

# The SharePoint Server 2016 Migration Planning Guide

The best practices & solutions for your successful migration

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**Metalogix**

# Table of Contents

The best practices for a successful SharePoint 2016 migration.....	3
Understanding migration.....	5
How to successfully plan your migration.....	7
Four key questions for planning.....	8
SharePoint boundaries and limits to migrating.....	9
Prepare a migration test plan.....	10
During the migration.....	11
Post-migration .....	13
SharePoint 2016 migration with Metalogix.....	15
Migration Expert.....	16
Content Matrix.....	17
About Metalogix.....	19

## INTRODUCTION

# The best practices for a successful SharePoint 2016 migration

A successful migration to SharePoint 2016 is the combination of two equal parts: planning based on best practices and executing with the best solutions. Without those parts answered thoroughly, organizations face the potential for failed migrations that can increase both time and costs.

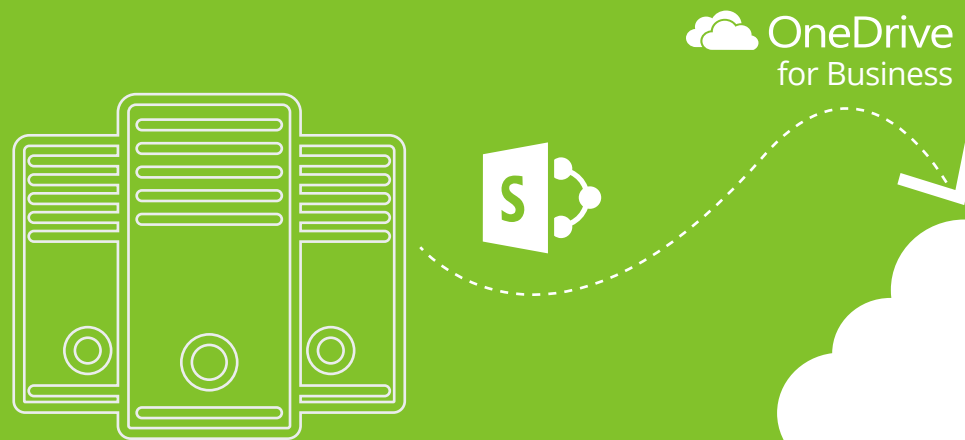


SharePoint 2016 isn't just a new type of collaboration platform, it's a next step in embracing the realities of today's collaboration needs. A reality that can be a confusing one to many people. Organizations can meet those needs by continuing to run SharePoint 2016 on-premises if they choose or are required to do. Yet, SharePoint 2016 and its integration with Office 365 and OneDrive for Business also offers the flexibility to run parts of their environment seamlessly in the cloud. Managing that power and complexity takes planning. Without it, organizations run the risk of data and content being lost or damaged, sometimes beyond repair.

Any migration of users, data and content requires a lot of careful consideration to be completed in an effective, cost-efficient and timely manner. These stages involve asking the right questions, avoiding dangerous pitfalls and preparing an accurate test plan - and are key to performing a migration with minimal downtime and disruption to the business. This means the planning, executing and maintenance stages have to be conducted to a consistently high standard.

So, it is imperative that sufficient planning and testing is put in place before the start of any data migration.

This eBook will guide you toward a successful SharePoint 2016 migration, providing practical information and advice across each stage of the process.



# Understanding migration

*To better understand the methodology of migrating content from one SharePoint system to another, we first need to understand the concept of migration itself: why do organizations do it? How much time does it take? How can risk be minimized?*

Improving productivity through the innovative use of technology is one of the most prominent trends in today's business world. The expansion and cost-effectiveness of global communications and the explosion of mobile working have had a huge impact on the way individual workers and organizations operate. It has allowed businesses of all sizes to support their staff in new ways: flexible hours, working from home, working on the move, the adoption of 'Bring Your Own Device' (BYOD) policies and more.

SharePoint has received regular upgrades every few years, and the many improvements over its tenure have resulted in multiple iterations of the platform. Because of these improvements and the expectations of today's users, businesses are compelled to tackle a SharePoint migration more often. A company that is still running SharePoint Portal Server 2003 will not be able to make use of the following features.

## WHY ORGANIZATIONS MIGRATE TO SHAREPOINT 2016

### DEEPER INTEGRATION

SharePoint 2016 takes a big step forward with its integration with other Microsoft products, most notably Office 365 and OneDrive for Business. Users can safely store their files for others to access them, which will be compatible with whatever program they use. It also ties in with hybrid SharePoint deployments for organizations that have chosen (or plan) to move portions of their infrastructure to the cloud.

