TOTALLY Open™ Data Protection Solutions

Independent Data Solutions Group

FalconStor Software

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Integrated, Available, Optimised

FalconStor® Software is the market leader in TOTALLY Open data protection. They deliver proven, comprehensive solutions that facilitate the continuous availability of business-critical data with speed, integrity, and simplicity. The solutions allow businesses of all sizes to overcome real-world data protection and storage challenges including dramatically increasing data, shrinking backup windows, and budgetary constraints.

FalconStor solutions are built on the FalconStor® IPStor® virtualisation platform, which provides an open, centralised, unified data protection and storage infrastructure across multi-vendor and multi-platform environments. By using this IPStor® virtualisation platform, FalconStor® is able to be sold as four key product families developed in accordance with data protection needs, providing the ultimate in business value:

Virtual Tape Library (VTL)

High performance backup and restore with deduplication

FalconStor Virtual Tape Library (VTL) is a high performance, scalable, disk-based tape emulation system that optimises backup. Integrated data de-duplication provides exceptional reductions in disk utilisation and bandwidth during tape replication. Physical tape support extends the functionality to the creation and management of physical media.

FalconStor VTL technology can achieve single node backup speeds of 1.5GB per second, or over 5TB per hour, allowing users to solve the single biggest issue in backup: meeting the backup window. Up to eight nodes can combine into a single logical unit, scaling performance to 12GB per second, or 43TB per hour.

Typical de-duplication rates of 20 to 1 mean storage footprints are reduced by 95% or more, allowing you to keep weeks or even months worth of data on disk for fast, dependable restore, without any of the reliability concerns of tape-based restore.

While deduplication can eliminate or greatly reduce the need for physical tapes, many organizations still require tape for long-term, offsite, or archival storage. The FalconStor VTL solution has the industry's most sophisticated integration with physical tape libraries, allowing you to directly export data to physical tape, leveraging the speed of the VTL without impacting your backup network.

Continuous Data Protector (CDP)

Instant recovery replaces data restore

FalconStor Continuous Data Protector (CDP) technology provides high-speed local and remote disk-based data protection with instant recovery. By keeping a complete mirrored copy of data in its native format, as well as a series of point-in-time snapshots, the FalconStor CDP solution offers the most rapid and granular recovery possible in all disaster scenarios, including accidental data loss, system corruption, server or storage failures, and site-level loss.

FalconStor Continuous Data Protector (CDP) technology reinvents the way you back up and recover data. Moving far beyond failure-prone once-a-day tape backup models, FalconStor CDP combines local and remote protection into a cost-effective, unified, disk-based solution that lets you recover data back to the most recent transaction. Your Recovery Point Objective (RPO) shrinks to mere seconds.

But protection is only part of the solution. FalconStor CDP software delivers fast, reliable recovery, bringing your business back online sooner than you thought possible. Using a wealth of sophisticated technologies — including application integration, physical-to-virtual recovery, and WAN-optimized replication — entire systems can be restored in under ten minutes. Lost files can be recovered in two minutes. And all of this can occur without the need to touch backup software or run a "restore job." Data is protected in its native format, and instantly accessible. Your Recovery Time Objective (RTO) changes from hours to minutes, minimising system downtime and economic impact.

Network Storage Server (NSS)

Heterogeneous storage virtualization and provisioning

FalconStor Network Storage Server (NSS) integrates storage virtualisation and provisioning across multiple disk arrays and connection protocols for an easy-to-use, scalable SAN solution. FalconStor NSS lets you pool and tier your disk assets, simplifying provisioning, reducing allocation errors, and maximising resource utilisation. It also incorporates a full set of application-aware data protection services.

By virtualising storage on any disk arrays, the FalconStor NSS solution lets you pool and tier your disk assets, simplifying provisioning, reducing allocation errors, and maximising resource utilisation. Stop wasting space and budget on over-provisioning of disk resources and bring new servers and projects online quick and efficiently.

Virtual server environments are exceptionally well-served by virtualised storage. With FalconStor NSS technology, it takes less than a minute to create a new disk resource to house virtual machine files, and disk resources are easily re-allocated to different servers or shared among servers to facilitate virtual machine high-availability (HA) operations that require shared disk.

File-interface Deduplication System (FDS)

Data deduplication made easy

FalconStor File-interface Deduplication System (FDS) offers an easy-to-deploy, easy-to-manage, scalable data repository with deduplication to minimize online storage capacity needs for backup and archiving applications. Integrated data replication is included for disaster recovery.

FalconStor File-interface Deduplication System (FDS) offers an easy-to-deploy, easy-to-manage capacity-optimised storage (COS) repository. FalconStor FDS helps you minimize online storage capacity requirements for backup and archiving applications. Capacity requirements for disk-to-disk (D2D) backup applications can be reduced by as much as 20 times or more by eliminating data redundancies resulting from backup operations. With FalconStor FDS you can retain more data online, longer, for quicker data restores.

In addition, FalconStor FDS replication technology enables cost-effective disaster recovery (DR) by sending only unique, deduplicated data across the WAN, significantly reducing bandwidth requirements and costs. Flexible deployment options range from a small-footprint virtual appliance model for remote and branch offices, to a gateway model that can scale up to multiple petabytes of logical storage capacity at the main data centre.

Basic Architecture

The FalconStor IPStor Architecture is comprised of the following:

Appliance (Physical or Virtual) – This component is either the Virtual Tape Library (VTL), Continuous Data Protector (CDP), Network Storage Server (NSS) or the File-Interface De-duplication System (FDS). This appliance component contains all of the functionality (dependent on the product) to provision storage as a Tape Library, Fibre Channel Storage, iSCSI Storage or NAS. Along with this provisioning IPStor includes SnapShoting, Replication and High Availability Support.

The next component is server focused. These products are specifically for the CDP and NSS solutions, where application and operating system aware agents are installed on server to provide integral SnapShot and Replication.

About Independent Data Solutions

Independent Data Solutions (IDS-G) is a Value Added Distributor focused on the delivery storage and data management solutions. IDS-G maintains a best of breed product set including FalconStor, SmartOptics, Atempo, Fujitsu Servers and Fujitsu Storage

Independent Data Solution Pty Ltd
www.ids-g.com
sales@ids-g.com