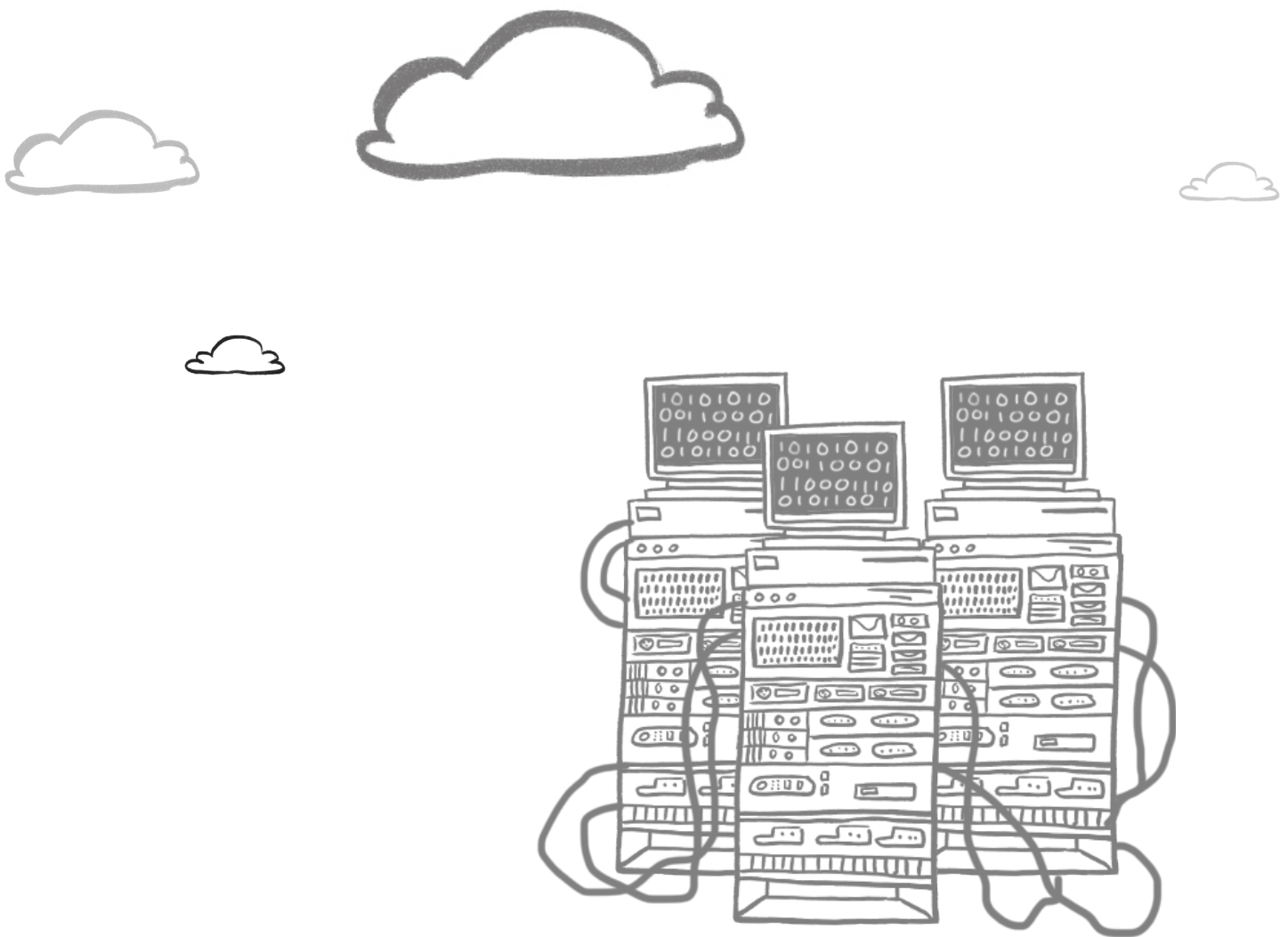


Part 2: Migration Exchange 2010 migration guide












This guide details the best practices to follow when migrating from Microsoft Exchange 2003 to Microsoft Exchange 2010. The guidelines provided explain how to prepare the existing infrastructure for the process, what safeguards should be employed before migration begins, and how to perform the actual migration.

