File Archiver

Reducing Backups with File Archiver

With data growing at an exponential rate within organisations the time taken for backups because of the volume of data that is having to be backed up is becoming a major issue. By using File Archiver organisations can reduce the amount of data that needs to be backed up on primary storage. Also by utilising the unique smart stubbing technology and data chunking you can reduce the total amount of data that needs to be backed up.
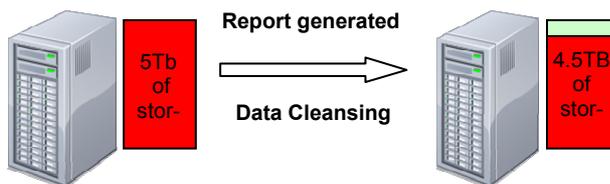
Customer Situation

5TB SAN used for shared directories and user home directories, that had been cost justified over a three year lifetime, yet was full after 18 months. The customer did not want to add more storage space as this was not solving the problem of data growth on primary storage over the long term and was just adding more cost, more management and more data to backup.
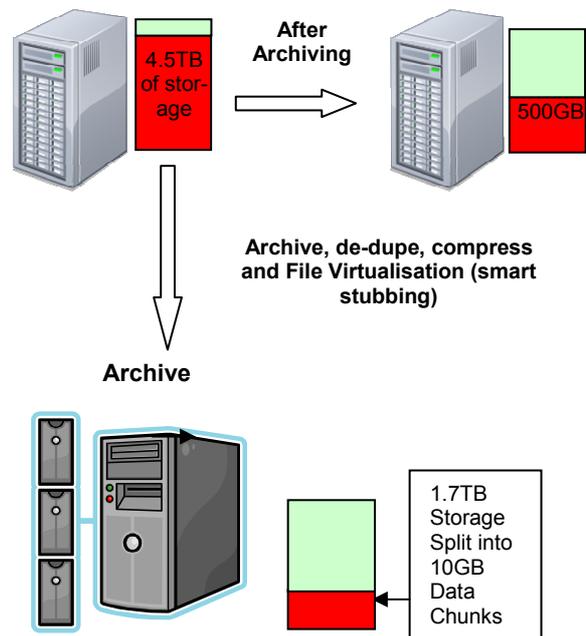
Profiling storage use

By using the inbuilt storage reporting in File Archiver the customer was able to fully understand the age profile of the files on the storage, which users were storage hungry and what unauthorised files were being stored. The unauthorised files were consuming 10% of the storage space and were instantly deleted. The age profile showed that 90% of files had not been modified in the last 12 months and that 30% of files were duplicates, the same file stored multiple times on the same SAN.

Stage 1—Remove unwanted files

Report generated

Data Cleansing

5Tb of stor-

4.5TB of stor-

Stage 2—Policy based Archiving

Knowing that 90% of the files on the SAN had not been modified for 12 months the customer chose a single archiving policy that automatically, every night, archived all files that were older than 12 months. File Archiver uses single instancing at the file level so only one copy of a file is held in the archive even if it was stored multiple times on the SAN. All files stored in the archive are also compressed. This meant that 4TB was archived from the SAN leaving 1/2 TB of data on the SAN and the archive was 1.7 TB in size

4.5TB of stor- age

After Archiving

500GB

Archive, de-dupe, compress and File Virtualisation (smart stubbing)

Archive

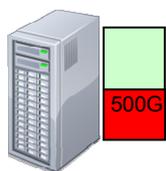1.7TB Storage Split into 10GB Data Chunks

Stage 3—Backup Archive

File Archiver writes the archived files to data chunks. These data chunks are defined by size or age and once the criteria is met the data chunk is never written to again. Data Chunks simplify the backup of the archive because only the current data chunk needs to be backed up and also as they age data chunks can be moved to read only storage for retention.

So the next step in this example is the one time back up of the Archive which is 1.7TB. After this is done the daily requirements for backup of the archive is the latest live data chunk, 10GB in this example.

Stage 4 Normal Daily Backups

Primary Storage   **Archive**

500G + Last Live Data Chunk 10GB

As a result of this three step process the daily backup has changed from having to process 5TB on primary storage to having to process 500GB on primary storage and 10GB on the archive resulting in the backup process completing well within the backup window and not overrunning into the working day.

The Role Of Smart Stubs in Active Archiving

This reduction in files stored on primary storage is achieved because Smart Stubs mean that the IT department does not need to worry about archiving files that users or applications may require in the future. Smart Stubs mean that when a user or an application requires a file that has been archived it is immediately restored to the primary storage device from the archive without intervention from the user or the IT department. Smart Stubs mean that a more aggressive archiving policy, such as all files older than 12 months, can be used as opposed to traditional file archiving technologies, where a safe archiving policy may be all files older than 5 years.

No Client Software Architecture

Smart Stubs means that the users and applications work with files just as they did in the past. Users do not need to access the archive using client software because the files are presented to them just as if they were still on the file server by the smart stubbing technology.

Primary Storage De-duplication and Storage Consolidation

File Archiver Includes de-duplication technology for your primary storage, meaning that only one copy of the same file is stored in the archive irrespective of the number of instances that have been stored on the network, even if stored on multiple servers. The user sees the smart stub and accesses the file as if it was physically present in its original location. The archive volumes are compressed and encrypted and the compression means that the size of the data stored in the archive is reduced by 40% from the original size

One Click Restore—Disaster Recovery.

Files are easily recoverable from the archive back to file servers. One click and a file or a directory tree or a whole storage device can be restored back to the original location or a new location. Eliminate the cost of restoring a file when a user accidentally deletes a file or in the case of a server failure restore all the files quickly. What may have taken days to restore from tape can be restored in minutes or hours with File Archiver.

Green IT

For organisations that want to be responsible to the environment it is no longer acceptable to just keep adding storage and increasing the amount of power used to store digital data. File Archiver enables the current storage capacity to be optimised meaning less power consumption and extending the working life of previous storage investments.

Benefits of File Archiver

- Free-up expensive disk space by capacity optimisation

- Fully supports Virtual Servers

- No expensive to manage client software required

- Smart Stubs allow application data to be archived

- De-duplicates expensive primary storage

- Automates IT management tasks to reduce cost

- Reduces the amount of data to be backed up

- Archives critical data in a secure location

- Fast Disaster Recovery