

Office 365 SharePoint Online – what does it mean to my organization as a CIO?

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Introduction

In 2009, Microsoft introduced the Business Productivity Online Suite (BPOS), its first business-caliber cloud offering which consisted of Exchange 2007, SharePoint 2007, Office Communicator 2007 and Live Meeting 2007.

On June 28, 2011, Microsoft released a significant upgrade to its cloud services: Microsoft Office 365. Office 365 features upgraded versions of each product—Exchange 2010, SharePoint 2010, and Lync 2010—as well as Office Web Apps. In coming months, Microsoft will add options for its cloud-based desktop management tool, Windows Intune, and for Dynamics CRM Online.

Office 365 is a compelling set of cloud-based applications that compares favorably with industry competitors such as Google Apps. But the greatest threat to adoption of Office 365 is not necessarily its competitors, but rather the reluctance of organizations to move data and applications from on-premise servers and clients to Microsoft's cloud—or to any cloud, for that matter.

This white paper discusses the benefits and challenges associated with cloud services and with Office 365 in particular. The goal of this white paper is to clarify the disjointed and sometimes inconsistent information about Office 365—including its benefits, challenges, costs, and service level agreements (SLAs). Finally, we will address the business considerations for migrating to Office 365.

The Cloud

The *Cloud* is, without doubt, one of the leading IT buzzwords of recent years. While there is room for debate about the definition of the term *cloud*, the cloud's own oracle of definitions, Wikipedia, defines the cloud as:

The on-demand provision of computational resources (data, software) via a computer network, rather than from a local computer.

Within the broad concept of the cloud fall a variety of concepts and services, including virtualization, infrastructure as a service, and software as a service (SaaS).

"Software as a service (SaaS) sometimes referred to as "on-demand software," is a software delivery model in which software and its associated data are hosted centrally (typically in the cloud) and are typically accessed by users using a thin client, normally using a web browser over the Internet." Wikipedia

Office 365 is an example of software as a service. There are many examples of the cloud that you have already encountered or consumed. Salesforce.com released the first business-targeted cloud service in 1999—a customer relationship management (CRM) system. Incidentally, Microsoft released Dynamics CRM Online in 2011. The following timeline illustrates some of the prominent moves by large vendors to provide cloud services to businesses:



Figure 1 - Cloud time line

There are many more cloud offerings in the consumer space, such as:



Figure 2 - Cloud services

Benefits: Why move to the cloud?

The decision to move some or all of an organization's IT services and data to the cloud can have a huge impact on how IT is implemented and consumed. Below are some of the most salient benefits of a move to the cloud:

Service and Infrastructure Management

The core principle of the cloud is that you are consuming software as a service (SaaS). Consequently, you do not have to manage the underlying infrastructure of on-premise software, which eliminates time-consuming tasks such as backup, software updates, and monitoring.

Scalability

When planning for on-premise solutions, capacity planning is a difficult, risky, and often expensive exercise. You must predict growth and build an infrastructure that supports peak workloads. Many organizations over-build their infrastructure due to overly optimistic growth forecasts and periods of intense workload, so expensive infrastructure sits idle.

In the cloud, solutions scale seamlessly because you are typically charged for usage. As workload and storage requirements increase—and during periods of peak utilization—the cost of cloud solutions increases. Alternatively, as utilization decreases from its peak levels, the cost of cloud solutions decreases.

By leveraging the cloud, organizations can shift IT expense from capital expenditure to more digestible operational expense, align expense more directly with business requirements, and more easily shift to chargeback models through which IT expense is charged to the business unit or function that utilizes a solution.

Binding Service Level Agreements

SLAs are a core part of the IT department's service to the organization. It is essential that solutions are available to users and that expectations are set appropriately. It is no different in the cloud. Most cloud offerings target a 99.9% uptime, which equates to approximately 8.76 hours of downtime in one year. Cloud providers have varied policies for how customers are compensated when SLAs are not met. In an on-premise scenario, maintaining such high levels of service can be extremely costly and resource intensive.