Documenting your current Exchange deployment

Each organization will have its own reasons for upgrading to Exchange 2010, but these reasons should be recorded consistently and formalized to document the development and design objectives for the migration. The final design should reflect—in detail—the means by which each requirement is met, supplying enough implementation detail to support the decision.

Understanding what is currently in place is also vital to effectively formulate the final Exchange design and to devise a well-structured migration plan. This section provides an overview of the most important elements of your environment, each of which should be documented as part of a migration plan.

- **Mailbox quantities, sizes and relationships** – Make a complete survey of all of the mailboxes in use. How many mailboxes do you have? Which servers are they on and where do those servers reside? How large are the mailboxes? What business groupings apply to them (i.e. manager with delegated calendar). 
- **Usage patterns** – Classify users into light, medium and heavy user designations, considering the numbers of mails sent and received per day, as well as understanding which users make use of mobility and collaboration features. 
- **Mailbox types** – Categorize mailbox types to distinguish between employee mailboxes versus resource and shared mailboxes. 
- **Non-managed storage** – Identify PSTs, recording where they are, how many of them exist, and how critical is the data stored in them. What is the risk to the business if they are ignored, deleted, lost or stolen? Will these PSTs be managed in the new version of Exchange, either by ingesting them back into larger mailboxes or into another service? 
- **Mailbox growth** – Make a determination as to the rate of mailbox growth based on the organization's history and evaluate those factors that will affect future growth. 
- **Public folders** – Survey existing public folders: where are they, how large are they and what do they contain? 
- **Client connection mechanisms** – What versions of Outlook, Active Sync (mobile) and BlackBerry devices currently access mail? What percentage of that access is rich (Outlook, mobile) as compared to thin (Outlook Web Access)? 
- **Bandwidth and traffic patterns** – Assess the existing traffic patterns. How much of client access is Internet based? How does your SMTP traffic flow inside your network? How do you secure your mail flow ingress points to secure content? 
- **Versions of Exchange** – Are there any pockets of Exchange 2000, or 2003 that predate Service Pack 2 and require upgrading? Either Exchange 2000 or Exchange 2003 SP1 (or older) can effectively block the deployment of Exchange 2010. 

Documenting your current Exchange deployment

Acquiring and compiling this information helps develop both a short-term and long-term growth strategy when planning a new deployment. Without these values, you cannot reasonably address immediate needs nor the long-term requirements of your organization.

Collecting this data is not a simple task and typically requires a number of different tools, including:

- Microsoft Exchange Server Profile Analyzer
- Microsoft Active Directory Topology Diagrammer
- Microsoft Exchange Best Practice Analyzer
- Microsoft Exchange Pre-deployment Analyzer
- Microsoft Exchange User Monitor
- WMI accessed by means of PowerShell or VBScript

Visit the Migration Readiness Kit www.mimecast.com/What-we-offer/exchangemigration/#migrationreadiness-kit

Given data on aggregate mailbox sizes, historical growth patterns and distribution data, the Exchange Storage Calculator can determine the appropriate number of supported storage architectures, as well as hardware requirements. This includes reference architectures containing RAM, CPU and disk details, as well as Active Directory requirements amongst others.

Data that isn't consumed by the Exchange Storage Calculator can be used to create detailed upgrade and installation scenarios using the Exchange Deployment assistant. A number of specialized third-party utilities offered by Microsoft software partners can also collect and prepare these details.

Mimecast holds the key to a successful migration. Let us help you to eliminate email downtime, email data loss and interruptions to policy enforcement - to ensure employees can work uninterrupted throughout your migration.

Why switch on Mimecast Migration Assist service?

