

StoreVault S500 Solution Brief

REPLICATE DATA TO THE STOREVAULT S500

Eliminate the need for a tape backup at a remote site and improve restore times in the event of a disaster.

challenges

- Tape backups are not always dependable
- It can take a long time to restore lost systems or large amounts of data from a tape backup
- Your business would be crippled, or even wiped out, if a disaster like a fire, flood, earthquake, or tornado destroyed your data

solution

- Replicate data using the built-in capabilities of the StoreVault S500
- Back up data from remote sites to a single central site
- Create redundant copies of data at different physical locations

primary benefits

- Makes replication affordable for small-to-medium businesses
- Makes restoring data much faster and easier than rebuilding servers from tape
- Eliminates the administrative hassle and uncertainty associated with tape backups at remote sites
- Provides the configuration flexibility to support virtually any replication scenario

detail

Instead of depending on tape backups at remote sites (and thus taking on the problems associated with local administration, rotation, and system restoration), you can ensure remote sites are automatically backed up by replicating their data to a StoreVault S500 in a central location. You can also replicate your main office S500 to an off-site location for disaster recovery. The S500 can store both file and block (NAS and SAN), so it can protect all the data in your company. The restoration process is much faster and easier than rebuilding from tape.

Affordable.

The low cost of the S500 makes it possible for small-to-medium businesses to eliminate the pitfalls of on-site tape backups at remote sites and guard against catastrophic disaster, without spending tens of thousands of dollars or long hours integrating third-party solutions.

Configuration flexibility.

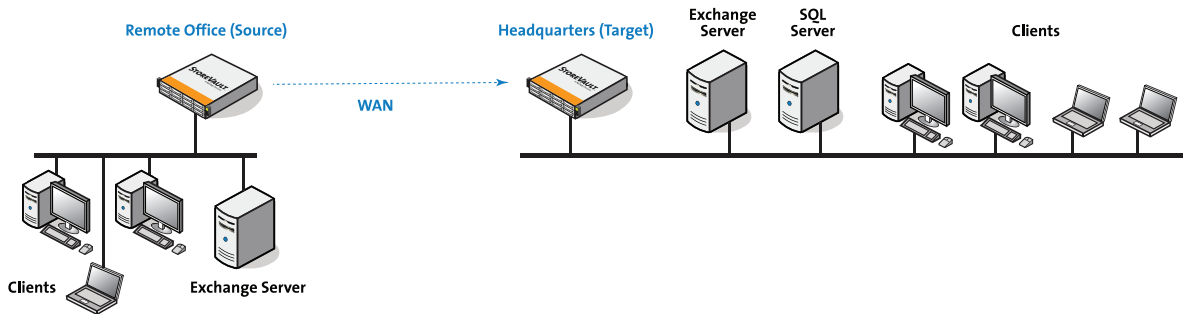
The S500 can support NAS and iSCSI and Fibre Channel SANs simultaneously. Because of this universality, the S500 is an ideal target for block data generated by applications and file data generated by CIFS/NFS sources. With the S500, you can have many remote sites feeding data to one S500 (for remote-site backup), one S500 feeding an off-site S500 (for disaster recovery), one S500 feeding many remote S500s, or a chain of S500s creating a round-robin loop. Advanced users can take advantage of tools like VMware, which can back up multiple virtual machines to a single compressed file, and then replicate the file to alternate locations.

Enhanced data protection and performance.