Infrastructure Disaster Recovery

Even in the cloud, disasters can happen. Consequently, most cloud offerings have disaster recovery plans. One common approach is to maintain a geo-redundant data center architecture, with a stand-by replica data center to continue service if the primary data center goes down. With on-premise scenarios, a secondary data center can be prohibitively expensive and extremely challenging to maintain the synchronization of these environments. The cloud makes the planning and management aspects of infrastructure disaster recovery transparent to the enterprise.

Firewalls and Access

Although firewall, virtual private network (VPN), and remote access technologies have improved, security architects face significant challenge and risk when implementing on-premise solutions that are

exposed to the Internet. Cloud solutions are typically hosted on infrastructure that is accessible over the Internet, so most cloud solutions are built to meet stringent compliance and privacy standards.

Sustainability

Organizations are focused on the cost of power and cooling for server rooms and data centers and, in some cases, are becoming more concerned with reducing their “carbon footprint”. Cloud infrastructure consolidates server resources, optimizes power usage and, potentially, reduces the carbon footprint of a solution.

Considerations: Why to Keep It On-Premise

Of course, the cloud—like any software or service—is not a perfect solution for all business scenarios. As you define your cloud strategy, you should consider the following issues:

Security

Organizations express significant security concerns about storing business data outside the walls of the enterprise. In an on-premise infrastructure, there has always been concern about the level of control required by IT administrators and the level of information access administrators have within an organization. IT administrators who manage the cloud solution are not your employees and you subsequently have no control over who these personnel are, so the perceived risk may be greater. There is a lot of trust invested in cloud administrators “doing the right thing,” and thus far, there have been no significant data leaks or breaches of security for business solutions. High-profile breaches of consumer data have occurred, however, so the concern is valid and ever-present.

Another security concern relates to user authentication. Access to most cloud systems is over the internet using Secure Sockets Layer (SSL). Authentication is usually based on a username and password. Individuals could decipher a user name and password, and gain access to information stored in the solution.

On-premise solutions feature the same vulnerabilities, although they can be mitigated using firewall, VPN, and other remote access management technologies, as well as multi-factor authentication such as Rivest, Shamir and Adleman (RSA) tokens and smart cards.

However, it is a security truism that the greatest risk for data leak and security breach comes from inside the organization—intentional or accidental actions of employees or contractors—rather than individuals not employed by the organization. Security consultants and analysts will attest to the fact that enterprises tend to overestimate both the level of security within their networks and the risk of the cloud. An example of this is a [recent article](#) on ZDNet discussing how 500 SSL certificates were stolen which impacted Google, MI6 and the Central Intelligence Agency (CIA).

Storage

Most cloud solutions are priced based on the number of users accessing the system, with caps on the

amount of available storage. Most vendors will allow storage to grow above the predefined cap for a per-gigabyte (GB) fee. This becomes cost more costly when compared to on-premise scenarios, especially as the size grows into the multiple terabytes (TB).

Data Sovereignty

Data sovereignty relates to the geographic location of data. Organizations (particularly governmental agencies) in countries such as Australia and New Zealand have strict policies stating that data needs to reside in the country of creation. In most instances, cloud services target large organizations to have data centers in the United States, Central Europe, or Singapore. For organizations in Australia and New Zealand, having data stored outside of their country will be a breach of their policies.

Reliability

Due to the reality that many SaaS offerings are new, they have no real track record for reliability. It is also possible that cloud vendors may have underestimated growth of their service and consequently lack the centralized multi-tenant infrastructure required to meet the SLAs for their growing customer bases.

There has already been a three-hour Office 365 Exchange 2010 outage for a select customer base in the North American Data Centers in August 2011. ZDNet has [accounted](#) various outages already since the launch in June 2011. Microsoft communicated with customers on progress of resolving the outage via the Service Health Dashboards available to Administrators of Office 365 instances.

Offline and Low Bandwidth

The core premise of the cloud is that the infrastructure is not located locally within the organization building, which means it has to be accessed via the Internet. Organizations in remote locations, where Internet bandwidth is poor, will suffer quality of service degradation.

The majority of cloud-based offerings are highly dependent on Internet connectivity. In many scenarios, Internet connectivity cannot be guaranteed—particularly for mobile employees. Vendors will have to focus on supporting disconnected or “off-line” workloads.

