Microsoft Azure - Starter Kits for Partners

Azure Assessment

SharePoint in Azure Scenario

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# Overview

The purpose of this document is to provide Microsoft Partners with an assessment to identify key components in the customer scenario and also being a guide to the available resources. This will help the partner to build an efficient architecture for the customer scenario and have a correct cost proposal based in the customer needs.

In this document, we will cover the following topics:

* Microsoft SharePoint 2013 Platform Options
* Questionnaire
* Resources and Tools
* FAQ

# Azure Scenario Assessment

## Microsoft SharePoint 2013 Platform Options

There are several options for SharePoint that a customer can choose from – SharePoint in Office 365, on-premises hybrid with Office 365, Azure IAAS (which is the focus here) and on-premises deployment. This part will address these various options so one can better understand which one to choose that is more adequate to customer needs.

**SharePoint in Office 365**



You gain efficiency and cost optimization with Office 365 multi-tenant plans. SharePoint Online is delivered as a Software as a Service (SaaS) so you do not have to worry about infrastructure or software maintenance, updates, availability and scaling or disaster recovery. It also includes a rich feature set that is always up to date and constantly improving while allowing for customizations through the app model for SharePoint and SharePoint Designer 2013.

Best for:

* Secure external sharing and collaboration (unique feature!)
* Intranet — team sites, My Sites, and internal collaboration
* Document storage and versioning in the cloud
* Basic public-facing website

Considerations:

* Plan and design for directory integration if needed (SSO or Password Sync, SSL certificates)
* Ensure network capacity and availability through firewalls, proxy servers, gateways and across WAN links
* Client communication over the Internet through encrypted and authenticated access (port 443)
* Plan for customizations, solutions and apps for SharePoint Online
* Plan for data migration (limited to what can be uploaded over the Internet)

**Hybrid with Office 365**



Combining the benefits of Office 365 with an on-premises deployment of SharePoint 2013 it allows for integration of features such as Search, Business Connectivity Services and Duet Enterprise Online. It allows for enterprise users to search for content in both SharePoint Server 2013 and SharePoint Online at once, interact with on-premises business data and access corporate SAP systems from SharePoint Online.

Best for:

* Use Office 365 for external sharing and collaboration instead of setting up an extranet environment.
* Move My Sites (OneDrive for Business) to the cloud to make it easier for users to access their files remotely.
* Start new team sites in Office 365.
* Integrate an Office 365 site with on-premises BCS SharePoint environment.
* Hosting SharePoint in Azure IAAS

Considerations:

* All considerations in both Office 365 and on-premises environments
* Which feature integration and which hybrid topology (one outbound or inbound, two-way)
* If required (depending on hybrid topology) determine which proxy server device will be used
* Plan for hybrid identity management infrastructure: SSO and server-to-server authentication between the two environments

**Hosting SharePoint in Azure**



Using Microsoft Azure platform you take advantage of the cloud infrastructure and app services needed to host a SharePoint 2013 farm while maintaining full control of the SharePoint platform and features. As part of the IaaS model you will have resources such as computing and storage available almost immediately with no commitment, allowing you to focus on applications and customizations and not on maintaining your datacenter and infrastructure. You can have your SharePoint solution accessible from the Internet or only in the corporate environment through a site-to-site VPN tunnel.

Best for:

* SharePoint for Internet Sites — Public facing sites. Take advantage of Microsoft Azure AD for customer accounts and authentication
* Developer, test, and staging environments — Quickly provision and un-provision entire environments
* Hybrid applications — Applications that span your datacenter and the cloud
* Disaster recovery environment — Quickly recover from a disaster, only pay for use
* Farms that require deep reporting or auditing
* Web analytics
* Data encryption at rest (data is encrypted in the SQL databases)

Considerations:

* Design the Virtual Network within Microsoft Azure, including subnets
* Domain environment and integration with on-premises servers
* IP addresses and DNS
* Affinity groups, storage accounts, availability sets
* Load balanced endpoints and external endpoints for public access, if desired
* Number and size of Virtual machines
* SharePoint farm topology and logical architecture
* Plan for updates, backup and disaster recovery

**On-Premises**



You take control and own everything from software to hardware. You are responsible for capacity planning, sizing, scaling, server acquisition, setup, deployment and all infrastructure and platform maintenance and operations.

