Best Practices for Migrating to Exchange 2016 and Office 365

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ABSTRACT
To help you deliver a seamless, efficient transition to Exchange 2016 and Office 365, this white paper details the key steps you need to follow, along with associated best practices. With the right strategy, planning and tools, you can proceed with confidence and position your organization for success on your new Microsoft platform.

INTRODUCTION
Microsoft released Exchange Server 2016 in October 2015, and we’ll see more cumulative updates throughout 2016 that will deliver some of the features missing from the RTM version. With each of the previous major releases — Exchange 2007, 2010 and 2013 — there was a big wave of migration activity, and we expect the same with 2016. Many organizations are taking this time to evaluate their existing environment and consider whether they will upgrade to Exchange 2016 on-premises or take this opportunity to move to the cloud in Microsoft Office 365.

What’s new in Exchange 2016 and Office 365
- The Exchange hybrid configuration wizard now runs from the cloud. This wizard is constantly changing, and it will be easier for Microsoft to debug, optimize and release updated versions through the cloud. It will also make it easier for IT admins to submit feedback.
- Exchange 2016 supports proxy from properly updated Exchange 2013, which will make migrations from Exchange 2013 much easier.
- Exchange is supported in Azure (requires Azure Premium Storage). If you’re willing to pay for the processing power, you can stretch a database availability group (DAG) node itself into Azure or even a hybrid server.
- Exchange Online advanced threat protection (ATP) is supported. For greater protection of email, ATP provides features such as safe attachments, time-of-click protection against malicious URLs, and advanced capabilities for tracking and reporting.
Office 365 Groups enhance productivity through shared workspaces (see screenshot). Groups are built from Exchange, Skype for Business, Yammer, Delve, OneDrive for Business, SharePoint, OneNote and Azure.

What goes away

- Exchange 2016 does not support DAG content indexing over the network. Exchange 2010 and 2013 moved both Exchange transaction logs and content indexing traffic over the network, burdening the network unnecessarily. With no DAG content indexing in Exchange 2016, you can have more copies of your databases without the network burden.

- The distinction between Client Access role and Mailbox role goes away. Microsoft has been trimming the minimum number of roles in Exchange, and now they’re down to one: the Exchange 2016 Server role.

- Exchange 2007 and Outlook 2007 are not supported. Exchange 2016 blocks installation if it detects Exchange 2007 in your environment, and it prevents Outlook 2007 clients from connecting. That ought to simplify a few decisions for you.

For more information

These are a few of the most noticeable changes. For further details, along with more ideas you can roll into your migration plan, read our e-book, “What’s New in Exchange 2016 and Office 365.”
In addition to these challenges, the IT staff’s reputation is at stake. Because of the high visibility and risk associated with a migration project, IT will be blamed if something goes wrong. Therefore, you need the right strategy, planning and tools so that you can proceed with confidence and position your organization for success on your new Microsoft platform.

**EIGHT CRITICAL STEPS FOR A SUCCESSFUL MIGRATION**

A successful migration should include the following steps:

1. Perform a pre-migration assessment.
2. Optimize your Active Directory.
4. Evaluate migration solutions carefully.
5. Implement and test your recovery solution.
6. Run a pilot migration.
7. Schedule migrations to minimize organizational impact.
8. Initiate the migrations, track their progress and continue to communicate.

While this paper focuses on migrations to Exchange 2016 and Office 365, this methodology can also be applied in migrations to earlier versions of Exchange.

**STEP 1. PERFORM A PRE-MIGRATION ASSESSMENT**

**Inventory and usage assessment**

To ensure your migration has no impact on operations, you need to understand your organization and how it works so that you can ensure that only relevant data is moved to the new environment and that it is moved in the correct order. You’ll want to:

- Inventory all users and mailboxes to determine migration requirements, estimate project costs and plan for a cleaner target platform. Consider the cost of licensing and support models when reviewing inventory because organizations often are not paying for the levels of support they need.
- Assess email usage and availability to help plan for server capacity and configuration, identify opportunities for cleanup or archiving, and determine what should and shouldn’t be migrated.
- Identify and address potential challenges, including large attachments, public folders, archives such as Enterprise Vault, and local offline PST files scattered throughout the organization. Review policies and procedures for handling these items, including requirement changes, outdated items and future plans.

