



Streamlining Data for Backup with Block-level Deduplication

With data volumes growing an average 30-50% each year, making sure all data is protected and backup windows are met becomes more and more difficult with each capacity increase. Atempo HyperStream Server is a stream-oriented, optimized storage service option for Atempo Time Navigator that shortens backup windows and decreases the amount of storage required on backup devices. As machines are backed up, Atempo HyperStream Server deduplicates and compresses the data to reduce the transmitted volume to a level acceptable for low bandwidth connections. Backups that once took hours can be reduced to minutes, remote offices can share the central backup infrastructure, and fewer backup tapes or less backup disk space is required.

Deduplication Within and Across Data Streams

Before the backup data is transmitted to the backup server, Atempo HyperStream Server identifies which files or which specific blocks of data already exist on the backup device and only transfers the new blocks. At the same time, the associated metadata for all the files are transmitted to and stored in the Atempo HyperStream Server's repository. Atempo HyperStream Server not only deduplicates within a single backup stream, but also extends deduplication across groups of servers and desktops. For even greater performance and capacity savings, Atempo HyperStream Server can compress the data.

Replication for Failover and Disaster Recovery

For added reliability, Atempo HyperStream Server supports block-level, incremental replication to another Atempo HyperStream Server. Scheduled storage services transfer the new blocks automatically. In case of failure, the Atempo HyperStream Server will automatically switch to the alternate mirror and storage services will be redirected to the replicated repository.

The Foundation of Remote Office Backup

Atempo HyperStream Server provides the foundation for Atempo Time Navigator's remote office data protection solution. By deduplicating and compressing the data before transmission, Atempo HyperStream Server efficiently transfers data over long distance, even on lower bandwidth connections. Replicated Atempo HyperStream Servers are recommended for remote office backup scenarios for quicker backup and restore and to ensure redundancy in case of a disaster or even a loss of connectivity.

Disk-based Storage for Quicker Restores

To restore with Atempo HyperStream Server, users and administrators use Time Navigation, the standard Atempo Time Navigator restore interface. With its disk-based storage, Atempo HyperStream Server can shorten both backup and restore times. Data can be restored from the closest, fastest location: either from a local Atempo HyperStream Server, from a mirrored Atempo HyperStream Server at another location or from the disk or tape that stores the backup data long-term.

Key Features and Benefits

Atempo HyperStream Server is a stream-oriented, storage service option for Atempo Time Navigator that deduplicates and compresses data to minimize network traffic during backup. The Atempo HyperStream Server can be replicated for failover and disaster recovery and provides disk-based storage to shorten backup and restore times.

Transfers Changed Blocks Only During Incremental Backups

Atempo HyperStream Server offers fast backup of only new data—ideal for low bandwidth connections since less information is sent over the network (LAN or WAN).

Block Level Deduplication

Atempo HyperStream Server improves network and storage utilization by transferring and storing data only one time, yielding significant storage savings on backup devices.

Online and Offline Data Compression

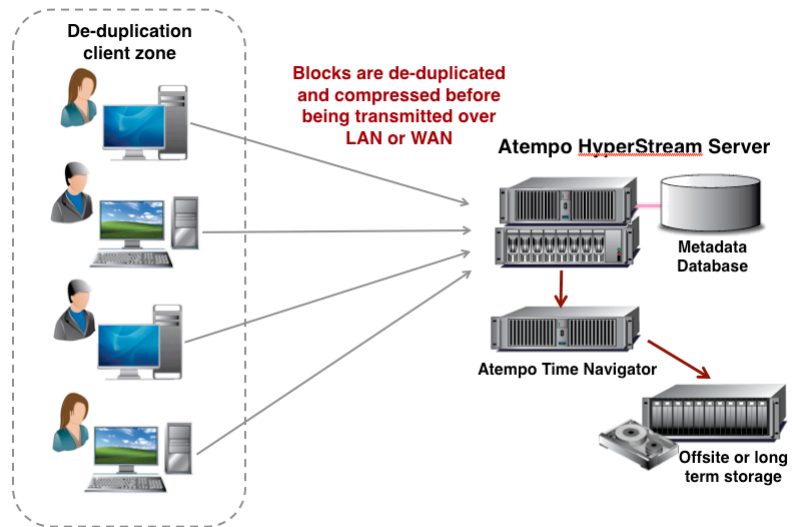
Atempo HyperStream Server can use online compression to reduce data size as it is sent. It can also compress data offline when the server is idle, to further optimize storage.

Faster Restores

With Atempo HyperStream Server, you can restore from the remote office with the intuitive Time Navigation GUI or restore from the Atempo Time Navigator administrator's console at the data center. With Atempo Time Navigator, you can restore the data from the closest, fastest repository.

No Proprietary Hardware Required

Atempo HyperStream Server is hardware agnostic—it does not need to run on a



specific type of server or store the data on a specific disk storage device.

Heterogeneous Support

Atempo HyperStream Server supports Windows, Mac and Linux servers as both the backup clients and as the platform running the Atempo HyperStream Server. Atempo HyperStream Server provide a single solution for all your remote applications such as MS SQL, MS Exchange, Oracle, DB2, Lotus Notes, and others listed below.

Supported Platforms & Applications

Agent Platforms:

- ◉ Microsoft® Windows®
- ◉ Linux®
- ◉ Mac OS® X

Atempo HyperStream Server Platforms:

- ◉ Microsoft Windows
- ◉ Linux
- ◉ Mac OS X

Supported Applications:

- ◉ IBM DB2
- ◉ Lotus Notes/Domino
- ◉ MS Exchange
- ◉ MS SharePoint
- ◉ MS SQL
- ◉ MySQL

Supported Applications (cont.):

- ◉ NDMP
- ◉ Oracle
- ◉ PostgreSQL
- ◉ SAP
- ◉ SAP MaxDB
- ◉ Sybase
- ◉ VMware

Refer to the Atempo Compatibility Guide for the current list of supported systems.



About Atempo

Atempo enables organizations to protect, manage, archive, and recover digital information simply and effectively, across any infrastructure, on any platform, over any period of time. Atempo's portfolio of integrated software solutions simplifies the management of data throughout its entire lifecycle. Atempo serves thousands of customers around the world through a sales and support network of over 200 resellers and partners.

Learn more at www.atempo.com