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Proven Practices for Upgrading or Migrating to Microsoft® SharePoint® 2013

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Introduction

Microsoft SharePoint 2013 will transform the way organizations are connecting their knowledge workers, business processes, and enterprise-wide content worldwide. With new features including enhanced document management capabilities around sharing and contributing content, vastly improved social features, a new app model and marketplace as well as an overhauled search experience for discovery, the platform is firmly positioning itself as the ideal technology for organizations to launch vital initiatives – including enterprise content management, web content management, and company-wide social collaboration.

Before organizations make the jump to Microsoft's latest platform release, there are major points to take into consideration. A move to SharePoint 2013 means organizations may have to upgrade various portions of their operating systems and databases. There are also considerations for the different ways in which organizations can make the jump to SharePoint 2013 – through upgrade, migration, or exposing content from various legacy systems without migrating the content directly into SharePoint via connection.

In the coming pages, we will explain the requirements necessary for deploying SharePoint 2013, the different methods available for migration, key considerations for each, as well as proven practices and available tools to help make the move to Microsoft's latest platform release with minimal business disruption.

SharePoint 2013 Requirements

The move to SharePoint 2013 from previous versions of SharePoint may require several important upgrades with regard to hardware, operating systems, and databases, in addition to the actual software upgrade of SharePoint. Let's review the key requirements to ensure your baseline environments are primed for this latest release.

Hardware Requirements

Like SharePoint 2010, the absolute minimum requirements for SharePoint 2013 web front-end and application servers are 8 GB RAM and 4 64-bit cores to power small environments. In our experience, however, there are a few fundamental aspects of SharePoint that will not function without additional memory. Therefore, we advise you equip production servers with no less than 16 GB RAM. For larger environments, it's best to increase your CPU cores up to 8. As with previous versions, stretched farms are still not a supported design, so be sure your all servers in your SharePoint 2013 farm physically reside in the same data center.

Operating System Requirements

SharePoint 2013 will only run on a 64-bit edition of Windows Server 2008 R2 Service Pack 1 (SP1) or Windows Server 2012. This is required on all servers that will be running on SharePoint 2013, including database servers. Organizations still running Microsoft Office SharePoint Server (MOSS) 2007 or older versions on 32-bit hardware will need to look at third-party migration solutions, or incrementally upgrade to 64-bit versions of SharePoint 2010 before being able to upgrade to SharePoint 2013.

Other points to consider include:

- SharePoint 2013 does not support in-place or gradual upgrade methods. Organizations wishing to upgrade to SharePoint 2013 must build a new farm and use either the database-attach upgrade method to upgrade their SharePoint 2010 databases, or choose third-party migration solutions.
- Microsoft-provided upgrade options do not allow upgrade beyond a single version of SharePoint at a time. Organizations that are currently running MOSS 2007, WSS 3.0, or prior versions of SharePoint must first plan and implement an upgrade to SharePoint 2010 before being able to perform a database-attach upgrade to SharePoint 2013. Organizations will likely find third-party migration solutions to be an easier and faster upgrade method.

Database Requirements

SharePoint 2013 requires its database server to be a 64-bit version running either Microsoft SQL Server 2008 R2 SP1 or Microsoft SQL Server 2012.

Key considerations include:

- Organizations that are currently using SQL Server 2005 or SQL Server 2008 with SharePoint 2010 must upgrade their database server to SQL Server 2008 R2 or SQL Server 2012 before upgrading to SharePoint 2013. However, since a new SharePoint 2013 farm must be created, it is recommended to build new database servers during this time, rather than trying to upgrade legacy database servers.

SharePoint 2013 Upgrade Options

For organizations already utilizing a previous version of SharePoint – be it SharePoint Portal Server (SPS) 2003, MOSS 2007, or SharePoint 2010 – the two main options for moving to SharePoint 2013 are upgrade or migration. An upgrade involves using natively available tools from Microsoft, while a migration requires the use of a tool from a third-party vendor.

