EBOOK

4 Steps to Migrate from G Suite to Office 365
Say Goodbye to Google Apps

Any IT admin leaving Google’s G Suite for Microsoft’s Office 365 knows that there are some significant differences between these two software-as-a-service (SaaS) productivity platforms. As a result, migrating data from Google to O365 requires some careful planning that may not be explicitly addressed in the official Microsoft Office 365 Onboarding Guide.

To ensure your G Suite data isn't lost in translation, we've outlined the best practices for IT admins managing the migration from Google Apps to O365. No matter what third-party tools or services you employ to move your data from Google's cloud to Microsoft's online office suite, this guide will help you avoid the common pitfalls and problems associated with G Suite to Office 365 migrations.
SCOPING YOUR MIGRATION

Before you begin a migration between Google’s G Suite and Microsoft’s Office 365, you’ll need to answer four key questions. Your answers to these questions will determine the type and scope of your migration. Having these answers firmly in place before the migration process begins will prevent problems down the road.

Migrating Email, or Everything?
Let’s be honest: most migrations to Office 365 are all about Microsoft Outlook. Some organizations simply can’t live without the world’s most famous desktop email application. As such, many G Suite to Office 365 migrations are simply Gmail to Outlook and Exchange online migrations. This is doubly true in mixed-vendor environments where OpenOffice is used instead of Google Docs, or Box or Dropbox are used instead of Google Drive.

Bottom line: are you moving everything to Office 365, or just your email solution? If you’re moving more than email, is all of it coming out of Google Apps, or does data need to be migrated from additional platforms? Be certain you know the answers to those questions before you begin your migration. You’d be surprised how often specific locations, departments, or even individuals use alternate software that IT didn’t know about. Otherwise, you will run the risk of leaving data behind.

DIY, or Partner Migration?
There are a number of third-party services and consultancies out there that specialize in migrating data into Office 365. If your business works with a Managed Service Provider (MSP), he/she may offer to manage the project or at least to assist. If you’re going to involve a third party, make the decision beforehand, as the cost and complexity of bringing in a consultant mid-migration will be much higher.
Each migration tool has an associated set of costs and compatibilities to consider, but you should be very clear about which tools you’re going to use before migration starts.

If you aren't going to enlist an experienced migration partner, make sure you are generous with the project timeline, as there are always unexpected complications that show up when moving large amounts of data between systems. Also, be certain you have a robust and regular data backup solution in place in order to avoid any unrecoverable data corruption or loss during the migration process.

What’s in Your Migration Toolbox?
Just as there are multiple cexperts-for-hire to handle a Google Apps to Office 365 migration, there are an equal number of software tools and services for this as well. These solutions range from free applets that simply do IMAP transfers between Gmail and O365 mail accounts, to complex SaaS tools that map and move data between Google accounts and Active Directory-managed Office 365 users. Each migration tool has an associated set of costs and compatibilities to consider, but you should be very clear about which tools you’re going to use before migration starts.

What is Your Migration Timeline?
Unless you can count the number of G Suite users in your Google domain on two hands, it’s unwise to migrate everyone over to Office 365 at the same time (and it’s probably a bad idea even for domains of less than 10 user accounts.) Migration should happen in waves, and start with a pilot subgroup of early adopters. If possible, break up your migration into at least three stages -- typically ten percent of users in the first wave (sometimes called the pilot wave), 40 percent of user accounts in the second, and the remaining 50 percent in the third -- and leave ample time between each stage to troubleshoot any problems discovered during each phase. By setting a clear, reasonable timeline before your migration starts, you’ll avoid several headaches in the future.
Some items are not reasonably accessible or exportable from Google Apps, and a noteworthy percentage of G Suite data and metadata simply can’t be imported into Office 365.

 IDENTIFYING DATA THAT CAN’T BE MIGRATED

Office 365 and the G Suite are comparable SaaS productivity suites, but not every Google Apps data element has a counterpart in O365. Some items are not reasonably accessible or exportable from Google Apps, and a noteworthy percentage of G Suite data and metadata simply can’t be imported into Office 365. This information will have to be manually transferred, modified, and/or abandoned during migration -- and both you and your users need to be prepared.

Non-Classic Google Sites

In November of 2016, Google introduced a fully redesigned version of Google Sites with new templates and features. Unfortunately, when they revamped Sites, Google did not include the new system in their standard Google Drive REST API, which most migration tools use to extract data from Google Sites for import in Office 365 SharePoint Online.

By the same token, Google Sites created with legacy versions of Google Apps -- the free versions of Google Apps that were retired in December 2012 -- are also excluded from the Drive API. Thus, almost any Google Site created before December of 2012 or after November of 2016 is not easily migrated, and IT administrators should determine if their migration tools and services have a workaround for migrating this Sites data.

Google Hangouts Links

Google Calendar natively makes a Google Hangout available for almost any calendar event, including a Hangout link in the event’s details, but there is no equivalent online conference links in Office 365. Skype for Business, even when integrated with O365, does not yet offer pre-generated URLs for a scheduled video conference. If your organization regularly used Google Hangouts for remote meetings, your migration plan must address how to replace these Hangout links when migrating calendars to Office 365.
You’ll need to **manually recreate any survey in Office 365** that needs to be migrated from a Google Form.

