

CONTINUOUS DATA PROTECTION

Continuous Data Protection (CDP) provides rapid recovery from system failures or data loss in primary data center facilities. Failed hosts can be recovered locally without failover to remote facilities in less than fifteen minutes avoiding service interruption and downtime. Lost, corrupt or deleted data can be recovered locally in less than two minutes. Data protection and instant recovery improves customer service and satisfaction, increases business productivity and avoids financial risk to the organization from system downtime.

FEATURES

- WAN Optimized Replication
- On-premise recovery without failover
- Recovery Point Objective of fifteen minutes or less
- Recovery Time Objectives of minutes per host
- Physical and Virtual host protection
- Recover lost or corrupt data in minutes
- Standardize protection across the enterprise

An enterprise license to Continuous Data Protection software is provided as part of the Total Data Protection service.

Traditional tape backups and data archiving focus on data retention rather than protection of the whole system. If a system disk is damaged or corrupted, administrators are faced with the time-consuming task of re-installing the operating system and application, and then reapplying configuration information to fully recover the entire system. This can take many hours, which is an unacceptable level of downtime for most organizations.

CDP provides instant recovery via SAN boot technology without having to copy data back to a disk target. With CDP administrators can browse any snapshot of the original server even with the primary volume still mounted. Using high-speed iSCSI and/or Fibre Channel (FC) SAN connectivity, the contents of the snapshot disk can be inspected; the image validated, and application server operating system immediately recovered by booting from the backup image.

100% Transaction Integrity Across Database and File Systems

A common problem with replication technology is the time it takes to failback due to the need to check database and file systems for consistency. CDP provides application-aware snapshot agents for Windows, UNIX, and Linux hosts and for numerous email, database, and file systems. TimeMark technology coordinates with application-specific snapshot agents to provide 100% transactional consistent snapshots that eliminate lengthy database and file system consistency checks during recovery. This means that failover and failback events are fast and easy and service interruption can be reduced or eliminated.

Virtual and Physical Server Protection

CDP provides comprehensive data protection for physical and virtual servers, including solutions fully integrated with server virtualization infrastructures from VMware and Microsoft. CDP does not require server resources for data protection because it protects, replicates, and backs up virtual and physical

server data directly from the CDP appliances, rather than from the application servers. This enables a physical server to be quickly and accurately converted to a virtual machine (P2V conversion).

WAN Optimized Replication

WAN-optimized replication reduces the amount of data transmission across links to the remote nScaLED data center. This allows for Recovery Point Objectives to be small (typically fifteen minutes) and costly Internet and private connections to be lower capacity. 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. CDP eliminates redundant data blocks and sends only true data changes in 512 byte increments instead of the typical 32KB or higher increments sent by array-based solutions. Compression technology further reduces bandwidth requirements by up to 90% compared to array-based replication.

Disaster Recovery Testing

Many organizations with disaster recovery facilities in place find them difficult to test and rehearse failover procedures. This reduces confidence in the system and means that in a real disaster recovery situation the IT team's only recourse is to practice in real-time.

CDP technology greatly simplifies DR implementation and rehearsal by providing readily mountable snapshot images, both in the local data center and the remote DR site. These images can be used for booting standby servers without disrupting production operations.

Snapshot images can also be used for testing and development, site reporting, data mining, forensic searches, and other purposes. A snapshot image can be used to boot an identical instance of a production server so that these other operations have no impact on the production storage performance. When these operations are complete, the snapshot image can be released, reused, or turned into a full production copy.

nScaLED CDP technology is licensed for use in our Total Data Protection service from FalconStor Software.



About nScaLED

We provide virtual data center services (cloud computing) to clients with zero tolerance for data loss or system downtime. Our clients routinely work with the most highly sensitive data and their business reputation depends on the confidentiality and reliability of critical systems and applications. Everything we do from our service level agreements, to system design and management practices support these requirements. Our cloud data centers operate as an extension to each client's existing primary data center facilities. We license market leading technologies from selected partners, integrate, automate and extend these with our own proprietary developments to streamline processes, and simplify data center operations for our clients.