In that vein, it is important to mention that certain considerations must be taken into account when deciding whether upgrading or migrating is most appropriate for your organization. The key is to first determine the business objective for the SharePoint 2013 deployment. Depending on the business objective, requirements for SharePoint 2013's physical and information architecture may fundamentally change. For instance, if MOSS 2007 is in use today as a collaboration platform with various team sites but your organization wishes to launch enterprise content management and application development initiatives in SharePoint 2013, the architecture will need to be evaluated to determine if it can currently scale to support the new requirements. If re-architecting SharePoint is a goal for the move to SharePoint 2013, then tools supporting a granular migration approach – allowing for re-architecture in tandem with migration or simply moving content into the desired destination architecture – could be a requirement, which is not supported in the native upgrade methods discussed in the following section.

Options for migrating and moving content from other legacy systems to SharePoint 2013 will be discussed in an upcoming section of this paper, but for now, we will examine the various built-in or native upgrade options available. Your upgrade options will depend on the current version of SharePoint you are running today. Again, it's important to remind our readers that Microsoft only provides a direct upgrade path from the previous SharePoint version. For example, organizations still running SPS 2003 must first upgrade to MOSS 2007, then upgrade to SharePoint 2010 before finally making the jump to SharePoint 2013. The upgrade options available during each upgrade version vary and are listed here:

- Upgrading from SPS 2003 (or WSS 2.0) to MOSS 2007 can be done by using gradual, in-place, or database-attach methods.
- Upgrading from MOSS 2007 (or WSS 3.0) to SharePoint 2010 can be done by using in-place upgrade or database-attach methods.
- Upgrading from SharePoint 2010 to SharePoint 2013 can be completed using the database-attach upgrade method only.

Take note that in-place upgrade methods are time consuming and the farm is unavailable for use during the upgrade process. It is a risky upgrade method since there is no rollback method once the upgrade has begun. In fact, less than 10% of the upgrades from MOSS 2007 to SharePoint 2010 used the in-place upgrade method and the two most common reasons were the potential downtime and risk involved. This is also why Microsoft chose not to support this upgrade method when upgrading to SharePoint 2013.

For those looking at the database attach methods, here are some key details you should know about the process:

- A new farm must be built and any custom code or third-party solutions that are currently in use should be applied to the new farm.
- Database attach upgrade will not fix any corrupt or orphaned web sites or site collections.
- You can only upgrade from the previous SharePoint version. In the case of upgrading from MOSS 2007 to SharePoint 2010, you must first upgrade the MOSS 2007 farm to Service Pack 2.
- Upgrading is done on a database-by-database basis. You cannot upgrade individual sites or site collections.
- Depending on the speed of your servers – in particular your SQL server(s) – you may be able to upgrade multiple database concurrently. This process is called parallel database upgrade.
- Upgrading to SharePoint 2010 or SharePoint 2013 is done with PowerShell, using the Mount-SPContentDatabase cmdlet.
- You have the option of testing the upgrade using the Test-SPContentDatabase cmdlet. This process does not modify the source database and only reports back on the compatibility of the database against the new farm.
- To help minimize downtime between the source and destination farm, it is common to set databases in the source farm to read-only. This allows users to read content from the source farm while it is being upgraded. This can be done at the database level using SQL Server Management Studio or at the site collection level using Central Administration provided you set each site collection in the database as read-only.

Organizations deciding that the upgrade approach is best for them must then determine which upgrade method is best, taking into account their business objectives and current SharePoint (or content management system) architecture. Other questions that organizations must answer before choosing an upgrade option include:

- How much downtime is acceptable to day-to-day business operations?
- Are there any requirements for upgrading farm or server configurations?
- Are there any customizations that will also be required on the SharePoint 2013 farm?

Now, let's examine each of the upgrade methods – complete with their benefits and potential consequences.

In-Place Upgrade

This method requires organizations to install SharePoint 2010 on the same hardware they utilized for MOSS 2007 or WSS v3 deployments, respectively, then upgrade in a fixed order the content and settings in the server farm as part of a single process . For Microsoft-recommended instructions on performing this upgrade, please visit: [http://technet.microsoft.com/en-us/library/cc263447\(office.14\).aspx](http://technet.microsoft.com/en-us/library/cc263447(office.14).aspx).

With SharePoint 2013, there is no way to perform an in-place upgrade from SharePoint 2010 to SharePoint 2013 as there was in a MOSS 2007 to SharePoint 2010 upgrade. However, some organizations may consider in-place upgrades to move from MOSS 2007 to SharePoint 2010 first, then performing a database attach from SharePoint 2010 to SharePoint 2013.

