PanMove Backup

High-Performance Backup and Data Movement Software for Large Data Volumes

One constant in computing is the tremendous rate at which data continues to explode. For high-performance computing (HPC), this unstructured data growth is compounded by the increasing convergence of traditional HPC with artificial intelligence and machine learning (AI/ML) workloads. The result is volumes of data that require integrated, easy-to-use data management and mobility solutions at scale.

Protecting these large volumes of data is as business-critical as it is challenging. The daily rate of file changes is no longer compatible with operational backup windows, and protection costs can be much higher if you attempt to reduce service downtime and I/O impact.

Panasas® provides PanMove™ Backup, a comprehensive and easy-to-use backup and data management solution. Combined with PanView™ Analytics, users can discover and analyze their data to protect and manage it accordingly. PanMove Backup and PanView Analytics are the result of a collaboration between Panasas and Atempo, a leading provider of data protection and data management software.

A PanMove Advanced add-on software product, PanMove Backup rapidly protects file storages from damage and loss with retrieval and guaranteed continuity of access and fast production recovery. In addition, PanMove Backup adds third-party storage data movement and policy engines for simple drag-and-drop functionality and automatic data movement.

State-of-the-art HPC and AI/ML environments require storage solutions that are the highest in reliability, scalability, and performance, and they should also be simple to manage. Whether it's pushing the boundaries in life sciences, manufacturing, energy, financial services, media and entertainment, or academic and government research, Panasas delivers the PanFS® parallel file system

with the PanFS software suite that includes PanMove Backup for high-performance backup and data management in and between the data center, cloud, and S3 object storage.

PanMove Backup Benefits

- Minimizes backup windows with regular and efficient backups using successive increments

- Restores a few files or petascale/exascale datasets, including to another storage platform

- Moves data between ActiveStor® appliances, third-party storage, cloud, and S3 object storages

- Storage remains 100% operational during data movement, resulting in zero production downtime

- Automatic object integrity and file access checks provide ata reliability and integrity

- Adjust data transfer speed performance by simply adding or removing data movement engines

On-Premise

Analyze data on ActiveStor storage nodes and third-party storage solutions on-premise using PanView Analytics, then use PanMove Backup for high-performance backup in addition to on-demand and automatic data movement.

Cloud and S3-Interface Object Storage

PanMove Backup provides high-performance backup and on-demand and automatic data movement between ActiveStor appliances and cloud storage including Amazon S3, Microsoft Azure Blob block storage, Google Cloud storage, and any private or public cloud with S3 or SWIFT access. Data can be stored in the cloud or used by cloud-based applications.

PanMove Backup also provides high-performance backup and data movement between ActiveStor appliances and S3-interface object storage, including Scality and Quantum Active Scale object storage.

PanMove Backup Components

PanMove Backup is a client/server backup and data movement application that includes a server and several agents (data movers), as shown in Figure 1.
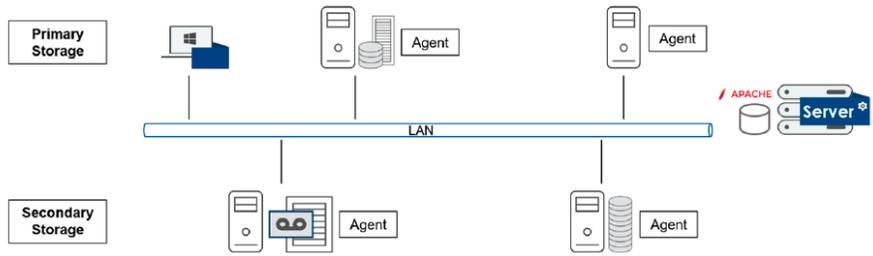
Central Administration

PanMove Archive comes with a console to manage settings for the entire system, including enabling license keys and creating users and groups. Levels of permissions granted to each user or user group can also be defined.

Web Interface

Data can be automatically backed up, copied, moved, or synchronized between supported source and target in either personal or shared project repositories with the easy-to-use PanMove Backup Web interface.

Secure Data Movement

APanMove Archive guarantees fast and secure data movement, including optional Secure Socket Layer (SSL)

Figure 1. PanMove Backup Schematics Components Overview.

encryption. This provides security and integrity of data and associated ACLs during data movement.

Incremental Forever Protection

PanMove Backup implements an "incremental forever" technology when the target is an object or cloud storage to minimize backup windows. The initial backup is a full backup, followed only by incrementals. PanMove Backup reconstructs fully on demand.

High-Performance Data Movers

Unlike many other backup and data movement solutions, PanMove Backup separates the detection of objects from the actual data movement and starts moving data early on. Using a powerful parallel processing and multi-task environment adapted to all file sizes, data movers copy or move data with optimized performance. Data movers can run on bare-metal servers or virtual machines as long as they have access to both the primary and secondary storage. Additional data mover instances can be added for increased performance.

Timely High-Quality Service and Support

Unlike open-source solutions and even commercial alternatives from broad portfolio vendors, Panasas offers timely, world-class support.

More Information

For more information about PanMove Backup, contact your local Panasas representative or visit **panasas.com/products/panmove**.

About Panasas

Panasas builds a portfolio of data solutions that deliver exceptional performance, unlimited scalability, and unparalleled reliability – all at the best total cost of ownership and lowest administrative overhead. The Panasas data engine accelerates AI and high performance applications in manufacturing, life sciences, energy, media, financial services, and government. The company's flagship PanFS® data engine and ActiveStor® storage solutions uniquely combine extreme performance, scalability, and security with the reliability and simplicity of a self-managed, self-healing architecture. The Panasas data engine solves the world's most challenging problems: curing diseases, designing the next jetliner, creating mind-blowing visual effects, and using AI to predict new possibilities.

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