

Conversational Office 365 Migrations



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Learn about:

- Office 365 services that are provided through Microsoft's cloud-based solution
- Migration methods including: data ingestion, hybrid migrations and more
- The value of using a third-party solution like CodeTwo for a move to Office 365

5th
Edition

By J. Peter Bruzzese (Microsoft Office Servers and Services MVP)

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CodeTwo is a leading worldwide provider of enterprise solutions for Microsoft Exchange and Office 365 that meet ISO/IEC 27001 and 27018 compliance requirements. Their applications aid group-work and email administration by streamlining tasks such as: email signature management, server migrations, mailbox backups, and control over email flow and content.

Established in 2007, CodeTwo is a recognized Microsoft partner and recipient of multiple industry awards. Most importantly, they are a respected brand among users and experts alike; their products are currently used in over 75,000 organizations in 150+ countries around the globe.



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By J. Peter Bruzzese

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Note from the Author

I've been working with Exchange for over 20 years and I've enjoyed seeing the product evolve with each new on-premises release. I don't see Office 365 as the end of Exchange, but rather the opportunity for organizations to have Exchange, SharePoint, Teams, OneDrive, and yes, even Yammer; all in one administrative console without all the stress of hardware infrastructure, installation, management, and so forth.

Maybe you've made the decision to move to Office 365. Maybe that decision has been made *for* you by others within your organization. Either way, the task is before you and you have to figure out how you're going to make that happen. Are you going to move all mailboxes and data directly to Office 365 in one weekend migration? Is that even possible for your organization? Or will you be setting up a 'hybrid' environment so that you can move your mailboxes over in groups? Do you have legacy data you need to worry about retaining on-premises or moving to the cloud? These are the questions you need to be asking and answering first.

Migration to Office 365 isn't "easy" by any means. However, it can be made easier with proper understanding of what is provided to you by Microsoft and where you might seek assistance from outside, third-party sources. This book will help to outline terminology, concepts, and potential solutions.

J. Peter Bruzzese



The “Conversational” Method

We have two objectives when we create a “Conversational” book: First, to make sure it’s written in a conversational tone so that it’s fun and easy to read. Second, to make sure you, the reader, can immediately take what you read and include it into your own conversations (personal or business-focused) with confidence.

These books are meant to increase your understanding of the subject. Terminology, conceptual ideas, trends in the market, and even fringe subject matter are brought together to ensure you can engage your customer, team, co-worker, friend, and even the know-it-all Best Buy geek on a level playing field.

“Geek in the Mirror” Boxes

We infuse humor into our books through both cartoons and light banter from the author. When you see one of these boxes it’s the author stepping outside the dialog to speak directly to you. It might be an anecdote, it might be a personal experience or gut reaction and analysis, it might just be a sarcastic quip, but these “geek in the mirror” boxes are not to be skipped.



Greetings. They call me J. Within these boxes I can share just about anything on the subject at hand. Read 'em!

Office 365 (101) for IT Professionals



What is Office 365? There are two answers to this question; one for the end-user (those folks who use the services provided by Office 365) and one for the IT professionals and decision makers within a company. This mini-book focuses on the IT Pro, so we will answer the question from that perspective.

Office 365 is Microsoft's cloud suite of collaboration, communication, and productivity tools. In late 2015, the Office Blog called it "one of the fastest growing business in Microsoft's long history of providing innovative technology products."

The install base for Office 365 is growing rapidly. On April 27th, 2017 Microsoft CEO Satya Nadella said there are more than 100 million monthly active users. At the time of this writing, active users total 180+ million! As fast as it is growing, there are still many who don't really know what Office 365 is. In truth, the name is a bit confusing. It's good to note that its predecessor had an even worse name: *Business Productivity Online Suite (or BPOS for short)*.



Office 365 was initially released June 28th, 2011 (over eight years ago) and yet many are still unsure about what it is.

The reason Office 365 is confusing is because many folks think it is referring to the next flavor of Office and, to a degree, they are correct (I'll explain that). But the primary offering is actually Microsoft's hosted (aka online in the "cloud") versions of Exchange (Exchange Online), SharePoint, Teams and OneDrive (as well as a variety of other tools depending on the plan chosen).

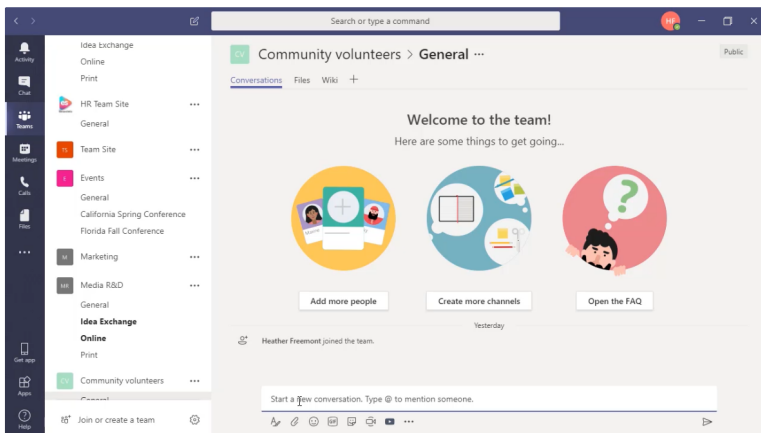
Let's break down what Office 365 is all about.

Office 365 Services

One of the most compelling services for Office 365 is the ability to have hosted mailboxes for email, handled by Microsoft and in their datacenters. From a simplistic point of view, the difference between your mailbox being on-premises or in the cloud is that you can physically touch the server on-premises, but if you find the location of your datacenter and make your way to it and try to touch a server, you will be taken down by security before you get within 100 feet of the perimeter. And if you did manage to sneak in, there is no way you would ever find the server with your mailbox. *Ever*.