Benefits	Challenges
Farm-wide settings are preserved and upgraded.	Servers and farms are offline while the upgrade is in progress.
Customizations are available in the environment post-upgrade, though manual steps may be required to upgrade or rework them.	The upgrade proceeds continuously, meaning that the content databases are upgraded sequentially and can take a long period of time to complete.
Often requires the least amount of effort.	If the farm fails to upgrade properly, the original farm must be restored.

Database Attach Upgrade

This method upgrades the environment's *content* on a separate farm. The databases can be upgraded in any order, or even simultaneously. While each database is being upgraded, though, the content in that database *will not* be available to users. This method can be faster than the in-place upgrade method, as multiple databases can be upgraded in parallel, and multiple farms can be combined into one farm. For step-by-step upgrade instructions on performing a database attach upgrade in SharePoint 2013, visit [http://technet.microsoft.com/en-us/library/cc263299\(v=office.15\).aspx](http://technet.microsoft.com/en-us/library/cc263299(v=office.15).aspx) .

Please note that you cannot execute a database attach upgrade from SPS 2003 or MOSS 2007 to SharePoint 2013. Organizations that are upgrading from SPS 2003 would have to attach three separate times, as they would need to attach the SPS 2003 database to a MOSS 2007 farm, attach that upgraded database to a SharePoint 2010 farm, and then attach that upgraded database to a SharePoint 2013 farm.

Benefits	Challenges
Can upgrade multiple content databases concurrently, resulting in a faster overall upgrade than an in-place upgrade.	New hardware (physical or virtual) must be allocated, and a new SharePoint farm is built.
	Server settings, farm settings, and customizations are not upgraded – they must be manually transferred.
No third-party components are required.	Missing customizations (e.g. custom or third-party web parts) result in loss of functionality, affecting end-user experience.
Can be used to consolidate multiple farms into a single farm.	Organizations must plan for time and network bandwidth to back up and restore the databases.
Database upgrade order can be controlled.	More complex process. No GUI is available—databases must be upgraded using PowerShell.
	Lowest level of granularity is a database. Web sites or site collections cannot be individually upgraded.
Many service application databases can also be upgraded to SharePoint 2013 using this method. For details, see http://technet.microsoft.com/en-us/library/ee731990(v=office.15) .	Service applications that cannot be upgraded (for example, Excel Services) will need to be recreated and reconfigured.
	Upgrade can only be done to the next major SharePoint version.

To learn more about the database attach upgrade process, see <http://technet.microsoft.com/en-us/library/cc303436.aspx>.

Site Collection Upgrade

Aside from the “back-end” upgrade process that has already been discussed, there is a site collection level upgrade process that is part of SharePoint 2013. By default, when a database is upgraded using the Mount-SPContentDatabase cmdlet, it will upgrade the database schema but not upgrade the individual sites to the SharePoint 2013 compatibility mode. In other words, all sites in all site collections within a content database will retain the SharePoint 2010 look and feel by default. (Note: Some readers may have experience with Visual Upgrade when upgrading to SharePoint 2010; this site collection upgrade process is quite different.)

In SharePoint 2013, you have the ability to display sites in a format and function that is nearly identical to SharePoint 2010. SharePoint is able to do this as it provides two separate SharePoint root folders, one designated for SharePoint 2010 backward compatibility (found in 14\template) and one designed for SharePoint 2013 (found in 15\template). With this design, SharePoint is able to provide a much better compatibility experience for SharePoint 2010 applications since the original templates for feature definitions, site definitions, application pages, and others is kept separate from the 2013 set of files. While this is never a guarantee of compatibility, the capability is far more powerful than what was possible with Visual Upgrade when upgrading to SharePoint 2010.

The unit of upgrade is at the site collection level, and once you begin the upgrade process, you cannot go back. Only users who are site collection administrators or farm administrators can upgrade a site collection by using the site collection upgrade process. The upgrade process can be started by clicking on Site Settings and then selecting Site Collection Upgrade. To learn more about the site collection upgrade process, see <http://technet.microsoft.com/en-us/library/jj219474.aspx>.