### INFRASTRUCTURE EFFICIENCY

SharePoint 2016 offers many features, but some of the most impactful for IT are MinRole and Zero Downtime Patching. MinRole simplifies deployment by automatically configuring services that are needed for that individual server's role. This means that administrators can concentrate on farm level services instead of the individual service level. The added benefit is that the configuration of services across the farm will be optimized for performance, reliability and scalability. Zero Downtime Patching lets IT teams patch their infrastructure without having to shut it down – a huge win for organizations that place high value on end user productivity.

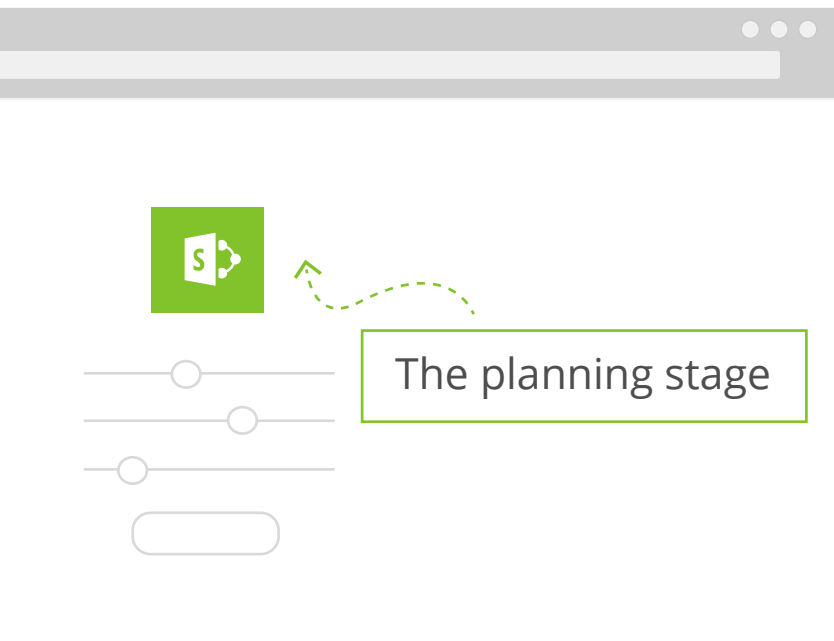
### MOBILE EXPERIENCE

SharePoint 2016 delivers mobile experiences on a range of mobile devices. This means employees can work while on the move and increase productivity. While access to content is still controlled by IT, giving users the freedom to work or collaborate on that content on a wider variety of devices helps them better engage with their work. Integration with OneDrive for Business takes this a step further by allowing users to access their content from anywhere on any device.

Despite the enhancements found in SharePoint 2016, it is quite common for organizations (larger ones in particular) to be risk adverse, and many remain hesitant to upgrade to the most recent version of SharePoint. This is understandable, IT teams build and customize their SharePoint environments to fit the needs of their organizations and the fear that they might have to rebuild applications from one version to the next. Yet, for large organizations with a lot of sensitive content about their employees, clients and more, IT teams need to also weigh the security advantages of SharePoint 2016. Therefore, the reasons for an organization to migrate must be appealing, safe and guaranteed; as when they do migrate, there is simply no room for error.

# How to successfully plan your migration

*The best way of ensuring an error-free migration is to perform a thorough planning stage before you begin.*



Whichever iteration of SharePoint you are planning on migrating from to SharePoint 2016 - the planning stages of your migration process are critical. Without proper planning and testing, migrating to SharePoint 2016 will most likely become a lengthy and costly process. There are a multitude of questions you can ask yourself regarding how you should perform your migration; some of which will help find the answer, and some that will further confuse things.

Let us look at four key questions that can transform your planning process, some basic SharePoint 2016 limits and what makes a good test plan.

## Four key questions for planning

When dealing with a task as large as migrating your organization's entire Intranet, teams need to account for numerous variables. By asking questions about the following four areas, you can cover as much scope of the migration process as possible.

*If a proper planning phase isn't carried out, your data migration is set up to fail before the physical process has even begun. Answering these four questions will guide you toward a successful migration.*

### **1. Is all of the migrated content actually being used?**

Content analysis is a good way to not only understand the volume of content, but also which content is (and is not) being used. For content that is no longer being used, moving it to an archive or resetting it to "read-only" might lessen the total migration load.

### **2. What access, roles and permissions are in place?**

These need to be documented fully, on paper, prior to migration. They will form a big part of your test plan.

### **3. How much downtime is the business willing to tolerate?**

Any downtime affects business and during the planning process, it needs to be factored into the migration process. One way to reduce downtime is to ask that business users take the appropriate amount of time to review content and provide feedback. This helps understand what's mission critical to their productivity and may provide additional insight into setting priorities.

