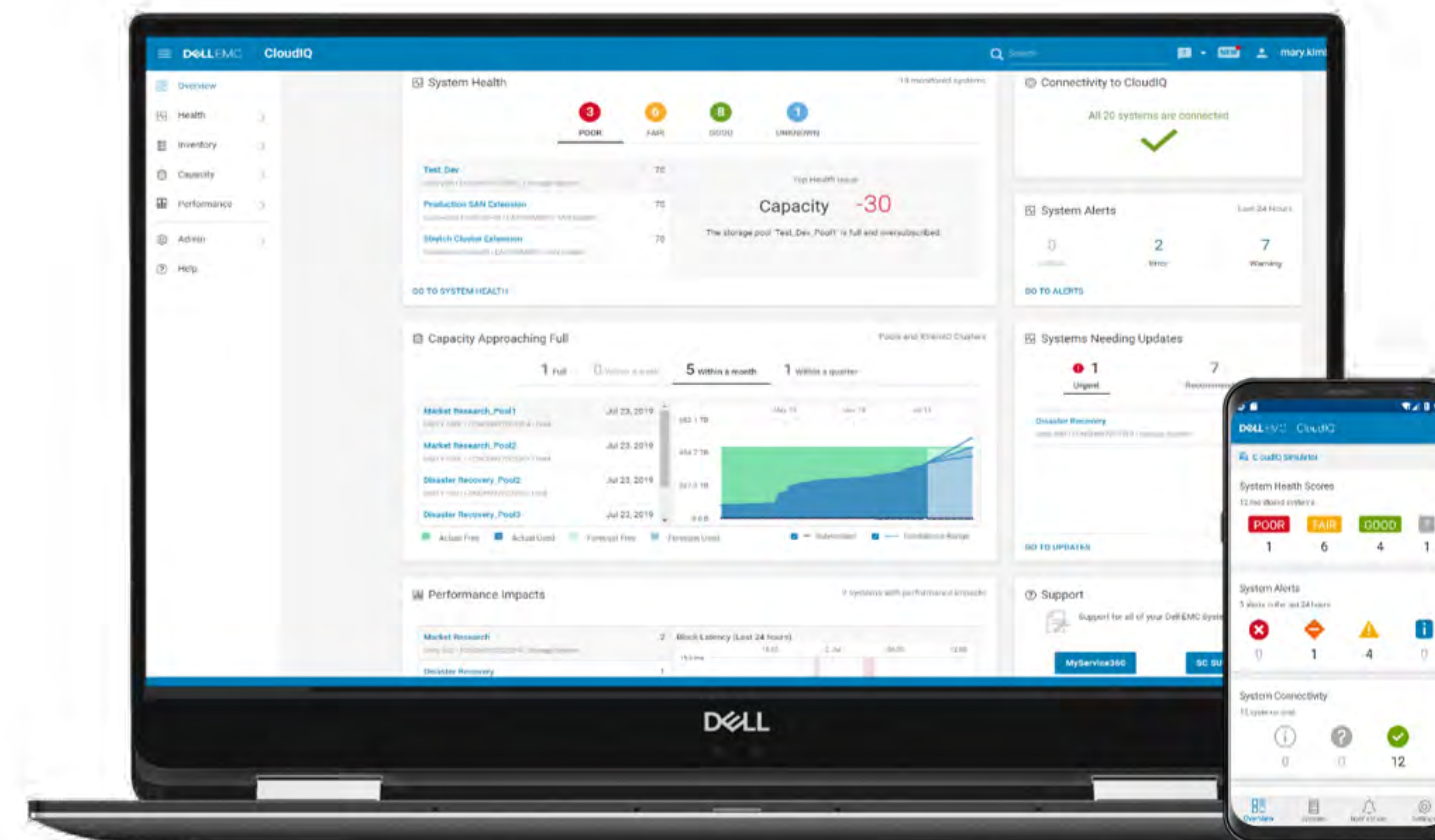## Get more from your data and storage with DataIQ and CloudIQ.

Easily determine the health of your infrastructure from the palm of your hand with CloudIQ. Manage your data with DataIQ, which lets you scan and index billions of files and objects across your storage and cloud environment and move datasets where needed.

