Automotive product lifecycle management

■ NetApp



Increase productivity, improve product quality, and shorten time to market with robust data management capabilities for product lifecycle management in the cloud.



Automotive companies have embraced product lifecycle management (PLM) software such as Siemens Teamcenter and Dassault Systèmes' 3DEXPERIENCE platform to streamline product management from design to production to purchase, across the value chain. PLM solutions increase productivity, enhance collaboration, improve product quality, bolster creativity, and shorten time to market.

However, these infrastructures can be expensive to operate and maintain. Controlling data growth while reducing overall operating costs is challenging. In this highly competitive market, getting new innovations to market quickly is imperative, but traditional IT procurement cycles are long and create roadblocks in the race to market.

To get past these roadblocks, many automotive companies are moving their mission-critical PLM solutions to the cloud to get the agility, innovative performance, and operational efficiency that only the cloud can offer.

Key NetApp benefits

- Reduce data footprint and overall data volume with advanced storage efficiency technologies
- Decrease cloud infrastructure spend
- Reduce time to operate and maintain the PLM infrastructure
- Access data across all locations and environments, on premises and in the cloud



Easier said than done

Migrating and operating PLM systems in the cloud, without sacrificing on-premises benefits, comes with technical challenges that automotive companies must overcome:

- Performance. Deliver high throughput and low latency for fast data access, without compromising data protection and security.
- Data management. Control large volumes of data growth with the ability to seamlessly scale as needed.
- Data access. Enables users to access and share data around the world with customized governance and access policies for each stakeholder.
- Integration. Integrate with high-resolution workstations to empower CAD and CAE designers.
- Future-ready. Support next-generation application use cases, including development of digital twins in the cloud, VR, AR, and virtual discussion rooms.

NetApp solutions for PLM in the cloud

Unleash the full potential of your data by hosting your PLM solution on a modern cloud infrastructure. NetApp® solutions support all PLM software and cloud microservice architectures. Robust data management features help accelerate projects and simplify operations:

- Data protection: Encrypt data at the organizational level enable data sovereignty. You maintain ownership of the encryption keys.
- Multiprotocol access: Manage the variety of data in your PLM system with support for multiple protocols, including SMB, NFS, and more.
- Enterprise-grade data management capabilities:
 Optimize backup, data recovery, and disaster recovery with industry-leading and highly adopted technologies such as NetApp FlexClone®.
- Easy migration: Enable easier, faster, and more efficient migration of mission-critical PLM systems to AWS, Azure, and Google Cloud with NetApp SnapMirror® technology.
- Simplified management: Reduce administrative effort and avoid the need to acquire new skills.
 Further reduce administrative burdens with NetApp managed storage services.

NetApp solution components

NetApp solutions provide advanced storage and modernized data management services across your hybrid multicloud, enabling you to operate your PLM systems across all environments.



NetApp Cloud Volumes ONTAP®.

Cloud Volumes ONTAP offers enterprisegrade cloud storage for complex PLM installations in all public clouds—AWS, Microsoft Azure, and Google Cloud.



Amazon FSx for NetApp ONTAP.

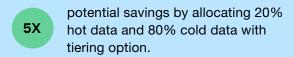
Amazon FSx for NetApp ONTAP is an integrated data storage platform, complete with the enterprise-grade capabilities needed to overcome hosting PLM systems across environments.



Azure NetApp Files. Azure NetApp Files is a Microsoft Azure native, highperformance file storage service for mission-critical PLM applications.

For a PLM installation in the cloud, **NetApp delivers:**

efficiency savings by reducing overall 4:1 data volume and consequently, costs; for example, you can go from 4PB to 1PB effectively stored.





Learn more about NetApp solutions for automotive. Get in touch with us at automotive@netapp.com.



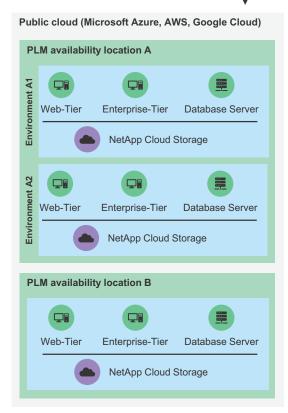


Figure 1: PLM infrastructure in the cloud with NetApp storage.

About NetApp

In a world full of generalists, NetApp is a specialist. We're focused on one thing, helping your business get the most out of your data. NetApp brings the enterprisegrade data services you rely on into the cloud, and the simple flexibility of cloud into the data center. Our industry-leading solutions work across diverse customer environments and the world's biggest public clouds.

As a cloud-led, data-centric software company, only NetApp can help build your unique data fabric, simplify and connect your cloud, and securely deliver the right data, services and applications to the right peopleanytime, anywhere. www.netapp.com