### **4. Can the migration be done from the current version of SharePoint?**

Planners will need to take into account the potential that interim upgrades need to be completed first. Or they need to choose a specific migration path that allows skipping to an interim migration. Unless an organization is using a third-party migration solution, moving to SharePoint 2016 from SharePoint 2010 requires systems to be first upgraded to 2013 and then 2016. There is no out-of-the-box support for migrating from 2010 to 2016.



# SharePoint boundaries and limits to migrating

*If you are moving your data to SharePoint 2016, you need to consider boundaries and limits for a variety of different SharePoint components. Approaching or surpassing these limits can cause performance or stability implications, and seriously impact the success of your migration. Items known to cause issues during a SharePoint migration include:*



## **LARGE SITE COLLECTIONS**

Be sure to analyze the number and size of content databases.



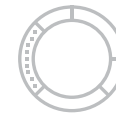
## **LARGE LISTS**

Lists with thousands of items, hundreds of versions per item and/or more than 20 metadata fields can take a very long time to migrate.



## **MULTIPLE CONTENT TYPES**

These should be modified to search-based views of multiple lists, as otherwise they underperform and take a long time to migrate.



## **IN-PROCESS WORKFLOWS**

These should be closed prior to migration as they cannot be migrated.

# Prepare a migration test plan

“Test early and test often” should be a staple mantra during any complicated project. Migration options that don’t allow testing to be performed in advance are susceptible to issues arising midway through the process. Often when it’s too late or very expensive to repair them. When creating a test plan, the following variables are worth careful consideration:

In addition, the test plan should always include a User Acceptance Testing (UAT) phase. This allows users to test the migrated data in the new environment themselves, before it’s accepted as production data. Ideally, UAT users should be chosen from a subset of the members across an organization to ensure they properly represent the type of users expected in the system. A UAT allows for issues to be identified and for the migration process itself to be fully vetted in advance.

- ✓ Custom code – A huge consideration when it comes to migration, and testing post-migration is key. As with any software, a solid test plan prepared upfront is key.
- ✓ Custom list templates
- ✓ Custom site templates
- ✓ Custom web parts
- ✓ Security and permissions mappings
- ✓ Third-party web parts
- ✓ Workflows – either SharePoint or third-party
- ✓ Feature mapping, including deprecated features

# During the migration

Once you have a plan, you can begin to set it in motion. However, it is important not to fall into the trap of rushing ahead when things are in place. There are still issues that you're likely to discover during the process itself, and these can become a lot more challenging unless a high level of care is taken throughout.

## AVOID THESE TOP FIVE MIGRATION PITFALLS



### 1. RUSHING THE PROCESS

Small mistakes as a result of rushed planning cycles can lead to huge, expensive gaps further down the road. In SharePoint, data model and taxonomy flaws may not become apparent until weeks or months later, normally when users find issues in production systems. The longer it takes to find these issues, the more expensive it becomes to correct them. Take the time to check every detail during the migration to minimize risk.



### 2. MISSED CUSTOMIZATIONS

As noted in the previous section, performing a complete analysis of all your customizations in your previous environment is essential to ensure that the final SharePoint 2016 environment works correctly. During the migration, any missed customizations that haven't been adequately prepared for may cause a failure. If a failure does occur, plan on sifting through error logs to find out why a migration failed – only to come across a rogue web part or custom site design.



### **3. TREATING ALL SITES AND END USERS THE SAME**

Three out of four teams may use SharePoint 'out-of-the-box' – with little or no customizations, but treating that fourth team – with their custom workflows, extensive dashboards and customized integration to the CRM system – in the same manner would be disastrous. Why? The out-of-the-box sites should, in theory, migrate cleanly, but the fourth site will need more care. Understand the individual needs and requirements of each team, especially your power users (those who depend on SharePoint every day). This is absolutely key when moving custom code to the cloud.



### **4. GOING IN WITHOUT A ROLLBACK PLAN AND NOT TESTING**

A good project manager mitigates risks with a solid rollback plan, and the same should be done with a SharePoint migration. You may be able to recover from problems caused by rushing the process, not identifying customizations or not employing healthy test practices; but you will not recover (without severe pain) from rollback failure.



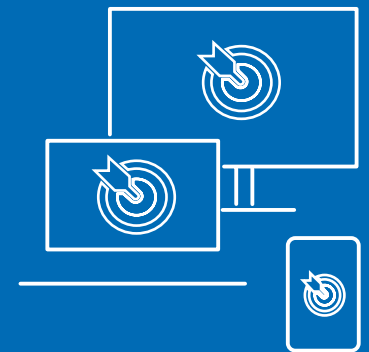
### **5. INCOMPLETE TESTING**

Testing should not be treated like a check box activity. It should cover as many eventualities and scenarios as possible – planning, or in this case testing, for the worst means not having to “hope” for the best. Workflows and Customizations are the obvious things to test but other elements, including security, are just as important. Ensuring security and permissions migrate as expected helps avoid serious data exposure. This is especially important if you have intellectual property assets or sensitive data stored in SharePoint.

