

Key Benefits

- Global File System Metadata Controller allowing for fast and easy sharing of files
- Metadata caching reducing Cloud latency on directory lookups.
- Saves money to Cloud Storage as requests and downloads are reduced
- Cached repository for all files, directories and Windows and NFS ACL's
- Global File Locking allowing third party applications to lock files.
- Multi-Site support allows reduced latency to the cloud around the enterprise
- Set it and forget it GUI allowing for quick deployment
- Virtual Machine Architecture allowing for flexible deployment on premises or in the cloud

The BridgeSTOR Global File System combined with Cloud Storage allows corporate users for the first time to easily exchange files between multiple regions of the world using standard file based protocols such as SMB and NFS. The BridgeSTOR Cloud Servers are hybrid system designed for on site or Cloud Virtual Environments allowing flexible and real time file access.

Challenge

Cloud Storage whether Public or Private has dramatically changed the way corporations store and access data. Up to this point, most Cloud Users have used 3rd party tools or web browsers to access cloud storage. The BridgeSTOR Cloud Storage Servers with their multi-protocol support allow users to easily transfer files to cloud storage with simple drag and drop via a Windows file share or a standard NFS mount point. The Rio-2 Cloud Backup Server expands on the file protocols by adding iSCSI VTL support. It's now easy to sending files or tapes to the cloud, however, once the file arrives in the Cloud Storage how does another user know the file exists? Cloud Storage also has no concept of file locking, how do users not step on each other and due to Internet latency files may arrive inconsistent or out of order. Requesting file and directory metadata from cloud storage is inefficient and time consuming frustrating users. Finally deleted files and other garbage collection duties are expensive in real time. How can all of these functions be processed more efficiently?

Solution

The BridgeSTOR Coronado Global View Manager is an out of band metadata caching controller. The Global View Manager caches every file and attribute in the Cloud Storage Bucket. This allows BridgeSTOR Cloud Servers to have a local location to view all files stored in the Cloud without making a single REST call to the Cloud Storage. As a sophisticated cache, the Global View Manager may exist in multiple regions of the world where they continually share cloud transactional database. When a file, directory or attribute has been changed these transactions are entered into a Cloud Storage transaction log. Other Global View Managers replay these transactions keeping all data synced between Global View Managers. One Global View Manager may also be assigned the role of a Global Lock Manager. When any BridgeSTOR Cloud Server requires a Lock, a call is made to the Global lock manager which will processes the request and permission is granted or failed depending on the request. This allows applications such as Microsoft Word to easily collaborate on files across regions of the world. Global View Managers also have out of band clean up duties such as version control and handling deleted files.