Upgrade Considerations

The previous methods noted for upgrading from previous versions of SharePoint to SharePoint 2013 assume that organizations have already conducted the steps necessary to ensure their hardware, operating systems, and databases are already up-to-date and ready to support Microsoft's latest platform release. If not, then there are other actions that must take place prior to any upgrade method. There may be other considerations depending on the previous configuration and whether this is compatible with SharePoint 2013.

Additional steps are required if organizations are ...	Upgrading an environment utilizing forms-based authentication
	Migrating from classic to claims-based authentication
	Upgrading very large databases (> 500 GB)
	Upgrading environments with heavy customizations (for example, custom master pages or CSS) or custom code.
	Upgrading environments that use External BLOB Storage (EBS) since EBS is not supported in SharePoint 2013. Organizations using EBS must contact their third-party provider for guidance on how to upgrade this to Remote BLOB Storage (RBS). Note that if using the DocAve platform, DocAve provides a tool that converts third-party provider stubs to DocAve stubs, as well as a tool that converts EBS stubs to RBS stubs.

Consequently, there are also time and space requirements that must be determined before deciding on an upgrade approach.

Time allocation considerations	Overall database size; number of SharePoint items
	Hardware (in particular on the database servers)
	Pre-upgrade steps required – that is, health checks, cleanups or performing backups
	Post-upgrade steps required – that is, verifying sites, creating service applications, conducting people/search crawls, upgrading site collections, end-user training, leveraging new features such as social
	System downtime communication and coordination with end-users
Database space considerations	The upgrade process is very transaction-log heavy and may cause database transaction logs to grow to very large sizes. To mitigate this problem, the recommended practice is to set database recovery level to <i>Simple</i> during the upgrade and reset to <i>Full</i> upon completion. This can be done using SQL Server Management Studio.

SharePoint 2013 Migration Options

The second option for moving content into SharePoint 2013 is through migration. Whereas upgrade projects are performed using Microsoft’s native upgrade capabilities, migration projects are implemented using other approaches. At the core, however, both update content to SharePoint 2013.

Typically, there are three methods by which an organization can perform a migration to SharePoint, be it from previous releases of the platform or from other legacy content repositories:

1. Manual Migration
2. Scripted Migration
3. Third-Party Migration Solution

For organizations considering a migration, there are several important questions to consider before making any final decisions, including:

- How much content needs to be migrated?
- How much downtime is acceptable?
- How many customizations are currently in use?
- Can you migrate in an iterative/phased approach, or must it be a one-time, “big bang” migration?
- Can you engage other members to assist in the migration process and arrange for proper training?
- What are the minimal requirements for this migration?
- Can non-SharePoint related assets be properly mapped into SharePoint?
- Is loss of metadata and security settings acceptable?

The table below outlines some proven practices for optimizing the migration process.

Proven Practice	Practical Application
Estimate the time required for data processing.	Perform a test migration of a limited section of content, then review the log files. Please note that this will not include all of the steps but can provide an estimate of the time needed to migrate content. This estimate can then be extrapolated and applied to larger sets of content.
Databases larger than 100 GB can take a long time to upgrade and make it more difficult to recover if the upgrade doesn’t complete successfully.	If possible, divide database and folder structures into small data sets before running the migration. If a large database cannot be divided, reconsider the upgrade approach and choose one that supports granular migration.

Manual Migration

This migration method starts with the SharePoint administrator installing SharePoint 2013 on separate hardware, then creating and configuring the new farm. Once the environment is ready, users are tasked with manually moving over their content. In some cases, Power Users or Site Owners are given responsibility for migrating over larger sets of content or recreating new web sites in the destination farm.

With a manual migration, a farm administrator does not have much control over when the migration occurs, which lengthens the amount of time that both environments need to be maintained. In most cases, unless a firm deadline is set and enforced the migration will drag on indefinitely.

In many cases, users must be trained on how to migrate their own data. The migration can cause confusion or frustration as users work with both systems and possibly create duplicate sets of content (e.g. if content is copied from source to destination and both are edited going forward).

There are very few ways to simplify this manual migration effort. Files are usually migrated one by one and subsequently previous versions, audit history, metadata, and permissions are usually lost.