Keep in mind that there is more to pre-migration planning than just technical details like data locations and bandwidth constraints. It’s equally critical to consider how the migration will impact your business and operations. You must carefully plan the project in order to minimize disruption, loss of productivity and potential revenue impact. Focusing on the business will expand the types of information you collect and the analysis of that data.

For example, you certainly want to gather information about what users you have and where their mailboxes are located. But you also need to analyze how these factors could potentially impact the business during the migration. For example, if a user is migrated but his or her delegate remains on the source platform, how will this impact their daily work? If these individuals are key resources in an acquisition attempt or ongoing litigation, how might this separation impact the organization as a whole? More broadly, you need to consider how the migration project could impact all important business and operational workflows.

It is important to analyze multiple aspects simultaneously because there are interaction points that can be problematic if overlooked as you start moving through the project. For example, as you work through your messaging assessment, it is crucial to analyze applications simultaneously and consider the interactions between mail routing...
and application workflow. Depending on your mail platform, it may be more or less common for applications to leverage the email platform. However, with a system such as IBM Notes, there are typically key integration points that, if disrupted as the migration begins, will negatively impact the organization. As a result, it is critical to analyze these interactions in detail before beginning the migration.

This can be a costly and time-consuming process that can be simplified dramatically with the right tools to help you gather accurate and current information from across the entirety of your not-always-homogenous messaging environment.

**Messaging assessment**

During the messaging assessment phase, be sure to consider the following:

- How many users and mailboxes will be involved in the migration? This will help you understand the scope of the project and how extensive the impact will be on the business.

- What types of data are included? How much is there, and where is it located? Be sure to pay special attention to encrypted content, private folders and large attachments. In fact, one of the common obstacles in migrations is large attachments that were acceptable in the source platform but that violate the policies and limits in Exchange Online. Some migration solutions log these exceptions and continue processing, but other solutions may fail and stop processing mailboxes altogether. In either case, the end result is lost data and additional complication. In addition, be sure to plan where large attachments will be migrated to on the target platform. Consider migrating them to OneDrive for Business, an unlimited storage location within Office 365.

- What types of data shouldn’t be included? To comply with internal and external regulations (and also good business practices), organizations need to discover any sensitive data (for example, Social Security or credit card numbers) stored in their current email and prevent it from being migrated to the new environment. This inappropriate data should be removed before the migration begins.

- What are the current and future retention policies and quotas? Which users have private or local storage files, such as PST files in Microsoft Outlook? In fact, this topic is so important that it merits a separate discussion; see the next section, “PST assessment.”

- Which users have delegates, and how could disruption to those relationships affect business workflows? Create a plan to avoid any downtime or productivity issues.

- What apps and business processes rely on the message environment? Determine whether they will be supported with the new email environment and how migration will be handled. For example, any key integration points between the applications and messaging, such as workflow approvals, will be critical to migration planning and scheduling.

- What critical changes are made to users and mailboxes during the migration to ensure data fidelity throughout the move?

**PST assessment**

One aspect of the messaging assessment merits particular attention: the local files that users create to get around storage quotas and retention policies that apply to mailboxes on the server. For Exchange users, these are PST files; for Notes and GroupWise users, they are archives or local mail files. For example, an Exchange user can easily move or copy email from their main mailbox to a PST file on their desktop and keep as much email as they want, as long as they want. But while utilizing PSTs or local files can seem like a great idea to users, these files can cause serious administration and compliance challenges for the organization.

Here are just a few of the main concerns around PST file usage:

- PSTs become large quickly, which makes them prone to corruption and can lead to data loss.

- Administrators can’t easily back up the files because they can reside in any number of locations and the users typically have them open.

- Administrators can’t ensure the files follow the retention policies specified by compliance regulations or include the files in e-discovery efforts.
• It can be difficult to determine who is using PSTs or local files, making management all but impossible.

Discovering users’ PST or local files is, of course, essential for migration planning — these files often contain business-critical data that cannot be left behind. But discovery is only the first step. After you use a tool to discover all the PSTs on your network, you should analyze the data to determine what should be moved, what should be deleted and what could be archived. It is important to devise a strategy to reintegrate the valuable data back into the messaging environment either before, during or after the migration process.

