



Secure Tenant-to-Tenant Migrations: Considerations for the Enterprise

Secure Tenant-to-Tenant Migrations: Enterprise

One result of widespread enterprise adoption of Microsoft 365 is the need to move users from one instance of the suite to a new or different instance: a tenant-to-tenant (T2T) migration. These are high-stakes projects, and downtime during the migration or an incomplete migration can seriously impact the business.

In this white paper we discuss the circumstances surrounding these migrations, and the role of a third-party tool such as MigrationWiz in mitigating the business risk. We explore what MigrationWiz offers enterprises that are undertaking these migrations and how it addresses their security concerns. We also offer a structured approach for tackling these multifaceted projects.

Introduction

The longstanding trend of enterprises moving workloads to the cloud has been accelerated by the global COVID-19 pandemic. A survey of global IT decision makers found that 87% agree that organizations will accelerate their cloud migrations due to the health emergency. Sooner than expected, the cloud will be the overwhelming computing environment of choice, as 74% predict that by 2025, at least 95% of all workloads will run in the cloud. The reality is this: cloud-to-cloud moves that migrate from one tenant to another tenant will be the transformation service of the future.

Indeed, at BitTitan we have already seen an uptick in T2T migrations that make use of our MigrationWiz tool. IT departments and managed service providers, serving companies from small businesses to the largest enterprises, are using MigrationWiz to accomplish these migrations quickly and without disrupting the business.

T2T Migration Drivers

The most common drivers of T2T migrations are structural changes in the business brought about by mergers, acquisitions, and divestitures. When one of these restructurings takes place, there is a need to merge two groups of users into one, add new divisions, or spin one or more divisions out.

Internal reasons may also drive a migration. The business may need to migrate a subset of users out of a tenant in order to align with compliance regulations or data residency requirements. Inversely, two tenants may need to be merged to facilitate and foster deeper collaboration. A common tenant makes collaboration easier and more seamless, especially as use of Microsoft Teams continues to rise.

Other elective reasons to do a tenant-to-tenant migration are consolidating across geographies, dealing with the consequences of unplanned growth, gaining better risk control, or cutting costs through consolidation. Organizations of all kinds, from schools to Fortune 500 companies, are recognizing that a single tenant helps them operate more efficiently. Managing one tenant and environment is simpler

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and more cost-effective than maintaining and managing two separate ones. At one time stratifying departments or divisions into separate tenants made sense, but the massive scalability of the cloud has changed that.

A single tenant also enables remote work with greater security control. The meteoric rise in remote work due to the COVID-19 pandemic has triggered fundamental changes in working styles. According to a survey of IT decision makers and influencers,ⁱ prior to the pandemic, 18 percent of employees were working from home. That rose to 80 percent during the pandemic. The same survey found that:

- **46%** are concerned that employees working from home could be vulnerable to cyberattacks.
- **36%** are concerned about employees opening emails that harbor phishing or ransomware attacks.
- **Only 72%** of organizations have continued to back up their data as completely as they did before the pandemic.
- **Only 59%** are archiving all of their data as completely as they did before.

All of the above issues are more easily resolved when remote employees are in a common tenant. Moreover, these changes are not necessarily temporary. Once the pandemic has passed, only 44% will expect their employees to return to their previous place of work. The other 56% expect that some or all employees will remain remote or allow them to work partially from home under a revised work-from-home policy.

The Role of MigrationWiz

Whatever the circumstances that trigger the migration, the challenge is the same: all of the users, role accounts, files, and records of the business need to be brought into the new tenant as intact as possible, as efficiently as possible, and with minimal disruption.

MigrationWiz from BitTitan accomplishes that objective with a 100% SaaS-based migration platform born in the cloud. Its interface is easy to use for simpler migrations, yet highly customizable to handle the intricacies of varying naming conventions, specific mapping requirements, and other essential options that are necessary for more complex migrations. MigrationWiz performs migrations with fundamental attention to security and compliance, is proven fast and scalable, and executes with enterprise-grade reliability borne out over thousands of migrations. Its ability to automate the entire migration process with a high degree of control and reportability means IT departments and managed service providers can migrate key workloads with confidence, minimal downtime, and less inconvenience to their end-users.