The quality of Internet connectivity may also impact the viability of a cloud solution. Most vendors do not provide SLAs for performance of their solutions, so although they may satisfy a 99.9% SLA for availability, the user experience of transferring data may not meet expectations.

Policies

In large, information-sensitive organizations, policies are typically in place for not only where data can be stored, but how much data can be in one place external to the organization’s facilities. This is commonly due to having to keep organizations’ customer details secure and private. In certain circumstances, this can be a problem from the perspective of having to ship data on hard drives or via File Transfer Protocol (FTP) to migrate into the cloud services from on-premise instances.

Content Separation

In situations where organizations have on-premise and cloud-based repositories, they immediately encounter difficulties in classifying content in the same manner on two different systems. If there are two document management systems where content can reside, confusion on where users should store content occurs. Governance committees find it challenging to be able to provide an easy-to-comprehend strategy for where content should reside. A common pattern is for organizations to have a formal document management system on-premises and a collaboration environment in the cloud to make the delineation of content easier.

Development / Test / Production

In an on-premise scenario, organizations typically have separate environments for development, testing, user acceptance testing (UAT) and production. Any change to a solution that carries risk of an outage or requires UAT will typically be promoted through these environments. While most cloud offerings provide extensibility for development, they provide only a production environment—lacking the ability to stage a clone of the production environment for testing. Therefore, change control scenarios carry increased risk as there is no opportunity to test developed solutions against content in the production environment. Often, developers' testing does not have enough content to directly represent production or cater to edge cases; therefore, without thorough testing, developers cannot guarantee the solution will be stable.

Office 365

Now that you understand the benefits and considerations of the cloud, we can examine the details of Microsoft's Office 365 offering.

Microsoft launched Office 365 with two main editions: Standard and Dedicated. Standard is the shared edition that Microsoft released with two service plans: "Professionals and Small Business" (Plan S) and "Midsize Business and Enterprise" (Plan E).

The Standard edition is a multi-tenant environment which means that a single SharePoint 2010 Online Farm is shared by multiple organizations that are all isolated from each other. These farms actually have a limit on how many organizations can be on one instance and new farms are provisioned as the service grows.

The Dedicated edition is provisioned for large enterprises on a per-request basis, and Microsoft is trying to keep those deployments to a minimum, instead encouraging organizations to use Standard. The dedicated edition is an isolated SharePoint Farm for each organization and has more flexibility on what can be installed on the environment compared to the locked down Standard edition.

Both Standard offerings consist of Exchange 2010, Lync 2010 and SharePoint 2010. Subscription fees are on a per-user, per-month basis, while Plan E's pricing provides additional flexibility, as it is based on features allocated to each user. Plan E also includes a license for the Office Professional Plus client suite for each user.

As the majority of organizations will utilize the Standard offering, this whitepaper will focus on the Standard edition of Office 365 SharePoint 2010 Online.

Office 365: Benefits

99.9% uptime

Microsoft guarantees 99.9% uptime on all services in Office 365 Plan S and Plan E, as specified in the service descriptions for SharePoint 2010 Online. As mentioned earlier, this equates to 8.76 hours of downtime in one year. These are financially backed SLAs, which means that if Microsoft fails to meet the uptime SLA, each customer will be compensated. Further information on the compensation can be found in the [Purchase and Support guide](#).

Monthly Uptime Percentage	Service Credit
< 99.9%	25%
< 99%	50%
< 95%	100%

Figure 3 - Office 365 Service Credits for downtime

Certified Security

Microsoft Global Foundation Services, a division of Microsoft, clearly takes security and privacy seriously as evidenced by obtaining ISO 27001 and EU Safe Harbor certification and successfully completing SAS 70 Type II audit.

ISO27001, part of the growing ISO/IEC 27000 family of standards, is an Information Security Management System (ISMS) standard published in October 2005 by the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC). ISO27001 formally specifies a management system that is intended to bring information security under explicit management control. Being a formal specification means that it mandates specific requirements. More information is available on the [ISO27001 web site](#).

EU Safe Harbor certification pertains to the European Commission's Directive on Data Protection which went into effect in October 1998, prohibiting the transfer of personal data to non-European Union countries that do not meet the European Union (EU) "adequacy" standard for privacy protection. While the United States and the EU share the goal of enhancing privacy protection for their citizens, the United States takes a different approach to privacy from that taken by the EU. More information is available on the [EU Safe Harbor web site](#).