So, are we saying that Office 365 is just an email solution offered by Microsoft? Not quite. That is one of its many features (and a primary one at that). Microsoft wants you to trust them with your mailboxes. Is it free? Like Gmail? Well, Gmail is free to individuals, and Microsoft Live accounts include Outlook.com email mailboxes that are free to individuals too. But Office 365 is a subscription service and the offerings go beyond just email.

Office 365 is a suite of services that include email, collaboration through SharePoint sites, online conferencing/IM/presence, file storage and sharing through OneDrive for Business, chat-based workspace collaboration through Microsoft Teams, enterprise social networking through Enterprise Yammer, Office Online, desktop versions of Office (including Word, Excel, PowerPoint, Outlook, Notepad, Access, Publisher, more), and a host of other services and features depending on the plan you choose.



Microsoft Teams

The desktop versions of Office are included as part of a subscription plan so that rather than purchasing a full license for Office for several hundred dollars, you can purchase a subscription-based Office (which is now based on Office 2019 and often called ProPlus) which you pay for monthly; *same solution, different pay structure with automatic feature updates.*

A Breakdown of Services

- Exchange Online: Allows you to have business-class mailboxes for your company handled by Microsoft. Microsoft provides data redundancy (multiple passive copies), basic security, etc.
- SharePoint Online: Allows your company to share documents and collaborate through workflow tools.
- OneDrive for Business: Cloud storage to store, sync, share, and collaborate using any device. If you've used Dropbox, it's the O365 equivalent.
- Microsoft Teams: Offers a chat-based workspace where internal teams can meet and share notes and attachments. If you've seen or worked with Slack, this is Microsoft's competitive version. It has integrated the IM and online meeting tools from Skype for Business (audio/video conferencing and screen/application sharing).
- Skype for Business: Provides IM and presence capabilities, as well as online meeting tools (audio/video conferencing and screen/application sharing). Note: Features have been blended into Microsoft Teams and Skype for Business has been retired with an end-of-life set at July 31st, 2021.
- Yammer: A business-based social networking tool for people in your company. Think of it like in-house Facebook (which may make you smile or cringe depending on your company culture and/or position). You can post messages, pictures, documents, etc., as well as communicate and collaborate with colleagues.
- Mobile Apps: There are a variety of different mobile apps to help you work with your Office 365 solution, including mobile version of Word, Excel, PowerPoint, Outlook, OneNote, OneDrive, Office Lens, Yammer, Delve, Teams and Stream.

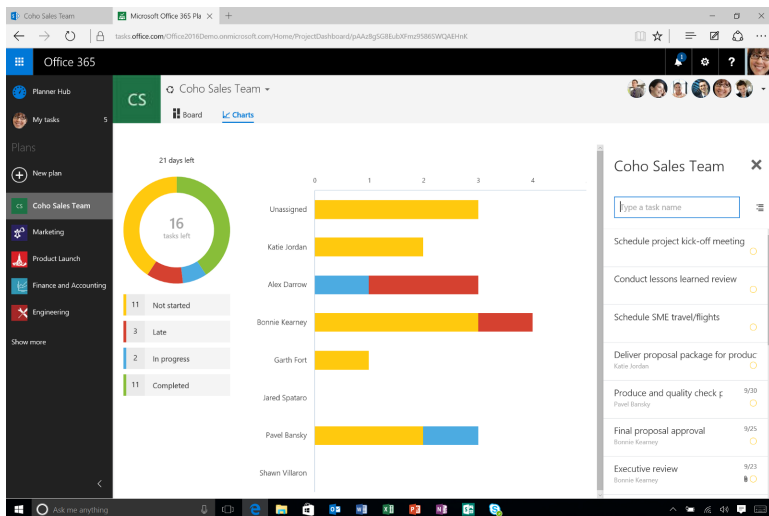
Feature Cadence

Microsoft is always releasing either new services or new/improved features to existing services; it's one of the benefits to having services in the cloud. The release cadence is incredible (and hard to keep up with at times), often feeling like something new is released daily.

Some of the tools include the following:

- Microsoft Graph: Uses machine learning techniques to connect you to what it determines to be relevant documents, conversations, and people. It watches what you do, what interests you, and what you treat as important to provide a personalized experience around your workflow.
- Delve: Works with Microsoft Graph to create a Pinterest-like trending view based on what you're working on. It is tailored to you personally.
- Stream: Provides the ability to upload video content to your company portal so that you can share this kind of content quickly and securely with people in your company or school.
- Secure Store: Compares your current O365 services and configurations to a baseline asserted by Microsoft and then encourages adjustments. Hint: For a higher score enable MFA for your users.
- Flow: Create workflows between your apps, files and data to automate time-consuming tasks.
- Kaizala: A simple and secure mobile chat app for work using phone-numbers.
- PowerApps: Build mobile and web apps with the data your organization already uses.

- Microsoft Planner: Helps you organize teamwork better by allowing you to create new plans, organize and assign tasks, share files, chat, and more.



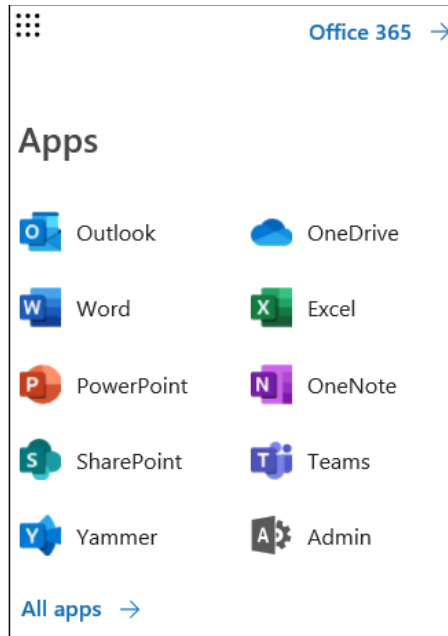
Microsoft Planner

While these are just a handful of tools and features that have already been released, there are more in development. It's a fast and furious cadence for sure!

