

The SharePoint Deployment Conundrum: On-premises, Cloud or Hybrid? A Case for the Hybrid Model

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SharePoint deployment options: A burning question for SMBs

In the recent decade, the price of storage and bandwidth has continuously decreased. Small and medium-sized business(SMBs) are turning to cloud based services, seeking to reduce licensing costs, avoid recruiting IT staff and focus more on their core business. Although the cloud provides SMBs the cost effective option, companies need to be careful and should not fall into an “all cloud” solution strategy without examining the pros and cons. There is no one model that fits all the requirements. SMBs would do well to see how they can maximize the benefits of their existing on-premises investments, before exploring Cloud-based services.

Factors to be considered while deciding SharePoint Deployment

Selecting an environment for SharePoint deployment depends of many factors, and those factors should be weighed properly before going ahead with the decision. Below are some of the major and important factors for consideration.

- Cost Involved - with the server, storage, licensing, maintenance etc.
- Product Feature - provided by product.
- Compliance Standards - that are supported by the product.
- Infrastructure deployment and maintenance - needed by the SharePoint Farm.
- Customization options - to meet requirements when there is no OOTB option.
- Storage needs - for a required workload.
- Business continuity - to ensure no critical business disruptions.
- Information security - needed to make the information or content secure.
- Size of the organization - in terms of number of users, departments, locations, etc.

Let us first examine the options available in brief.

SharePoint 2013 On-Premises

- SharePoint farm is within the corporate network.
- IT support team maintains the SharePoint farm and regularly applies the Microsoft patches.
- On-premises Active Directory is used for authentication.
- Complete ability for server side customization.
- Availability of Enterprise level services such as BCS, Fast Search Server, Performance Point etc.

What is SharePoint 2013 Online for Office 365

- SharePoint infrastructure in Microsoft Data Center (MDC).
- Microsoft applies the patches regularly.

- ❑ Built-in availability provided at 99.9%
- ❑ Globally available data centers to reduce latency and high network bandwidth
- ❑ Built-in disaster recovery capability
- ❑ Support for industry compliance standards – ISO 27001, EU model clauses, “Health Insurance Portability and Accountability Act” (HIPAA), Federal information Security Management Act (FISMA) and Family Educational Rights and Privacy Act (FERPA).
- ❑ Support for client side object model & App model.

What is SharePoint 2013 Hybrid

- ❑ Business uses both SharePoint On-Premises and SharePoint Online.
- ❑ Based on various factors (like security, feature needs etc.) SharePoint sites are deployed either on SharePoint on-premises or online.
- ❑ Authentication can be based on the following
 - On-Premises AD
 - Online AD (Windows Azure AD)
- ❑ You get best of the features from On-Premises and Online.
- ❑ Recommended for workloads involving global site deployments to address scenarios where specific country law prohibit data transfers to other country countries or region

The Hybrid Model and Technical Considerations

With the hybrid deployment model, SMBs can leverage best of both type of infrastructure without long term commitments, unnecessary costs and the inefficiencies of hosted and on-premises models.

A hybrid SharePoint Server/Office 365 environment gives the flexibility to configure single sign-on (SSO) to federate on-premises Active Directory Domain Services (AD DS) with Office 365 Enterprise tenant. Native support for OAuth 2.0 in SharePoint Server 2013 enables server-to-server trust relationship between on-premises SharePoint Server and SharePoint online. Using OAuth 2.0, a hybrid SharePoint environment makes use of server-to-server trust relationship at the service level and provides the ability to deliver cross-boundary functionality and fetches the content on-behalf of authenticated user.

SharePoint hybrid environments provides the ability to search the content across both on-premises and SharePoint online environment. With the help of BCS, you will be able to access on-premises data, applications / systems from Office 365. Duet Integration (SAP) provides the ability to access data in on-premises SAP from Office 365.

Hybrid environments can be helpful when it is not possible for an organization to migrate to the cloud immediately or in full, due to business, technical or other reasons.

Drivers to Move to Hybrid Model

- ❑ Requirements of feature which are not yet available in Office 365: A hybrid environment will be very useful when features and advanced configurations not yet available in Office 365, but can be configured and customized in on-premises. In the hybrid scenario, Office 365 can be used as the platform for the majority of the content and on-premises can be used for these customized features.
- ❑ Global Network: In distributed workforce environment, on-premises deployment may offer good performance, but remote users in other worldwide locations may not experience the performance they need. A hybrid solution could be a best option to locate Office 365 environment in a Microsoft datacenter closer to remote users.
- ❑ Search: A hybrid model can help, when content from two different sources needs to be indexed and return content from both the environments. Organizations can classify the content and accordingly place it in appropriate environments and security principles can be enforced for data security.
- ❑ Regulated Industry or Substantial compliance and Security: According to the security and compliance in a specific geography, content could remain on-premises, with less restricted content being stored in the cloud.