# Post-migration

Many people believe that once a SharePoint migration is complete, their work is done. In actuality, it's quite the opposite. To make sure your migration policy stays true, tasks such as cleaning up page layouts, checking links and ensuring security and permissions are in order must all be maintained in the medium to long term (and arguably the very long term as part of ongoing non-migration governance).

Every SharePoint environment changes with its end users and as they begin to use the environment more, they'll create new demand. Different teams might face new security rules based on their roles and require new governance be applied to their data. One group might decide to reorganize their content in a different way to better adapt to a new business process. Company reorganizations, mergers and acquisitions might mean that content from several groups needs to be merged, moved and reorganized within the new systems.



The first task in getting users to realize a new level of productivity is the migration. To turn a good migration into a great one, the following tasks should be implemented post-migration:



If you are using a third-party migration solution, copy alerts from the source to the target environment, so that they do not fire-off events during the actual migration.



Run any incremental jobs created pre-migration.



Send automated e-mail to site owners or site collection administrators after the site migration completes.



Review content with site owners to ensure a smooth transition.

While not all of these variables will apply to everyone, it is important to review them before, during and after the migration to ensure the process remains as smooth as possible.

# Efficient SharePoint migration with Metalogix

Successful 'out of the box' SharePoint migrations are possible, but they can be complex technical undertakings that require developer knowledge to complete. SharePoint migration solutions from Metalogix make the entire migration process easier. From identifying potential migration issues with Metalogix Migration Expert to safely and efficiently carrying out your migration using Metalogix Content Matrix, you can avoid problems that might derail even the best laid plans.



# Migration Expert

Minimizing migration time is crucial in the pre-migration phase. Migration Expert can quickly identify the most common roadblocks for SharePoint migration and take the necessary steps to overcome them. Developed in conjunction with SharePoint industry experts, Migration Expert removes the guesswork of migration. Here are several of the many insights included:

**Migration Expert is a free migration planning tool that can help demystify migrations, find limits and boundaries and identify roadblocks.**

[Download for Free](#)



## **ANALYZE CONTENT DATABASES**

Having too many databases in a farm can prove problematic during your migration. Migration Expert can analyze all content databases to detect any that may cause a problem, and notify you about it immediately.



## **FIND CHECKED-OUT FILES**

The migration process is a lengthy one; even more so when transferring particularly large files or files that have been checked-out without the latest changes. Migration Expert searches for both of these issues and brings them to your attention.



## **IDENTIFY RARELY MODIFIED SITES**

Migration Expert identifies any SharePoint sites that are rarely modified. Once you're aware of them, you can consult business users to decide whether the content should be kept, removed or archived.



# Content Matrix

Once the pre-migration planning phase is complete, Metalogix Content Matrix is the most reliable method of moving your content to SharePoint 2016. It facilitates SharePoint migration by site collection, list, library, business unit or department, all with zero downtime. Content Matrix is also the only MSO-CAF certified SharePoint migration tool, pre-approved by Microsoft.

**If you're ready to plan and prepare for a successful migration, download a free trial of Content Matrix.**

[Download Free Trial](#)



With Content Matrix, it's possible to set up migration jobs as incremental migrations; by re-running them once the full migration has been completed, you can capture only the changes made since the original migration. This provides the flexibility to run large migrations over a weekend or spacing it out over several weeks while running smaller, incremental migrations overnight or at the end of the primary migration project – thus facilitating a smoother transition for users as it allowing you to run both the existing and new SharePoint in parallel. For more advanced migrations, Content Matrix gives administrators the option to use PowerShell capabilities as well as the ability to run multiple migrations in parallel to help achieve massive migration scale.

When SharePoint business content is migrated, it should be moved without losing context or metadata, and include permissions and information structure. Content Matrix can move terabytes of content from other content sources such as file shares or blogs and wikis – all while maintaining this critical information. In addition, Content Matrix can help improve SharePoint 2016 search results by adding, organizing and editing metadata based on content location and other properties.



# About Metalogix

Metalogix is the premier provider of unified management software to migrate, manage and secure content across enterprise collaboration platforms in the cloud and on-premises. Over 20,000 clients trust Metalogix to optimize the availability, performance and security of their content across the collaboration lifecycle.



## Metalogix

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