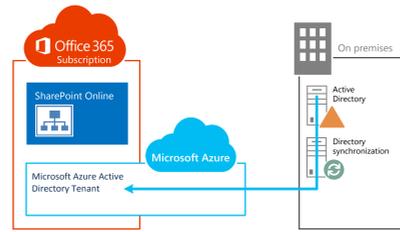


Microsoft SharePoint 2013 Platform Options

What BDMs and architects need to know about Office 365, Microsoft Azure, and on-premises deployments

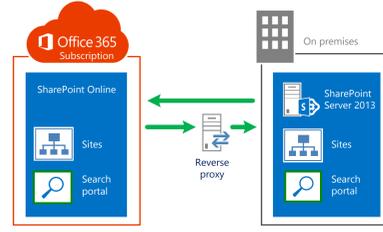
SharePoint in Office 365



Gain efficiency and optimize for cost with Office 365 multi-tenant plans.

- Software as a Service (SaaS).
- Rich feature set is always up to date.
- Includes a Microsoft Azure Active Directory tenant (can be used with other applications).
- Directory integration includes synchronizing account names and passwords between the on-premises Active Directory environment and the Microsoft Azure Active Directory tenant.
- If single sign-on is a requirement, Active Directory Federation Services can be implemented.
- Client communication over the Internet through encrypted and authenticated access (port 443).
- Data migration is limited to what can be uploaded over the Internet.
- Customizations: Apps for Office and SharePoint, SharePoint Designer 2013.

Hybrid with Office 365

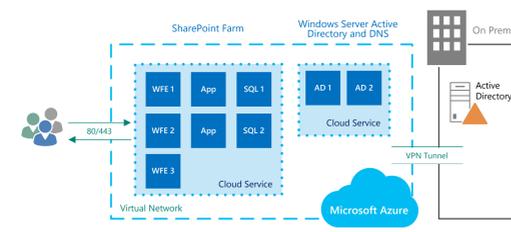


Combine the benefits of Office 365 with an on-premises deployment of SharePoint 2013

Choose which features to integrate.

SharePoint Search	Users can see search results from both environments. Extranet users can log in remotely with an on-premises Active Directory account and use all available hybrid functionality.
Business Connectivity Services	From SharePoint Online: Users can perform both read and write operations. The BCS service connects to an on-premises SharePoint Server 2013 farm. The BCS service configured on the on-premises farm brokers the connection to on-premises OData Service endpoints.
Duet Enterprise Online	From SharePoint Online: Users can perform read and write operations against an on-premises SAP system.

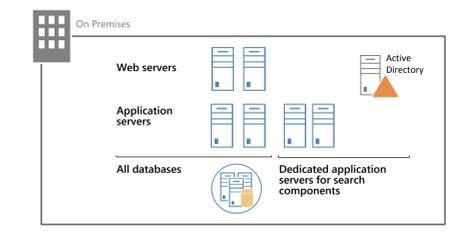
Microsoft Azure



Take advantage of the cloud while maintaining full control of the platform and features.

- Microsoft Azure is a platform that provides the infrastructure and app services needed to host a SharePoint 2013 farm.
- Infrastructure Services.
- Best native cloud platform for SQL Server and SharePoint.
- Computing resources are available almost immediately with no commitment.
- Focus on applications, instead of datacenters and infrastructure.
- Inexpensive development and test environments.
- SharePoint solutions can be accessible from the Internet or only accessible from a corporate environment through a site-to-site VPN tunnel.
- Customizations are not limited.

On Premises



You own everything.

- Capacity planning and sizing.
- Server acquisition and setup.
- Deployment.
- Scaling out, patching, and operations.
- Backing up data.
- Maintaining a disaster recovery environment.
- Customizations are not limited.

Overview

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.

Additional features with Office 365 Dedicated Subscription Plans:

- Microsoft data center equipment that is dedicated to your company or organization and not shared with any other organization.
- Each customer environment resides in a physically separate network.
- Client communication across an IPsec-secured VPN or customer-owned private connection. Two-factor authentication is optional.
- ITAR-support plans.

- 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.

- 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).

- 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.

License requirements

Subscription model, no additional licenses needed

Office 365 — Subscription model, no additional licenses needed.
On-premises — All on-premises licenses apply.

- Microsoft Azure subscription (includes the server operating system)
- SQL Server
- SharePoint 2013 Server License
- SharePoint 2013 Client Access License

- Server Operating System
- SQL Server
- SharePoint 2013 Server License
- SharePoint 2013 Client Access License

Architecture tasks

- Plan and design directory integration. Two options (either option can be deployed on premises or in Microsoft Azure):
 - Password sync (requires one 64-bit server).
 - Single sign-on (requires ADFS and multiple servers).
- Ensure network capacity and availability through firewalls, proxy servers, gateways, and across WAN links.

- Acquire third-party SSL certificates to provide enterprise-security for Office 365 service offerings.
- Plan the tenant name, design site, collection architecture and governance.
- Plan customizations, solutions, and apps for SharePoint Online.
- Decide if you want to connect to Office 365 by using the Internet Protocol 6 (IPv6) — not common.

In addition to tasks for both the Office 365 and on-premises environments:

- Determine how much feature integration is desired and choose the hybrid topology. See this model poster: Which hybrid topology should I Use?
- If required, determine which proxy server device will be used.

Design the Microsoft Azure network environment:

- Virtual network within Microsoft Azure, including subnets.
- Domain environment and integration with on-premises servers.
- IP addresses and DNS.
- Affinity groups and storage accounts.