SharePoint Hybrid Topologies

Hybrid topology depends on the direction in which trusted connection need to be established. Hybrid environment depends on a secure communication channel and a defined trust relationship between SharePoint Online and on-premises SharePoint Server. Microsoft supports three hybrid topologies for hybrid SharePoint solutions – One-Way Outbound, One-Way Inbound and Two Way. For a more detailed discussion on these topologies refer <https://technet.microsoft.com/en-us/library/dn607308.aspx>

Comparison Summary of On-Premises, Cloud and Hybrid Environments

	On-Premises	Cloud	Hybrid
Compliance Standard	Industry Standards-To be designed and implemented	Verified by third party auditors	On Premises and Office 365 sites follow their respective compliance standard
	Corporate IT to get audits completed	Meets the compliance standard	
Storage Needs	Expensive storage media	Cheap Storage cost	On-Premises and Office 365 sites follow their respective storage solution
	Site collection larger than 100GB	Site collection up to 100 GB	
	Scalable storage size	Maximum content in a single tenant -Office 365 plan- based	
Size of Organization	Suitable for large and medium organizations	Suitable for small organizations	Suitable for large organizations
Cost involved	Purchasing/maintain hardware, software licenses etc.	Purchasing Office 365 plans & user licenses. Pay as you use	Depends on usage of on-premises and online solution
Infrastructure deployment & maintenance	IT support team to deploy/ manage farm	Microsoft manages Office 365	Both corporate IT team and MSFT involved
	Latest updates/patches not always deployed	SharePoint online is up to date with the latest updates/ patches	
Business Continuity (BC)	Need to design the solution	Built-in Capabilities	On-Premises sites and Office 365 sites follow their respective plan
Product Feature	Support for Enterprise level feature	Limited features	Features from on-premises and on-line deployment
	Office web app needs to be installed	Pre-configured features	

Customization Options	Full support for client and server side code	Full support client side. Limited support server side.	Customization options from on-premises and online deployments
		Can use apps from OAC or SAS	
Information Security	Information is not available to external users	Information in MDS meets industry specific security standards	On-premises sensitive information
			Online - other information

Hosted or On-premises: Solving the SharePoint Conundrum

SMBs are often faced with the dilemma whether they should go for a hosted or an on-premises solution. There is really no right or wrong answer but companies need to assess their business needs and infrastructure before taking a decision. The fundamental point is that not all solutions work best in the Cloud or on-premises and the choice often requires a trade between security and costs to optimize returns. There are advantages and disadvantages with both platforms and these are subject to the type of software/service under consideration.

Some applications are great for hosting in the cloud: CRM products, network monitoring, travel applications, systems backing up on-premises hardware/software solutions. On the other hand, applications such as accounting packages, data storage solutions for compliance purposes and most security products are best implemented on-premises. When you factor in the cost savings, the Cloud often appears to be the best choice but that does not mean that a solution's implementation is justified in terms of the technology, the organization's set-up and/or its requirements.

A Case for the Hybrid Model

Today, vendors tend to do one or the other, focusing their efforts in one direction or another thus limiting the possibilities that a multiple-solution, single-vendor strategy can offer. The hybrid approach, however, sees a vendor giving customers the best of both worlds by allowing them to maximize the benefits of both a hosted delivery model and those of the on-premises model.

The benefits of the hybrid model vary from one customer to another but they can be summed up as follows:

- ❑ Run applications where they are most needed and fit best into the corporate infrastructure

- ❑ The hybrid delivery model makes sense for all companies whatever their size or infrastructure
- ❑ The benefits of the hybrid approach can be maximized by a 10-employee company or a 500-employee company
- ❑ All that changes is the environment in which the solutions are used

Why does this approach work?

The hybrid approach gives SMBs real choice and real results, whilst the vendor benefits from a new market, an increase in the services it can offer and a more robust strategy. SMBs will see these benefits when adopting a hybrid approach:

- ❑ One vendor, multiple solutions – one-stop shop for all their security, messaging needs
- ❑ Enables them to choose what suits them best depending on their existing and future infrastructure requirements
- ❑ Enables them to maximize the strengths of both cloud and on-premises models
- ❑ They do not need to seek alternative vendors if they want to switch models – there are no new terms to negotiate, no long-term contracts, migration issues, ab-initio costs, etc.
- ❑ They will benefit from the existing relationship. The vendor may give them 'preferred status', better conditions when purchasing new services, lower costs to migrate data if they move to the cloud or on-premises than if they had to use a new vendor

Conclusion

Technology today gives organizations a great deal of choice. Advances in computing power and storage capabilities at a fraction of the cost two decades ago, have made it possible to choose from a number of options. For SMBs, irrespective of whether they are start-ups with 10 or fewer employees or 200-strong organizations, decisions based on technology need to be taken with feet firmly on the ground. Successful deployment of technology – be it through a hosted, on-premises or hybrid model – depends on SMBs understanding perfectly well what they need and why. Applications and services need to be run where they are most efficient and not just because cost is the most attractive option. Long-term, falling into the 'all Cloud' solution trap can prove to be more expensive, time-consuming and problematic. Being able to choose between delivery models yet also benefitting from quality solutions that are cost-effective and designed for the SMBs is one very good reason why SMBs should actively explore vendors moving into the hybrid market.

About Trigent Software Inc.

Trigent is a privately held, professional IT services company and a Microsoft Gold Partner with its U.S. headquarters in the greater Boston area and its Indian headquarters in Bangalore. We provide consulting services in various technologies including Microsoft Solutions. Our operating model is to conduct sales, customer relationships and front-end consulting (e.g., business case, requirements, architecture) onsite with our clients and perform the detail design, development, integration, testing and quality assurance offshore at our world class development and support center in Bangalore. We are a SEI CMM Level 4 company and is ISO 9001:2000 TickIT certified organization.

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