Best for:

* In-country farms (when data is required to reside within a jurisdiction)
* Complex BI solutions that must reside close to BI data
* Private cloud solutions
* Highly customized solutions
* Legacy solutions with third-party components that depend on hardware and software that are not supported on Microsoft Azure Infrastructure Services
* Privacy restrictions that prevent synchronization of Active Directory accounts with Microsoft Azure Active Directory (a requirement for Office 365)
* Organizations that desire control of the entire platform and solution

Considerations:

* SharePoint farm topology and logical architecture
* Server hardware acquisition, provisioning and maintenance
* Virtual environment
* Load balancing and scaling
* Plan for updates, backup and disaster recovery
* Integration with AD and DNS

# Questions

Even if you are considering SharePoint in IAAS you should plan your SharePoint environment beforehand. The following section is divided with questions for SharePoint and questions for consideration of SharePoint in IAAS.

## SharePoint

|  |  |  |
| --- | --- | --- |
| Question | Answer | Read more |
| 1. Have you defined user profiles and identities? |  | * [Plan user profiles and identities](#_Have_you_defined) |
| 1. Do you have an Information Architecture defined? |  | * [Information management and governance in SharePoint 2013](#_Do_you_have_2) |
| 1. Do you have a Governance plan? |  | * [Governance planning in SharePoint 2013](#_Do_you_have_3) |
| 1. What farm topology will you use? |  | * [Traditional Topologies for SharePoint 2013](#_What_farm_topology) |
| 1. What services will be used and how will they be deployed? |  | * [Plan service deployment in SharePoint 2013](#_What_services_will) |
| 1. Do you plan to use Web Content Management features? |  | * [Plan web content management in SharePoint Server 2013](#_Do_you_plan) |
| 1. Have you planned for Document Management? |  | * [Plan document management in SharePoint Server 2013](#_Have_you_planned) |
| 1. Will you use Business Intelligence features? |  | * [Plan for business intelligence in SharePoint Server 2013](#_Will_you_use) |
| 1. Did you plan for Search? |  | * [Plan search in SharePoint Server 2013](#_Did_you_plan_1) |
| 1. What type of customizations or solutions do you have or plan using? |  | * [Deciding between apps for SharePoint and SharePoint solutions](#_What_type_of) |

### Have you defined user profiles and identities?

#### Plan user profiles and identities

A user profile is a collection of properties that describes a single user, and also the policies and other settings associated with each property. The user who is described by a profile is represented by a unique identifier in the profile, and the remaining properties provide information about that user, such as the user's phone numbers, manager, office number, job title, and so on.

<http://technet.microsoft.com/en-us/library/jj219651(v=office.15).aspx>

### Do you have an Information Architecture defined?

#### Information management and governance in SharePoint 2013

Information Architecture is the deliberate organization of information in a company. The goal of Information Architecture is to promote the usability and manageability of information. Well-governed information architecture makes information in an organization easier to find, share, and use. Factors that contribute to the successful implementation of information architecture include:

* How information is stored and how easy it is to find information.
* How users navigate to information.
* How redundant or overlapping information is.
* What metadata is available for each type used for persisting information?
* What templates are used for authoring information?
* How well the information architecture is governed.

The quality of the planning and design of information architecture will also impact the ability to find information in SharePoint. Defining appropriate site structures, webpages, and navigation encourages users to find the information they need. Failure to consider these elements during the Planning phase will result in frequent modifications of the SharePoint after the deployment.

<http://technet.microsoft.com/en-us/library/cc262900(v=office.15).aspx>

### Do you have a Governance plan?

#### Governance planning in SharePoint 2013

Governance is the set of policies, roles, responsibilities, and processes that you establish in an organization to guide, direct, and control how the organization uses technologies to accomplish business goals. Effective governance anticipates the needs and goals of both your organization's IT teams and its business divisions. Governance also provides policies and guidelines that make the deployment of products and technologies such as SharePoint both manageable for IT and also effective as a business tool. Governance can help protect your organization from security threats or noncompliance liability. It can also help promote a return on your investment in technologies by enforcing recommended practices in content management or information architecture. A governance plan should be created to document the governance approach. A governance plan provides a framework to facilitate the management of risk, cost, and adoption associated with a successful implementation of SharePoint. Implementation of a governance approach can be top-down or bottom-up, or a hybrid depending on the needs of the organization. The governance plan should accommodate the evolutionary nature of the governance approach. The governance plan should help define the initial team, an initial set of policies, and the implementation of the policies. More importantly, the governance plan should define a set of environment characteristics (like number of sites, feature functionality, number of users, types of content, and corpus size) for each policy in which the policy is effective. When the environment characteristics change, the policy needs to be analyzed for effectiveness and updated as necessary. The figure below depicts the evolutionary nature of governance policies:

Governance policies impact all aspects of the IT Lifecycle. Policies impact SharePoint functionality, user behavior, developer scope, and behavior, to name a few. The following figure depicts some of the policy impacts in the organization:

<http://technet.microsoft.com/en-us/library/ff598584(v=office.15).aspx>

### What farm topology will you use?

#### Traditional Topologies for SharePoint 2013

The smallest fully redundant physical farm in a traditional topology incorporates six servers — two for each tier (Web Servers, Application Servers and Database). User requests are automatically load-balanced across the web servers and application servers are utilized equally. The three-tier roles include:

Web server role — fast, light-weight server which responds to user requests for web pages. All web servers in a farm are mirrors of each other and are load balanced.

Application server role — Provides the service features of SharePoint products and technologies. An application server often provides all or a subset of service features. Multiple redundant application servers can be load balanced.

Database server role — Stores content and service data. All databases can be assigned to one database server. Or databases can be spread across multiple servers. Databases can be clustered or mirrored for failover protection.

<http://go.microsoft.com/fwlink/p/?LinkId=257303>

### What services will be used and how will they be deployed?

#### Plan service deployment in SharePoint 2013

List the services that will be used, service applications that they are associated to and which servers should they be running.

<http://technet.microsoft.com/en-us/library/jj219591(v=office.15).aspx>

### Do you plan to use Web Content Management features?

#### Plan web content management in SharePoint Server 2013

WCM in SharePoint Server 2013 consists of features and functionality that you use to configure, customize, optimize, and publish site collections, sites, and pages. When we talk about publishing sites in SharePoint Server 2013, we are referring to sites that use one or more of these features to author and deploy branded artifacts, content, and configuration files to Internet, intranet, and extranet sites. You should decide on the type of content for each site, multilingual support and variations, which publishing method to use, content approval and scheduling, navigation and other SharePoint publishing features.

<http://technet.microsoft.com/en-us/library/ee476993(v=office.15).aspx>

### Have you planned for Document Management?

#### Plan document management in SharePoint Server 2013

Document management controls the life cycle of documents in your organization — how they are created, reviewed, and published, and how they are ultimately disposed of or retained. An effective document management solution specifies the kind of documents or content that can be created in an organization, what templates and metadata can or should be used, where should it be stored and who should have access at each stage of its lifecycle, etc. You should analyze the document or content usage, plan how you will organize it, define the content types and workflows needed, and establish a content governance and policies according to your organization legal requirements.

<http://technet.microsoft.com/en-us/library/cc263266(v=office.15).aspx>

### Will you use Business Intelligence features?

#### Plan for business intelligence in SharePoint Server 2013

Business intelligence (BI) in SharePoint 2013 provides comprehensive BI tools that integrate across Microsoft Office applications and other Microsoft technologies. These BI tools are: Excel 2013, Excel Services in SharePoint 2013, PerformancePoint Services in SharePoint Server 2013, Visio Services in SharePoint, SharePoint 2013, and Microsoft SQL Server.

<http://technet.microsoft.com/en-us/library/ee683867(v=office.15).aspx>

### Did you plan for Search?

#### Plan search in SharePoint Server 2013

Before you set up your enterprise search architecture, there are quite a few things that require careful planning. You should be familiar with the search components of SharePoint 2013 and how they interact. Define the volume of content that you have, not only the number of item but also the type of documents and its expected growth. Choose the right search architecture for your needs taking performance and high availability into consideration.

<http://technet.microsoft.com/en-us/library/ee683867(v=office.15).aspx>

### What type of customizations or solutions do you have or plan using?

#### Deciding between SharePoint Add-ins and SharePoint solutions

Plan and understand what customizations or solutions will be used and how they will operate in the environment SharePoint will be installed such as Virtual Machines in Azure.