**Storage and archiving**

You also need to consider how to manage the messaging environment going forward in a way that prevents users from circumventing policies that support business needs, including compliance and e-discovery, while also respecting users’ needs for easy access to historical email and a seamless user experience that facilitates productivity. For example, if you choose to archive PST and local file content, you need to ensure that users retain easy access to archived data they need while also automating timely deletion to comply with retention regulations. Similarly, you need to pay special attention to any legacy archives being used to support legal discovery requirements, such as Enterprise Vault, ZANTAZ EAS, EMC SourceOne or Archive Manager.

Migrating archives, PST files and other data stores into a single storage platform in Office 365 can facilitate search and help ensure compliance. Finally, archive mailboxes are enormous, often 10 to 20 times larger than live mailboxes. Moving large volumes of data is a lengthy process that consumes significant infrastructure bandwidth, which can negatively affect the performance of other applications.

**STEP 2. OPTIMIZE YOUR ACTIVE DIRECTORY**

It is vital that you modernize and consolidate your Active Directory (AD) to properly prepare for cloud or hybrid environments. AD is the backbone and source of all authentication across a Windows-centric organization. Moving to Office 365 requires linking your on-premises AD to a public, cloud-based directory such as Microsoft Azure AD. This integration is complex and requires flawless synchronization. When syncing between the cloud and on-premises environments, your AD needs to be organized, managed and cleaned up — something that most 15-year-old infrastructures are not.

Consider a few of the factors that can affect the health of AD and your migration to Azure AD:

- IT shops that have used AD from its infancy and grown up organically with it may have adopted ways of organizing AD that are less than optimal. In addition, they may still have legacy processes around who can create, edit and delete objects and where those objects reside.

- Commonly accepted practices used to include creating a root AD domain with no resources. If you followed and maintained that practice, it could have a substantial impact on your move to Office 365. Specifically, Microsoft used to recommend using the domain as the security boundary for isolating resources in AD, and then changed their advice in favor of using the forest. Some administrators took to creating multiple forests, which they might now want to reorganize or consolidate before integrating with Azure AD and Office 365 because integrating multiple forests into Azure AD results in a number of complexities that can increase the deployment timeline substantially.
Companies facing governmental or regulatory requirements may have to be selective in the objects they synchronize between their internal AD and Azure AD to ensure continued compliance. This can be difficult if your internal AD is disorganized or regulated objects are mixed in with non-regulated ones.

The following best practices will help you modernize your AD structure in preparation for Office 365.

Normalize AD
Normalizing AD means reducing the number of forests and the security boundaries they represent as much as practical. Fewer domains and forests are generally better. Smart companies manage their access and privileges consistently across an AD deployment and have the groups representing those accesses well controlled and arranged by business function.

Consolidate and clean up OUs
One of the biggest obstacles to implementing Office 365 smoothly is a scattered organizational unit (OU) structure. If you’re granting access to mailboxes and SharePoint resources based on groups whose objects exist in many different trees or hierarchies within AD, you’re asking for trouble. Azure AD synchronizes all containers in your AD by default (for specific object classes such as users, groups and contacts) unless you set it to synchronize only specific OUs. That means that the OU is your ideal level of control as an administrator, so it pays to consolidate by ensuring that all of your user objects are under a single OU or a nested OU structure.

The best OU structure is the one that fits your organization, whether by geography, function or business unit. But keep in mind that it is important to avoid having user objects spread across different hierarchies within AD, which is common in AD deployments that have been around for a long time.

For instance, suppose you had user objects in three distinct structures within a single, on-premises AD domain. You would have to synchronize all three of those OUs to Azure AD separately, which is a headache, especially if those OUs also contain objects that you don’t want to synchronize, such as application service accounts or security groups. Unfortunately, it would be a bigger headache to synchronize the entire domain, with all of the admin and service accounts that have nothing to do with running Office 365 in Azure AD. Your lack of a consolidated OU structure would obligate you to spend time and effort repeatedly filtering what you synchronize. By consolidating and cleaning up your source environment before the migration, you’ll spare yourself all that work and reduce the risk of errors.

Create a clean delegation structure
In a solid OU structure, your groups, users and computers are well delegated. In other words, it’s well secured, with access to objects granted to only the people who need it. While there isn’t a direct correlation between your internal AD structure and Azure AD (Azure AD doesn’t support the concept of OUs today), there is a delegation model within Azure AD. Therefore, ensuring that you have a good idea of who manages what will help transition administration to Azure AD.

