

SmartFiles: Secure Active Archive for Manufacturing



Key Benefits

- Unlimited scale with hybrid cloud data mobility
- Cyberthreat protection, detection, and recovery
- Software-defined unified file and object services
- Reduced costs with superior storage efficiency
- Reliable compliance and long-term retention
- Integrated search and analytics tools

The manufacturing industry has been completely revolutionized by data. This digital transformation has converged traditional Information Technology (IT) systems with data-intensive Operational Technology (OT) systems—empowering manufacturing organizations to optimize processes, create better products, and accelerate time to market. As manufacturing organizations strive to gain a competitive edge with analytics, AI/ML, cloud, and IoT, this rapid shift has placed a huge burden on traditional infrastructures, as these solutions of yesteryear simply can't keep pace with today's data demands and scale.

Manufacturing systems and applications collect and store massive amounts of unstructured data from a variety of sources and formats including: end-users, new manufacturing technologies, suppliers, vendors, partners, and customers. These mountains of data are crucial to manufacturing operations and commonly comprises design files, project docs, IoT data, media, images, video, and more. Manufacturing organizations are increasingly challenged with trying to manage and integrate data from these different systems—each with varying protocols, strict security requirements, and unique compliance needs. Today's manufacturing data landscape has led to silos of information that can be difficult to manage, secure, and analyze. There is a tremendous need to securely and cost-effectively retain this data—to maintain compliance, accelerate productivity, and power future decisions and innovations.

Manufacturing was the #1 ransomware target in 2021. Manufacturing plays a critical role in today's already-fragile global supply chains, which makes the industry an obvious target. Cyber attackers are increasingly trying to exploit manufacturing data vulnerabilities because of the ripple effect it creates across other industries, which further pressures victims to pay a ransom. Manufacturing companies must also deal with a multitude of sensitive data such as product designs, customer information, and pricing. Ensuring this data is protected against cyber threats and data breaches is a top priority.

Manufacturing organizations must comply with many regulations, including data privacy regulations like GDPR and CCPA. Maintaining data governance can be difficult, as it requires the management of data across various stakeholders and systems. Unauthorized access and loss of data can result in serious lawsuits and hefty fines, and also pose risks to safety. Protecting manufacturing data from these risks has become onerous and expensive due to the inflexibility and high costs of legacy systems and storage silos. The lack of native search and audit capabilities in these aging products further complicates compliance with data privacy regulations. Meanwhile, the skyrocketing costs associated with managing these older storage systems make it difficult to satisfy data retention and residency requirements, and impede the ability to analyze historical datasets.

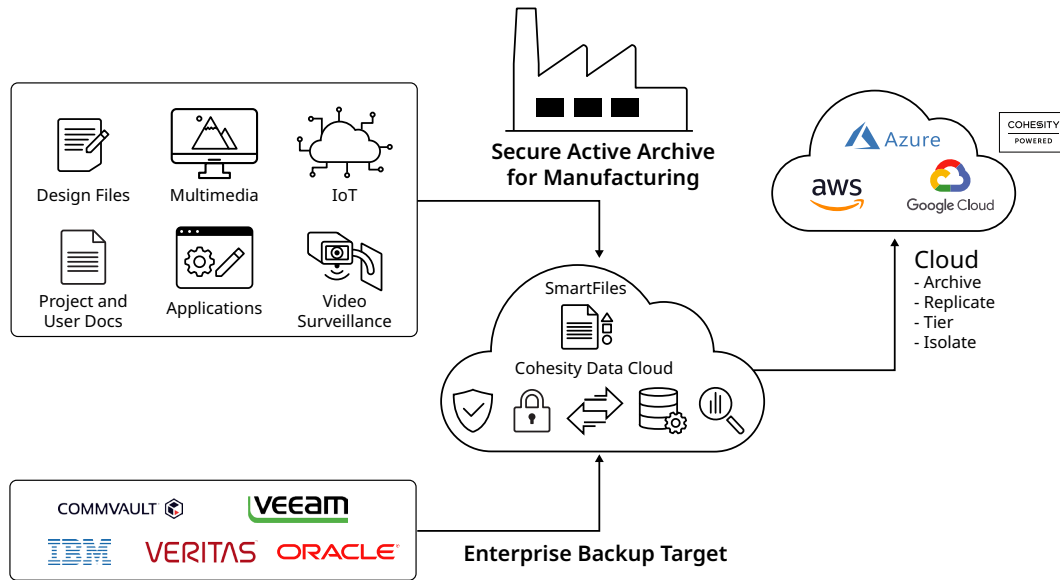


Figure 1: SmartFiles as a Secure Active Archive for Manufacturing and Enterprise Backup Target

Quality data insights are the key to enabling manufacturing firms to make quick and informed decisions related to products, maintenance, and even safety, with more confidence in the outcomes. Data insights can also serve to reduce operational costs, increase product sales, and improve overall customer experiences. The prevalence of connected machines and IoT devices in the manufacturing industry has created an explosion of data that provides tremendous opportunity to derive more value from it. But, analyzing this data may require additional tools and expertise to extract the right insights required to make the best data-driven decisions.

Many manufacturing companies rely on legacy systems that were not designed to handle the volume of data being generated today. The design limitations of legacy storage products make it difficult to keep up with capacity needs. This jeopardizes data retention compliance and analytics efforts, and creates considerable management complexity. Leading manufacturers realize there is tremendous opportunity in modern cloud-based solutions that use a hybrid cloud approach to bring the scalability and cost benefits of the cloud to their data. However, most legacy storage products lack adequate cloud support and require multiple third-party application integrations for data management and security, which further increases costs and complexity.

