

Exchange Server – Email Archiving Capabilities Compared

With Microsoft Exchange Server, administrators can choose between two scenarios ensuring email archiving that helps companies to meet a growing number of compliance requirements. The first scenario is to create an additional “In-Place Archive” mailbox or a “*Personal Archive*” for each user mailbox, in which emails can be transferred either automatically or manually. Alternatively, an external archiving solution such as MailStore Server can be used.

This document is meant to assist IT professionals in choosing the archiving scenario which is best suited for their company.

Scenario 1: User Mailbox “In-Place Archive”

For each user mailbox, Microsoft Exchange Server provides the opportunity to create an additional In-Place Archive into which emails can be moved either manually or automatically.¹ An appropriate configuration of Exchange Server guarantees that, within the corresponding retention periods, emails cannot be deleted from Exchange Server. Provided that all configuration parameters are set correctly, companies can accomplish email archiving that helps them to meet a growing number of compliance requirements. Applying this scenario results in several requirements for the IT infrastructure, including the following:

Storage Capacity

Depending on the retention policies configured, emails typically remain in the archive for up to ten years. In consequence, the necessary storage capacity can increase dramatically and must be made available accordingly. In addition, IT administrators must consider that Exchange does not longer offer single instance storage (SIS), i.e. identical emails and file attachments are stored multiple times.

¹ Exchange Server 2013:

[https://technet.microsoft.com/en-us/library/dd979800\(v=exchg.150\).aspx](https://technet.microsoft.com/en-us/library/dd979800(v=exchg.150).aspx)

Exchange Server 2016:

<https://docs.microsoft.com/en-us/Exchange/policy-and-compliance/in-place-archiving/in-place-archiving?view=exchserver-2016>

Exchange Server 2019:

<https://docs.microsoft.com/en-us/Exchange/policy-and-compliance/in-place-archiving/in-place-archiving?view=exchserver-2019>

Compared to previous Exchange versions, the storage capacity requirements are about 20 to 50 percent higher.²

Example:

70 users x 2.5 GB/year x 10 years = 1.75 Terabyte Exchange DB

Backup

By using In-Place Archives with their corresponding retention policies, the size of the Exchange store can reach a multiple of its earlier size within just a short time. Therefore, companies should ensure a backup strategy which is able to handle this increase in volume. Key factors in this context are the storage capacity as well as the time window available for backup.

File Recovery

Because the amount of data to be restored increases significantly in direct relation to the factors mentioned above, a considerably higher overhead (e.g. expenditure of time) must be allocated to the recovery. The resulting downtimes must be reduced according to company size, data volume and acceptable downtime by implementing a suitable policy for redundant data storage.

Redundancy

Downtimes acceptable to a company during backup and recovery can quickly be exceeded by the increasing amounts of data. Microsoft recommends using Database Availability Groups (DAG),³ which require Windows Failover Cluster technology.

Licenses

For every Exchange user whose emails are to be archived, an Exchange Enterprise CAL must be purchased in addition to the Standard CAL. These features have specific Outlook version requirements.⁴

² <https://practical365.com/exchange-server/what-is-the-real-effect-of-removing-single-instance-storage-in-exchange-server-2010/>

³ Exchange Server 2013:

<https://technet.microsoft.com/en-us/library/dd638137.aspx>

Exchange Server 2016:

<https://docs.microsoft.com/en-us/Exchange/high-availability/high-availability?view=exchserver-2016>

Exchange Server 2019:

<https://docs.microsoft.com/en-us/Exchange/high-availability/high-availability?view=exchserver-2019>

⁴ <https://support.microsoft.com/en-us/office/outlook-license-requirements-for-exchange-features-46b6b7c5-c3ca-43e5-8424-1e2807917c99?>

Administration

Because the configurations of the In-Place Archives and especially the policies have far-reaching and sometimes irreversible consequences, IT administrators are urged to seek a preliminary consultation or training before implementation.

Conclusion

While this scenario offers the best possible integration of the archiving functionality into Microsoft Exchange Server and Outlook, high demands are made on the IT infrastructure. Companies must carefully consider if they can meet these additional requirements and if they are willing to deal with the corresponding overhead. Typically, this is more applicable to larger corporations with the appropriate base contracts and budgets.

Scenario 2: Using an External Archiving Solution

Exchange Server includes a seamless interface for external email archiving solutions. Several solutions are on the market, including hardware, software and SaaS products. The statements made in the following scenario assume that the software MailStore Server is used for email archiving of Exchange Server 2013, 2016 or 2019 to help companies meet a growing number of compliance requirements.

A typical configuration of the archiving process, known as journaling, ensures that emails are copied to the external archive immediately upon sending and receiving, which helps to protect the archived data from tampering. In addition, already archived emails are deleted from the user mailboxes after a certain amount of time, resulting in a reduced workload on the Exchange Server. With a special add-in, Microsoft Outlook users are still able to access the archived emails through Outlook. Applying this scenario results in the following requirements for the company's IT infrastructure:

Storage Capacity

The storage capacity assigned to the Exchange Server can be held on a permanently low level because old emails are not stored in the Exchange store but in an external archive. Deduplication significantly reduces the effective storage requirements of the archive because identical emails and file attachments are stored only once.

Backup

Because the size of the Exchange store remains on a permanently low level, no additional requirements apply to the backup of the Exchange Server. The architecture of the archive is optimized for incremental backup using standard backup software.

Data Restore

As mentioned above, the size of the Exchange store remains on a permanently low level. This means no increased overhead (e.g. expenditure of time) is required when restoring the data. The negative impact caused by the given downtime can be reduced due to the redundant data storage in the form of the external archive.

Redundancy

During an outage of Exchange Server, all emails remain available to the users through the archive. This reduces the negative effects of the given downtimes.

Licenses

For Exchange Server, no additional licensing is needed to use an external archiving solution. However, MailStore Server user licenses must be purchased (starting at 5 user licenses).

Administration

The installation and administration of MailStore Server can be performed autonomously even by small businesses. Because MailStore Server does not make any changes to Exchange Server at any time, no particular risks must be considered.

Conclusion

Although this way of archiving requires an additional software solution, the demands on the IT infrastructure are reduced significantly. Especially for small and medium-sized businesses with limited resources, this can be an important decision criterion.

About MailStore Server

Businesses can benefit from all advantages of modern, secure email archiving with MailStore Server. The software creates 1:1 copies of all emails in a central email archive to ensure the security and availability of large amounts of data over a period of years. Users can still access their email using, for example, Microsoft Outlook, or Web Access, and search through them with the help of a powerful full-text search.

Now available in version 13, MailStore Server has grown to become a global standard for email archiving in business following years of successful operation at more than 70,000 companies. Easy to install, reliable and low-maintenance.