T2T Migration Scenarios

T2T migrations are often high-stakes, high-visibility projects that have the potential to profoundly impact the business unless everything is accounted for. Details of identity, service continuity, administrative issues, chain of custody, legal holds, and compliance preservation all need to be considered and planned for – as well as the tasks of configuring and executing the migration itself. Attempting the migration manually is extraordinarily complex and no Microsoft-native tools are available.

In fact, according to Gartner, organizations that have experience migrating to Office 365 are shocked to find that a tenant-to-tenant migration requires twice the resources. This is because of data growth in the tenant and additional services such as Microsoft Teams. Gartner recommends the use of a built-for-purpose third-party migration tool such as MigrationWiz, and indeed, that is the choice that most IT departments and MSPs make.

MigrationWiz has the flexibility to migrate a variety of data workloads between tenants:

Exchange Online: Email migrations can be tricky because of the sheer volume of items. MigrationWiz allows for migrating older items either before or after the cutover, so only the most-essential items need to be moved at cutover. This strategy allows even large migrations to be accomplished in less than a weekend. BitTitan also makes an Outlook configuration tool available, called DeploymentPro. It automates the setup of user profiles, signatures, and autocompletes on the Destination, saving time and drudgery for migration teams and importantly, resulting in a better experience for the end user.

OneDrive & SharePoint: File migrations encompass documents and their associated folder structure, permissions, and more. SharePoint Online migrations also include metadata and version history. MigrationWiz automates and accomplishes these migrations with the maximum-possible fidelity as allowed by the Microsoft APIs.

Microsoft Teams: Rapid adoption of workplace collaboration platforms like Microsoft Teams has put these projects in high demand. The complexity of Teams and its data structures make a third-party tool essential. Teams has multiple components including the top-level Teams as well as associated channels, conversation history, private chat, user permissions, and file folders linked to each channel. If OneNote is part of the migration, the project becomes even more complex – MigrationWiz can migrate Teams OneNote data, too.

Public cloud to GCC/GCC High. Government organizations in the U.S. may need to perform a T2T migration as they move from commercial cloud environments to GCC or GCC High environments for security purposes, or from one GCC tenant to another as they consolidate infrastructure.

MigrationWiz and Enterprise Engagements

MigrationWiz has been successfully used for many large migrations of enterprise size and scope. The following aspects of MigrationWiz are of special interest to those responsible for these large engagements.

Speed and Scalability

Because MigrationWiz is a SaaS offering, it takes advantage of the elasticity of the cloud to scale up or down based on project size. It leverages the best available APIs from Google and Microsoft to achieve the highest-possible transfer speeds and help to avoid throttling limitations enforced by cloud vendors. And with its ability to migrate several hundred users concurrently, it easily handles user counts in the thousands. Project configuration is simple and consistent across different workloads. Paired with migration strategies such as a pre-stage approach, MigrationWiz can dramatically cut the time – and with it the costs and risk – that come with a large migration.

PowerShell SDK

While most configuration, control, alerting, and reporting options are accessible through the GUI, portions of the migration or the entire process can be automated through the use of the BitTitan PowerShell SDK. The commands programmatically configure MigrationWiz projects and users, submit migrations, and monitor migration progress and statistics. Scriptability supports migrations that require the highest degree of control and customization, and comes in handy for large enterprise engagements where repetitive work can be automated to save time and risk. A growing GitHub repository of scripts has been developed and will be expanded during 2021.

Control and Visibility

Careful planning and smart configuration are the keys to any successful migration. MigrationWiz delivers fine-grained command of the migration through Advanced Options and controls such as date range filtering, recipient mapping, configurable error thresholds, and automated end-user notifications.

For a migration in progress, MigrationWiz logs every item migrated and provides detailed information about the status of the overall project, migration speeds, and errors. Understanding where those items occur – down to the individual item level – helps IT troubleshoot and guide migrations along. This visibility becomes even more important when dealing with high user counts or high-compliance environments.