Accessing Your Tools and Features

To see and access tools and features, you need to log into the web portal for Office 365 and access them through the App Launcher. Click the 9-tile icon in the top left of your screen post-login and you'll be shown all the apps in your App Launcher.

Note: Depending on the apps you have available, you may see more or fewer apps than what I have here.



Office 365 App Launcher



One thing to note is that Microsoft is now using the expression Microsoft 365 (an all-in-one bundle of the Office 365 suite, Windows 10 and Enterprise Mobility + Security) over Office 365 (the cloud services platform and Office subscription plan) dashboards, marketing and such.

Office 365: The Admin Perspective

As mentioned, Office 365 is all about the hosted services you can obtain by choosing a package that fits your needs. At the same time, it's also about subscription Office (if you pick a plan that includes the Office suite). There are Business and Enterprise (E1/E3/E5) plans to choose from. There are also options for Education, Government, Nonprofit, and Home (for personal plans).

Each plan you choose has a base of services and, if you need additional services not in your plan, you can either choose the next plan up or add services *a la carte* (if that makes sense financially when compared to choosing the next plan up).

Office 365 ProPlus \$12.00 user/month (annual commitment) Buy now	Office 365 E1 \$8.00 user/month (annual commitment) Buy now	Office 365 E3 \$20.00 user/month (annual commitment) Buy now	Office 365 E5 \$35.00 user/month (annual commitment) Buy now
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Several Plan Options

Logically, the plan you choose will have a price tag attached and this will often drive the decision on which plan is best for you. You want to be careful that the plan you choose includes features you want. For example, if you get a Business plan (as opposed to an Enterprise plan) you may not have some of the regulatory compliance features you would like to have (like premium journaling). You can always upgrade your plan if you need to, but it would be better to go into it knowing what your plan supports. These plans are not just based on number of seats, they have enabled/disabled features to consider, and some include Office while others do not.

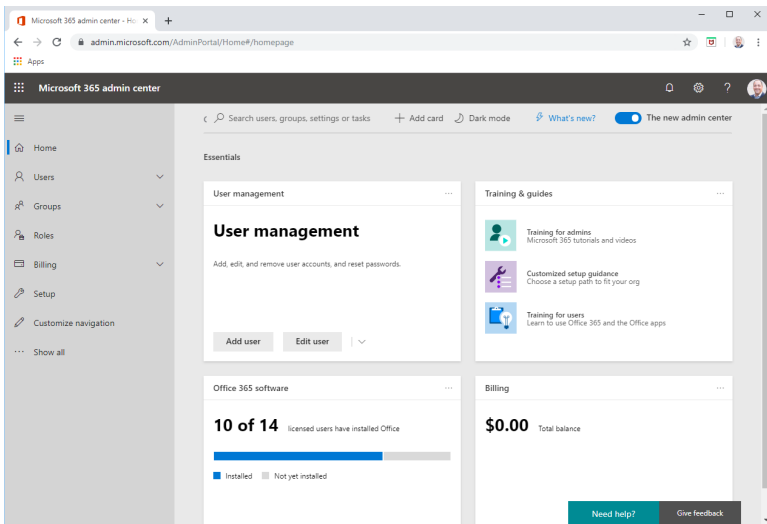
I can easily add new users to my portal, pull up reports, and more. It's easy enough for non-admins to figure out, but it has in-depth admin consoles which seasoned IT pros will appreciate too. For example, when working with specific features of Office 365, like Exchange Online, I can work with a web-based portal solution similar to what I use on-premises. So, from an IT admin perspective, it's great not to have to learn a whole new interface when working.

Often, with hosted solutions, it doesn't work that way. You get some kind of proprietary web-based tool set that gives you very limited options. But with Office 365, you get a very robust administration experience; as close to on-premises as you can hope for with a hosted solution – *in my opinion*.

In addition, you can establish a remote PowerShell connection to Office 365 and perform most (but not all) tasks through the command line as you would through the Shell.



A new feature announced August 2019 is the ability to use templates to create users in the Microsoft 365 admin center. That will assist with onboarding users in the future.



Microsoft 365 Admin Center

The Microsoft 365 Trust Center

Microsoft knows that it is hard to trust someone else with the lifeblood of your company... data. There have been some scary breaches in security over the past few years and it has folks a bit leery to use the cloud for corporate data.

To assist people in learning about all they're doing to earn and maintain that trust, Microsoft has established a Trust Center for Microsoft 365. It focuses on how Office 365 has been designed

with built-in security, continuous compliance, privacy by design, and transparent operations (each subject getting its own tab to drill down a bit more on the subject).

Note: You can check out the Microsoft 365 Trust Center here: <https://www.microsoft.com/trust-center>.

One of the benefits of the Trust Center is that you can use this content to help decision makers within your organization feel more comfortable about making the move to Office 365. After all, *you* may be convinced it's the right move for your organization but you still need to convince the folks that write the checks, and this kind of content is short, to the point, and very effective in doing just that.

The Microsoft 365 Online Roadmap (aka: Flight Plan)

Interested in seeing the Microsoft 365 (formerly Office 365) roadmap but don't have a behind-the-scenes press pass with a signed NDA in place to make it happen? Well, Microsoft has an online road map for Office 365 that shows clearly all the features launched, being rolled out (but not yet available to all), in development, cancelled (for those features no longer in the queue or indefinitely delayed), and previous releases.

