

FALCONSTOR

# StorSafe<sup>®</sup> Product Brief



# FalconStor StorSafe®

## Optimizing Data Protection

### INTRODUCTION

For over 20 years, FalconStor has provided solutions that simplify and reduce storage costs. FalconStor StorSafe greatly optimizes existing data protection environments and reduces storage costs in addition to simplifying migration from on-premises environments to the cloud, provide disaster recovery capabilities, ransomware protection, and long-term retention.

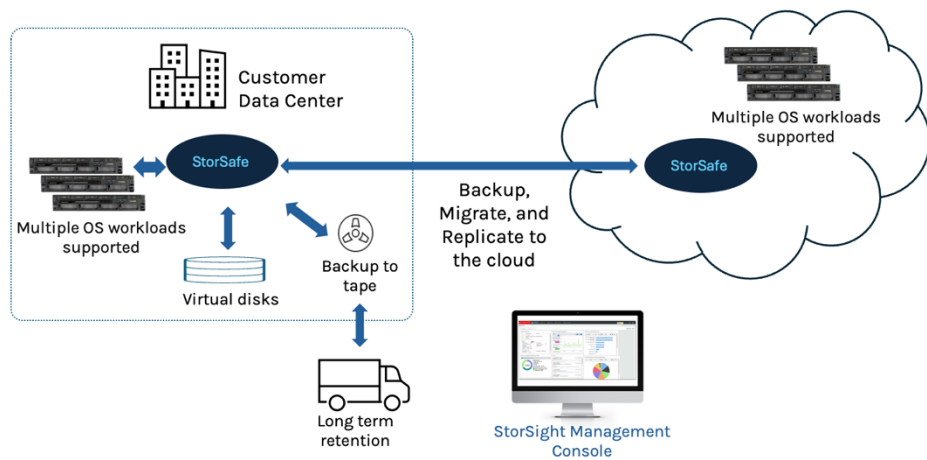


Figure 1. FalconStor StorSafe solution overview

### ABOUT FALCONSTOR STORSAFE

FalconStor StorSafe is a software solution that can run in the cloud, on physical servers, or on virtual machines. The virtualization solution works with any leading backup software on single or mixed heterogeneous operating systems shrinking backup images with advanced compression and patented block-level deduplication to optimize backup and recovery operations and simplify cloud migrations. The solution utilizes leading security technology to keep data safe in transit and at rest to protect and to help quickly restore against cyber and ransomware attacks.

FalconStor StorSafe includes FalconStor StorSight® for easy centralized management of any number of StorSafe instances running across on-premises, cloud, and hybrid cloud environments, with a scalable repository to provide predictive analytics, alert rules, reporting, and historical data.

See Figure 1 to view an overview of the solutions provided.

## 5 DATA PROTECTION & CLOUD MIGRATION USE CASES

There are five common use cases for leveraging FalconStor StorSafe for environments looking to optimize data protection operations and/or migrate to the cloud:

- 1. On-Premises Backup optimization**, where existing processes are used with the backup target set for StorSafe.  
Benefit: Reduce storage costs with up to 95% reduction in backup image size from multi-patented deduplication.
- 2. Enhanced Hybrid Cloud Backup**, where customers perform backups on-prem with StorSafe, deduplicate, and send a copy to the cloud.  
Benefit: Reduce data transferred to the cloud with deduplication, saving time, bandwidth, and storage costs for an archive or disaster recovery (DR) solution.
- 3. On-prem to Cloud Migration**, where multi-OS on-premises workloads and legacy tapes are migrated to a cloud environment.  
Benefit: Simplify migration of on-premises workloads and legacy tapes to cloud environments.
- 4. Cloud-Resident Protection**, where workloads in the cloud are backed up via StorSafe.  
Benefit: Ensure cost-effective and reliable backups and restores for multi-OS workloads in the cloud and multicloud environments.
- 5. Cloud Disaster Recovery**, where workloads in the cloud are replicated to another cloud location or cloud platform for recovery in the event of disaster.  
Benefit: Leverage the same StorSafe software to replicate workloads in the cloud to another cloud location or cloud platform for simplified DR.

### FEATURE/BENEFITS

#### Up to 95% Data Reduction

Patented deduplication technology can reduce the size of backups by up to 95%, significantly reducing storage costs and bandwidth costs in the cloud. Supports global deduplication with a single instance repository.

#### Backup window optimization

With data growing exponentially, backup windows are getting harder to meet. Flexible inline or post processing deduplication options are built in to help with optimize performance to meet backup window demands.

#### Disaster recovery

Replicate workloads from on-prem to cloud or from one region in the cloud to another region to recover rapidly in the event of a disaster. One- to-many replication provides extended protection.