Statement on Auditing Standards (SAS) No. 70, Service Organizations, is a widely recognized auditing standard developed by the American Institute of Certified Public Accountants (AICPA). A service

auditor's examination performed in accordance with SAS No. 70 (also commonly referred to as a "SAS 70 Audit") is widely recognized, because it represents that a service organization has been through an in-depth audit of its control objectives and control activities, which often include controls over information technology and related processes. More information is available on the [SAS70 web site](#).

For more information on Office 365 security, please see the whitepaper, "[Security in Office 365 White Paper](#)".

Multiple Datacenters

As of the June 2011 launch date, Office 365 is available in 37 countries. The service is hosted in data centers in the United States, Ireland and Singapore, and for each region, two data centers are assigned in order to offer full redundancy. When an organization requests the Office 365 service, the service will be located in the data centers closest to the organization's headquarters address. This will mean that in a global organization with offices in different geographies, there will be different performance for SharePoint in offices further away from the data centers. Organizations wishing to adopt Office 365 service in multiple datacenters and be treated as a single company must contact Microsoft directly.



Figure 4 - Office 365 Data Center locations

Global Collaboration

Office 365 allows organizations to access the system globally in real time, albeit favoring employees that are closest to the headquarters address from a performance perspective.

Often, organizations struggle with sharing content across geographies and fall back to e-mail

attachments. E-mails are immediately outdated content the moment they are shipped out of the mailbox and duplicated into multiple inboxes. Having the content in SharePoint Online and referring to it via hyperlink for viewing and editing ensures one single source of the truth.

Office Suite Integration

Many organizations are already using the Office suite, and SharePoint 2010 has an extremely rich integration with Word 2010, PowerPoint 2010, Excel 2010, OneNote and Outlook 2010. This will increase adoption of organizations not already using SharePoint 2010 on-premises due to business users' familiarity with the Office suite.

Offline Capability

The Office suite also comes with SharePoint Workspace, which allows for an offline capability. This can be a benefit for organizations with remote workers who cannot get access to the Internet to utilize Office 365. It can also be a benefit for workers with a poor bandwidth connection, for instance via satellite, who prefer to sync files on a high-bandwidth connection in the office, work offline and then syncing the files when back in the office.

SharePoint 2010 Capabilities

SharePoint 2010's on-premises [capabilities](#) are extensive and broad across the Enterprise Content Management (ECM), Business Intelligence, Enterprise Search and Portal space. Microsoft represents these capabilities using these core workloads: Communities (Collaboration), Content (ECM), Search, Sites (Portals), Composites (Line of Business integration) and Insights (Business Intelligence).



Figure 5 - SharePoint 2010 Capabilities

To cover all the functionality in this whitepaper would not do SharePoint 2010 justice. Microsoft has an [evaluation overview](#) that explains the functionality in much greater detail.

Release Cycles

Prior to Microsoft focusing on Office 365, Microsoft released Dynamics CRM Online 2011 and the Business Productivity Online Suite (BPOS), which was its SharePoint 2007 cloud offering. This was a new major release of Dynamics CRM from the previous major 3.0 version and it was released in the cloud first before on-premises. Microsoft has indicated it will provide a similar release cycle for the Office 365 suite, meaning organizations using Office 365 will benefit from new functionality earlier than their on-premise counterparts.

Updates

There will be Scheduled Service Updates for Office 365. For organizations, this means IT administrators do not have to worry about managing the deployment of software updates, which generally requires significant planning and effort in an on-premise scenario.

Lower Startup Costs

The initial startup cost for SharePoint, Exchange, Lync, and other Office 365 applications is considerably lower than that of on-premise services, because you do not need to design, build, and maintain the infrastructure for these applications.

Office 365: Considerations

Infrastructure Service

Office 365 is Software as a Service (SaaS) offering, and as such, Microsoft takes care of the underlying service infrastructure for its customers. From a SharePoint 2010 Online perspective, Microsoft's responsibility ends at creating the SharePoint Web Application, for example, the high-level Intranet SharePoint site running on <http://intranet.contoso.com/> or the public-facing website running on <http://www.contoso.com/>.