Availability of Support

For most IT organizations, migrations are one-off projects and require skill sets that likely don't exist in-house. Using MigrationWiz leverages knowledge and processes drawn from experience with thousands of other migrations. The plentiful guidance includes thorough documentation, support resources

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including a Help Center with hundreds of articles that cover every aspect of a project, and experienced, migration-specific technical support.

Flawless execution is always the goal, but even with meticulous planning, migrations rarely proceed exactly as planned. Every MigrationWiz license comes bundled with 24/7 dedicated support, regardless of project size. Experienced BitTitan support staff can assist with queries on MigrationWiz operations and also error handling. Premium and enterprise support packages are also available for onboarding and guidance, thereby ensuring that projects are set up for success.

Additional Functionality

BitTitan has continued to meet requests from the IT community for specific enhancements. Among others, these have included:

- SQL logging for those who need more migration stats than are available in the dashboards
- Use of Modern Authentication mechanisms and details of least privilege access
- Ability to migrate private chats in Teams
- Document metadata and versioning for SharePoint Online migrations
- Project Sharing and user-action logging to facilitate collaboration among teams tackling large projects

End-User Experiences

A majority of IT professionals say that educating end users and supporting them are the most difficult parts of a migration project.iii IT professionals trust MigrationWiz to give them consistent results which allows them to meet deadlines, avoid impacts to end-users and customers, limit downtime, and give the migration team complete control over the cutover.

Enterprise Grade Security

Businesses that harbor sensitive data in their file stores, emails and Teams instances can be assured that MigrationWiz implements all security best practices to protect information before, during and after a migration.

App-Based Authentication

For SharePoint, Teams and OneDrive migrations, MigrationWiz supports application-based permissions. This avoids using a Global Admin account to access resources on either the Source or Destination during the migration, and allows read-only application permissions to be used for the Source.

Modern Authentication

For migrations involving Office 365, MigrationWiz supports token-based Modern Authentication based on OAuth 2.0. This avoids using Basic Authentication involving usernames and passwords to

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authenticate to either the Source or Destination. Basic Authentication is well-known to be vulnerable to multiple forms of attack including password-spraying, brute-force attack and phishing, and is currently being phased out on all workloads by Microsoft.

Least-Privilege Access

For administering and executing migrations, MigrationWiz can utilize administrator accounts with the lowest level of user rights required to perform a specific task. This means that Global administrator accounts do not have to be used unless absolutely necessary; temporary administrative credentials and impersonation rights can be employed for email migrations, and app-based authentication for document migrations.

Application, Data and Network Security

From encryption to data retention, from regular penetration testing to hardened and redundant data centers, BitTitan adheres to all applicable security standards, practices and controls — whether required or recommended. Our security white paper describes these security measures in detail and provides guidance for our customers in understanding some of the security features and functions of our tools.

Step-by-Step Guide to Enterprise Migration

With MigrationWiz and aided by support from BitTitan, our customers have a proven, stepwise path to a successful, high-fidelity migration. This is the framework we recommend to our customer MSPs and internal IT teams.

1. Assess

The first step, of course, is to identify what you'll be migrating. As you look at the current state of your data and look to your desired end state, here are some points to consider.

Data residency requirements might be an issue. In some cases these are internal company policies, but regulations such as GDPR and the California Consumer Privacy Act (CCPA) have important implications for how and where data is stored, as well as which datacenter will process the migration. Also consider how you're going to preserve data for previously terminated users that have been marked as legal holds and need to be preserved.

Not all items will be able to be successfully migrated. The main data will of course be migrated but in most cases, the Source and Destination environments can't be recreated perfectly using automated tools alone. For instance, metadata in video files stored in Microsoft Stream can't be extracted, so it won't migrate. Configurations and permissions won't always migrate due to API limitations (for example, delegated mailbox rights) and some will need to be re-created in the

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Destination. There is a complete list of what MigrationWiz can and can't migrate in the Help Center.

