

FalconStor Continuous Data Protector



Comprehensive data protection with instant recovery...

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 rapid and granular recovery in all disaster scenarios, including accidental data loss, system corruption, server or storage failures and site-level loss.

Solution Highlights

- File and database recovery within 1 minute
- Virtual-to-virtual (V2V) recovery within 2 minutes
- Mailbox recovery within 3 minutes
- Physical-to-physical (P2P) recovery within 5 minutes
- Physical server-to-virtual machine (P2V) recovery within 10 minutes
- Full site recovery within 30 minutes
- WAN optimised replication - protected IT operations providing maximised improvement in RTO



“Continuous real-time data journaling and periodic snapshots provide service level-oriented recovery times of emails, databases and systems. Data protection and instant recovery help drive top-line growth, improve customer service and satisfaction, and increase business productivity.”



Benefits

FalconStor CDP features per-write data journaling for local and remote recovery, allowing organisations to recover data to the last point before a service disruption occurred. FalconStor CDP also integrates periodic mode protection which provides point-in-time snapshots with transactional integrity for rapid recovery, data set duplication, backup window elimination, DR validation, and long-term retention.

Additionally, there is WAN-optimised replication for remote data protection and recovery. Its resiliency features allow it to switch between continuous and periodic remote replication modes based upon the availability and capability of the WAN connecting to the DR site.

Traditional tape backups and data archiving focus on data retention rather than protection of the whole system, which can mean a time consuming recovery process when a system disk is damaged or corrupted. However, FalconStor CDP provides instant recovery via SAN boot technology without having to copy data back to a disk target.

100% database and file system transactional integrity: FalconStor TimeMark technology coordinates with application-specific snapshot agents to provide 100% transactionally consistent snapshots that eliminate lengthy database and file system consistency checks during recovery. These snapshots also support consistency groups, ensuring that all interdependent application volume snapshots are created at the exact same point in time. These snapshots can be mounted as a single virtual volume for instant recovery of individual files or as volumes for bare metal recovery.