Why Cohesity SmartFiles for Manufacturing?

Cohesity is a leader in data security and management with comprehensive cyber threat protection and detection, rapid ransomware recovery, and hybrid cloud mobility.

Cohesity SmartFiles offers a scalable and economical **Secure Active Archive for Manufacturing** data with reliable access on-demand. With unified file and object services and the flexibility to tier and archive with unlimited cloud scalability for secure data isolation and

ultra-long-term retention, manufacturing firms can significantly reduce costs by up to 51% while maintaining fast local access to their data. SmartFiles protects data against the latest cyberthreats to mitigate ransomware, with robust compliance features to satisfy data residency needs and regulations like GDPR and CCPA.

Intelligent Data Management for Manufacturing

Consolidate data from manufacturing applications and systems—as well as unstructured data from enterprise backups, video surveillance, archives, big data, and more. SmartFiles delivers the capacity, performance, and scale to help manufacturing organizations eliminate data silos with a data security and management platform and unified management console that is ideal for: secure and cost-effective long-term retention of manufacturing data, optimizing cost and performance for backups, and streamlining disaster recovery with hybrid cloud data mobility across multiple sites and clouds.

Streamline productivity with native search features so manufacturing leaders can easily correlate and instantly search across application data and project assets to accelerate time to market, as well as respond immediately to compliance and security investigations.

Reduce costs up to 51% or more, while achieving up to 96x or greater storage efficiency. SmartFiles delivers global deduplication, advanced compression, and small file optimization for superior space efficiency and data reduction. Cohesity SmartFiles significantly reduces your data footprint, lowers operational costs, and minimizes the attack surface to protect your critical manufacturing data from cyber threats.

Optimize cost and performance throughout the manufacturing data lifecycle. Uncover powerful data insights and lower Total Cost of Ownership (TCO) by analyzing hot, warm, and cold data utilization

on third party NAS systems with policy-based tiering of data to SmartFiles, and automated lifecycle management to place data on the most appropriate or economical tiers or clouds.

Integrate seamlessly with existing manufacturing and backup applications. Simplify management and interoperability with the applications manufacturing firms rely on most— with unified file and object support for SMB, NFS, and S3.

Satisfy compliance with data privacy and residency regulations with secure, long-term, and cost-effective data retention across on-premises locations and clouds of choice. Avoid compliance violations and costly fines by protecting sensitive data from unauthorized access and loss with data lifecycle management automation features that help manufacturing organizations economically secure historical project assets and other critical data.

Scale and mobilize manufacturing data with software-defined hybrid cloud flexibility. Stay ahead of tomorrow's demands and avoid vendor lock-in with the freedom to choose hardware deployed at the edge, on-premises, or in the cloud. Powered by a cloud scale architecture that can handle billions of files, with options for heterogeneous disk and all-flash platforms, SmartFiles has the versatility to scale on-demand to support the most-critical workloads for enterprise manufacturing organizations.

Keep manufacturing operations running smoothly. In manufacturing, loss of data access and system downtime can be catastrophic to day-to-day operations and safety. SmartFiles is designed with a highly available and fault-tolerant architecture to deliver enterprise-class system and data integrity for the manufacturing industry. Eliminate forklift operations with non-disruptive upgrades to radically simplify future expansions without costly downtime and burdensome data migrations.

Secure Sensitive Data and Intellectual Property

Protect sensitive design files, critical project assets, and manufacturing application data from cybercriminals. Cohesity offers a multilayered approach to defending data. Unlimited immutable snapshots and DataLock features (WORM) keep data safe by preventing it from being modified or deleted. Based on Zero Trust data security principles, Cohesity's architecture helps mitigate risks from malicious attacks with at-rest and in-flight data encryption,

role-based access controls, multi-factor authentication, and quorum approvals to prevent unauthorized administrative changes.

Detect anomalies like ransomware with ML-based threat intelligence and scanning to detect risks, malware, and other indicators of compromise (IOCS) across the manufacturing data landscape. Additionally, with comprehensive logging of all file operations, manufacturing organizations can respond easily to compliance and security investigations related to suspicious user behaviors.

Recover instantly at scale from data outages and attacks, with confidence that the recovery data is clean and free of cyber vulnerabilities. Reduce downtime, help ensure continuous manufacturing operations, and mitigate safety risks by recovering data quickly to any historical point-in-time.

Do More With Manufacturing Data

Improve manufacturing cyber-resiliency with an extra layer of ransomware protection with [Cohesity FortKnox](#), a highly-secure SaaS-based data isolation and recovery solution. Simplify protection for your most-critical manufacturing data, and recover confidently from immutable copies in a Cohesity-managed cloud vault.

Gain deeper intelligence against malicious threats with [Cohesity DataHawk](#). Further investigate security and compliance events with custom alerting, visualizations, and reporting of user activities - with audit trails for rogue behaviors like mass deletions, failed access attempts, and other possible data exfiltration indicators.

Put your manufacturing application data to work with integrated [Marketplace](#) apps. These apps run directly on data in-place to: mitigate risk from cyber threats, accelerate content searches, streamline compliance and eDiscovery, detect anomalies, develop actionable insights with analytics, and more – all without requiring extensive infrastructure.

The Smart Choice

Leading manufacturing organizations choose Cohesity SmartFiles because it is the smartest way to optimize cost, scale and efficiency for your unstructured data. It is a simple, singular solution that lets you manage, secure, and do more with your data with next-level software-defined file and object services for the hybrid cloud.

Learn how a [manufacturing organization](#) switched to Cohesity to **reduce TCO by 25%**, achieve **50% faster backups and restores**, and accelerate innovation with **98% faster searches**.

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