

**SharePoint**

# **On-Premise to Online Migration**

Your Guide to Enable  
Seamless SharePoint Migration

# Introduction

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Migrating from SharePoint On-Premise to SharePoint Online is a complex exercise. It requires careful planning and preparation. When planning to migrate, it's important to take into account that delegated authorization in SharePoint provides complete control to Site Collection/Site Owner. Migration becomes more complex if the users make any changes that deviate from SharePoint standards and best practices. Migration requires strategy, planning, communication, technical knowledge, decision-making skills, and flawless execution.

## SharePoint Migration – A Detailed Checklist of Steps Involved

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- ☐ Preparing for Migration
  - ☐ Infrastructure Preparation – Have you planned for RAM and CPU requirements during migration?
  - ☐ Do you have a list of supported and unsupported features and services?
  - ☐ UI Planning – Have you compared classic versus modern UI?



- ☐ Content Preparation
  - ☐ Have you archived old data?
  - ☐ Have you removed unused/unwanted sites?
  - ☐ Did you plan for Site Restructuring?
  - ☐ Have you considered and decided on security permissions?
- ☐ Migration Plan Preparation – Have you created a migration to-do list for pre- and post-migration tasks?
- ☐ Pilot/Test Migration – Did you plan for test migration and user acceptance testing to determine migration duration and identify issues?
- ☐ Migration – Do you have a comprehensive migration plan that considers downtime and release timeframe?
- ☐ Post-Migration Activities – Have you considered post-migration activities such as content verification and data validation?

## Preparing for Migration

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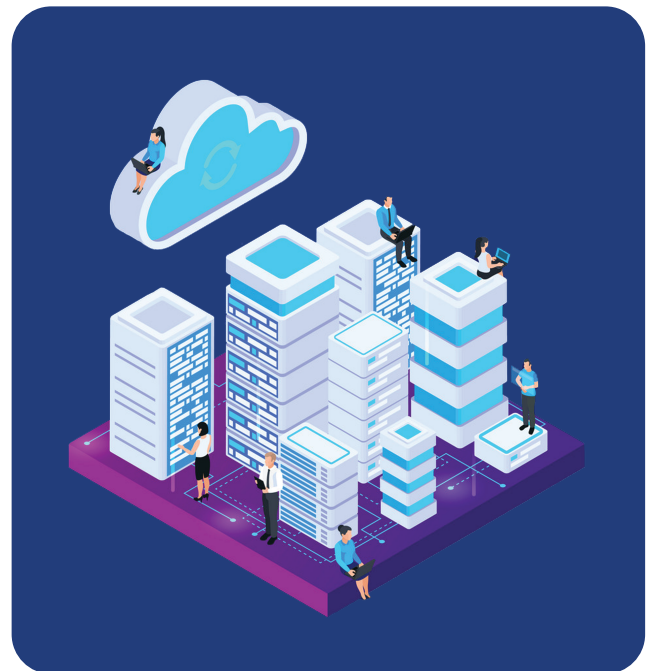
Moving system/application from on-premise to the cloud starts with analyzing existing inventory. SharePoint depends on its service application and external Line of Business (LoB) applications as a collaborative platform. Therefore, listing applications and content is essential and a precondition for migration. The next step is to analyze how applications will perform after migrating to SharePoint Online. A clear migration roadmap is vital for developing a successful migration plan.



# Prepare Infrastructure

Consuming cloud services takes a toll on the internet infrastructure in any organization. The usage of SharePoint is similar to mail services. Moving to SharePoint Cloud will require more bandwidth during and after the migration. The migration process will consume more RAM and CPU on the SharePoint server, and we need to plan for this before migration.

When you plan to migrate an entire SharePoint farm in one go, failure to address the SharePoint server load will affect the migration and the day-to-day usage of the existing SharePoint application. Identifying the peak time of SharePoint farm/application is a prerequisite. For smooth migration, we can run several migration jobs simultaneously to save time.



# Unsupported Service/ Features

While transitioning from On-Premise to Cloud, you should first prepare a list of unsupported services and features. It would be best to plan for these features during the initial stages of the migration plan.





### SharePoint 2010 Workflows:

SharePoint Online does not support SharePoint 2010 workflows commonly used in SharePoint On-Premise.



### Farms Solutions

As SharePoint Online is a cloud platform, any server-side code execution is not supported, so the Farms solution should address the web part, event receiver, & timer job.



### InfoPath Forms

Microsoft announced that support for InfoPath in SharePoint Online will end, although they have not given any expiration date. It would be wise to plan for an alternative solution instead of migrating the InfoPath application.



### 3<sup>rd</sup> Party Application

Most of the 3<sup>rd</sup> party applications used in SharePoint On-Premise are available in SharePoint Online. It would be wise to check the availability and licensing.