- **Deliver email continuity throughout:** Mimecast gives users anywhere access to live email regardless of planned downtime or outages during migration
- **Avoid email data loss:** A rolling 58 day email archive will be accessible via webmail
- **Ensure a seamless transition:** Our advanced MTA intelligently routes email, based on server location or the status of user migration, to ensure a seamless, pain-free transition



Assessing and mitigating risks

Identifying and understanding risk exposure during a migration helps ensure that the potential impact to the organization remains within clearly defined and acceptable boundaries. Migrations involve considerable change, which entails risk. Plan for the common risks detailed in this section to reduce possible consequences during the migration. Mimecast can help you to mitigate these risks.

Minimizing Service Interruption

Minimizing interruptions to internal and external mail flow (as well as ensuring that users are able to keep working in the case of an outage) is critical at any time. This is especially true while an organization is in flux.

Operational procedures are needed to manage the moving parts of two systems and a user base which evolves and keeps on making demands on the business. Migrations are normally remembered by the disasters that occurred (for example, the day the CEO's mobile mail device stopped working).

When formulating a migration plan, start with small batches, and grow the size of the batch based on the success and confidence of the previous batch.

Create a service map to ensure that you understand what service is offered by which version of Exchange and at what point that service is offered by which version of Exchange during your migration. This should include every mail service (Hygiene, SPAM, encryption, routing, DLP, mail storage, etc) and user service (POP, MAPI, BlackBerry, ActiveSync, etc).

Change management and project management are vital while migrating to ensure that the user base remains aware of changes that may impact them and what procedures they should follow if they are negatively impacted by an event.

Use Mimecast to provide a highly available network edge able to scale well beyond the limits of an on-premise deployment. Moving Internet-based mailflow to Mimecast before the migration begins, ensures that mail flow is stored and forwarded in the event of an onsite outage during migration. Users will also enjoy the benefits of continuous email to their BlackBerry devices, as well as uninterrupted access to their live and archived email from Outlook and Mimecast webmail.

Preventing Data Loss

Change management is critical during migrations, especially when the changes involve upgrading desktop OS or Outlook versions. PSTs, in particular, may be lost at this point either due to a rapid rate of change or the user's lack of ability to preserve a PST during a forced upgrade or loss of the end-user device. Numerous third-party utilities are available to help document the existence and size of PSTs, with options for later assimilation into mailboxes or file shares.

Manual floor walks are an effective way to document users and create context in a way that no automated utility can.

Backups can be particularly vulnerable as mailbox data moves from one version of Exchange to another. Test mailboxes or similar test data must be used to ensure that any version of Exchange may be backed up and restored reliably.

Move historical data and PSTs to the Mimecast cloud prior to migration to mitigate the risk of data corruption and lost PSTs during the migration. This can also reduce migration times by minimizing the volume of data involved in the migration. Mailbox sizes may be dramatically reduced during this time, since Mimecast is able to provide the bottomless mailbox while enforcing the size of on-premise mailboxes across the user base.

> Assessing and mitigating risks

Managing Loss of High Availability

A number of migrations involve the repurposing of existing mail servers or even mail clusters. During a rolling upgrade of Exchange hardware, existing High Availability levels may be lower due to the state of flux introduced by the rebuilding of configurations into their newer equivalents.

In Exchange 2003 and 2007 mixed-mode organizations—where Exchange 2007 and 64-bit hardware are present—Exchange 2007 can be deployed in a Highly Available manner, by specifically using CCR or traditional mail clusters in conjunction with virtualized HUB and CAS roles—all on 64-bit hardware.

CCR clusters and virtualised roles are often split or recycled. CCR clusters may have one node removed, Exchange 2010 installed and mailboxes moved onto the new server. Once the mailboxes are moved from the second node, the node may then be repurposed as a DAG member server. Mailbox High Availability service levels can only be restored once the two-node DAG is built and databases replicated between the two nodes.

Along with mailbox services, HUB and CAS role—which are often virtualized—must be redeployed onto new virtual machines, or existing virtual machines need to be re-commissioned. The service map described previously should detail what services are delivered by which machines, along with the level of availability offered as a result. Keep the service map and SLA in mind when planning a rolling upgrade of these servers.

Once the data landscape and the service map are documented, rollback and roll forward plans should be formulated.

Use Mimecast's seamless integration with Outlook and automated failover capabilities to deliver uninterrupted email availability to your users, backed by a 100% service availability SLA.