Organization Managed Service

Essentially, the organization still needs in-house skills to design, build, and maintain the content of each Web Application hosted in Office 365. In a small-and-medium sized business, the IT administrator typically would manage the infrastructure as well as the web applications, site collections within them and the sites content inside this. The major concern in the marketplace is by taking away the infrastructure part of the IT Administrators' role, leaving them the "soft stuff", it may result in IT Administrators leaving to pursue other opportunities. A pattern in the industry has already emerged in

which these roles are outsourced to consultancy businesses on an as-needed basis or as a 24/7 managed service for support. The main reason for outsourcing is due to it being difficult to find and retain this talent in the marketplace.

Support and Troubleshooting

Microsoft encourages customers to use the Microsoft Online Community (<http://community.office365.com>) as first-level support, featuring blogs, forums, and wikis. While it is monitored 24/7 by Microsoft Online support personnel, there is no published response time. Experience with Microsoft Online support in BPOS suggests that customers should expect a minimum of four hours for a response.

Support for all Office 365 plans is available through the Community Portal. This Portal is moderated by Microsoft Engineers to assure accuracy.

The Enterprise plans (and individual services) provide a mechanism for the service administrator to submit support requests through the Microsoft Online Services portal. Like the Microsoft Online community, support requests are received 24/7. The response time is based on the severity of the issue. Next to this, Administrators have the option of 24/7 telephone support.

Backup / Recovery SLAs

Backup and recovery is an important part of organizations' SLAs and is a service expected by end-users because their data is essential for their day-to-day work responsibilities. There are two main metrics that need to have expectations set:

- The recovery time objective (RTO) is the duration of time and a service level within which a business process must be restored after a disaster (or disruption) in order to avoid unacceptable consequences associated with a break in business continuity.
- The Recovery point objective (RPO) describes the acceptable amount of data loss measured in time.

This will certainly affect organizations whose RTO and RPO SLAs are better than those of Microsoft Online. A common scenario is for a particular area of the business having business-critical content that is changing frequently within a day and having the ability to restore to a particular hour of the day is essential.

	Professional and Small Business (P1)	Midsize Business and Enterprise (E1, E2, E3, E4)
Recovery Time Objective	24 Hours	6 Hour

Recovery Point Objective	12 Hours	1 Hour
Backup Retention	14 days	14 days

Figure 6 - Office 365 Service Level Agreements

The Enterprise Plan backups are created every 12 hours. These backups are kept for 14 days. The backup plan for the Professional and Small Business Office 365 Plans are not published on the Microsoft web site.

SharePoint 2010 provides a Recycle Bin for list items (documents), lists and sites, which stores content for 30 days after the time of deletion by a business user. The level 2 Recycle Bin (Site Collection Administrator Recycle Bin) runs on par with the end-user recycle bin. Documents within this recycle bin are also deleted after 30 days. This means that if end-users accidentally delete documents, they can undo this within the 30-day window by accessing the Recycle Bin without requesting a help desk ticket from IT.

Storage

SharePoint Online 2010 has strict storage limits, shown in the following table:

	Professional and Small Business (P1)	Midsize Business and Enterprise (E1, E2, E3, E4)
Base Storage	10Gb	10Gb
Extra storage per user	500Mb	500Mb
My Site Storage	n/a	500Mb
Maximum Storage per tenant	Not published	5TB
Cost per 1G for extra storage (*)	USD \$2.50 Per GB/Month	USD \$2.50 Per GB/Month

Figure 7 - Office 365 Storage

* Prices as per the [Cost Estimator \(http://www.microsoft.com/business/office365tools/estimator/cost-estimator.aspx\)](http://www.microsoft.com/business/office365tools/estimator/cost-estimator.aspx).

The actual space a company which provisions a SharePoint Online tenant with 1000 users gets is:

Shared Storage: $10\text{GB} + 1000 \times 500\text{MB} = 510\text{GB}$

Personal Storage per User: 500MB ($1000 \times 500\text{MB} = 500\text{GB}$ total)

Archiving Content

Due to the storage limitations currently associated with SharePoint 2010 Online, as well as the associated storage costs for exceeding these limitations, planning for future growth of the SharePoint 2010 Online instance is vital. Organizations will need to develop plans to archive content in response to regulatory obligations, legislation, or simply to purge dormant or old data to mitigate these costs.