The Microsoft 365 online roadmap makes it simple to see at-a-glance features so you can easily keep up to date with Microsoft's cloud-based solution for all things collaboration and communication.



I figure, since Office 365 is a cloud solution, instead of calling it a road map, it should be called a flight plan. Right? *Right?*

Note: You can check out the Office 365 Roadmap here:
<https://www.microsoft.com/microsoft-365/roadmap>

The Big Takeaways

Office 365 is Microsoft's hosted suite of communication and collaboration solutions including Exchange Online, SharePoint Online, Skype for Business, and several other tools/features depending on the plan you choose.

There are a variety of plans to choose from with different features and price tags attached. You need to make sure the plan you choose is best for your needs.

Some plans come with a subscription to Office so that users can install the latest version of Office applications. One of the values to Office 365 is that all the solutions (the server-side ones and end-user ones) are kept up to date and are the latest iterations of the solutions available.

Microsoft is aggressively building-out the Office 365 platform and enhancing the features that currently exist. You can check the public-facing roadmap (aka flight plan... *it'll catch on*) to see what's in development for the future. Also, keep an eye on the Microsoft 365 blog (<https://www.microsoft.com/microsoft-365/blog/>) to assist in staying on top of new features and future enhancements.

Migrating to Office 365



Have you ever moved before? The stress of moving your belongings from one home to another, especially one that is far away (we're not just talking about an around-the-corner move) can be overwhelming. And if you have lived in your current residence for any length of time, it becomes even more difficult deciding what to take with you and how to make it happen.

Migrating to Office 365 can have similar levels of stress attached.

The data that your company has accumulated over the years within mailboxes and public folders is now going to be shipped in some way to the far-away Office 365 datacenter. *How is that really going to work?*

Note: You may wish to check out Microsoft FastTrack for assistance in adopting Office 365.

<https://www.microsoft.com/fasttrack>

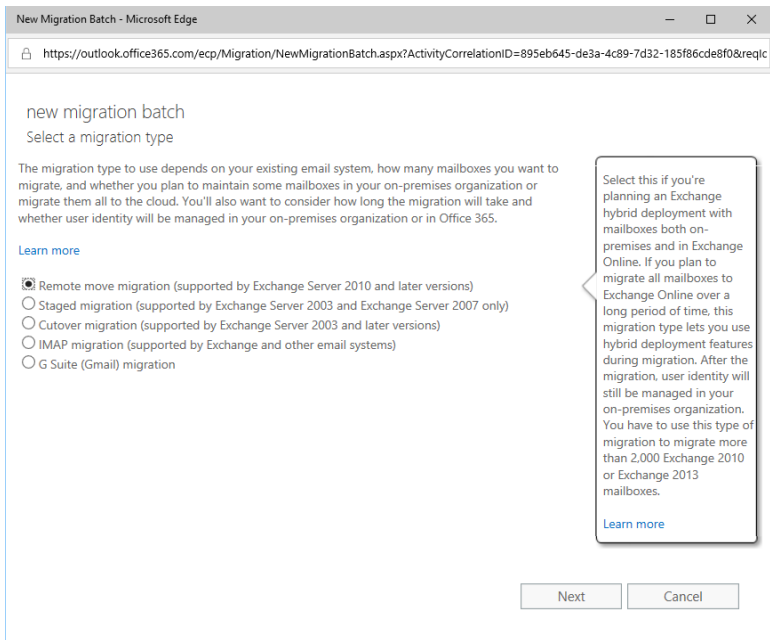
Data Ingestion into Office 365

Data ingestion sounds like something you need to go to the doctor for because over-the-counter stuff just isn't helping enough. The fact is that while some start-up greenfield business cases may allow for the creation of brand spanking new mailboxes in the cloud, most folks are going to be migrating *from* something (typically Exchange on-premises, but possibly Lotus or another hosted/cloud-based solution like G Suite from Google). How you proceed with that migration will depend on how many mailboxes you have to migrate and what kind of solution will work best for you. You may also have a legacy archive solution on-premises that you are looking to migrate, either over to Office 365 or to some other cloud-based archive solution. All of this is part of the "conversation" around Office 365, so it would be good for you to grasp the concepts.

For starters, you need to consider the type of migration you'll need to make and how you would like to accomplish the goal. For some, the built-in tools from Microsoft may be your approach. For others, a third-party solution (like CodeTwo) would make your migration easier.

To begin making decisions on what you'll need/want to do, first look at which platform of Exchange (or alternative on-premises email solution) you're using. Then consider the number of mailboxes you wish to move to the cloud and the amount of data, typically per mailbox (easier to work with if you have been using quotas). Decide if you wish to move all mailboxes to Office 365 or wish to maintain an on-premises/cloud hybrid mixture.

If you have an Office 365 portal, look into the Exchange Admin Center for your organization and explore the Migration tab (under the Recipients feature).



Built-in Migration Options

Options include:

- Remote move migration (supported by Exchange Server 2010 and later versions). This requires a hybrid configuration between your on-premises Exchange and Office 365. The hybrid approach is the only Microsoft solution that offers an “exit strategy” to migrate back.
- Staged migration (supported only by Exchange Server 2003 and 2007). You can migrate batches of mailboxes until all are moved to the cloud. User identity is still managed through your on-premises organization.
- Cutover migration (supported by Exchange Server 2003 and later versions). Use of this option is permitted only if you have fewer than 2,000 mailboxes. If you have more than 2,000 mailboxes, you must use either staged migration (on Exchange 2003 and 2007) or remote

migration (on Exchange 2010 and 2013). Note: It's not just about the number of mailboxes, but also the size of those mailboxes. Cutover must be done all at once, so it may not be your best choice depending on your business.