Let's review the proper situation, benefits, and potential consequences for a manual migration:

Use Cases ...	Benefits	Challenges / Risks
<p>Environments with a very high percentage of content that doesn't need to be migrated</p> <p>Migrating to SharePoint from a different platform (Documentum, Lotus Notes)</p>	<p>A large number of users helping with the migration may speed up the process</p> <p>Migrates only relevant content to avoid import of old data</p> <p>Legacy environment is retained</p> <p>Virtually no downtime, requiring user switch to new environment</p>	<p>Manual, resource-intensive process; motivating users and enforcing migration deadlines</p> <p>Does not preserve prior versions, audit history, item metadata, or unique permissions</p> <p>Requires willing participants and training</p> <p>Requires additional steps to retain original URLs</p> <p>Requires new server farm and additional SQL Server storage space for new content</p>

Scripted Migration

In this method, a developer writes the scripts necessary to perform the migration in an automated way. Since SharePoint runs as a platform with rich Application Programming Interfaces (APIs) and PowerShell cmdlets, this is a very robust option. Depending on the legacy source system, the custom script may also integrate with that system to ensure a more complete migration while preserving configuration and content metadata.

While powerful, fully taking advantage of this option requires a developer who is highly skilled in SharePoint development (APIs and/or PowerShell scripting). Since the code is custom, a high degree of testing (whether automated or manual) is necessary to ensure migrated results meet user and organizational expectations. Migrations of this type have been known to take several months of development and testing time, requiring several iterative migrations until the process is honed to a degree where it is fully trusted and runs consistently.

Let's review the proper situation, benefits, and potential consequences for a scripted migration:

Best For ...	Benefits	Challenges / Risks
<p>Environments that are highly customized or need very precise migration methods to preserve context between source and destination</p> <p>Situations where manual or third-party migration are not viable</p>	<p>Most flexibility in deciding migration details such as what content gets migrated, when, and how</p> <p>Can be developed to be fully automated without involving users</p> <p>Legacy environment can be retained</p> <p>Virtually no downtime, requiring user switch to new environment</p>	<p>Requires highly skilled developers and testers</p> <p>Development and testing often takes several months; estimating is very difficult and cost/schedule are notoriously underestimated</p> <p>Requires a development environment where trial migrations can be tested</p> <p>Performance and scalability can often be a problem unless this is factored into design (e.g. Is the migration code multi-threaded?)</p> <p>Requires new server farm and additional SQL Server storage space for new content</p>

Third-Party Migration Solutions

In this method, a SharePoint farm administrator will install the new version of SharePoint 2013 on separate hardware or a separate farm. Instead of requiring users to manually migrate content or relying on developers to automate the migration using scripts, a third-party solution is used instead.

The steps necessary for migrating from legacy content repositories onto SharePoint 2013 with a third-party solution are similar to the ones necessary for upgrading from prior SharePoint releases. These steps include:

1. Building a generic SharePoint 2013 farm.
2. Installing the third-party migration software. Depending on the vendor and product, this may need to be on both source and destination environments.
3. As needed, mapping all permissions, configurations, and other customizations from legacy repositories.
4. Performing a trial migration.
5. Validating the migration to ensure the proper transfer of content, configurations, and permissions.
6. Adjusting migration settings as needed and re-test.
7. Iteratively performing the migration on live content per a pre-determined migration schedule.

Now, let's review the best scenario to utilize this method, as well as the requisite benefits and consequences involved:

Best For ...	Benefits	Challenges / Risks
<p>Any sized environment, from single-server environments to large, distributed farms</p> <p>Migration from non-SharePoint sources (e.g. Documentum, File Systems, Public Folders, etc.)</p>	<p>Granular migration (e.g. library, web site, site collection) with content filtering</p> <p>Content structures can be reorganized during migration</p> <p>Retains metadata, versions, permissions</p> <p>Virtually no downtime</p> <p>Depending on product, may support migrations from non-SharePoint environments</p> <p>Easiest method to upgrade from</p>	<p>Costs associated with purchasing additional software</p> <p>Learning and building trust with new software</p>

	SPS 2003 or MOSS 2007 farms Full and incremental migration jobs that can be scheduled Legacy environment can be retained A risk-free, pre-migration assessment can be run which provides a detailed analysis of source system, pointing out areas of concern or incompatibility	
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Consider AvePoint’s **DocAve Migrator for SharePoint**, which enables organizations to conduct full-fidelity content migration at the item, subsite, or site level, as well as the opportunity to map legacy content metadata into SharePoint 2013 Managed Metadata. DocAve Migrator also offers a direct migration from SPS 2003 or MOSS 2007 environments to SharePoint 2013, which is unavailable using Microsoft’s native upgrade methods. Companies wishing to migrate content from legacy content repositories can also do so with DocAve, as it supports the following sources:

- Any HTTP/HTTPS-accessible Web content
- Documentum eRoom v6.0 and above
- EMC Documentum v6.5 and above
- Exchange Public Folders
- File Systems
- Lotus Notes v6.5 and above
- Network File Shares
- Open Text Livelink 9.5 and above
- Open Text Vignette v7.x and above
- Oracle Stellent v7.x and above

Now, let’s take a look at the process an organization would take to migrate to SharePoint 2013, and where DocAve Migrator for SharePoint can help optimize the move:

Migration Process	DocAve Advantage
Build a generic SharePoint 2013 farm	DocAve Migrator utilizes organizations’ existing infrastructure from a single, Web-based interface. Job configuration and administration can be easily performed through a centralized management console, enabling administrators to access the console interface from anywhere and perform any migrate task remotely if necessary.
Install the third-party software	

<p>Map all permissions, configurations, and other customizations from SPS 2003, MOSS 2007, or SharePoint 2010 farm to SharePoint 2013</p>	<p>DocAve Migrator automatically moves content from legacy source SharePoint instances to their mapped elements in SharePoint 2013. Critical information is kept intact, so no data is lost during the transfer. All folder structures, document properties, metadata, and permissions are retained with full fidelity.</p> <p>DocAve's Pre-Migration Scanner detects and notifies administrators of any illegal characters, user permissions, user names, user domains, and other legacy elements that must be mapped in order to migrate successfully into SharePoint 2013.</p>
<p>Perform the migration – either full or incremental</p>	<p>DocAve Migrator offers the following features for organizations wishing to have control over the method and timing of migration:</p> <ul style="list-style-type: none"> • Granular or bulk content migration as well as flexible job scheduling ensures administrators can plan migration jobs according to their specific business needs, thereby reducing the impact on functioning production environments. • Live migration offers an on-the-fly, drag-and-drop process for transferring data to SharePoint 2013. Live SharePoint content can be selectively chosen to cutover to the SharePoint 2013 farm instantly, or scheduled in order to minimize the impact on the SharePoint environment. • Reuse existing backups of existing SharePoint environments to upgrade to SharePoint 2013. Administrators then will not have to recreate source content selection, minimizing the migration effort.
<p>Validate the proper transfer of content, configurations, and permissions</p>	<p>DocAve Migrator offers the following features to ensure proper transfer:</p> <ul style="list-style-type: none"> • Maintain platform co-existence with incremental migration approach to ensure proper transfer of all SharePoint content, configurations, and users before redirecting users to the new platform. • Reorganize or create new folders upon migration to clean up existing clutter. • Rollback capability enables administrators to roll back to the existing SharePoint product environment if the scheduled job does not meet the organization's specific needs. This way, the migration process can be reassessed to ensure a properly-executed migration task with minimal errors.

To learn more about SharePoint Migration using DocAve, see <http://www.avepoint.com/sharepoint-migration-tools>.

Migrating vs. Connecting

A very common migration strategy is for organizations to move documents located in file shared into SharePoint. These shares may be located on a file server file server or Network Attached Storage (NAS) device. While these can be migrated using any of the three migration approaches covered previously, there tends to be a high degree of stale content that usually doesn't need to be migrated into SharePoint. For example, it is common to see duplicate files or older files that should have been archived. However, moving this content into SharePoint provides organizations with a number of SharePoint benefits such as versioning, web (HTTP) access (very important for mobile users), and having a single, unified location for all documents.

As an alternative to migrating these documents in the traditional sense, AvePoint provides a unique solution where organizations utilize all of these SharePoint features but without having to perform the actual migration of documents from these legacy file servers. One option is to **connect** these shares using **DocAve Connector for SharePoint**, which presents and manages files (including large media files and documents) via SharePoint without the need for uploading or migrating into SharePoint. At a basic level, SharePoint presents files that exist in a file share and displays them to users as though they are stored inside a document library. Virtually every SharePoint function – including check-in/check-out, versioning, permissioning, auditing, and applying metadata – can be applied to these files, even though the files remain stored in the file share. New files that are uploaded or created are stored in the file share along with the reference pointer that is placed in the SharePoint library. DocAve Connector also supports streaming of video content. To learn more about DocAve Connector, see <http://www.avepoint.com/sharepoint-connector-docave>.