<https://msdn.microsoft.com/en-us/library/office/jj163114.aspx>

## Considerations for SharePoint in IAAS

|  |  |  |
| --- | --- | --- |
| Question | Answer | Read more |
| 1. Where should you have your DC? |  | * [**Guidelines for Deploying Windows Server Active Directory on Azure Virtual Machines**](#_Where_should_you) |
| 1. Do you use any roles or features not supported in Microsoft Azure VM? |  | * [**Microsoft server software support for Microsoft Azure virtual machines**](#_Do_you_use_1) |
| 1. Are you using any version of SharePoint not supported in Azure VM? |  | * [**Support and licensing for Microsoft Azure in SharePoint 2013**](#_Are_you_using) |
| 1. Do you need to extend your datacenter or connect to on-premises network? |  | * [**Virtual Network Overview**](#_Do_you_need) |
| 1. Do you use a VPN device? Do you use Software VPN, such as RRAS? |  | * [**About VPN Devices for Virtual Network**](#_Do_you_use) |
| 1. Are you using load balancing? |  | * [**Azure Load Balancer**](#_Does_your_application_5) |
| 1. Will you have Internet Traffic to your SharePoint Farm? |  | * [**Internet Sites in Microsoft Azure using SharePoint Server 2013**](#_Will_you_have) |
| 1. Which hardware would you choose? Scaling out VS Scaling up |  | * [**Virtual Machine and Cloud Service Sizes for Azure**](#_Which_hardware_would) |
| 1. Are your workloads heavily I/O dependent? |  | * [**Performance Guidance for SQL Server in Azure Virtual Machines**](#_Are_your_workloads) |
| 1. Did you plan for HA and Availability Sets? |  | * [**Planning for SharePoint 2013 on Azure Infrastructure Services**](#_Did_you_plan) |
| 1. Which is your databases layout and size? |  | * [**Performance Best Practices for SQL Server in Azure Virtual Machines**](#_Which_is_your) |
| 1. Do you have or are considering High Availability in SQL Server? |  | * [**High Availability and Disaster Recovery for SQL Server in Azure Virtual Machines**](#_Do_you_have) |
| 1. Are you planning to use Azure IAAS for SharePoint DR? |  | * [**SharePoint Server 2013 Disaster Recovery in Microsoft Azure**](#_Are_you_planning) |
| 1. Do you have a backup and recovery plan? |  | * [**SQL Server Backup and Restore with Microsoft Azure Blob Storage Service**](#_Do_you_have_1) |

### Where should you have your DC?

#### Guidelines for Deploying Windows Server Active Directory on Azure Virtual Machines

To minimize the latency of performing authentication of intranet user credentials for access to and administration of SharePoint farm sites and resources, you should deploy Active Directory Domain Services (AD DS) domain controllers in the virtual network. For redundancy, you should deploy at least two. SharePoint 2013 requires AD DS domain membership for the server on which it runs. You cannot use Azure Active Directory (AD) as a substitute for AD DS domain membership for the SharePoint 2013 server. However, you can use Azure AD to provide authentication for users accessing SharePoint resources.

<http://msdn.microsoft.com/library/azure/jj156090.aspx>

### Do you use any roles or features not supported in Microsoft Azure VM?

#### Microsoft server software support for Microsoft Azure virtual machines

Microsoft supports Microsoft server software that runs in the Microsoft Azure virtual machine environments, as listed in the article bellow. In a SharePoint scenario, pay attention to roles and features not supported in Azure Virtual Machines such as DHCP, Hyper-V, Direct Access, WDS Clustering, NLB and a few others. In addition, only 64bit OSes are supported and local volume must be NTFS.

<http://support2.microsoft.com/kb/2721672>

### Are you using any version of SharePoint not supported in Azure VM?

#### Support and licensing for Microsoft Azure in SharePoint 2013

Before you deploy SharePoint on the Azure platform, you should understand the support and licensing information. You must ensure that your Azure virtualization solution meets all the licensing requirements and every element of a SharePoint farm that is installed on Azure virtual machines must comply with the licensing requirements for SharePoint and related and supporting technologies. Versions prior to SharePoint 2010 are not supported as well as Fast Search Server or Office Web Apps for SharePoint 2010.