Missing Major Functionality

One clear differentiator between on-premise and the cloud SharePoint 2010 offerings currently is that there is major functionality missing from the cloud offering:

- Business Connectivity Services
- FAST Search
- Performance Point Services
- Project Server
- Power Pivot
- Secure Store Service

The [SharePoint 2010 website](#) has more information on these features. There is no clear roadmap on when the aforementioned features will be added to Office 365.

Reduced Customization Functionality

Along with major missing functionality, a key limitation of Office 365 is the ability to deploy Full-Trust Solution Packages to an Office 365 instance. This is due to the fact that the Office 365 platform is a multi-tenant architecture, and deploying Full-Trust Solution Packages brings about potential security risk as well as performance implications across multiple tenants hosted on the same architecture.

Sandboxed Solution Packages are extremely limited in comparison to Full-Trust Solution Packages. Due to the security restrictions, not all server-side API managed code methods are available. For example, a common customization to a SharePoint solution is to have a web part display information from within a SharePoint List that the user viewing the page may not have access to directly, this often requires elevated permission functionality that is not available in Sandboxed Solution Packaged managed code. More information on this point can be found on [MSDN](#).

No Server Access

IT Administrators will not have the same level of access to SharePoint 2010 as they did on-premise. There is an Office 365 Administration console, which has a limited sub-set of what is available in the on-premise Central Administration Web application. As of General Availability, this included configuration screens for:

- Site Collection Management
- User Profiles Service
- Managed Metadata Service

- InfoPath Form Services

A large omission here is the ability to configure the Search Service. One common scenario within organizations is ensuring that when an end user creates a new document in SharePoint, it will immediately appear in the Search results. While an unrealistic burden on SharePoint, it typically results in changing the schedule of incremental search crawls from the default value to something more aggressive such as every hour. Unfortunately, Office 365 is set to every 24 hours for an incremental crawl, and one week for a full crawl. This will mean that changes to content within that 24 hour window will not be picked up by search results.

Patriot Act

The U.S. Patriot Act requires Microsoft to give content to the U.S. Government on-demand, without gaining permissions from the content owner, if it is stored on U.S. soil. There are also [unconfirmed reports](#) that because Microsoft is a U.S. company, content stored in Data Centers outside of the U.S. would also be liable to the Act. This can be a major concern for large, multinational organizations extremely conscious of keeping its information strictly confidential. This is not just an issue for Microsoft but other SaaS companies within the U.S.

Lock In

For existing SharePoint users, there is a degree of lock in because it is extremely difficult without Migration tools to migrate *from* the Office 365 platform to another vendor or *back* on-premises. This becomes considerably harder again in the cloud scenario, because requesting all the data on Office 365 from Microsoft has low SLAs for delivery. As of General Availability, for Standard there is no facility to request the Content Databases [quoted by support](#) and is only supported by Dedicated. The only approach here is to use a third-party tool to migrate the data out of the SharePoint 2010 Online instance.

Existing BPOS Customers

Existing BPOS customers using SharePoint 2007 were not automatically upgraded to the new Office 365 platform when it launched. Microsoft has a transition program schedule of September 2011 to September 2012 for existing BPOS customers. More information is available at the [transition center](#).

Migration to Office 365 SharePoint Online

When the Office 365 instance is first provisioned the SharePoint 2010 Online instance is a clean and empty state. Organizations will need to make some key decisions on what types of content will reside in SharePoint 2010 Online compared to other enterprise content management systems.

A common scenario is for small teams collaborating on content within on-premise SharePoint to be moved to Office 365. This is due to the simplicity of the content compared to custom business applications developed on an on-premise SharePoint 2010 instance as these likely include customizations that can cause complexities in migration due to not being developed with Sandboxed

Solutions in mind. These customizations can require a significant effort to convert to Sandboxed Solutions and in some cases mean a loss in functionality.

Approaches to Content Migration

For existing content that must be migrated into SharePoint, there are multiple approaches. Office 365 Standard customers can only move content by manually uploading content. Office 365 Dedicated customers have the additional option of sending their existing SharePoint 2010 environment databases to Microsoft for them to put online.