- IMAP migration (supported by both Exchange and other email systems) for those of you folks looking to migrate from Yahoo and so on. (Only capable of migrating email; not contacts, calendar items, and tasks).
- G Suite (Gmail) migration. Copy the contents of user mailboxes from a G Suite (Gmail) organization to Exchange Online. You can migrate batches until all mailboxes are migrated.



A new tool to assist with migration of mailboxes is the Mail Migration Advisor. Similar to the Deployment Assistant (another great tool) it will help you to prepare for and perform your migration.

<https://docs.microsoft.com/en-us/exchange/mail-migration-jump>

Hybrid On-Premises/Office 365

A hybrid Exchange connection allows you to take two Exchange organizations – your on-premises Exchange and your Exchange Online – and make them appear as if they are one Exchange organization. They aren't... but they look and act like one to the end-users, and you can use a hybrid to migrate mailboxes at a slow(er) pace and maintain coexistence long-term.

A hybrid deployment provides a variety of features, including:

- a shared domain space (such as companyname.com)
- a unified global address list (GAL)

- free/busy calendar sharing
- at-will onboarding and offboarding between the two platforms (note that bandwidth and throttling affect the speed of these processes)
- centralized mailbox management through a single console (the Exchange Admin Center from on-premises Exchange)

Some call it the best of both worlds; the organization can keep mailboxes that are of a more-sensitive nature in house while allowing Office 365 to handle non-critical mailboxes (like temporary workers perhaps). Or they can use the archive features and/or cross-premises e-discovery features of Office 365 combined with on-premises mailboxes.

Configuring Hybrid

It's not necessarily an easy process to set up and configure the hybrid environment. It starts with dropping in an Exchange 2016/2019 system into your environment (which will not be possible if you have an Exchange 2003 server in your mix, you'll need to upgrade from 2003). Once the 2016/2019 system is in play, you can run the Hybrid Configuration wizard (HCW) from it. Keep in mind, *this is not a "hybrid server," it's just an Exchange server in your organization that will perform hybrid tasks.*



You can get a free Exchange hybrid server product key from Microsoft so that you don't have to pay extra for this server. That server will only function to provide hybrid functionality, not host on-premises mailboxes.

Exchange 2010 Hybrid?

Yes, you can do a hybrid from a 2010 (with latest updates) environment, but it's a more difficult process. If you're looking to

coexist for any length of time, you want to go with the latest flavor of Exchange and drop in a 2016/2019 system.

The Hybrid Configuration wizard that's included in the Exchange Management Console in Microsoft Exchange Server 2010 is old and is no longer supported. Instead, use the Office 365 Hybrid Configuration wizard available at <https://aka.ms/HybridWizard>.

Hybrid Configuration Flavors

It's good to know that hybrid migrations come in full, minimal and express options.

Full: Use for larger organizations with a lot of mailboxes (thousands) with a need for complete integration between Exchange on-prem and Office 365. AD is synchronized along with free/busy information and more.

Minimal: Better for medium organizations with a few hundred mailboxes or more where it's going to be a quicker migration (weeks or a couple of months, not many months). AD synchronization works but other features like free/busy doesn't work.

Express: Best for small organizations that can get the migration done in days/weeks. Does a one-time AD sync and that's it.

Obviously, if you're reading this and you know the size of your environment (and we'd hope you do) than focus in on one of these types of hybrid flavors to research and drill down a bit more into what they do and how.

Hybrid Configuration 101

There are prerequisites you need to consider and handle first. Search Microsoft Docs (formerly Technet) for the latest "Hybrid deployment prerequisites" before running the HCW.

The prerequisites for setting up a hybrid environment vary, but include Active Directory synchronization through the Azure Active Directory Connect tool (aka AAD Connect). Note: The predecessors to AAD Connect are DirSync and AAD Sync. This prerequisite helps keep your on-premises Active Directory and your Office 365 directory in sync. Another option (although not a prerequisite) you might want is single sign-on (SSO) so that users can access on-premises and online features with the same username and password through password hash synchronization (aka the synchronized identity model) and/or Active Directory Federation Services (ADFS) or a third-party (aka the federated identity model).

Both options allow users to log in with the same credentials they use on-prem, but some don't have (and don't want to implement) an ADFS infrastructure. The difference with ADFS federated identity management is that the password is verified by the on-prem ADFS as opposed to being synchronized to Azure AD. A third-party identity provider might also be considered in place of ADFS.

Note: Both the Active Directory Connect and SSO services should be deployed before running the Hybrid Configuration wizard.

Within a hybrid configuration, you use AD synchronization to replicate mail-enabled user account AD information from on-premises up to your Office 365 organization. This ensures a unified global address list (GAL). Note: You need a separate server on-premises to install AD synchronization.

Directory synchronization works mostly one-way, from on-premises AD to Azure AD. And that can lead to some odd issues. Mitigating those issues can be a bit of a bear (think ADSI Edit tool). It's all part of the deal though and, yes, Microsoft is aware of the problems: <https://tinyurl.com/m5q5ma5>

The HCW does a ton of behind the scenes work. It configures Exchange Federation (unless you already have federation trusts

established), sets up Web services for mailbox moves, and configures send/receive connectors for mail flow coexistence, to name a few. Note: Make sure your certificates are in order and provided by a trusted third-party agency.

When you run the HCW, you'll address a few questions regarding your environment and your needs; you have to choose the Exchange server you want to connect to, provide administrative credentials for your on-prem and O365 environments, and tell the wizard if you want to establish bi-directional mail transport through your Mailbox/Client Access servers (which is the typical configuration) or through an Edge Transport server (if you have one). You can also determine if you want mail to flow top-down through Exchange Online Protection (EOP) for Office 365 security scrubbing, down into your on-premises environment, or to flow through on-premises and up to Office 365 (aka centralized mail transport).