<http://technet.microsoft.com/en-us/library/jj154957.aspx>

### Do you need to extend your datacenter or connect to on-premises network?

#### Virtual Network Overview

Microsoft Azure Virtual Network provides you with the capability to extend your network into Microsoft Azure and treat deployments in Windows as a natural extension to your on-premises network.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| - | **Point-to-site** | **Site-to-Site** | **ExpressRoute - EXP** | **ExpressRoute - NSP** |
| **Azure Supported Services** | Cloud ServicesVirtual Machines | Cloud Services Virtual Machines | [Services list](https://azure.microsoft.com/en-us/documentation/articles/expressroute-faqs/#supported-azure-services) | [Services list](https://azure.microsoft.com/en-us/documentation/articles/expressroute-faqs/#supported-azure-services) |
| **Typical Bandwidths** | Typically < 100 Mbps aggregate | Typically < 100 Mbps aggregate | 200 Mbps, 500 Mbps, 1 Gbps and 10 Gbps | 10 Mbps, 50 Mbps, 100 Mbps, 500 Mbps, 1 Gbps |
| **Protocols Supported** | Secure Sockets Tunneling Protocol (SSTP) | [IPsec](http://go.microsoft.com/fwlink/p/?linkid=618592&clcid=0x409) | Direct connection over VLANs | NSP’s VPN technologies (MPLS, VPLS, …) |
| **Routing** | Static | Static – We support policy—based (static routing) and route-based (dynamic routing VPN) | BGP | BGP |
| **Connection resiliency** | active-passive | active-passive | active-active | active-active |
| **Typical use case** | Prototyping, dev / test / lab scenarios for cloud services and virtual machines | Dev / test / lab scenarios and small scale production workloads for cloud services and virtual machines | Access to all Azure services (validated list), Enterprise-class and mission critical workloads, Backup, Big Data, Azure as a DR site | Access to all Azure services (validated list), Enterprise-class and mission critical workloads, Backup, Big Data, Azure as a DR site |

<https://azure.microsoft.com/en-us/documentation/articles/vpn-gateway-cross-premises-options/>

### Do you use a VPN device? Do you use Software VPN, such as RRAS?

#### About VPN Devices for Virtual Network

A secure site-to-site VPN connection can be used to create a branch office solution or whenever you want a secure connection between your on-premises network and your virtual network. Site-to-site connections require a public-facing IPv4 IP address and a compatible VPN device or RRAS running on Windows Server 2012.

<https://azure.microsoft.com/en-us/documentation/articles/vpn-gateway-about-vpn-devices/>

### Are you using load balancing?

#### Azure Load Balancer

Virtual machines in the same cloud service or virtual network can communicate with each other directly using their private IP addresses. Computers and services outside the cloud service or virtual network can only communicate with virtual machines in a cloud service or virtual network with a configured endpoint. An endpoint is a mapping of a public IP address and port to that private IP address and port of a virtual machine or web role within an Azure cloud service.The Azure Load Balancer randomly distributes a specific type of incoming traffic across multiple virtual machines or services in a configuration known as a load-balanced set*.*

<https://azure.microsoft.com/en-us/documentation/articles/load-balancer-overview/>

### Will you have Internet Traffic to your SharePoint Farm?

#### Internet Sites in Microsoft Azure using SharePoint Server 2013

If you want to access your virtual machines from the Internet or make the resources on your virtual machines accessible to users on the Internet, you must use the external name or public IP address of the cloud service in which the virtual network is contained and configure endpoints. To prevent malicious users on the Internet from attempting to access your virtual machines using RDP or Remote PowerShell, you can remove these pre-configured endpoints for cross-premises virtual networks. The tradeoff is that you can only administer the virtual machines from the on-premises network. Administrators located on the Internet must first obtain a connection to the on-premises network, for example, with a remote access connection. For Internet traffic to your SharePoint farm, you must configure endpoints on the web server virtual machines. For example, you could configure an endpoint for the public TCP port 80 that maps to a private TCP port 80 (for standard web traffic), or to the TCP port on which the SharePoint server is listening.

<http://technet.microsoft.com/en-us/library/dn635307(v=office.15).aspx>

### Which hardware would you choose? Scaling out or scaling up?

#### Virtual Machine and Cloud Service Sizes for Azure

Virtual machines are available in two tiers – basic or standard. Both types offer a choice of sizes, from single cores and 768MB of memory to as much as 16 cores and 112GB of memory. The Standard tier of sizes now includes D-series VMs, designed to run applications that demand higher compute power and temporary disk performance. D-series VMs provide faster processors, a higher memory-to-core ratio, and a solid-state drive (SSD) for the temporary disk. When choosing the size for Virtual Machine consider the workload the servers would be running and not solely on the hardware that matches your on-premises server. SharePoint Server is designed to support service and service application granularity, which means you can configure a feature to run its supporting services or service applications on individual servers in a tier or on different tiers. This design approach provides a high degree of flexibility for scaling out a farm and can be applied to every tier. Scaling up farm servers or scaling out the farm by adding servers are both acceptable alternatives for a SharePoint Server farm. However, with Azure it is more effective to scale out by adding virtual machines to the farm. Provisioning new servers is faster, which enables quicker response for peak demands. Scale out also provides two other significant benefits: increased availability and reduced downtime (planned or unplanned).