## Migration Preparation

## Supported Services, which Require a Little More Care

SharePoint Online supports most of the SharePoint On-Premise service applications. However, some service applications may require more detailed analysis and planning. Below is a list of some commonly used SharePoint services which require careful planning:



### Business Connectivity Service (BCS)

Business Connectivity Services (BCS), which provide infrastructure to bring external systems data into SharePoint, require more planning and architectural work. SharePoint Online supports BCS, but it can connect only to Azure SQL Database and Windows Communication Foundation (WCF) service. If any of the existing SharePoint On-Premise application works with BCS, proper planning is required.



## Information Rights Management

The content under Information Rights Management also requires proper planning during migration. All migration tools/options need to disable IRM at the time of migration. It creates an open window for a security breach. Any content which comes under IRM must have a different migration plan.



## Search Service Application

In SharePoint Online, Microsoft handles search administration. The Tenant has very little control over it when compared to the On-Premise version. For example, any change in Search Schema will take 24 hrs to effect in SharePoint Online. You need to carefully analyze any existing application that uses the SharePoint Search Service to prepare a better migration plan.



## Content Organizer

The primary benefit of using a Document Management System is the content organizer, which moves/copies the document based on the metadata. Most of the migration tool/option will not migrate content organizer rules due to its complexity and requires separate consideration in the migration planning.

### Migration Preparation

## Plan for Classic/ Modern UI

Except SharePoint 2019, all other On-Premise versions support only classic User Interface (UI). The classic UI is suitable only for desktops. SharePoint Online has a Modern UI that renders well on all devices. It is better to convert to modern UI to get the feel of using an advanced platform run on modern technologies. Also, modern UI will consume less bandwidth as it uses client-side processing and rendering. However, modern UI does have some concerns of its own. Not all the Out-of-Box classic web parts are available in modern UI, and at the same time, you may have to redevelop custom web parts using SharePoint Framework (SPFx).

# Content Preparation

Migration provides the opportunity to clean and modernize the environment. There is no better time to get your house in order than during the migration.

## Content Preparation

### Archive Old Data

During migration, it is a prudent approach to archive old data. It reduces the size of the data getting migrated, and it reduces the migration time, validation time, and any pre- or post-migration work.

## Content Preparation

### Remove Unused / Unwanted Sites

Delegated administration of the SharePoint ecosystem has its disadvantages. Instead of spending time migrating unwanted data/sites, it is better to remove them before migration. A site collection owner decides on unused/unwanted content, but they need proper education and guidance. Effective communication and follow-ups will do wonders.

## Content Preparation

### Site Restructuring

Microsoft proposes a flat site structure model for SharePoint for better maintenance and governance. It is better to re-examine the site collections, which have a lot of subsites. If needed, promote subsites as a Site Collection. Even in MS Teams, every team has its SharePoint site collection to store all related content. Keep this in mind when planning for Site Restructuring to achieve the best results.

## Security Permission

You don't migrate orphaned or disabled users in the On-Premise Active Directory (AD) to Azure AD. If those users have any record in the SharePoint system, it will be a concern during the migration. Providing an alternate account is an option, but you need to verify all accounts to ensure robust system security. Also, it is better to check and remove unused SharePoint Groups.

## Prepare Migration Plan

After you plan for the high-level changes required for migration, it is time for you to prioritize content. Since migration occurs in phases, it is best to start with a site collection that requires very little customization work. Meanwhile, developers can work on the customization. The most crucial aspect of the migration plan is to create a migration checklist that includes steps to be done pre/post-migration.



# Perform Pilot/Test Migration

Pilot/test migration will identify any missing pieces and unexpected issues in the migration plan. Inadequate testing often results in a significant loss of data. Based on the test results, you may need to update the migration plan, and if necessary, redo the migration for better results. Test migration will help you determine duration because the time it takes to migrate depends not only on the size of the data but also on quantity/numbers. It takes less time to migrate a document library with one file over 1GB than a list containing 25,000 items.

User Acceptance Testing (UAT) is an essential component during the test migration. End-user satisfaction is the key to success. UAT in the test migration environment will expose users to the new environment and its User Interface. If necessary, provide a training session on all the UI changes.