Data Leak

Version upgrades of Exchange may be all encompassing, from the regional hub, to the data center, as well as the network edge. During this time, content control may be in flux. This increases the possibility of intentional (as well as unintentional) data leakage or sabotage. SPAM levels may also increase at the same time as an unintended consequence.

Use Mimecast to ensure that your email security, content control and data retention policies remain in force, reducing complexity and ensuring continuous policy application during your migration and beyond.

Performing the Exchange migration using Mimecast

A well-designed migration plan details your design and lists the enabling technologies involved, but ultimately it should be presented as an operational document that covers every aspect of moving services and data to the new platform. Best practices for Mimecast customers performing the Exchange migration include these steps:

- 1** Move inbound and outbound mail flow to Mimecast across all geographies with Internet-facing sites. No matter what changes take place within the mail organization after this point, you are assured consistent, branded incoming and outgoing mail flow.
- 2** Upgrade Outlook to the minimum version required to create a consistent desktop. Deploy the Outlook Plugin for Mimecast. If either the source or destination server becomes unavailable during the migration, Outlook transparently reconnects to the Mimecast cluster to ensure an uninterrupted user experience. When service is fully restored, each users' mailbox is brought to full consistency.
- 3** Ingest PSTs for each geography to the Mimecast service, as well as ingesting historical data. The time required for the migration depends on the volume of email transferred from the old platform to the new. The less mail there is to move, the quicker the migration. If you ingest all but 30 days worth of current email into Mimecast, you substantially increase the speed of the migration and lower the risk while the mailboxes are in flux. PSTs represent a historical risk, both from personal message continuity (since users tend to keep a PST for every year as the only historical record), as well as a source of potential data leakage (if a PST with sensitive data leaks or falls into the wrong hands).
- 4** Integrate BlackBerry services with Mimecast. Migrations potentially expose your BlackBerry infrastructure to unplanned outages. Mimecast offers BlackBerry continuity services while the issue is ongoing, providing continued usage to the user base without any downtime.
- 5** Create a migration plan for each individual geography that allows for the deployment or repurposing of hardware and the rollout of Exchange. The migration plan should detail what mailboxes move at what point to which destination. It should provide rollback and roll forward options, to accommodate successes or failures that occur during implementation. The plan should also address repurposing of the hardware and the logistical implications of potential swing servers, if appropriate.
- 6** Batch users into pilot groups to allow the migration plan to be tested and refined. Small test batches can be expanded to pilot batches, and then to migration batches encompassing hundreds or thousands of mailboxes. The size of a pilot batch tends to be defined by the numbers the helpdesk can support in case every mailbox move fails.
- 7** Further groups will be incrementally larger. This mitigates risk and lets the organization complete the migration of as many mailboxes as can be supported in case of a failure.
- 8** Uninstall old versions of Exchange for each geography. Retain any necessary servers to ensure that Exchange 2003 mail flow is continuous. Exchange 2003 Bridgehead servers to down-level Routing Groups must be retained until every mailbox in the down-level group has completed the migration. Otherwise, transport islands can be created, preventing servers from within the same organization from exchanging email.
- 9** Decommission Exchange 2003. After ensuring that all functionality has successfully been moved to Exchange 2010, remove the last Exchange 2003 server in the organization, following best practices and the latest documentation guidelines.

> Conclusion

Documenting the rationale and business principles underlying your migration, carefully recording the details of the current deployment, and identifying the risks involved in migration establishes a solid framework for performing a successful transition to Exchange 2010. By deploying Mimecast prior to your migration, you can effectively ensure an exceptionally smooth and trouble-free migration and simultaneously minimize the risks to your business.

> Useful Resources

Visit the Migration Readiness Kit
www.mimecast.com/migrationassist

Mimecast is a leading provider of essential cloud services for Microsoft Exchange. Mimecast delivers enterprise email management services that include security, continuity and archiving. This suite of services provides total end-to-end control of business email, while minimizing risk and reducing both cost and complexity. Founded in 2003, Mimecast serves thousands of customers worldwide and has offices in Europe, North America and Africa.