

Top 10 Tips to Optimize Large File Systems for Enterprise Data Management

What has Changed?

Previously, a mere 100 TB in a single system was sufficient to accommodate a file system. However, the present reality is that the data universe is expanding at lightning pace which has led to the increased demand for highly responsive and agile data management solutions.

Digital enterprises now face the challenge of collecting and storing vast amounts of denser media such as high resolution digital photographs, videos, and medical scans. Additionally, analytics have become more precise and advanced but now require more storage allocated.

Retaining information is essential to align data objectives to various lines of business. This explosive increase in big data is putting enormous pressure on optimizing large file systems. Scalable, efficient, and highly available storage solutions are required for optimal business benefits derived from data sets.

The following 10 tips must be considered if you too have large legacy file systems to manage your enterprise scale data environment.

1. Understand your Data to Unlock its Value

Increasing amounts of unstructured data is a technical dilemma and strategic obstacle. Poor data management becomes a significant legal risk to the company, and it affects your bottom line. An in-depth analysis of file system information gives you the required knowledge of your data to efficiently manage IT business processes. Visualization of your data environment provides the necessary insights to control and unlock the value of your data.

2. Move Data Sets to the Optimal Location

Metadata file analytics provides a clear visualization of your data environment to uncover dark data and classify data sets for infrastructure efficiency and optimization. Strategically moving data sets to the optimal location saves costs and turns your data from a risk to an asset.

3. Modernize your Data with Custom Tags for Analytics and Reporting Capabilities

Custom metadata tagging provides a strong data infrastructure for deep analysis. It also allows data admins to generate customer reports and evaluate their data environment. With strong data governance, the overall data management becomes efficient, and the accumulated capabilities provide a robust solution for intelligent business decisions, notable monetary savings, and mitigation of risk for your organization.

4. Mitigate Risk with Automated Policies for Data Migration

Automated policies for large scale data migrations have become the norm! it is the only way to avoid legal risk, reduce errors due to manual process, and makes compliance a top priority for your organization. Hence, the use of automated policies is vital for standardization in petabyte scale migrations.

5. Use a Single Software that can move CIFS and NFS

With the deployment of multiple softwares, loss of data and increased risk are valid concerns due to the lack of standardization. To enable a seamless and successful data migration, storage admins must consider employing a single software that can move CIFS and NFS effortlessly onto any location.

For that reason, NetApp FlexGroups was deployed to enable storage managers to quickly provision a single massive namespace in a matter of seconds. FlexGroup Volumes have virtually no capability or file count limitations outside of the physical limits of hardware or the total volume limits of ONTAP. You only create the FlexGroup volume and share it with your NAS clients and ONTAP does the rest.

Such a system allows your analysts to gain business insights from your data, and the abundance of data can turn your data into a valuable asset for your enterprise.

However, the challenge of a petabyte scale migration from a legacy large file system to another has proven to be a complicated task. Fortunately, StorageX is the only software till date that has been able to successfully conquer this issue revolving around outdated large file systems. The following point details the importance of a reliable solution for guaranteed success.

6. Maintain Business Performance by Meeting your Cutover Time

Data migrations should be a seamless process which does not disrupt the day to day business operations of your organization. For that reason, it is important to consider scheduling such processes over a 48 hr window over a weekend or national holiday.

Advanced technology must be able to scan millions of files per hour to meet the cutover timelines of your organization without disrupting business performance!

7. Test and Validate Migrated Data

Ensure everything is where it should be after a data migration. Create automatic retention policy, clean up stale data, and double check permissions. Prior to moving any data sets, always ensure you have a report that compares your source and destination file set.

8. Transition from Inefficient Large File Systems onto NetApp FlexGroups

Legacy large file systems are no longer the optimal solution for petabyte scale data management. With CPU inefficiencies, high latency, and a limit of 20 PB storage capacity did not offer a way to cover multiple big data use cases.

9. A Reliable and Proven Strategy is Essential for a Petabyte Scale Data Migration Solution

When conducting a large scale migration, it is essential to have a solution in place that is proven and reliable. StorageX by Data Dynamics ensures a seamless migration and a successful project. StorageX is a dynamic file management platform that empowers you to analyze, move, manage, and modernize your data where you need it and when you need it from data centers to the cloud.

With more than 200 PB of data optimized, 100+ years of project time saved, and over \$100 million saved in storage costs, StorageX is the optimal solution for your large file system data management strategy.

10. StorageX is an Optimal Solution for CIFS and NFS users as well

The challenges faced in large file systems are comparable to CIFS and NFS users. The detailed discussion in this document is also applicable for storage administrators utilizing NFS or CIFS.

StorageX counters these obstacles that are significantly affecting your bottom line to ensure that you have an effective petabyte scale data management strategy in place.

Learn More at datadynamics.com/storagex

Find answers to your questions by contacting solutions@datdyn.com

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