### Calendar Colors

By default, Google Calendar offers 24 different colors for calendar events. Office 365 Outlook online only supports six event colors. Google also allows you to customize calendar event colors from outside the default set of 24. Thus, when you migrate between Google and O365 calendars, the event color key will be different. IT admins will need to address this (often surprisingly disruptive) change during user training and, if your migration tools and services support it, do their best to match the colors in Google Calendars as much as possible to the colors available in O365 Outlook.

### Google Forms

There is simply no equivalent to Google Forms within Office 365 OneDrive for Business. Any Google Sheet that holds response data from a Google Form can be converted to an Excel or CSV file, but the form itself will not survive migration. If you have not exported Google Form response data to a Google Sheet or similar file (you can go directly to an Excel-compatible CSV file, which may simplify your migration), do so immediately. This will ensure your Form data is preserved.

If you need to continue to operate something like a Google Form, Office 365 has a survey feature that can perform many of the same functions, but you can't directly convert a Google Form to an O365 survey. You’ll need to manually recreate any survey in Office 365 that needs to be migrated from a Google Form. For external-facing Google Forms (that a customer may fill out, for example), a SharePoint survey is most appropriate. For internal-facing Forms, you can employ an Excel survey.
All the muted responses in the thread will be migrated, so no data is lost, but **future reply-all responses made after the migration will not be muted.**

If you want to avoid recreating your Google Forms, it may be worthwhile to preserve a handful of Google Apps accounts simply to host the Google Forms. If your Forms are spread out over several G Suite user accounts, you can stand up a new Form manager account and simply transfer ownership of the existing Forms to the new placeholder account.

**“Muted” Gmail conversations**

The muted status of a Gmail conversation -- where follow-up reply-all messages to group email strings are immediately marked as read and archived -- cannot be migrated to Office 365 Outlook online. All the muted responses in the thread will be migrated, so no data is lost, but future reply-all responses made after the migration will not be muted. Users should be prepared for replies to previously muted email conversations to suddenly appear in their inboxes again.

**Files Larger Than 15GB**

Microsoft Office 365 OneDrive for Business supports a maximum file size of 15 gigabytes. G Suite Google Drive supports a maximum file size of 5 terabytes. If your Google Drive users regularly store large multimedia files that exceed 15GB in size, you'll need to inventory those and make arrangements to store them outside OneDrive, as they will be incompatible with Office 365 today.

**Individual Email Signatures**

Both Google Apps Mail and Outlook online allow for the management of standardized email signatures, and the migration of standard signatures can often be handled by mature migration tools and services. Individual email signatures, customized to a single Gmail user, are not programmatically accessible via IMAP or the Gmail API. As such, individual signatures often cannot be migrated by standard tools and services, and thus need to be explicitly addressed by migration administrators.
Gmail Filters
While Outlook rules are *almost* the same as Gmail filters, enough differences exist that Gmail filters often cannot be directly migrated -- or, more accurately, *translated* -- into Outlook. IT administrators should examine what Gmail filters can be converted to Outlook rules, and how to train users on recreating filters that did not survive the migration to Office 365.

**MIGRATING POLICIES**

When you migrate data from G Suite to Office 365, your policies around that data move, too. IT administrators should lock down their processes and policies around the scenarios outlined below before initiating a Google Apps to O365 migration.

**Migrated vs. Archived Data**

Some data may not need to be migrated from your G Suite domain to Office 365, as it is no longer business-critical, but your organization may be required to maintain it for compliance purposes. In worst cases, this includes Google Apps user accounts that exist merely for reference purposes, still incurring annual licenses fees long after the actual user has departed the company. Don't migrate zombie G Suite accounts. Instead, save some serious money by offloading this data to a stored third-party system, such as Datto SaaS Protection, and it should be identified and accounted for prior to initiating your migration.

**Advanced Threat Protection Settings**

The Office 365 version of Exchange offers Advanced Threat Protection, which is the 0365 counterpart of Gmail’s Enhanced Pre-Delivery Message Scanning and other anti-phishing and anti-spam features. Advanced Threat Protection offers more fine-grained control over your mail quarantine policies, which means configuring...
During your migration, messages, documents, and **data will exist in two systems simultaneously** - a situation that may persist for weeks or months.

Your O365 email security will entail more than simply migrating your blocked - and approved - sender lists. Migration administrators should review the available options and adapt your previous email security policy for Microsoft's O365 feature set. For total cloud-to-cloud data protection and recovery no matter what, check out Datto SaaS Protection for Office 365.

**Legal Holds and eDiscovery Requests**

During your migration, messages, documents, and data will exist in two systems simultaneously - a situation that may persist for weeks or months. In the event you are served with an ediscovery request, which may be enforced by a subpoena, or your internal audit and compliance policies require a legal hold on any data during the migration period, administrators must be prepared to act on those requirements in both systems.