In addition to DocAve Connector, **DocAve File Share Navigator** is also an option. With File Share Navigator, users can continue to access content located within file shares from SharePoint, but the full SharePoint feature set such as check-in/check-out and versioning is not available. This is a nimble solution that provides some features unavailable in Connector. For example, users can preview files such as large documents without having to download them. Files larger than 2 GB can also be accessed using File Share Navigator. To learn more about DocAve File Share Navigator, see <http://www.avepoint.com/sharepoint-file-share-navigator>.

Here are the main differences organizations experience when either migrating or connecting content:

Migration	Connection
Data is available in SharePoint	Data is available through SharePoint
Data is migrated into SharePoint	Data is left in source (legacy) systems

SharePoint replaces the file system	Gives file systems a second life by increasing its value
Burden of storage is on SharePoint (more expensive)	Burden of storage is on file system (more affordable)
Changes are saved in SharePoint content database	Changes to file are propagated back to the source system
Migrate and decommission	Connect and forget

As with all methods of SharePoint 2013 adoption, migrating content into SharePoint has its benefits and consequences. Even though DocAve Migrator empowers administrators to migrate according to its specific business needs and offers numerous features to expedite, automate, and streamline the process, third-party costs are still associated with the software purchase. Below is a breakdown of pros and cons for migration via a third-party tool like DocAve.

Benefits	Challenges / Risks
<p>Enables administrators to migrate granularly according to business needs, which allows for platform co-existence or a more flexible migration schedule</p> <p>Allows for minimal interruption to end-user productivity</p> <p>Complete preservation of metadata, content, and configurations</p> <p>If content structures are not up to current organizational standards, administrators can re-architect content on-demand during migration</p> <p>A risk-free, pre-migration assessment can be run, providing a detailed analysis of source system, pointing out areas of concern or incompatibility</p>	<p>Requires the purchase of an additional third-party solution</p> <p>Time needed to install, learn, and build confidence in new software</p> <p>May require additional disk/CPU/RAM on SharePoint servers</p>

Optimizing the Jump to SharePoint 2013

SharePoint 2013 is primed to revolutionize the way companies do business, and it is no surprise that many organizations worldwide are already making plans to jump to the new platform. However, there are many points that must be taken into consideration before making the final decision.

First, it is essential to know the business objective for the SharePoint 2013 deployment – and which subsequent features and functionality will be utilized most – as this is critical to proper planning.

After determining the business purpose, organizations then must ensure they have the proper hardware, operating systems, and databases necessary for deploying a SharePoint 2013 environment. Once the proper requirements are in place, it is then important to consider whether to upgrade or migrate, depending on available processes based on business objectives, acceptable downtime, manual steps involved, technical talent available, or desired SharePoint 2013 architecture and upgrade requirements.

While Microsoft offers several native methods for upgrading to SharePoint 2013, consider AvePoint's **DocAve Migrator for SharePoint** in order to provide a complete and efficient, yet flexible migration to Microsoft's latest platform release, offering minimal interruption to end-user productivity. For migrations from file shares, DocAve Connector or DocAve File Share Navigator provides an effort-free way of utilizing SharePoint's features without having to perform an actual migration of content.

About AvePoint

AvePoint is a global technology company and proven software leader. Since its founding in 2001, AvePoint has become the world's largest provider of enterprise-class governance, compliance, and management solutions for social enterprise collaboration platforms. AvePoint helps more than 10,000 customers – including many Fortune 500 companies and government agencies – enable enterprise collaboration with confidence. AvePoint, Inc. is headquartered and maintains its principal operational center in Jersey City, NJ, with wholly owned operational centers in the USA, Canada, Australia, South Africa, United Kingdom, France, Germany, Netherlands, Switzerland, Japan, Singapore, and China. AvePoint is a Depth Managed Microsoft Gold Certified Portals and Collaboration Partner and Gold Certified ISV Partner as well as a US Government GSA provider via strategic partnerships.