When you make the connection for a hybrid configuration and move mailboxes, you'll be using Exchange Web Services (EWS) and an RPC over HTTPS connection. EWS has limitations if used directly, but third-party companies have worked out ways to perform multiple connections and increase performance.

One negative of the hybrid configuration is that it is now a single point of failure. Some have asked "how long can I run in hybrid?" and the answer is *indefinitely*, to be honest. Some organizations have no choice but to wait for the Office 365 solution to advance far enough, or for the third-party tool they need on-prem to learn to work with Office 365 in whatever capacity they currently have; so the hybrid mode must stay in place. But that means you will be looking at a point of failure until you can make the full swap.

How fast can you make all of this happen? Well, the Exchange Web Services (EWS) has a throttled limitation for data ingestion, so if you have 20TB, 100TB, etc. of data, you are going to have a bit of a hard time getting it all moved over fast. Keep in mind,

you're in a multi-tenant situation with Exchange Online through Office 365. In other words, you are sharing space with other companies on that server, so Microsoft has to throttle each company to ensure no one gets all the processing power.

It's essential to take your time during the planning stages to ensure a smooth migration. Mailboxes are an important aspect of the move, but not the **ONLY** aspect. You also want to ensure a continuation of services from the ground to the sky. And there are risks involved, so you need to plan well to mitigate those risks. *Don't just sleepwalk into the cloud!*

Confirm Your Hybrid Configuration Works

There are a couple of ways to test if your hybrid is working. First, you can open PowerShell and type **get-hybridconfiguration** to see the results of the wizard. You can also go check the logs, which are located in AppData for the currently logged-on user (just follow the breadcrumbs to *Roaming/Microsoft/Exchange Hybrid Configuration*). Look for the text file (not the xhcw file, which is used for the troubleshooter tool).

Personally, I don't relax until I can use the Exchange Admin Center to create mailboxes, move mailboxes, and so forth. There are several tests you may want to perform to convince you all is well.



Paul Cunningham is a fellow MVP with a solid blog called practical365.com that includes configuration and testing articles like the following three that I recommend you review:

<https://tinyurl.com/hybridconfig1>

<https://tinyurl.com/hybridconfig2>

<https://tinyurl.com/hybridconfig3>

The Big Takeaways

Migrating to Office 365 isn't the easiest thing in the world. There are a lot of variables to consider and several built-in migration options.

You can choose from cutover, staged, remote/hybrid, IMAP or G Suite migration. Choosing a hybrid flavor (full, minimal, express) and approach has its advantages but requires some prerequisite work for AD directory synchronization (and possibly SSO) to ensure you can run the hybrid configuration wizard, then you'll be able to onboard mailboxes to Office 365.

The speed with which you can move mailboxes is limited by bandwidth and throttling issues. Data may have to be extracted from a legacy solution or pooled from rogue PST files within your environment to push up to the cloud.

Some of the concerns that come up with migration using native/built-in tools include problems with migration from Exchange 2003 (and older) environments, the complexity of the hybrid configuration setup, the need to be PowerShell savvy (although everyone in the Exchange admin world these days should at least be PowerShell *proficient*), the lack of time filters, auto-match, granularity, and so forth.



Rather than allowing the concerns to make the migration prohibitive, a third-party tool may be just what you need to make this process – which feels overwhelming to many – a piece of cake.

Vendor Sponsored Chapter: CodeTwo



"Man... those guys are like IT Superheroes!"

It's true, I'm going to tell you about CodeTwo's products. But it's not a "product pitch" in the strictest sense of the word. It's not marketing jargon or whitepaper spin. We're going to stick to the same concept we've held to through this entire booklet, a conversational discussion of the subject.

If you jump over to the CodeTwo website, you can see that they have a bevy of products for Office 365 and Exchange on-prem which can assist with email signatures, email flow control, attachments, autoresponders, migration, synchronization, sharing and online collaboration, backup, and more.

The solutions that they design are laser-focused on the intended task, with crisp GUI interfaces that make it easy to get the job done. In fact, CodeTwo is a 100% GUI-based product; no PowerShell scripting or scripting of any sort is required.

Migration is a key solution (which is fitting considering our booklet's focus here). Their migration tools help to speed up and automate the migration process significantly.

They have tools to help you migrate from one flavor of Exchange (or legacy Exchange) to another on-premises flavor, or to Office 365 (considering the book you're reading). With IMAP and EWS as source server options, you can also migrate from any IMAP server (like hosted Exchange, G Suite, or Zimbra) or from Office 365 itself to the on-premises Exchange or to Office 365.

Seven Exciting Enhancements from CodeTwo

1. **MSP-friendly licensing model** – Thanks to the new licensing model, CodeTwo Office 365 Migration can be installed on multiple machines using the same license key. It can be used to speed-up the migration process. Moreover, the remaining seats can be used for another migration project. This enables partners to migrate an unlimited number of clients/orgs (from an unlimited number of locations) using just a single license key.
2. **Role-based Access Control model** – The program no longer requires the domain/global admin's privileges to perform a migration. The migration account only needs necessary management roles to run the migration, and the program can assign the required roles automatically.
3. **Support for Office 365 Germany (by Deutsche Telekom)** – Office 365 Germany is handled just like any other migration source/target. This means CodeTwo's clients can now migrate from Exchange to Office 365 Germany, and from Office 365 worldwide to Office Germany.
4. **Setting size limit for migrated items** – This feature is helpful in two ways – it excludes the items that Office 365 will not be able to accept anyway in the course of