In addition, Azure AD is introducing the concept of administrative units, which are a form of delegation that enables you to cordon off certain objects to be managed by subsets of administrators. Having a clean delegation structure in your internal AD can make it easier to take advantage of this Azure AD construct going forward.

Have a strategy for provisioning and deprovisioning
Users often change roles during their tenure with the organization and therefore need access to different resources during different periods. And when they leave the organization altogether, their access should be terminated. If your organization is rigorous in provisioning, reprovisioning and deprovisioning users in on-premises AD, it will enjoy similar benefits with Azure AD. But if it takes you six months to disable the user account in your on-premises AD when an employee resigns, then you’ll pay six months of per-user fees for Azure AD and Office 365 subscriptions that nobody is using.
Moreover, the security risks are higher. While internal AD accounts are generally accessible only internally, Azure AD accounts are accessible on the public network. If users who no longer work with your organization still have a valid account in Azure AD, they can continue to access company resources from wherever they happen to be. Therefore, it’s critical to clean up your AD before migration and have tools in place to automate and simplify identity management and provisioning tasks after migration.

**STEP 3. PLAN FOR COEXISTENCE**

**Why coexistence matters**

Most migrations do not happen overnight or even over a weekend. In fact, many take weeks or months. During that time, it’s critical that users can continue to communicate and collaborate effectively, no matter which users and resources have been migrated. Otherwise, your organization faces inefficiency and user disruption that impacts the bottom line (see Figure 2). Moreover, it can lead to a negative first impression of the new environment, which can lead to resistance and lack of adoption.

**Developing a coexistence strategy**

The definition of coexistence can be different for each organization. Some organizations make heavy use of free/busy data; others barely use it. Some rely heavily on calendaring, while others are only concerned about a complete directory of users. As a result, it is critical to work with stakeholders to develop a coherent picture of what’s important within your organization and help everyone understand the importance of an effective coexistence strategy.

Be sure to consider not only email but also calendars and shared resources such as conference rooms. Users must be able to email one another and, in most organizations, be able to access free/busy information and schedule meetings. This includes both single-instance and recurring meetings. Whether meetings were already scheduled or created during the migration, the accuracy of calendar data is essential throughout the project. You must ensure that users can, for instance, change a meeting room for a single instance of a recurring meeting or cancel a single instance without causing resource conflicts and end-user confusion.

Achieving full coexistence is particularly challenging if you are migrating from a non-Microsoft platform. Many of these systems treat and store calendars differently than Microsoft solutions. Therefore, proper planning and the right tools are particularly critical for those migrations.

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**Why does coexistence matter?**

| 1. Limited or inaccurate directory updates | 5. Improper processing of custom recurring meetings |
| 2. Lack of free/busy information between systems | 6. Incomplete processing of assigned tasks |
| 3. Inability to reschedule meetings | 7. Difficulty scheduling resources between systems |
| 4. Improper handling of meeting cancellations | 8. Severed application workflow |

*Figure 2. Without full coexistence, employees can’t communicate and collaborate effectively, and the business suffers.*
STEP 4. EVALUATE MIGRATION SOLUTIONS CAREFULLY

Considerations to keep in mind

Migration planning, of course, also includes choosing migration solutions. As you evaluate your options, be sure to consider:

- **Your source platform** — You need a solution that can handle all the specific complexities of your source data, whether you’re on Exchange, GroupWise, Notes or another platform. Many of these platforms provide options for archiving and local content, include different calendaring features, and implement different sharing and delegation models. The solution you select must be capable of automatically translating these differences to match the format expected in the target platform.

- **Migration scope and options** — Consider whether the solution offers a fixed migration process or can be tailored to your organization’s specific needs. For example, a fixed migration process might not include migration of legacy archives, PST files and public folders or the consolidation of multiple Exchange forests as part of the migration to Office 365. Be sure the solution you choose offers all the specific functionality and coverage your organization requires.

- **Migration fidelity** — Look for a migration solution that provides a complete migration that preserves all of your email and calendar data, including local content, delegations and access control lists (ACLs). For migrations to systems with different message and attachment limitations (like Office 365), the solution must provide automated methods of preserving attachment data and migrating content to other storage mechanisms such as personal archives and OneDrive for Business.

- **Migration architecture, throughput and efficiency** — One of the single biggest factors affecting migration efficiency is the architecture of the migration solution. It is critical to choose a solution with a multi-threaded architecture.

