



Archive and SQL

Most vendors have opted to use SQL Server at the heart of their email archive product. C2C believe this is technology overkill, costly and over complicates the solution.

Some of Archive One's strengths derive from the fact that the architecture does not have a dependency on SQL Server. Not using SQL Server helps provide many benefits to organizations:

- Archive One is very easy to back-up and restore
- Archive One is quick to install, configure and bring on line
- Archive One is easy to operate and maintain
- Archive One provides an initial and ongoing low TCO

Is a database required for Archiving?

No.

All that is needed is an index (to allow fast search of the archived data) and a store for configuration data. An index is a list of key words and pointers that shows where every archived item is located. When an item is requested the index points the software to the right place to retrieve the original item.

There are numerous options for storage of configuration data – XML files, INI files, Registry, a database etc. Archive One uses XML and INI files to store its configuration data.

The data is not stored in the database then?

Correct.

Most vendors typically use the index feature of the database and occasionally store some metadata in there. All Email Archiving products write the archived data to files (repositories, vaults, etc).

Generally these files are compressed to save space and have some built in intelligence. Vendors may use the database to store some configuration or application data but in most cases this kind of data is not 'relational' so there is no benefit of storing it in a database.

What are the overheads of using SQL Server?

Using a SQL Server as part of an archiving solution presents a number of overheads in terms of costs, skills and time. These include:

- Cost of an enterprise class server, storage and network resources
- Cost of additional servers and storage if using clustering
- Cost of a Microsoft Windows Server 2003 license (or more for cluster)
- Cost of a Microsoft SQL Server 2000/5 license (or more for cluster)
- Skills required for installing and configuring SQL Server
- Skills required for the ongoing DBA admin tasks
- The DBA will be required for all decisions related to email archiving

Using an external service (communicated with over the network layer) also introduces a number of additional possible points of failure:

- Network Switches / Hubs / Cables / Interfaces
- Accessing remote service (SQL Server)
- The hardware upon which the remote service is running

Why would anyone prefer to use SQL Server?

It 'sounds' like an enterprise class system.

Administrators may feel comfortable because they believe they can manipulate the data, but without a detailed understanding of the schema any interpretation would be flawed and the data integrity could be compromised.

This is how C2C does it:

C2C use an embedded, optimized indexing engine. This engine is build directly into the software source code of Archive One.

The fast retrieve archive comprises of the original mail items and the index. Archive One batches up the original email items into blocks of circa 10 megabytes (before compression), to allow optimal throughput when backing up, and stores the index data alongside these blocks.

This strategy makes for a very efficient and quick indexing phase of the archiving process, reducing the dependencies on external technologies / services and the cost of ownership of Archive One.

An additional benefit is that the index data is stored in a static / closed format (e.g. to back it up requires a simple File..Copy action); there is no need to stop services or purchase open file backup agents.

Furthermore, the lack of undue complexity provides for an easy install / implementation and easy ongoing operation.

Summary

Archive One uses embedded data management technology and does not require the use of a database such as SQL Server therefore reducing costs and complexity.

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