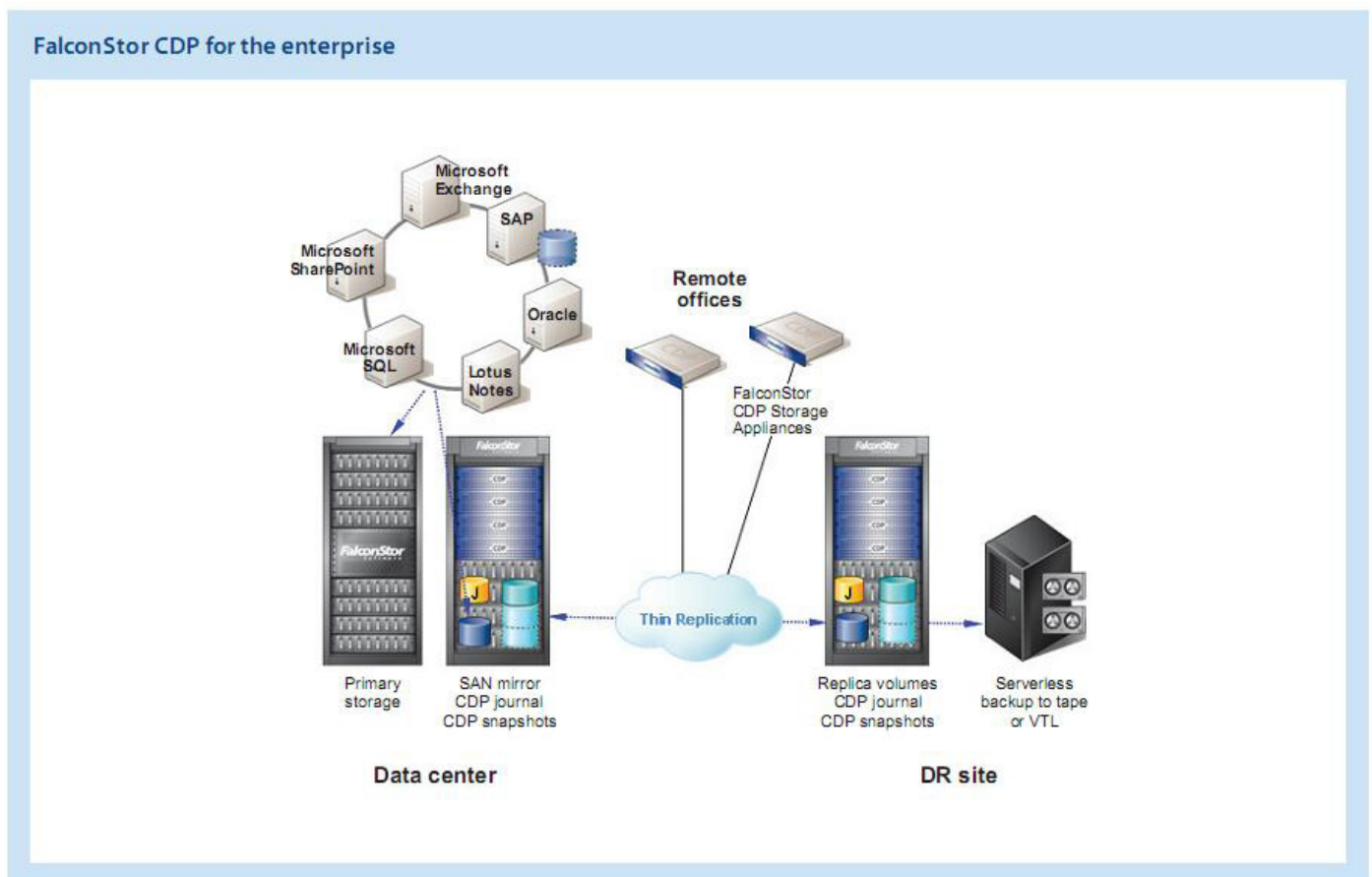
FalconStor Continuous Data Protector



Simultaneous physical and virtual server protection: FalconStor CDP provides comprehensive data protection for physical and virtual servers, including solutions fully integrated with server virtualisation infrastructures from VMware and Microsoft. FalconStor CDP does not require server resources for data protection because it protects, replicates, and backs up virtual and physical server data directly from the FalconStor CDP appliances, rather than from the application servers. FalconStor CDP also ensures “physical+virtual” data consistency and security, file system and driver compatibility, and operational continuity. This enables a physical server to be quickly and accurately converted to a virtual machine (P2V conversion).

TOTALLY Open storage and connectivity: The TOTALLY Open heterogeneous architecture of FalconStor CDP avoids vendor lock-in and enables simplified implementation without disruptions to storage infrastructures or processes. For example, rather than forcing organisations to re-create a full FC SAN at a DR site, FalconStor CDP allows customers to leverage standby servers with lower-cost SATA disks attached over iSCSI. Smaller remote sites can take advantage of their centralised iSCSI storage while replicating to an FC SAN in the data center.

Zero-impact tape backup eliminates backup windows: FalconStor CDP enhances tape backup by eliminating backup windows, accelerating backups and enabling centralised backup operations with zero-impact, serverless backup. FalconStor HyperTrac Backup Accelerator speeds backup to a virtual tape library or to physical tape by using FalconStor TimeMark snapshots - which can be created during production with no impact on host applications. FalconStor CDP offers multiple recovery points from snapshots, reducing the requirement for backup frequency from 365 daily backups to 52 weekly backups, enabling tape backup to be repurposed for long-term corporate compliance and governance data retention.



FalconStor Continuous Data Protector



WAN-optimised Thin Replication for remote site protection: FalconStor CDP offers WAN-optimised Thin Replication to enable more cost-effective DR. Applications and file systems write more than just the actual changed data to disk, often re-writing the same information. Many replication solutions send all the data written to disk, even if it is redundant data that has already been replicated. Compression technology further reduces bandwidth requirements by up to 90% compared to array-based replication.

WAN-optimised Thin Replication also accelerates data replication between sites, providing better recovery point objectives (RPO) and enabling rapid remote site recovery. Bootable recovery images can be maintained in a separate DR facility for fast recovery and immediate availability. Thin Replication also enables data to be copied from remote offices to a central site, eliminating the need for hard-to-manage remote tape drives.

Non-disruptive DR rehearsal: Many DR plans fail or take longer to recover than expected, impacting business operations. DR plans often go untested because testing can cause serious disruptions to data center resources and may even induce a disaster. Compounding this problem is the fact that daily tape backups are not typically validated because validation is a difficult and time-consuming task. With FalconStor CDP, tape backup data validation can be initiated and DR rehearsals can be conducted at any time without impacting production systems or business operations.

Efficient centralised management: FalconStor CDP clients, such as application servers, integrate with the FalconStor Central Client Manager (CCM), which enables customers to monitor and manage their activity from a centralised console. FalconStor CCM displays application server status and resource statistics, creates groups for efficient administration and monitors storage use.

Thin Protection for efficient disk space allocation: FalconStor CDP offers Thin Protection, which allocates physical storage space on an as-needed basis. This uses less physical storage space than that required by production disks and optimises disk capacity allocation while reducing storage power consumption and costs. With FalconStor DiskSafe technology, only the used portions of a drive are copied to the mirror. Thin Protection can be used for both the mirror and snapshot volumes to minimise storage requirements.

Flexible deployment options: FalconStor CDP is available in multiple configurations suitable for remote offices, branch offices, data centres or remote DR sites. Appliances with internal storage for both physical and virtual servers are available in various sizes for easy deployment to remote sites or offices. Gateway appliances can be connected to any existing external storage array, allowing you to use and reuse the storage systems you already have in place. FalconStor CDP can also be purchased as a software appliance kit to install on servers or as a virtual appliance that integrates with virtual server technology. FalconStor CDP can use both a host-based approach and a fabric-based approach to capture and track data changes.

Storage Services Features

- Email alerts
- FC support option
- iSCSI support
- WAN-optimised Thin Replication
- Synchronous mirroring/zero downtime migration
- Thin Protection
- TimeMark snapshots
- TimeView images

Client Agents Features

- Central Client Manager (CCM)
- DiskSafe Agent
- FalconStor Message Recovery for Microsoft Exchange option
- HyperTrac Backup Accelerator option
- Snapshot Agent suite