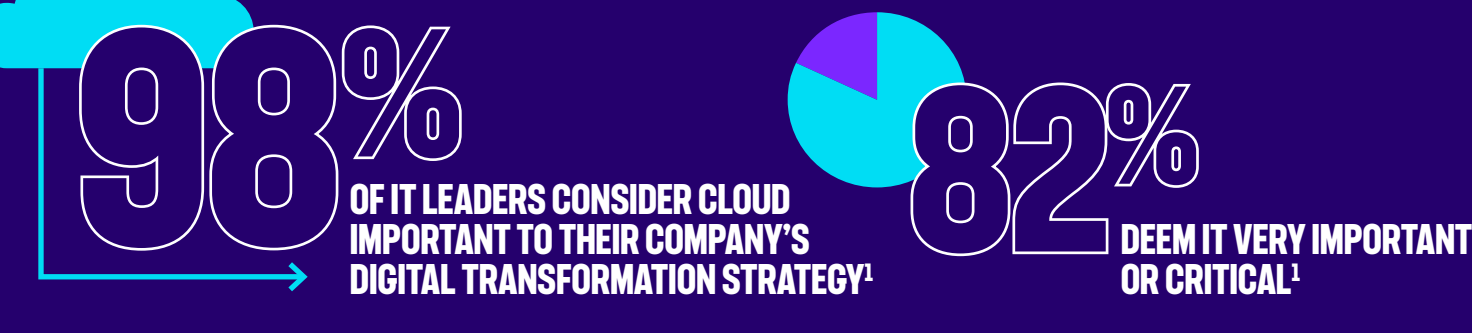


# MANUFACTURING IS EVOLVING

Is Your Data Strategy Keeping Up?



## THE PROBLEM

Manufacturers face growing challenges as they shift focus toward Product and Engineering (P&E). The sheer volume and complexity of modern data—such as CAD files, simulations, and distributed datasets—makes effective data management and scaling increasingly difficult. For globally dispersed teams, accessing this data quickly and reliably remains a persistent hurdle. On-premises storage solutions often limit scalability, causing bottlenecks that slow product development. Additionally, balancing high performance with efficient cost management is an ongoing struggle, especially when hybrid workflows demand seamless integration between on-prem and cloud environments.

## THE SOLUTION

Migrating to Azure NetApp Files empowers manufacturers to modernize their infrastructure, ensuring mission-critical workloads remain secure, accessible, and efficient. High-performance, low-latency storage reduces CAE simulation times and CAD rendering delays, enabling faster iterations and accelerating time-to-market. Azure NetApp Files provides globally dispersed teams with consistent, high-speed access to shared datasets, enhancing collaboration. The flexibility of hybrid cloud architecture allows organizations to balance performance and cost, dynamically scaling resources without over-provisioning. Furthermore, Azure NetApp Files offers smart tiering and pay-as-you-grow pricing, making it a cost-effective solution for managing performance and expenses.

### Higher Performance:

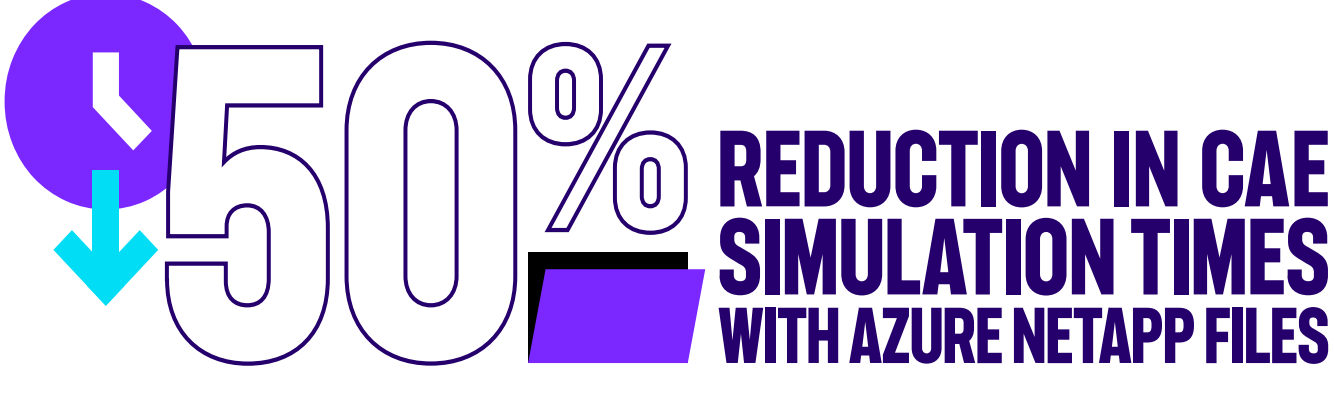
Cuts CAE simulation times by up to 50%

### Hybrid Cloud Flexibility:

Seamless on-prem and cloud storage integration

### Cost Efficiency:

Dynamic scaling eliminates over-provisioning



## Azure NetApp Files delivers high-performance, scalable cloud storage for manufacturers.

It accelerates product line engineering (PLM) and CAE workflows, ensures seamless collaboration, and protects critical data with enterprise-grade security.