<https://azure.microsoft.com/en-us/documentation/articles/virtual-machines-size-specs/>

### Are your workloads heavily I/O dependent?

#### Performance Guidance for SQL Server in Azure Virtual Machines

All virtual machines in Azure are configured with at least two disks when you create the virtual machine – one is an operating system disk and the other is a temporary local disk, sometimes called a resource disk. The operating system disk is created from an image, and both the operating system disk and the image are actually virtual hard disks (VHDs) stored in an Azure storage account. Virtual machines also can have data disks, and those are also stored at VHDs. Azure disks are implemented as a service, so they do not offer the same range of complex configuration options available in traditional on-premises I/O subsystems but offer built-in local redundancy and optional geo-redundancy for disaster recovery through the use of replicas. Raw performance however, is typically not as high as on-premises disk I/O subsystem and because Azure disks are connected to virtual machines via a network infrastructure that can introduce higher latency as well. If your workload is close to the 500 IOPs limit per disk then you should consider adding more disks and distribute your data. This may not necessary improve your latency but you get additional IOPs and bandwidth.

<https://azure.microsoft.com/en-us/documentation/articles/virtual-machines-sql-server-performance-best-practices/>

### Did you plan for HA and Availability Sets?

#### Planning for SharePoint 2013 on Azure Infrastructure Services

For workloads that require high availability, you should deploy more than one virtual machine for each particular role. By using multiple virtual machines, you can make sure that your application is available during local network reachability failures, local disk hardware failures, and any planned downtime that the platform may require.

You manage the availability of your application that uses multiple virtual machines by adding the machines to an availability set. Availability sets are directly related to fault domains and update domains. A fault domain in Azure is defined by avoiding single points of failure, like the network switch or power unit of a rack of servers. In fact, a fault domain is closely equivalent to a rack of physical servers. When multiple virtual machines are connected together in a cloud service, an availability set can be used to ensure that all the machines in the set are not taken down at the same time during servicing and minimizes the risk of the entire set failing.

<https://technet.microsoft.com/library/dn635309(v=office.15).aspx>

### Which is your databases layout and size?

#### Performance Best Practices for SQL Server in Azure Virtual Machines

While running SQL Server in Azure Virtual Machines, we recommend that you continue using the same database performance tuning options that are applicable to SQL Server in on-premises server environment. However, the performance of a relational database in a public cloud depends on many factors such as the size of a virtual machine, and the configuration of the data disks. For SQL server running in Azure virtual machines general guidelines include using data disk for database storage and logging, avoiding data caching options, using striping for increased IO throughput and overcome 1TB disk limit, enable database page compression and other few guidelines that are detailed in the following article.

<https://azure.microsoft.com/en-us/documentation/articles/virtual-machines-sql-server-performance-best-practices/>

### Do you have or are considering High Availability in SQL Server?

#### High Availability and Disaster Recovery for SQL Server in Azure Virtual Machines

Microsoft Azure virtual machines (VMs) with SQL Server can help lower the cost of a high availability and disaster recovery (HADR) database solution. Most SQL Server HADR solutions are supported in Azure virtual machines, both as Azure-only and as hybrid solutions. In an Azure-only solution, the entire HADR system runs in Azure. In a hybrid configuration, part of the solution runs in Azure and the other part runs on-premises in your organization. The flexibility of the Azure environment enables you to move partially or completely to Azure to satisfy the budget and HADR requirements of your SQL Server database systems.

<https://azure.microsoft.com/en-us/documentation/articles/virtual-machines-sql-server-high-availability-and-disaster-recovery-solutions/>

### Are you planning to use Azure IAAS for SharePoint DR?

#### SharePoint Server 2013 Disaster Recovery in Microsoft Azure

Many organizations do not have a disaster recovery environment for SharePoint, which can be expensive to build and maintain on-premises. Azure Infrastructure Services provides compelling options for disaster recovery environments that are more flexible and less expensive than the on-premises alternatives. Azure Infrastructure Services provides a possibility for a hosted secondary datacenter in a different region with a much lower cost to maintain disaster recovery environment that is able to scale to meet your load requirements.