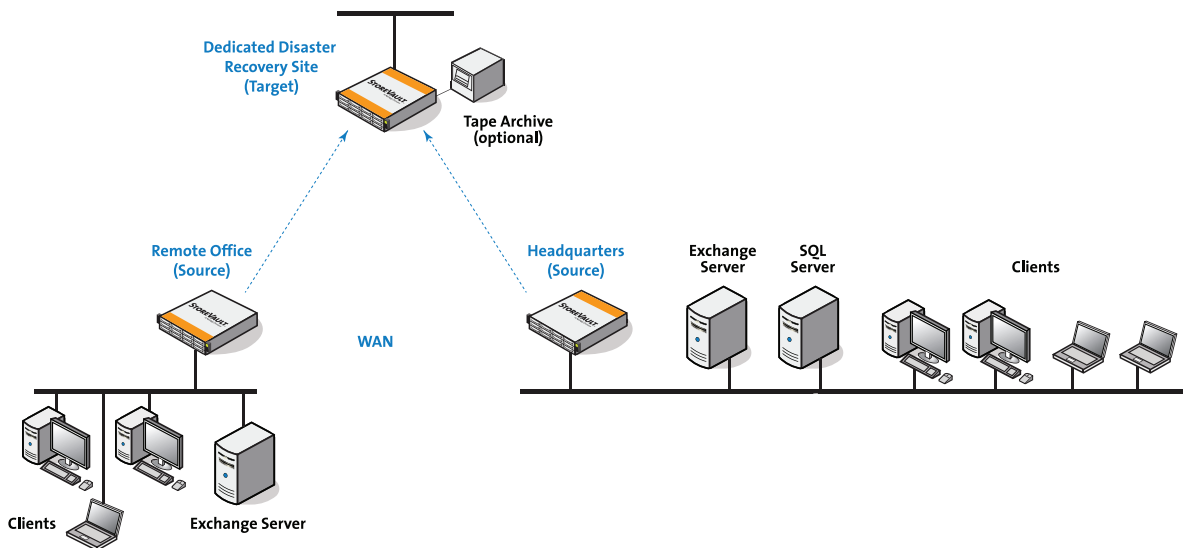
The S500 employs dual redundant, hot-swappable power, cooling, and drives for greater system integrity. Its RAID arrays deliver faster performance and greater data protection, and businesses can choose from multiple levels of RAID protection, including RAID-DP™, which delivers 10,000 times more protection than traditional RAID 5. Snapshot™, an advanced NetApp technology, captures point-in-time images of data, allowing you to restore lost files or entire volumes almost instantly, without digging through tape archives.

Simple implementation.

The all-in-one nature of the StoreVault solution makes replication simple. The built-in replication capabilities are controlled from a single management console with an intuitive GUI that makes it easy to set up and execute your replication routines.

