

3 Reasons Why SmartFiles is Unparalleled for Unstructured Data Management



Overview

Unstructured data, including backup and archive datasets, audio and video files and machine logs is fast growing, and often housed in storage solutions architected long before the age of cloud services. These file and object silos create multiple challenges related to scalability, data management and security that drain precious staff resources, puts sensitive data a risk for exposure, and hinders the pace of business acceleration and innovation.

Cohesity SmartFiles provides next-gen data management that uniquely solves these problems based on three key values: intelligent data management, hybrid cloud flexibility and active threat defense. 18 supporting capabilities combine to make SmartFiles the better choice for visibility and control of your unstructured data.

A "feature-rich solution solution. Integrated data management and governance features associated with ransomware protection complete the solution and make it stand out from the crowd."^{TR}



1. Intelligent Data Management

Efficient lifecycle management, policy-driven actions for automation, data durability, analytics and powerful data reduction technologies allow for more data in the same hardware space at dramatically less cost.

• Global Deduplication

Unlike many traditional NAS appliances, data is deduped across storage volumes and application silos across the data center. Global file-level, cross-volume deduplication and advanced compression technology deliver dramatic capacity savings compared to traditional alternatives, which translates to lower costs for physical storage, a smaller footprint, lower energy consumption and easier management. SmartFiles has also been specially optimized to efficiently manage volumes of small files and supports unlimited snapshots with none of the performance overhead seen in legacy solutions.

• One-Click Migrate

Avoid costly data migration solutions. With Cohesity DataProtect, easy migration of files and objects to a secondary location can be achieved within the Helios UI with a single click, upon which a Cohesity view can be opened against the data for instant access.

* [GigaOm Radar for Enterprise Scale-Out File Systems](#)

- **Smart Data Tiering and Placement**

Eliminate the need for expensive and time-consuming third-party tiering applications with SmartFiles' built-in capability for transparently offloading file data from Tier 1 NAS devices to SmartFiles (also known as External NAS Tiering). Take advantage of policy-based control over hot, warm, or cold data for easy data placement on the right tiers and clouds.

- **Rapid Repair**

Always-on background processes check data and metadata for silent corruption from memory, disk, or network errors and automatically resolves these errors to maintain data durability. All available nodes participate in the repair process. As the cluster grows, the process accelerates.

- **Marketplace Apps**

Cohesity-developed and third-party apps can be downloaded from the Cohesity App Marketplace. Integrate an entire data management ecosystem on a single platform. That means anti-virus protection, file audit, and content search all run on the Cohesity Helios data platform with no additional infrastructure required.

- **Index and Search**

Get fast search results across file metadata and file content as both are indexed.



2. Hybrid Cloud Flexibility

Software-defined simplicity with broad flexibility and massive, seamless scale.

- **Singular Global Management Pane**

One user interface is all you need to manage your on-premises Cohesity clusters as well as Cohesity-managed or partner-managed clusters. Use the mobile app version of the user interface to drill down into specific services or clusters when you're on the go in remote locations. The Helios interface also takes advantage of machine learning based information to enable predictive planning for capacity management.

- **Unified File and Object Solution**

Access files and objects simultaneously using a single solution. SmartFiles is a data service we provide on top of the Helios platform that unifies file and object data management. Native API's include SMB, NFS and S3. Files written using SMB or NFS can also be accessed using S3.

- **Burst for Compute**

Don't let demands for on-premises compute power and storage capacity interrupt your critical services. By deploying SmartFiles on-premises and in the cloud(s), data can be replicated to cloud based SmartFiles instances for processing.

- **Burst for Capacity**

When application demand spikes, your servers may not be able to keep pace, which can disrupt business continuity. Rather than investing capital to add storage capacity just to handle intermittent or seasonal spikes, SmartFiles relieves administrative and cost burdens by providing the ability to migrate data automatically and seamlessly to your choice of leading public cloud services.

- **Cloud Archive**

Archiving is often achieved with expensive third-party applications. SmartFiles provides built-in cloud archive capabilities that allow file and object snapshots to be moved securely and efficiently to—or restored from—an isolated repository in the public cloud(s).

- **Deploy at Edge, Data Center, Cloud**

As a software defined solution, SmartFiles offers broad flexibility. Deploy it on commodity off-the-shelf hardware, virtual machines, or in one or more public clouds. It's easy to migrate workloads across these deployments to optimize capacity, performance, and costs.



3. Active Threat Defense

A multilayered approach allowing accurate content classification and discovery of sensitive data, compliance and governance, identification of threats and the ability to respond and recover quickly from ransomware and other emerging cyber threats.

- **Ransomware Detection**

SmartFiles goes beyond just securing the data it manages. It provides ML-based and statistical anomaly detection techniques. Identify sudden changes in the data across snapshots over time, which may indicate a ransomware threat. SmartFiles also analyzes data entropy to detect dramatic changes due to encryption or compression and identifies when a large number of files have been added, deleted, or modified.

- **Software Encryption and Key Management**

SmartFiles provides security and data protection levels that meet the high standards set by government agencies, global financial services and healthcare organizations. It fortifies datasets with data-at-rest and data-in-flight encryption. SmartFiles manages the encryption keys, so you can avoid the overhead from add-on key management servers.

- **Data Protection**

SmartFiles protects data using file system-based immutability, file and object-level WORM support, unlimited snapshots with no performance impact, and integration with the Cohesity Fort Knox SaaS service to securely vault business critical data in the cloud.

- **Multi-Layered Authentication**

Protect yourself from malicious users and human error with SmartFiles' multi-factor authentication. Support for quorum authentication provides an extra layer of protection by requiring certification/approval by more than one user.

- **User Behavior**

Keep a step ahead of bad actors. The Spotlight Marketplace app enables you to search audit logs to determine who is creating, modifying, accessing, or deleting files. It also flags anomalous users and entities. If you require a more powerful solution for data governance, Cohesity DataGovern will integrate with SmartFiles to allow you to match sensitive data with anomalous access and suspicion behaviors in near real-time with ML-based behavior analytics.

- **Classification**

Defining classification policies and discovering data is simple. Cohesity's solution incorporates the ability to choose a pre-built compliance template, for GDPR as an example, or search and define custom classification policies directly from the same Cohesity user interface.

Conclusion

Cohesity SmartFiles is a next-gen multicloud solution for harnessing, securing and managing your unstructured data so it can continuously deliver value. It protects your infrastructure investments by optimizing or even eliminating legacy storage infrastructure. It also reduces complexity and costs, meets stringent compliance requirements, and provides ironclad protection from sophisticated cyberthreats with the confidence to stand up to ransom demands when cybercriminals attack. SmartFiles also speeds access to insights by running apps on Cohesity so you can unlock the value from your data.

Download this [Solution Guide](#) to learn more about next-gen unstructured data management with Cohesity.

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