## Unlocking Unmatched Speed, Scalability, and Reliability

Azure NetApp Files offers powerful benefits designed for demanding manufacturing workloads. It ensures uninterrupted availability of engineering applications and PLM systems with a 99.99% uptime guarantee, reducing costly downtime. High IOPS performance accelerates CAE simulations and CAD workflows, cutting design cycle times by up to 25%. With 2 PiB per volume scalability, manufacturers can securely collaborate on massive design files from anywhere. Additionally, automated tiering and pay-as-you-grow pricing optimize cost management, with some users reporting a 60% reduction in database size. Finally, sub-2ms latency provides enterprise-grade performance for even the most data-intensive workloads.



1

**99.99% Uptime Guarantee:** Keeps mission-critical systems consistently available



2

**Up to 709,000 IOPS:** Speeds up CAE simulations and CAD workflows<sup>2</sup>



3

**2 PiB Per Volume Scalability:** Supports global collaboration with compute clusters up to 50,000 cores



4

**60% Reduction in Database Size:** Efficient data handling with smart tiering

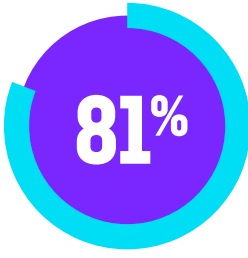


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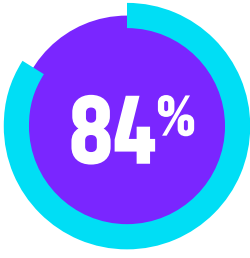
**<1ms Latency:** Enhanced PLM system responsiveness

## Manufacturers Are Embracing the Cloud—Are You?

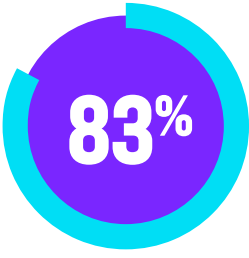
Manufacturers are increasingly moving key workloads to the cloud, drawn by the potential for improved performance, scalability, and cost efficiency. Azure NetApp Files provides the ideal solution for hosting Product Lifecycle Management (PLM), CAD, and CAE workloads. Current trends indicate:



of manufacturers plan to or have migrated **PLM** to the cloud

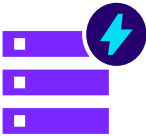


of manufacturers plan to or have migrated **CAD** to the cloud



of manufacturers plan to or have migrated **CAE** to the cloud

## Purpose-Built Cloud Performance for P&E Workloads



### PLM Systems

- Ensures continuous availability with **99.99% uptime**.
- Sub-millisecond latency provides rapid data access.
- Cross-zone replication safeguards critical information.
- Seamless Azure integration simplifies migrations and scales storage as needed.



### CAD/CAE Simulation

- High IOPS accelerates simulation runtimes.
- Dynamic scalability matches workload demands.
- High throughput supports large datasets.
- Low latency reduces simulation times for faster insights.
- On-demand performance adjustments optimize costs.



### Engineering Virtual Desktop Infrastructure (eVDI)

- Provides up to **709,000 IOPS** for enhanced user experience.<sup>2</sup>
- High availability ensures uninterrupted access.
- On-demand scaling reduces costs while maintaining reliability.



### Faster Decision-Making With Machine Learning and High-Performance Computing

- Sub-millisecond latency supports AI/ML training.
- Large volumes up to 500 TiB are available for data-intensive workloads.
- Rapid cloning accelerates dataset preparation.
- Cost-effective tiering ensures optimal storage utilization.

## BWT Alpine F1 Team accelerates race-day analytics with Azure NetApp Files

To gain a competitive edge, BWT Alpine F1 Team migrated its high-performance computing (HPC) workloads to Azure NetApp Files, improving simulation speed and race-day decision-making. With ultra-fast data access and seamless cloud integration, the team reduced data processing times, enhanced collaboration, and optimized vehicle performance—enabling engineers to make faster, data-driven decisions during races.



[Read the full case study >](#)

## Additional resources

[Use Teamcenter PLM with Azure NetApp Files >](#)

[Azure Well-Architected Framework >](#)

[Optimizing Cloud Storage Costs for Production Workloads in Azure >](#)

[Architecture best practices for Azure NetApp Files >](#)

<sup>1</sup> <https://cloudindustryforum.org/wp-content/uploads/2022/09/The-Transformational-Impact-Of-Cloud-2022.pdf>  
<sup>2</sup> <https://learn.microsoft.com/en-us/azure/azure-netapp-files/performance-large-volumes-linux>



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### About NetApp

NetApp is the intelligent data infrastructure company, combining unified data storage, integrated data services, and CloudOps solutions to turn a world of disruption into opportunity for every customer. NetApp creates silo-free infrastructure, harnessing observability and AI to enable the industry's best data management. As the only enterprise-grade storage service natively embedded in the world's biggest clouds, our data storage delivers seamless flexibility. In addition, our data services create a data advantage through superior cyber resilience, governance, and application agility. Our CloudOps solutions provide continuous optimization of performance and efficiency through observability and AI. No matter the data type, workload, or environment, with NetApp you can transform your data infrastructure to realize your business possibilities. [www.netapp.com](http://www.netapp.com)

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