#### Ransomware protection

Air-gapped and immutable backups protect against cyber and ransomware attacks with provisioning Write-Once-Read-Many (WORM) virtual tapes and

integration with IBM Immutable Cloud Object Storage. Encrypts data in motion and at rest using AES-256 with StorSafe managed keys.

#### **Multicloud support**

Runs on IBM PowerVS Cloud, Microsoft Azure, and Google Cloud Platform with an object storage repository that can support a multicloud environment comprised of multiple cloud platforms.

#### **Secure multi-tenancy support**

Leverages Falconstor StorSite to provide centralized management of all StorSafe licenses and servers with rules, analytics, reports and forecasts, and real-time visibility to enable specific departmental and/or organization specific chargebacks. Added security is included leveraging multi-factor authentication.

#### **No changes to existing backup and recovery processes**

Uses your existing backup and recovery processes to easily migrate to the cloud, reduce storage with patented deduplication, add security, and extend disaster recovery with one-to-many replication.

#### **Helps with regulatory and cyber insurance requirements**

Enables easy off host secondary copies of data and provides additional security helping organizations to meet regulatory compliance and cyber insurance requirements, such as DORA, PCI-DSS, SOX, HIPAA and more.

### **TECHNICAL DETAILS**

FalconStor StorSafe can be deployed on a physical machine or as a virtual machine on different hypervisors. Once deployed, it is an essential piece of optimizing backup and recovery as well as the on-premises to cloud migration process with subsequent data protection and disaster recovery of workloads in the cloud. With multi-OS support across Windows, Unix, and IBM i applications, Falconstor StorSafe provides a single solution from on-premises to cloud, while easily scaling from supporting a single terabyte to supporting multiple petabytes for seamless cost-effective growth as required.

***" If you need to save fast or restore fast, you need StorSafe."***

Stephen Moossajee  
EMEA Head of Infrastructure and Support and Global Senior Manager  
Tupperware EMEA

***"[StorSafe] gives you stability, performance, usability, central management, consumption pricing, and option for DR."***

Joerg Thomann  
Cloud Architect with IBM Cloud

Scalability to handle explosive data growth is an important feature required by all organizations. FalconStor StorSafe uses the storage assigned from the disk array so, as needs grow, customers can grow the LUN or assign more LUNs. And because it can offload older virtual tapes to object storage, StorSafe has

unlimited capacity to store backup/migration data. Similarly, offsite protection has no limitation on capacity. For offsite protection, FalconStor StorSafe provides the choice of physical tape, cloud object storage, or a twin copy of StorSafe running at a remote site where data is replicated continuously. Maintaining offsite copies of data helps organization meet regulatory and cyber insurance compliance.

[Data deduplication](#) and [immutable backups](#) are two other core features that separate FalconStor from similar data movement products. With multiple patents, FalconStor algorithms are optimized for each backup vendor's file format. Identifying more duplicate blocks than other data movement solutions, and combined with advanced compression, FalconStor StorSafe deduplication can reduce the size of a backup by up to 95% while delivering enterprise backup and restore performance. Flexibility with the option to choose between inline and post-processing deduplication enables control for optimal performance. Air-gapped and immutable backups protect against cyber and ransomware attacks with provisioning Write-Once-Read-Many (WORM) virtual tapes and integration with IBM Cloud Object Storage (IBM COS).

Since StorSafe is 100% compatible with any open system and backup software, backup windows are easily met and restores are performed quickly - both used for migrating workloads to the cloud. Easy migration to the cloud occurs with a backup of on-premises workloads which are then restored in the cloud. Understanding that every environment is unique (e.g., environments have a mix of storage and backup licenses, and cloud infrastructures from acquisitions, purchased by staff who are no longer present, etc.), it is important that FalconStor StorSafe support any mix of configurations. FalconStor StorSafe even supports multicloud environments for organizations who support a mix of cloud platforms.

When FalconStor StorSafe is deployed, it does so non-disruptively - even when high availability solutions are in place. This allows IT staff to continue to support the many pieces of their unique environment without requiring new infrastructure. Access the [FalconStor StorSafe certification matrix\\*](#) to see storage and system resource requirements and the list of supported tape libraries and drives, supported platforms, and backup software.

### Availability

StorSafe is available today directly from FalconStor and its worldwide ecosystem of business partners. An IBM-certified version for PowerVS, StorSafe for PowerVS, is fully integrated into the IBM Cloud Catalog with one-click provisioning and integrated billing with PowerVS.

Contact FalconStor: <https://www.falconstor.com/contact>

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