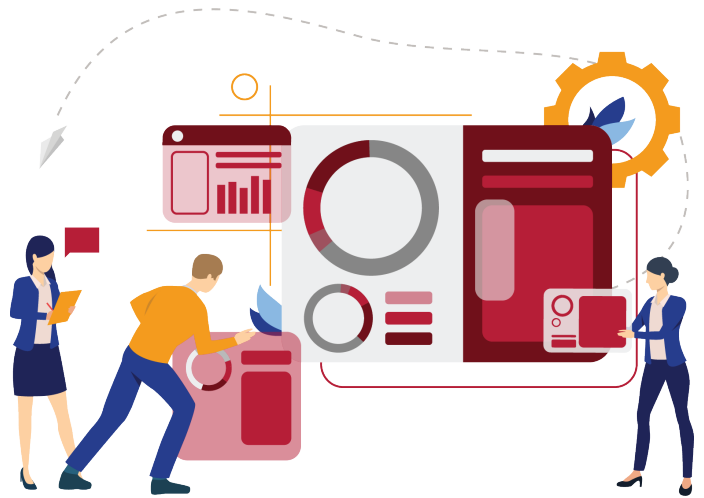
Below are a few common issues reported during test migration:

- ✔ **Invalid Data:** When the user makes changes that deviate from SharePoint standards, data is invalidated. It would be best if you addressed this adequately during migration. Some examples of Invalid Data are as follows: User makes a List Column mandatory in an existing list, which contains data. If the current data does not have values for that column, it is deemed invalid.
- ✔ **Unsupported Files:** SharePoint Online has stringent regulations for supported file-types, while SharePoint On-Premise has flexibility. Such files will not get migrated.

# Perform Migration

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Calculate the downtime required for migration—plan for migration window. Inform the users of downtime and URL changes. In most cases, running incremental migration will be enough instead of migrating the entire content. You should expect the unexpected in SharePoint migration. Regardless of the plan, you are vulnerable to new issues and need to work smart to solve any problems.



## Post Migration

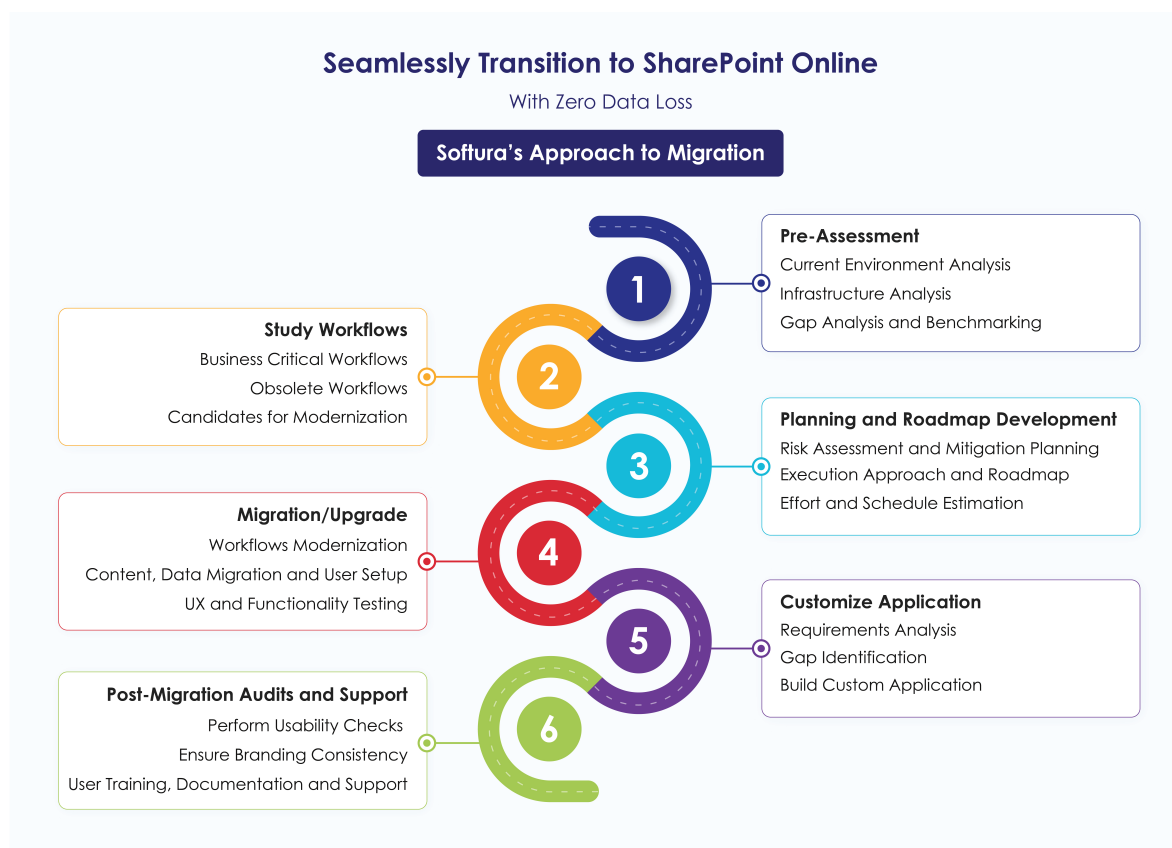
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Before notifying the user base, it is essential to check the newly migrated content for any required fixes, including making sure you have not lost any data. After everything goes as per plan, make the On-Premise site read-only. If possible, provide a new URL within the site home page so that it is not necessary for the end-user to search emails to find the correct URL.

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