<https://technet.microsoft.com/en-us/library/dn635313.aspx>

### Do you have a Backup and Recovery plan?

#### SQL Server Backup and Restore with Microsoft Azure Blob Storage Service

Backing up and recovery of SharePoint farms in Azure is very similar to an on-premises SharePoint farm. One thing to consider is that you should suffer no significant down-time due to hardware failure. Because Azure will automatically repair and redeploy your virtual machine, there is no action to take on your part. You will get hardware downtime that would be automatically repaired. Ensure that any customizations you perform or applications you deploy can handle this automatic recovery. Azure makes it very easy to deploy more virtual machines, making it possible to create a highly available farm. In SQL Server 2012 Service Pack 1 Cumulative Update 2 and later, SQL Server supports backing up directly to Microsoft Azure Blob Storage. Backing up directly to Microsoft Azure Blob Storage can simplify your backup strategy by providing easy off-server storage for backups.

<http://technet.microsoft.com/en-us/library/jj919148.aspx>

# Resources and Tools

## Resources

### SharePoint for IT Pros

The SharePoint for IT Pros central site provides a set of presentations, trainings, diagrams and documentation designed to help learn the latest about Microsoft SharePoint features and services from an IT Pro perspective.

<http://technet.microsoft.com/en-us/office/dn788776.aspx>

### SharePoint for Developers

The SharePoint for Developers central site provides a set of training videos, documentation, how-to’s designed to help learn the latest about Microsoft SharePoint app development and customization for the developer consultant.

<http://msdn.microsoft.com/en-US/office/dn448478>

### Azure Technical Documentation Library

Looking for Microsoft’s technical documentation library for Microsoft Azure services? You’ve found the right place! You’ll find in-depth content that can help you get the most value from Microsoft Azure.

<http://msdn.microsoft.com/en-us/library/azure/dn578280.aspx>

### Scenario Specific Documentation

* [Internet Sites in Azure using SharePoint Server 2013](http://go.microsoft.com/fwlink/p/?LinkId=393162)
* [SharePoint Disaster Recovery in Azure](http://go.microsoft.com/fwlink/p/?LinkId=393163)
* [Deploying SharePoint with SQL Server AlwaysOn in Azure](https://azure.microsoft.com/en-us/documentation/articles/virtual-machines-workload-intranet-sharepoint-overview/)
* [Azure Active Directory with SharePoint 2013](http://go.microsoft.com/fwlink/p/?LinkId=393164)
* [Poster: Deploy SharePoint with SQL Server AlwaysOn](http://technet.microsoft.com/en-us/library/dn635312(v=office.15).aspx#Azure_SP_SQL)
* [Hybrid for SharePoint Server 2013](http://technet.microsoft.com/en-us/library/jj838715(v=office.15).aspx)

## Tools

### VM Depot

VM Depot is a community-driven catalog of preconfigured operating systems, applications, and development stacks that can be deployed on Microsoft Azure. These images are provided and licensed to you by community members. Microsoft Open Technologies, Inc. does not screen these images for security, compatibility, or performance, and does not provide any license rights or support for them. By using unsupported images, you might forfeit Microsoft Azure availability SLA.

<https://vmdepot.msopentech.com/List/Index>

### Azure Virtual Machine Readiness Assessment

The Virtual Machines Readiness Assessment tool will automatically inspect your on-premises environment, whether it is physical or virtualized, and provide you with a check list and detailed report on steps you need to take to move your environment to the cloud.

<http://azure.microsoft.com/en-us/downloads/vm-readiness-assessment/>

### Microsoft Azure Virtual Machine Optimization Assessment

The Microsoft Azure Virtual Machine Optimization Assessment tool will automatically inspect your Virtual Machines running in Microsoft Azure. Optimize your investment in Azure with the prioritized recommendations provided.

<http://www.microsoft.com/en-us/download/details.aspx?id=43377>

# Technical FAQ

### Azure Virtual Machines FAQ

<https://azure.microsoft.com/en-us/documentation/articles/virtual-machines-questions/>

### Virtual Network FAQ

<https://azure.microsoft.com/en-us/documentation/articles/virtual-networks-faq/>