- **Encryption and data security** — Verify that the solution ensures the security of your data, including private folders and encrypted items. If a vendor’s only option for migrating private and encrypted content is to expose it in the source prior to the migration, you may want to reconsider whether they have your best interests in mind. The solution should provide options for handling sensitive data throughout the migration to ensure the integrity of your data while preserving the content for future use.

- **Business continuity and workflows** — As discussed earlier, you need to think not only about the data that’s being migrated, but also about your business processes. As you evaluate migration solutions, consider whether they can ensure your business needs are met on the new platform, and whether they provide the coexistence required to keep systems and employees fully functional during and after the transition.

- **Quality of support** — In many cases, when you’re selecting a migration solution, the strength of its technical support is as important as the quality of the migration solution itself. Ensure that you will be supported during the time that you plan to perform your migration and that the team has experience guiding customers to successful migration projects.

Consider engaging a migration partner

Most organizations are not involved in migrations every day; in fact, your IT staff may never have been involved in planning and executing a migration of this magnitude. However, there are organizations staffed with IT professionals with years of experience that help you avoid pitfalls and streamline the migration process. In addition, your resources can stay focused on the core business strategy rather than attempting to plan and execute an unfamiliar migration project. All of this can add up to a sound return on investment.
Be sure to choose a migration partner that offers:

- Customized processes and timing
- Pre-migration planning and assessment solutions
- Multiple migration options and approaches
- High migration fidelity
- Security, including proper treatment of private and encrypted data

Don’t choose a vendor based on price alone — be sure to take into consideration factors such as experience, customer satisfaction, support and breadth of services. Choosing the right partner is just as important as selecting the correct migration tools.

**STEP 5. IMPLEMENT AND TEST YOUR RECOVERY SOLUTION**

Before you start any migration, it is extremely important to test both the move-forward plan and the back-out plan. It may seem like a hassle or overkill to test beforehand, but rest assured you will uncover and resolve problems that you just wouldn’t want to face once the actual migration begins. Plus, it will help you document your plan, which is also critical to a successful migration.

Migrations involve many moving parts and interactions, so it is likely that, despite your best planning efforts, something will be missed. You may overlook a dependency, connectivity may be lost during a migration or a scheduling miscommunication may result in a group of users being migrated before they are ready. Therefore, you need an email migration tool that can back users out of a migration event and recover to the state they were in before they were migrated.

Be sure to consider all of the following:

**Data restoration**

As part of the pre-migration cleanup, some organizations will create scripts to remove old data that is no longer being used by employees. These custom scripts can be faulty and remove the wrong data, or the IT department might be given the wrong list to purge. How will you restore data lost in such cases? You need the ability to quickly restore data from backup without any server downtime to help avoid delaying the migration project. Be sure that retention policies and any regulatory requirements are followed as you restore data within the environment.

**Email discovery requests**

This scenario is often overlooked: How will you respond if you get an email discovery request during the migration, when some email is still on the source platform while other email has already been migrated to the target platform? You need to be able to find the required data, so make sure you have a tool that enables you to search your multiple email locations from a single console and then export the data to your choice of formats so you can comply with potential email discovery requests.

**Mailbox recovery**

How will you restore mailboxes if they were deleted during the assessment phase but are still in use? For example, most organizations complete their Exchange mailbox cleanup prior to the migration, but delete mailboxes that are still in use for virtual private network (VPN) access or other purposes. You need a way to quickly restore mailboxes to keep users productive. Establish proper SLAs with your user community and IT team, along with procedures and policies to support mailbox recovery.

**Testing**

Your recovery plan needs to be planned and tested in advance. Ensuring that recovery can be executed efficiently helps mitigate risk to the business. Be sure to test all of the scenarios described earlier, including data restoration and mailbox recovery.

**Ongoing management**

What is your long-term recovery solution? Have a plan in place to better manage the new environment once you have consolidated or completed the migration to a new platform. You need to be able to quickly restore data from backup without any server downtime to avoid delaying other projects and ensure the business remains productive. Ensure what solutions will be utilized and determine training requirements for the team around recovery.