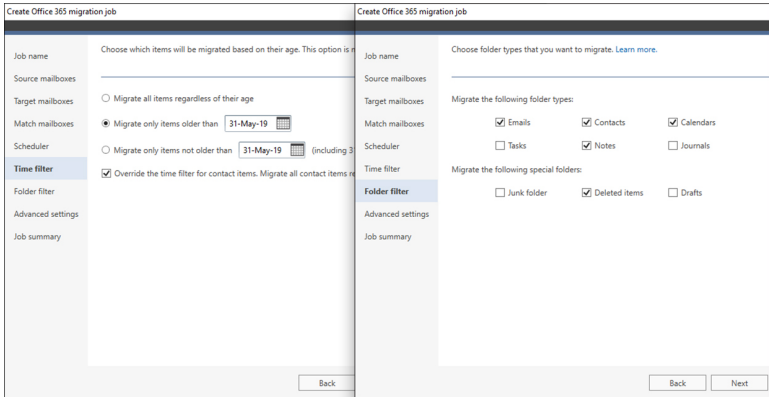
the migration, and it excludes the large files in the initial migration stage, accelerating the transition process.

5. **Support for a hybrid environment** – Fully supports the hybrid environment as a source and as a target of the migration process.
6. **Refresh email addresses feature** – This feature lets you experience a seamless migration even when a domain changes during the transition process.
7. **Improved migration and throttling algorithms** – The migration process is significantly faster, more stable, and throttling is now handled more efficiently, minimizing the chance of getting errors during migration.

CodeTwo's Migration Tool

There are a few notable points to CodeTwo's migration tool:

- Migration jobs, so you can configure several migration tasks which have different settings (ex: migrate different groups of users or have alternative time filter settings).
- Migration of many item types, from Exchange to Office 365 or Office 365 Germany. You can also move (or exclude from the migration job) Calendars, Tasks, and special folders, such as Deleted Items or Drafts.
- The program can migrate mailboxes transparently in the background, which means the users will have access to their mailboxes all the time, with no downtime.
- Time filters for migration so you can, for example, migrate last 30 days, switch MX records, and let your users start using Office 365. Then you can migrate the rest while your users are already live in the cloud.



- MAPI or EWS – you can choose either MAPI or EWS to connect to the source environment. While MAPI lets you migrate data directly from legacy Exchange Servers (e.g. Exchange 2003 or 2007), EWS accelerates and simplifies the migration process from newer Exchange editions including Exchange Online, which means you can also migrate mailboxes between different Office 365 tenants.
- Mailbox Automatch – automatically matches source and target mailboxes before the migration.

Match mailboxes							
Save Automatch Create user settings Refresh license info HTML Report Help							
Mailboxes matching summary:		Actions summary:		Office 365 licenses:			
✓	Automatched:	14	▲	Create new user with mailbox and migrate:	0	Total:	50
🟡	Matched manually:	0	📧	Enable mailbox for existing user and migrate:	0	Available to assign:	26
✗	Not matched:	0	➔	Migrate to existing mailbox:	14		
	Total:	14	🚫	Don't migrate:	0		
First name	Last name	Email/Login	Target user mailbox	Target user name	Migration status	Action	
Ann	Lewis	a.lewis@dstdomain2.lan	✓ AnnL@M365x527373.onmicroso...	Ann Lewis	🕒 Not started	➔	Migrate to existing mailbox
Agnes	Pearson	A.Pearson@dstdomain2.lan	✓ AgnesP@M365x527373.onmicroso...	Agnes Pearson	🕒 Not started	➔	Migrate to existing mailbox
Julie	Keiser	Administrator@dstdoma...	✓ JulieK@M365x527373.onmicroso...	Julie Keiser	🕒 Not started	➔	Migrate to existing mailbox
Eugenia	Clark	e.clark@dstdomain2.lan	✓ EugeniaC@M365x527373.onmic...	Eugenia Clark	🕒 Not started	➔	Migrate to existing mailbox
Elisabeth	Corner	e.corner@dstdomain2.lan	✓ ElisabethC@M365x527373.onmi...	Elisabeth Corner	🕒 Not started	➔	Migrate to existing mailbox
John	Doe	j.doe@dstdomain2.lan	✓ JohnD@M365x527373.OnMicroso...	John Doe	🕒 Not started	➔	Migrate to existing mailbox
Jeff	Harris	j.harris@dstdomain2.lan	✓ JeffH@M365x527373.OnMicroso...	Jeff Harris	🕒 Not started	➔	Migrate to existing mailbox
Julie	Mcgee	J.Mcgee@dstdomain2.lan	✓ JulieM@M365x527373.onmicroso...	Julie Mcgee	🕒 Not started	➔	Migrate to existing mailbox
Jane	White	j.white@dstdomain2.lan	✓ JaneW@M365x527373.OnMicroso...	Jane White	🕒 Not started	➔	Migrate to existing mailbox
Kate	Fox	k.fox@dstdomain2.lan	✓ KateF@M365x527373.OnMicroso...	Kate Fox	🕒 Not started	➔	Migrate to existing mailbox
Kristy	James	kjames@dstdomain2.lan	✓ KristyJ@M365x527373.OnMicroso...	Kristy James	🕒 Not started	➔	Migrate to existing mailbox
Linda	Thompson	L.thompson@dstdomain2.lan	✓ LindaT@M365x527373.OnMicroso...	Linda Thompson	🕒 Not started	➔	Migrate to existing mailbox
Michael	Anderson	m.anderson@dstdomain2.lan	✓ MichaelA@M365x527373.OnMic...	Michael Anderson	🕒 Not started	➔	Migrate to existing mailbox
Monica	Jones	m.jones@dstdomain2.lan	✓ MonicaJ@M365x527373.OnMicr...	Monica Jones	🕒 Not started	➔	Migrate to existing mailbox

- Mailbox creation – to make things even easier, the tool can automatically create mailboxes on the target server

(if their source counterparts do not exist) and assign Office 365 licenses to them during the migration process, based on the rules you set up.