There are also out-of-the-box approaches, but these will not scale due to the human interaction required to both perform the migration and also validate the process once complete. There are also significant limitations with this approach due to the loss of fidelity of the content, for example, there is no way to maintain the created by and modified by dates of versions of the content.

Both customer bases can utilize specialized migration products and there are two main patterns with the migration products: direct migration and staged migration.

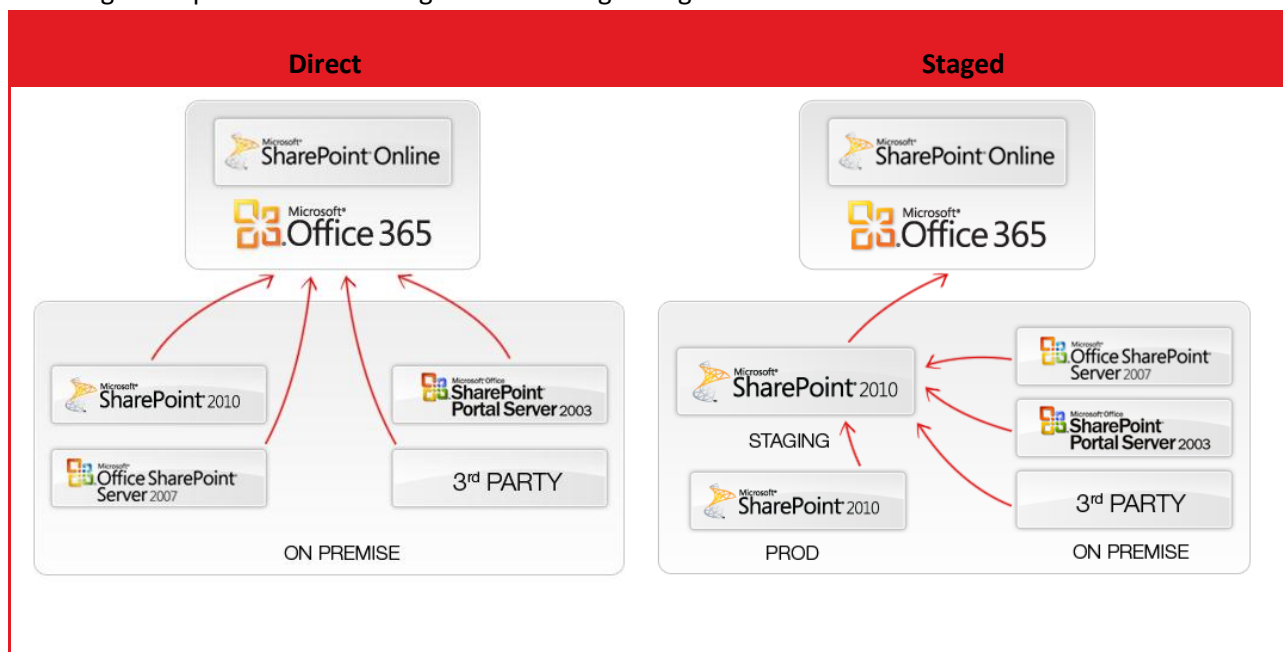


Figure 8 – Migration approaches

Direct Migration

These migration products send content via open web protocols from source to destination directly.

Benefits

No additional infrastructure

The direct approach does not require any additional storage as content is moved directly from the source content repository to Office 365.

Client based installation

Typically the direct approach will be a client based application and can be installed on non-server infrastructure for a quick deployment.

Limitations

No cleanup opportunity

With the direct approach, there is no opportunity to cleanup in a stage environment once you have moved all the content from the multiple repositories. Organizations would therefore have to clean up the actual repositories directly, which does not allow you to run the migration in a staged environment and tweak the approach and re-run.

Separate tool for each source

The majority of the direct migration applications only support one content source and organizations will be required to purchase multiple products with different user interfaces and capabilities. This will require more training and setup time.

Staged Migration

The staged migration approach requires an on-premise SharePoint 2010 server used to stage all of the content from the local source content repositories before moving the content in one step at the end of the process.