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Engaging an experienced migration partner can deliver a sound return on investment.
STEP 6. RUN A PILOT MIGRATION

After you complete the pre-migration assessment, finalize the coexistence strategy, and define plans to optimize fidelity and efficiency, it is critical to validate the approach through one or more pilot migrations. The goal of a pilot migration is to validate the procedures you have developed and discover challenges that may arise once full migration starts — giving you the opportunity to resolve them before initiating production migrations. As a result, you should expect and even welcome problems during the pilot migration.

Sizing your pilot migration

A pilot migration must be large enough to capture a representative sample of the data and corresponding issues that may be encountered during the production migration. If the number of mailboxes you are migrating will be a few thousand, randomly including about 5 percent of the total user population should be a sufficient sample; for extremely large migrations, the percentage can be smaller. You will also want to ensure different types of users and workflows are properly represented and exercised during the pilot migrations.

Choosing the data and systems

Through the pilot migration process, it is essential to use production data and production systems. This is critical for several reasons:

- You need to understand how the production environment is going to behave. An organically generated environment will not sufficiently represent the data and workflows that will be encountered during production migrations.
- You can gain additional validation about encrypted messages, frequency of message types that don’t exist in Exchange, and target thresholds and storage requirements based on the sample data.

Best practice: You should expect and even welcome problems during the pilot migration — uncovering them now will help ensure a smoother production migration.

Setting expectations

The pilot migration process also provides the perfect opportunity to validate the success criteria outlined for the project and calibrate expectations for the remaining migrations. If any adjustments are required, these should be documented and communicated before initiating production migrations.

STEP 7. SCHEDULE MIGRATIONS TO MINIMIZE ORGANIZATIONAL IMPACT

In order to minimize the impact to users and the organization as a whole, you need to migrate users who work together simultaneously and carefully time the migrations to minimize impact on those groups.

Once you have finalized the migration groups, be sure to schedule specific migrations for times that minimize the impact to those users and the organization. This may mean scheduling migration windows for a specific time of day to avoid working hours, month-end or year-end activities, maintenance windows or other factors. For example, sales teams probably should not be migrated near the end of a quarter, and the accounting and legal departments will certainly have restrictions around the timing of their migrations.

STEP 8. INITIATE THE MIGRATIONS, TRACK THEIR PROGRESS AND CONTINUE TO COMMUNICATE

With the proper plans and solutions in place and validated through pilot migrations, the production migrations should become rather routine events. There will likely be slight adjustments throughout the process to account for the needs of a specific group, but much of the drama should be eliminated by this point in the process.

Close monitoring will still be needed during the initial production migrations to ensure all of the contingencies were addressed during the planning and pilot phases. However, the process should become more and more automated as the production migrations proceed.
As the production migration schedule is executed, it is important to document and communicate the progress throughout the organization to provide validation that expectations are being met and better prepare users involved with upcoming migration events. Monitoring and communication remain key aspects of successful migrations throughout the entire process.

WHY QUEST?

One of the best ways to ensure a successful migration to Exchange 2016 or Office 365 is to use Quest as a trusted partner. Quest has migrated more than 72 million AD accounts and more than 59 million mailboxes to Exchange — nearly double the number of any other migration vendor. In gaining this vast experience, Quest has developed a proven methodology to ensure successful migrations. It is built on four key pillars:

- **Prepare** — Mitigate migration risks with detailed pre-migration assessments that analyze the current state of your environment. You’ll have the details you need about what should be moved and what shouldn’t, ensuring a successful, worry-free migration with no surprises. You can also consolidate or restructure your Active Directory environment before the migration to properly prepare for Office 365.

- **Migrate** — Mitigate the risk of data loss and minimize the impact on both users and IT with a high-fidelity messaging migration.

- **Coexist** — Ensure interoperability between users throughout the migration to minimize lost productivity.

- **Manage** — Stay in control of your new messaging and collaboration environment with auditing, reporting, recovery and email discovery in your Office 365 or hybrid environment.

ABOUT THE AUTHOR

Ron Robbins is a product manager at Quest, where he is responsible for guiding the direction of Quest’s migration solutions for messaging and Active Directory, and provides assistance to customers and strategic partners. Ron has over 15 years of experience in IT and has authored several white papers and articles on Exchange migration and management. Prior to joining Quest, Ron provided IT support and consulting services to many different organizations, including Fortune 500 companies. Ron holds a bachelor’s degree from Mount Vernon Nazarene University in Ohio.

Figure 3. Quest has the tools and experience to deliver a successful migration, from pre-migration planning through post-migration management.