- Support for Public Folder migration, no matter which Exchange version you migrate from.
- Active Directory attributes support which allows migrating AD attributes, such as Company, Department, Title, Telephone Number, etc.
- Delta migration options (with unlimited rescans) allowing you to move new items that were created after the initial migration process.
- Detailed migration reports and email alerts which let you monitor every step of the migration process and send overall reports to your clients or to management.
- Scheduler to activate and deactivate migration jobs automatically. This allows you to plan your migrations, e.g. only on weekends or outside of office hours.

Create Exchange migration job

Job name

You can start and stop the migration job manually or enable the scheduler to let it run the job at specified time periods automatically. [Learn more.](#)

Source mailboxes

Target mailboxes

Enable scheduler

Match mailboxes

Select 'Weekly recurrence' to apply the same schedule to every week within the defined period. Select 'Individual weeks' to schedule migration periods for each week individually.

Scheduler

Time filter

Folder filter

Advanced settings

Job summary

Weekly recurrence:

Start date:

End date:

Individual weeks:

Week number:

From 9/1/2019 to 9/7/2019

	All	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Sunday																									
Monday																									
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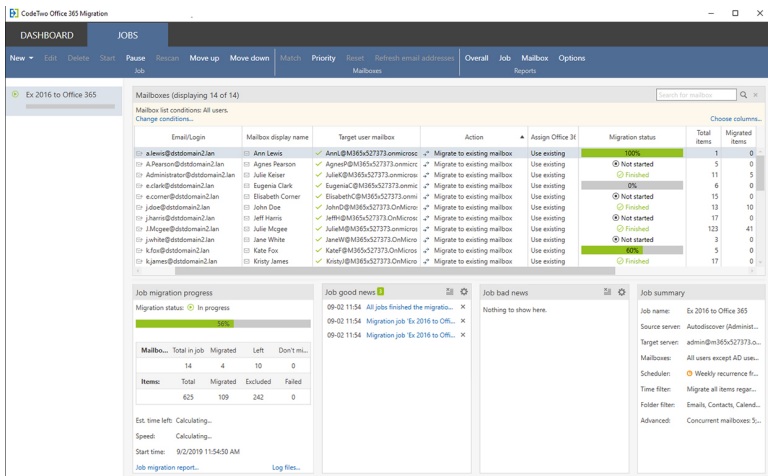
- Run - Don't run

Back Next Finish Cancel

- EX to SMTP conversion on the fly (especially useful while migrating from Exchange 2003 or 2007 straight to Office 365).
- Ultra-secure and reliable – data encryption or support for TLS 1.2 and MFA are only the tip of the iceberg. The program itself is developed and supplied in accordance with ISO/IEC 27001 and 27018, so you should feel at least as safe as you would when using Microsoft’s own software.
- Tech support for free (provided live over the phone or through email).

From an installation perspective, it is a simple N-N-F (next/next/finish) and as easy as can be. The connection to your Office 365 is performed through a simple wizard.

Once the connection is complete, you’re taken to the Administration portion of the tool. You can perform migration tasks using the interface which is intuitive and easy to work with. As I’ve said in my review of CodeTwo migration tools for MExchange.org, I love a tool that is advertised as being able to perform a task, and it does just that. *Smooth, elegant functionality with a polished interface.*



In addition to migration solutions, CodeTwo also has a backup solution with the ability to perform an offline backup of Exchange Online, SharePoint Online as well as OneDrive for Business data directly from Office 365. Incremental backups let you keep the copies up to date and allow for a full restore. You can also perform granular restores of selected mailbox folders, SharePoint lists and libraries, or even selected items (like a single email message, a calendar event, or a contact). CodeTwo Backup can be also used to migrate SharePoint data between sites within the same Office 365 tenant or even between different tenants.

CodeTwo is also known as an email signature management software vendor. Their cloud solution, CodeTwo Email Signatures for Office 365, will let you centrally add email signatures and disclaimers to emails sent from any email client and device (including handhelds). This solution allows you to, among other things, unify email signatures throughout your entire organization, add Office 365 users' photos to signatures, and view email signatures and disclaimers as you type or in the Sent Items folder. Admins can even delegate signature-related tasks to other departments without compromising the security of an Office 365 tenant.

CODETWO[®]

software engineering

Already migrated to Office 365?

Now it's time for your email signatures to shine

Create and manage signatures across all users in Office 365 and add them to emails sent from any device

Personalize signatures by using Azure AD data and user photos

Boost your branding with logos, social icons and banners

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Sales Representative

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Please rate the quality of the support you received: ★★★★★

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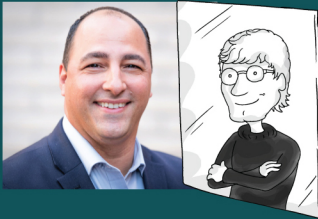
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Easily “converse” about Office 365 migrations in any setting.

Office 365 has taken the world by storm despite it being an overwhelming task to plan and execute a solid migration strategy. In this book we'll focus on the value of Office 365 as a solution and we'll walk through migration strategies available with the goal of assisting you, the reader, to be able to speak intelligently about migration options, pros and cons of those options along with key tools provided by Microsoft and third-party solution CodeTwo.



About J. Peter Bruzzese

J. Peter, an eight-time Microsoft MVP awardee (Exchange/Office365), is an internationally-recognized journalist, published author, and speaker. He is co-founder of both Conversational Geek and ClipTraining. Follow him on Twitter @JPBruzzese.



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