Benefits

Remove duplicate content

By moving all of the content from the various sources locally before moving to Office 365, organizations have the ability to remove any duplication of content that may exist across the different repositories. This is often the case where an existing file server has files and some of the files have been moved to an on-premise SharePoint environment and not cleaned up in the past.

Content Cleanup

With a staging environment with all content in one place, it is often a good time to reorganize the content locally where it will be faster than within Office 365 environment at scale.

Reduce migrated content

With the cleanup process mentioned above, once you get to the final step of moving the content to Office 365, there will be less content to push up. This will result in less storage consumed and a shorter time to completion, which can be important when it comes to cutover times from on-premise to Office 365 on a large scale.

Test and validate content

The nature of a staging environment means that if you are moving content from various enterprise content management systems, you can actually test and validate the content and get internal sign off from the organization before making the final step to move to Office 365.

Server-based application performance and scalability

A staged approach product typically is a server-side application with a client-side web user interface that is required to be installed on server infrastructure. The benefit of this approach is the “always on” approach to the application compared to one installed on a client machine which may not necessarily always be “on”. It therefore caters for long-running processes and the ability for it to be accessed by multiple people simultaneously.

Effective troubleshooting

When moving content from multiple content repositories, sometimes there can be errors in either moving the content or accessing it once moved due to missing dependencies. In Office 365, there is no access to the SharePoint logs which means that administrators will not be aware of why they received an error message. This will subsequently slow down the administrators’ ability to resolve the error and successfully migrate content.

Limitations

Requires staging infrastructure with appropriate storage capacity

The nature of the staging environment means that you have to have infrastructure and enough storage to store the staged content before you move to the Office 365 instance. This infrastructure does not have to be scaled out like a normal production environment and, in certain instances, can be hosted on existing test farms as it is only temporary.

Requires agents on SharePoint Farm sources

The staging approach will require agents to be installed on the local SharePoint source farms. These agents run as services on the on-premise servers that communicate back to the manager service on the central migration platform server. The benefit of agents is the ability for the agents to talk directly to the Server Object Model of SharePoint, rather than Web Services, which will perform faster and have access to more functions within SharePoint.

Next steps

Business alignment

When introducing a new IT system to an organization, it is essential to understand the business requirements that are driving the IT requirements and ensure they are aligned. This will involve engaging with business stakeholders from across the organization and will give a shared understanding

of strategies moving forward with the use of Office 365.

Estimate Costs and Savings

Organizations that look to leverage Office 365 at some point will need to identify the costs and estimated savings based on any current SharePoint 2010, Exchange 2010 and Lync 2010 on-premise management costs. An ROI calculator is available to Microsoft's Office 365 partners and Forrester has published two white papers titled "The Total Economic Impact of Microsoft Office 365: [Midsize Customers](#)" and "The Total Economic Impact of Microsoft Office 365: [Enterprise Customers](#)".

Trial Office 365

Office 365 is available for a [30-day trial period](#) so you can evaluate the service within your organization. Many organizations will take a small working group to pilot a small project (2-3 weeks), with a distinct cut off time, to highlight the benefits of collaborating in SharePoint 2010. Often this can be enough to get the buy-in you require from the organization.

Conclusion

Organizations, whether now or in the future, will have discussions around outsourcing their SharePoint 2010 infrastructure to Office 365 or an alternate hosting provider. This whitepaper has addressed the current benefits and limitations of the Standard Office 365 SharePoint Online edition. When an organization makes the decision to leverage SharePoint 2010 Online, the only scalable approach to migrating content is by using a third-party tool such as AvePoint's DocAve Software Platform.

About AvePoint

AvePoint is a global technology company and proven software leader. Since its founding in 2001, AvePoint is one of the world's largest providers of enterprise-class governance solutions for Microsoft SharePoint. Propelled by one of the world's largest SharePoint-exclusive research & development teams, AvePoint helps more than 8,000 customers – including many Fortune 500 companies and government agencies – meet their specific business objectives utilizing the SharePoint platform. AvePoint, Inc. is headquartered and maintains its principle engineering center in Jersey City, NJ, with wholly owned sales and engineering centers in the USA, Canada, Australia, United Kingdom, France, Germany, 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.

For more information on the topics and products discussed in this whitepaper, please visit www.avepoint.com.

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