Smarter dataset management with DataIQ

PowerScale | ECS | 3rd Party | Public Cloud

Faster time to insights with CloudIQ

Across Dell Storage Portfolio

> "*We're excited about using DataIQ data analytics for data deduplication and optimizing performance. DataIQ helps us more accurately quote and forecast our needs and growth for the studio, which translates into real savings for us and our customers.*"

– Rachel Bauer
COO and CFO
Like a Photon Creative

> "*The solution has definitely freed up a lot of time... PowerScale allows us to focus on data management rather than storage management and helps us get the most out of our data.*"

– Bill Sharp
Senior Vice President
EarthCam, Inc.

8 Integrates with your applications

250+ industry app integrations and certifications.

Our storage and data management portfolio is designed to work seamlessly with your existing business applications to power data engineering, data science, data warehouse, and data lake projects. Support Apache Flink, Spark and Hadoop, Dremio, Databricks, Adobe, NVIDIA, AMD, Kalray, Cribl, Rubrik, Dremio, Splunk and a universe of modern data analytics applications with PowerScale.

"*Together, PowerEdge Servers and Power-Scale storage help us ensure that the data our clients review and analyze remains available and secure. Our clients can improve patient safety or even save lives because the Dell Technologies solutions support analytics based on massive amounts of data.*"

- David J. Brzozowski Jr
Chief Technology Officer
Medacist

"*HPC serves to help us understand strategy calls and so we'll simulate hundreds of millions of permutations of the race to understand what might happen if it started raining on a given lap, or if a competitor in front of us was to spin off, or if the safety car was to come out. It helps us augment our decision-making capabilities.*"

- Edward Green
Head of Commercial Technology
McLaren Racing

Unmatched industry ISV ecosystem with 250+ ISV tests and validations

9 Expertise and leadership

2,000+ healthcare customers, 1,900+ financial firms, 8/10 top broadcasters and 8/10 top biotechs.

Proven expertise in 22+ verticals and horizontal applications, including 43% of the safety and security market, 100+ deep learning, 400+ analytics and 4,500 backup and archive customers. Our solutions won a Technology & Engineering Emmy® Award and were selected by NBC Olympics to store digital video content from the Tokyo Olympics.

Figure 1: Magic Quadrant for Distributed File Systems and Object Storage

Source: Gartner

Dell Technologies named a Leader in 2022 Gartner® Magic Quadrant™ for Distributed File Systems and Object Storage for 7th consecutive year in a row – a Leader every year since the commencement

Positioned **highest** for **ability to execute** in the **Leaders** quadrant.

Gartner, Inc. "Magic Quadrant™ for Distributed File Systems and Object Storage" by Julia Palmer, Jerry Rozeman, Chandra Mukhyala, Jeff Vogel, October 19, 2022. Gartner does not endorse any vendor, product or service depicted in its research publications, and does not advise technology users to select only those vendors with the highest ratings or other designation. Gartner research publications consist of the opinions of Gartner's research organization and should not be construed as statements of fact. Gartner disclaims all warranties, express or implied, with respect to this research, including any warranties of merchantability or fitness for a particular purpose. This graphic was published by Gartner, Inc. as part of a larger research document and should be evaluated in the context of the entire document. The Gartner document is available upon request from Dell Technologies.

> *"The new PowerScale All-Flash nodes give us improved performance of our existing storage. This gave us the power to complete final rendering, where the heaviest compute cycles occur in any film, of 'The Lego Movie 2' faster and more efficiently than any previous film."*
>
> **- Darin Grant**
> Chief Technology Officer
> Animal Logic

"Like the gifted athletes selected to compete in the Olympics for the ultimate glory, Dell Technologies is honored to have been chosen to help NBCUniversal bring the powerful stories of victory and defeat to viewers worldwide. With PowerScale, NBC Olympics will reliably store and simply manage more than 7,000 hours of athletic heroics across its networks and streaming platforms while making the experience for those watching remotely better than ever."

- Jeff Boudreau
President and General Manager,
Infrastructure Solutions Group at Dell Technologies

A complete, interconnected portfolio
PowerScale, ECS, and ObjectScale Data Platform.

Address all of your unstructured data workloads with a powerful portfolio of industry leading solutions to handle file and object storage from the data center to the edge and cloud.

Stop managing your storage and start innovating with your data with PowerScale, the world's most flexible scale-out NAS solution.

Dell.com/PowerScale

"In a strategic alliance like ours with Dell Technologies, we can source the right solutions to support transformational use cases."

- Professor Graham Evans
Chief Information and Technology Officer
North Tees and Hartlepool NHS Foundation Trust

"Our partnership with Dell Technologies allows us to take advantage of the full breadth and depth of their compute, storage, networking and security solutions."

- David J. Brzozowski Jr.
Chief Technology Officer
Medacist