2. Plan

The amount of data, your environment, which data needs to be available to users in the Destination and how quickly it needs to be available are all considerations as you develop a migration plan. Using MigrationWiz during this phase can be a big timesaver compared to the first-party tools, which require quite a bit of work to install and configure. Because MigrationWiz is SaaS-based, it simply needs endpoint credentials to connect to the Source and Destination environments.

If you're moving files and mailboxes, MigrationWiz offers fine-grained control with filters that dictate which items can be migrated in multiple passes. As a result, it supports several migration styles:

Big Bang. You move all the files and mailboxes in one pass after the MX records are cut over. This is the simplest to implement, and a typical scenario is doing the cutover on Friday night and migrating everything over the weekend.

Pre-Stage Migration. This multi-pass migration strategy involves pre-staging a majority of the data prior to cutover and doing a full delta pass after cutover to move the remaining items.

Quick Switch. A quick-switch migration consists of pre-staging only the newest emails and essential files users are likely to need; new emails are accessible immediately after cutover, and the remaining data is backfilled over time.

In every migration scenario, communication with end-users is critical. With a good communication plan, you will minimize the number of end-user inquiries and make the entire migration go more smoothly. The MigrationWiz platform includes tools you can use to customize migration emails to users and other stakeholders.

3. Scope

There is no set time it will take for a migration to complete. It depends on a number of factors including your network connection, both environments, and whether or not you have large items, among other considerations. Here are some of the questions to ask:

- How many users are you migrating?
- How is the data distributed?
- How much total data are you moving?
- How many files are you moving?

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- Are there any files of unusual size?

We recommend conducting a proof-of-concept with a small number of users to test the performance and configuration time necessary to complete your migration. This enables your team to better understand the process as well as to estimate the time it will take the migration to complete. You may need to adjust your strategy.

If you haven't done so yet, identify the key stakeholders and gather their contact information, and make sure you have access to anyone you might need during the migration for administration purposes or communicating to users if issues arise. Migrations often don't go exactly as planned, so be sure you're ready to reach out to the right people to respond if the unexpected happens. Also, make sure you have enough licenses available to handle the migrated users during and after the migration.

4. Migrate

Here's where all the careful preparation pays off. MigrationWiz logs every item migrated and gives detailed information about error messages, migration speeds and overall project status as the migration proceeds. A flexible notification system can alert you to either successes or failures, and MigrationWiz also lets you remigrate items if necessary. Understanding where errors occur allows your team to troubleshoot and guide migrations along, which is especially important for high user-count or compliance-critical environments.

In any migration, prepare for throttling. MigrationWiz employs several mechanisms to avoid this but Microsoft has implemented several measures to keep surging data demand in check. If you're running a big migration, you might need to make a Microsoft service request to relax some throttling settings.

5. Post migration

After the migration, you'll likely need to re-create some configurations and user permissions in the Destination that weren't able to be migrated. If you used a MigrationWiz User Migration Bundle License, it gives you access to DeploymentPro for configuring Outlook profiles post-migration. If you have enough licenses to allow it, you can keep the Source tenant accessible as a contingency in case end-users believe that data is missing. As soon as you have the all-clear, you can de-license and block end users from accessing the Source.



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All migrations start with MigrationWiz, a fully automated, 100% SaaS migration solution that can be accessed at anytime from anywhere. Sign up, configure, and initiate mailbox, document, personal archives, public folders, and cloud storage migration projects from a single, centralized user-interface. No special training, personnel, or additional hardware or software installation needed. One of the fastest migration engines on the market, MigrationWiz makes spinning up migration projects a breeze. An enterprise-grade solution designed to scale on-demand, MigrationWiz is easy to use, secure, and industry-tested – by SMBs and Fortune 500 companies alike.

To get started with your migration project, visit www.bittitan.com.

ⁱ Osterman Research, Survey Results: How Well Was IT Prepared for COVID-19? IT Preparedness for a Complete Remote Workforce, April 2020.

ⁱⁱ Gartner, Guidance for Microsoft Office 365 Tenant-to-Tenant Migrations, September 2020.

ⁱⁱⁱ Osterman Research, Migrating Email and Archives to Microsoft Platforms, July 2018.

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