Just because you use Google Vault to perform a legal hold on data in your old G Suite domain doesn't mean the migrated version of data isn't being disseminated across Office 365 users. You'll need to ensure that an Office 365 Litigation Hold is enacted in parallel with the Google Vault hold. IT admins will need to develop procedures to deal with this eventuality. Datto SaaS Protection helps with this as well.

**Calendar Resource Reservations**

It may seem petty, but nothing sours users on a system migration faster than a fight over conflicting conference room reservations. During your migration, some users will still exclusively operate in G Suite even as others have transitioned to Office 365, which means they'll be reserving conference rooms, audio/visual equipment, and other shared calendar resources in two different systems. IT admins need a process for syncing this data in order to avoid confusion and frustration over double-booked rooms and equipment.
Changes to Naming Conventions

When changing systems, administrators create an opportunity to update the naming conventions for shared folders, user groups, or even physical assets like conference rooms. While it may be tempting to implement these changes by fiat, admins need to clearly develop crosswalk documents that explain the new and old names for all assets, and ensure that these changes are thoroughly communicated to all users.

Updates to Whitelists/Blacklists

It’s not enough to simply migrate your website and email domain blacklists or whitelists from G Suite to Office 365; you need to consider how those lists may change in O365. For example, once you’ve fully retired your old Google domain, do the URLs associated with that domain go onto the O365 blacklist? Have any other structural URL changes occurred that may require updates to your list of trusted sites? IT admins should be prepared to adjust their website access policies under Office 365, rather than just blindly copying them from Google Apps.

Spam and Trash Folders

Gmail has a Spam folder, and both Gmail and Google Drive have Trash bins, and all of them may include data that was either inadvertently disposed of, or that must be maintained for compliance reasons. IT administrators must have a firm grasp of how much Spam or Trash data will be migrated from G Suite to Office 365.
DEVELOPING YOUR MIGRATION FAILSAFE

The most important part of your migration plan is your failsafe planning. No matter how skilled or sophisticated the tools, services, plan, and staff involved in your G Suite to Office 365 migration, data can still be lost. In some cases, the original Google Apps data is inadvertently destroyed as it fails to load properly into Office 365.

How do you ensure data is not corrupted or deleted during the migration?

Backup Your Original G Suite Data

Before you begin moving data out of the G Suite, make sure you have a full third-party backup of all your Google Apps data. It’s up to you to ensure that no matter what havoc migration tools may wreak on your G Suite systems, you’ll always have a clean, reliable backup you can restore to the original Google domain.

Backup, recovery and export solutions, like Datto SaaS Protection, also take care of another potential headache for your stakeholders: licensing costs. As users are migrated from one environment to another, Datto SaaS Protection allows businesses to avoid paying for both solutions’ licensing fees by having a copy of their data to fall back on outside of the app itself. This service - and also that of backing up data on O365 as its migrated - ensures businesses can get back up and running quickly should an error occur in the process.

Some migration tools actively remove data from G Suite to ensure that, once it “arrives” in Office 365, there are not two competing copies of the same messages, documents, or files. This practice guarantees that there is always a single system of record for any individual user. Unfortunately, this practice can be problematic if G Suite data is corrupted during the transfer to Office 365.

As users are migrated from one environment to another, avoid paying for both solutions’ licensing fees by having a copy of their data to fall back on outside of the app itself.
IT administrators should have firm plan in place for calling off a migration and restoring full functionality to Google Apps.

In the case of a one-system-at-once migration process fails, a third-party backup of your Google Apps data would allow you to restore the original G Suite version of your user data, and then re-attempt the migration. While it is rare for any migration tool to fail outright and delete or corrupt all your users’ Google Apps data, individual user accounts or individual files within those accounts can be lost or damaged during migration. Restoring that data to G Suite and then re-migrating just those accounts or files is often far easier than attempting to manually port over individual user data.

Rollback Plan

Some migrations simply don’t work out. Perhaps it’s simply impossible or impractical to recreate old G Suite business processes in Office 365. Perhaps the time and effort required to re-train end users on Office 365 is more difficult than would justify a migration. Or maybe your IT department has simply encountered a new, unexpected set of priorities that make migration impractical at this time. Whatever the reason, IT administrators should have firm plan in place for calling off a migration and restoring full functionality to Google Apps.

That almost certainly means having reverse-migration tools - apps and services that can move data out of Office 365 and into G Suite - as well as a full, easy to restore, backup of your original data for direct restoration into Google Apps if necessary. While it may seem tedious to plan for undoing the same migration you’re already outlining, having this failsafe in place ensures that a failed migration doesn’t become an outright data disaster.
CONCLUSION: THE DEVIL IS IN THE DETAILS

Migrating from Google’s G Suite to Microsoft Office 365 is a fairly straightforward process for an experienced IT professional but -- as with all complex tasks -- the devil is in the details. This guide outlines some key areas where data, metadata, and IT policies don’t directly translate between Google Apps and O365. By breaking your migration down into manageable stages, addressing the areas of data and process incompatibility noted above, and being responsive to the impact of the project on your users, IT administrators can ensure that their G Suite to Office 365 migration is a success.