SOLUTION BRIEF

D&LLTechnologies

A P E X

Dell APEX Data Storage Services File

Unlock the potential of your unstructured data

- · Scale to PBs of capacity
- Run your most demanding workloads
- Support a wide range of data types
- Manage your data, not your storage
- Integrate and connect with leading vendors, customers, partners, and ecosystems
- Designed for 99.9999% availability²

We're now relieved from the variability of our business and can scale up or down when we need. Dell handles all the work.

— Senior cloud solutions architect, telecommuncations

When it comes to unstructured data, there is a lot of potential to drive innovation, get to market faster and create differentiation. But there are also challenges to unlocking the potential of this data. The sheer volume of unstructured data is massive, diverse and it continues to grow exponentially. Building and maintaining an IT Infrastructure to support workloads based on expanding amounts of unstructured data is a common and constant challenge for many organizations. Optimizing expenditure, predicting usage and limited resources further adds to this complexity.

It's no wonder that the adoption of as-a-Service consumption is increasing among organizations looking for simplicity, agility and control. Gartner[®] predicts that by 2025, more than 70% of all enterprise-grade storage capacity will be sold on a consumption basis – up from less than 35% in 2021.¹

Dell Technologies has a proven track record for delivering powerful storage solutions backed by world-class support and services. With Dell APEX Data Storage Services File, you get the best of both public and private cloud worlds: scalable, agile, on-demand resources with the enterprise-class features, control and security of infrastructure located on-premises in your own data center or in a Dell-managed interconnected colocation facility.²

Create your own on-demand environment

Dell APEX Data Storage Services simplifies the process for purchasing, deploying and maintaining file storage. Your as-a-Service experience is managed through the simple, intuitive Dell APEX Console which allows you to:

- Select your management, location, base capacity, performance tier and term
- Monitor usage and forecast capacity planning
- Control user access and privileges
- Experience predictable and centralized cost management

With Dell APEX Data Storage Services, you are aligning expenses with actual versus anticipated usage, all at a single rate with no overage penalties for capacity utilization above your base capacity commitment. You have the option to increase your base capacity at any time in order to accommodate growth. This means you have the flexibility to respond to changes in workload requirements on the fly.

Best-in-class scale-out NAS technology

Dell Technologies is a trusted partner and the #1 leader in enterprise storage.³ And now, with the flexibility to deploy your file storage through an as-a-Service model, you can be confident that your unstructured data will be stored, managed, secured, protected and analyzed efficiently, freeing up time for you to focus on maximizing the value from your data.

- Simplicity at any scale: Unlock the potential within your unstructured data using a solution that scales to PBs of capacity.
- **Support for demanding workloads:** Run your most demanding workloads with solutions that deliver massive performance and scale easily as your needs change.
- Any data, anywhere: Support a wide range of data types and diverse workloads with concurrent, built-in, multi-protocol, self-service capabilities including NFS, SMB, HDFS, S3, HTTP and FTP protocols.

- Cost-optimized data placement: Lower costs with automated storage placement based on business rules and built-in intelligence.
- Enterprise data protection: Reduce risk with highly resilient systems that offer seamless compatibility with proven enterprise-grade backup and disaster recovery solutions along with local and remote protection options.
- Robust security options: Safeguard your company with Data at Rest Encryption (D@RE) via self-encrypting drives, role-based access control, authentication using LDAP/AD, access zones, file system auditing, SMB3 encryption, and HDFS transparent data encryption.
- Big Data integration: Seamlessly integrate with leading vendors like Pivotal, Cloudera, Hortonworks and Splunk to drive workloads in artificial intelligence, machine learning and deep learning with in-place analytics.
- Multicloud flexibility: Multicloud readiness in collaboration with data center colocation partners enables connectivity to the customers, partners and ecosystems that deliver the most value without any vendor lock-in.
- High availability: Dell APEX Data Storage Services File infrastructure is designed for 99.9999% availability.⁴

 Object-enabled: Support for S3 expands storage use cases to include cloud native development without the need to copy data.

Focus on outcomes, not infrastructure

With Dell APEX Data Storage Services File, you utilize the capacity and maintain complete operational control of your workloads and applications while Dell Technologies owns and maintains the infrastructure, located on-premises or in a Dell-managed interconnected colocation facility.²

Alternatively, IT organizations seeking even more control over their as-a-Service experience may choose a Customer-managed Dell APEX Data Storage Services File option, designed to empower you with responsibility for infrastructure design, configuration of shares, and other administrative tasks. No matter which option you select, the result is a cloud-like experience with predictable, easy-to-understand pricing and no egress fees or latency issues. Now your IT staff can increase productivity and focus on high value initiatives to deliver customer satisfaction without worrying about day-to-day maintenance, forecasting, procurement, upgrades and capital budget constraints associated with tech refresh cycles.

Performance Tier	Capacity Optimized	Balanced	Dense Performance Optimized*	Performance Optimized
Description	Cost-optimized storage designed primarily for archive workloads	Hybrid platform designed for demanding enterprise file workloads	Highest performance, latency- optimized all-flash storage for medium to large scale deployments	Highest performance, latency- optimized all-flash storage for small scale deployments
Read Performance	14 MB/s per TiB	25 MB/s per TiB	89 MB/s per TiB	371 MB/s per TiB
Write Performance	4 MB/s per TiB	13 MB/s per TiB	28 MB/s per TiB	131 MB/s per TiB
Ops / sec	159 per TiB	270 per TiB	1440 per TiB	4717 per TiB
Min. Capacity	259.3 TiB	259.3 TiB	199.2 TiB	24.9 TiB
Target Use Cases	Archive / data tiering, video surveillance / digital evidence, medical imaging	Home directories, M&E content delivery, SW test/dev, Big Data / batch analytics	Real-time streaming and analytics, manufacturing, Life sciences, financial services, HPC, AI / ML / DL	Streaming / real-time analytics, data lakes for AI / ML / DL, M&E content creation, EDA / ADAS

Performance options for Dell APEX Data Storage Services File:

Read/write throughput performance based on NFSv3 protocol with 100% sequential read / write workloads (per 85% consumed base TiB). Maximum ops/sec performance based on NFSv3 protocol with a common NAS File Sharing benchmark (per 85% consumed base TiB). Higher performance could be achieved depending on subscribed capacity.



Learn more about Dell APEX Data Storage Services



Contact a Dell Technologies Expert

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¹ Gartner, "2023 Planning Guide for Cloud, Data Center and Edge Infrastructure," October 2022.

²Dell-managed colocation deployment is not available with Customer-managed subscriptions. For regional availability of Dell-managed colocation deployment, visit <u>www.Dell.com/Access-APEX</u>

³ IDC WW Quarterly Enterprise Storage Systems Tracker, 2022 Q3 historical release, December 6, 2022. Ranking by vendor revenue.
⁴ Based on hardware availability on common underlying block and file platform configurations. Actual hardware availability may vary.

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