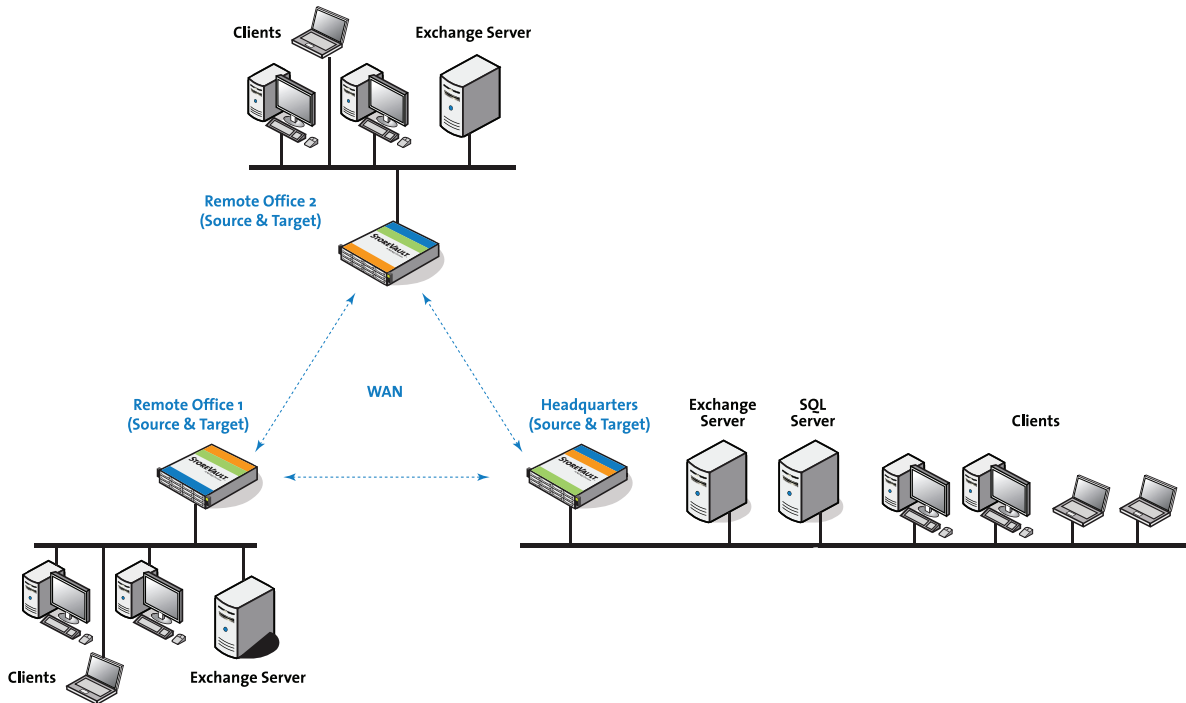


1-to-1 REPLICATION: At last, small-to-medium businesses can enjoy the advanced data protection once reserved only for much larger companies, thanks to StoreVault's affordable price and intuitive, easy-to-use management console. Instead of tape backup at remote site, use the built-in replication capabilities of the StoreVault S500 to replicate data from a remote office to an S500 at headquarters. Because the S500 supports both NAS and SAN simultaneously (iSCSI and/or Fibre Channel), it is an ideal target for the block data generated by your application servers as well as the file data generated by CIFS/NFS sources. With StoreVault Replication, restores are much faster and easier than rebuilding from tape and you avoid the user errors common with remote -site tape backup (missed tape rotations, tapes not loaded, etc.). What's more, replicated data is more secure and more available thanks to the S500's Advanced Protection Architecture (RAID, Snapshots, redundant drives, power and cooling, etc.).



MANY-to-1 REPLICATION: You can replicate data from S500's at multiple sites to a single off-site S500, making it your centralized repository for replicated data. Because the S500 supports both NAS and SAN simultaneously (iSCSI and/or Fibre Channel), it is an ideal target for the block data generated by your application servers as well as the file data generated by CIFS/NFS sources. With StoreVault Replication, restoring data at one site or even multiple sites from the target S500 is much faster and easier than rebuilding from tape. Of course, replicated data on the target S500 is highly secure and more available thanks to the S500's Advanced Protection Architecture (RAID, Snapshots, redundant drives, power and cooling, etc.).

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ROUND ROBIN REPLICATION: With S500's deployed at multiple sites (for example, New York, Frankfurt and Hong Kong, you can create Round Robin Replication, where each S500 acts as a source for the next S500 in the chain, will simultaneously acting as a target for a different S500 in the chain. In this scenario, each office is protected even in the event of multiple, simultaneous disasters. If fire destroys both the New York and Hong Kong offices at the same time, the Frankfurt S500 still has their data safely protected. Returning a destroyed office is a simple matter of deploying of a new S500 and then replicating data from the Frankfurt S500 to the newly installed S500. Operations can resume in hours instead of days or weeks. As noted in the other examples, the S500 supports both NAS and SAN simultaneously (iSCSI and/or Fibre Channel), so it is an ideal target for the block data generated by application servers as well as the file data generated by CIFS/NFS sources. With StoreVault Replication, restores are much faster and easier than rebuilding from tape. What's more, replicated data is more secure and more available thanks to the S500's Advanced Protection Architecture (RAID, Snapshots, redundant drives, power and cooling, etc.).

system requirements

hardware

- One or more on-site StoreVault S500 units and one or more off-site S500 units
- One StoreVault Replication license for each StoreVault unit
- A Windows PC for the StoreVault manager

software

- None: replication is built into the StoreVault S500 they will include device management software for installing and configuring your SAN

network

- A LAN to which StoreVault units can be connected
- A WAN to which on-site and off-site S500 systems can be connected



frequently asked questions

Q: How frequently can I replicate data and how many replication jobs can I run concurrently?

A: We recommend running StoreVault Replication no more frequently than once every 4 hours to ensure that your data change rates are taken into account. We also recommend no more than two concurrent sessions, to ensure that system performance is impacted as little as possible during replication jobs.

Q: Does the StoreVault S500 support real-time mirroring or continuous replication?

A: No. It provides asynchronous replication for entire systems. If you require real-time mirroring or continuous replication, consider the NetApp FAS series, which includes SnapMirror®, an enterprise-level software package that provides real-time mirroring.

Q: Does StoreVault Replication offer bandwidth throttling?

A: StoreVault Replication is extremely efficient and replicates only the minimum number of data sets. Bandwidth throttling is not supported at this time.

Q: What impact does StoreVault Replication have on system performance?

A: Since StoreVault Replication is a native part of the Data ONTAP® StoreVault Edition operating system, we are able to control all system processes. We always prioritize file access requests higher than replication jobs, which results in a minimum amount of impact on performance for end users accessing the StoreVault system.

Q: Do I need to install any agents or host-based applications for StoreVault Replication?

A: No. StoreVault Replication is an integrated part of every StoreVault system and needs no external software installations or clients.



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