Design the SharePoint environment in Microsoft Azure:

- SharePoint farm topology and logical architecture.
- Microsoft Azure availability sets and update domains.
- Virtual machines sizes.
- Load balanced endpoint.
- External Endpoints for public access, if desired.
- Design the disaster recovery environment.

Design the SharePoint environment in an existing on-premises environment:

- SharePoint farm topology and logical architecture.
- Server hardware.
- Virtual environment, if used.
- Load balancing.
- Integration with Active Directory and DNS.
- Design the disaster recovery environment.

IT Pro responsibilities

- Ensure user workstations meet Office 365 client prerequisites.
- Implement the directory integration plan.
- Plan and implement internal and external DNS records and routing.
- Configure the proxy or firewall for Office 365 IP address and URL requirements.

- Create and assign permissions to site collections.
- Implement customizations, solutions, and apps for SharePoint Online.
- Monitor network availability and identify possible bottlenecks.

In addition to tasks for both the Office 365 and on-premises environments:

- Configure the proxy server device, if required.
- Configure the hybrid identity management infrastructure: SSO and server-to-server authentication between the two environments.
- Configure the integration of chosen features: search, BCS, Duet Enterprise Online.

Deploy and manage the Microsoft Azure and SharePoint environment:

- Implement and manage the Microsoft Azure network environment.
- Deploy the SharePoint environment.
- Update SharePoint farm servers.
- Add or shut down virtual machines as needed based on farm utilization.

Microsoft Azure environment:

- Increase or decrease virtual machine sizes, as needed.
- Backup the SharePoint environment.
- Implement the disaster recovery environment and protocol.

Deploy and manage the SharePoint on premises environment:

- Provision servers.
- Deploy the SharePoint environment.
- Update SharePoint farm servers.
- Add or remove farm servers as needed based on farm utilization.
- Backup the SharePoint environment.
- Implement the disaster recovery environment and protocol.

Three Make-Sense Workloads to Move to Microsoft Azure

1 Office 365 + Directory Components in Microsoft Azure

Deploying Office 365 directory integration components in Microsoft Azure is faster due to the ability to deploy Virtual Machines on-demand.

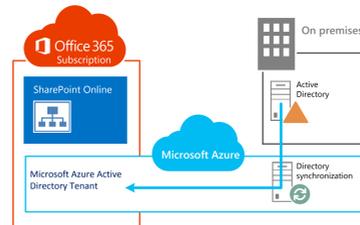
Directory synchronization server only

Instead of deploying the 64-bit directory synchronization server in your on-premises environment, provision a virtual machine in Microsoft Azure instead (illustrated right).

Directory synchronization + Active Directory Federation Services

This option allows you to support Office 365 federated identities (single sign-on) without adding hardware to your on-premises infrastructure. It also provides resiliency if the on-premises Active Directory environment is unavailable.

- Directory integration components reside in Microsoft Azure.
- AD FS is published to the Internet through AD FS proxies in Microsoft Azure.
- Client authentication traffic, for users that are connecting from any location, is handled by AD FS servers and proxies that are deployed on Microsoft Azure.



2 Public-facing Internet Site + Microsoft Azure AD for Customer authentication

Take advantage of the ability to easily scale to demand by placing your Internet site in Microsoft Azure. Use Microsoft Azure Active Directory to store customer accounts.

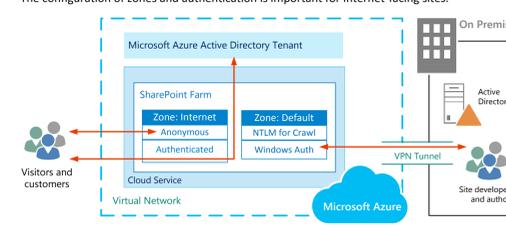
Microsoft Azure advantages for Internet sites

- Pay only for the resources you need by scaling the number of VMs based on farm utilization.
- Add deep reporting and Web analytics.
- Focus on developing a great site rather than building infrastructure.

Microsoft Azure Active Directory

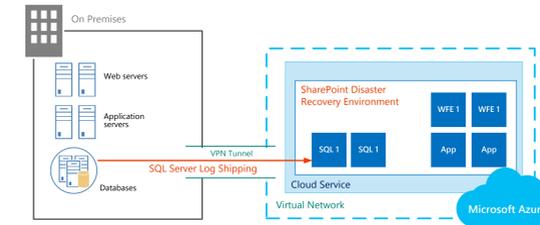
Microsoft Azure AD provides identity management and access control capabilities for cloud services. Capabilities include a cloud-based store for directory data and a core set of identity services, including user logon processes, authentication services, and Federation Services. The identity services that are included with Microsoft Azure AD easily integrate with your on-premises Active Directory deployments and fully support third-party identity providers.

The configuration of zones and authentication is important for Internet-facing sites.



3 On-premises Farm + Disaster Recovery in Microsoft Azure

Choose a disaster recovery option that matches your business requirements. Microsoft Azure provides entry-level options for companies getting started with disaster recovery, as well as advanced options for enterprises with high resiliency requirements.



Cold standby

- The farm is fully built, but the VMs are stopped (you're only paying when they're running!).
- Maintaining the environment includes starting the VMs from time-to-time, patch, update, and verify the environment.
- Start the full environment in the event of a disaster.

Warm standby

- Includes a small farm that is provisioned and running.
- The farm can immediately serve a few thousand users in the event of failover.
- Scale out the farm quickly to serve the full user base.

Hot standby

- A fully-sized farm is provisioned and running on standby.