Best Practices for Deploying SharePoint Online & SharePoint 2016 – Hybrid
Session Speaker

Aqeel Haider
Vice President - Technology

Over 16 years of IT industry experience and specializes in application development using SharePoint, SharePoint 2010, SharePoint 2013, SharePoint 2016, .NET Framework and various other Microsoft platform technologies. Currently serving as VP – technology for Technovert Solutions

Work Experience

Past experience working in the field of SharePoint and Microsoft Technologies with leading organization such as:

- EMC
- Avanade
- Starbucks
- Cognizant Technology Solutions
- Catapult System
- WinWire Technologies
- Lighthouse Consulting Services

Thought Leadership

- Content Migration to SharePoint 2013 - An Introduction

- SharePoint Saturday "SharePoint New way to work"
  http://www.spsevents.org/city/SiliconValley/SiliconValley2015/speakers/

Role

Senior SharePoint Architect

- Leading an enterprise migration/upgrade effort of a companywide intranet from MOSS 2007 to SharePoint 2016 with over 3TB of data and multiple customizations

Expertise

- Comprehensive knowledge of designing and developing portals based on SharePoint
- In-depth knowledge custom .NET web based solutions
- Expert at gathering and analyzing user requirements.
- Ability to direct complex projects from concept to production and strong leadership capabilities
WHAT, WHY, Hybrid?

What is Hybrid SharePoint?

Why consider deploying SharePoint in a Hybrid model?

Common Scenarios

Some Common Hybrid use cases and scenarios

Considerations

Designing a SharePoint Hybrid environment, what are some of key considerations?
What is Hybrid SharePoint?

Essentially a hybrid SharePoint environment is one where an on premise SharePoint environment is integrated with a SharePoint Online office 365 tenant with workloads split between the two respective environments.
Why Consider deployment of SharePoint as a service in a hybrid scenario?

- Flexibility
- On-Premises customization
- Significant footprint in remote locations
- Regulatory reasons & Governance
- Manageability

58% of Enterprises have some service deployed to the Cloud

Microsoft aim to reach an annualized commercial cloud revenue run rate of $20 Billion in 2018
Hybrid use cases and scenarios

Two scenarios of hybrid model in an Enterprise

**Migration to the Cloud**
- Migrate at their own pace to the Cloud with little or no disruption to existing service
- Pilot Online Service with a subset of users

**Maintaining a hybrid model**
- Continue to maintain hybrid model providing services on-premises or online based on the organization needs
- Continue to use existing customizations on premise
- Easily off-board workloads that are split at a future date
Designing a SharePoint Hybrid Environment – Key Considerations

- Information Architecture
- Security and identity Management
- Search
Information Architecture – Hybrid Scenario

- One Drive for Business
- Site Hierarchy & Navigation
- Managed Meta Data Service Application & User Profile Service Application
- Profiles exist in both locations, but SharePoint Server links to users’ profiles redirect profiles in Office 365.
Example: OneDrive for Business redirection

1. Redirect OneDrive to Cloud
   - This is the first step in setting up users to use OneDrive in the cloud instead of OneDrive on premises.
   - After this step, users’ OneDrive document library will be in the Cloud.
   - Rest of MySite stays on premises.

2. Redirect Sites to Cloud
   - If team sites are staying on premises, then you don’t want to redirect Sites to Office 365 yet.
   - Do not redirect Sites at this time.

3. Choose users to use OneDrive in Office 365
   - You can choose to redirect all users’ OneDrive to use the Cloud (Everyone).
   - Or if this is a “evaluation” period, you can choose to have select users evaluate OneDrive in Office 365 using an audience.
Security and Identity Management

Information Architecture

Security and Identity Management

Search

Cloud identity

Directory & password synchronization*

Federated identity

Windows Azure Active Directory

AAD Connect & Password Sync*

Federation

Directory Sync

On-premises identity

On-premises identity

Single identity in the cloud

Suitable for small organizations with no integration to on-premises directories

Single identity

Suitable for medium and large organizations without federation*

Single federated identity and credentials

Suitable for medium and large organizations
Directory & password sync

Office 365
- Office 365 Admin Portal
- Office Activation Service
- Exchange Mailbox Access

Authorization

Windows Azure
- OAuth2
- SAML-P
- WS-Federation

Windows Azure Active Directory
- Metadata
- Graph API

AAD Connect

Active Directory

On premises Environment
## Considerations for Directory and Password Sync using AAD Connect

<table>
<thead>
<tr>
<th>Solution Advantages</th>
<th>Solution Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single server and simple deployment</td>
<td>More password prompts</td>
</tr>
<tr>
<td>Less cost, time and resource</td>
<td>Single identity but separate credentials, can be the same user name and password</td>
</tr>
<tr>
<td>If DirSync server down, users still be able to authenticate and logon to Office 365 cloud</td>
<td>User account authenticated by Office 365 cloud</td>
</tr>
<tr>
<td>Not Fault tolerant and no load balancing available</td>
<td></td>
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## Considerations for ADFS

<table>
<thead>
<tr>
<th>Solution Advantages</th>
<th>Solution Disadvantages</th>
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</thead>
<tbody>
<tr>
<td>User account authenticated by ADFS; Authentication decision is made on-premises</td>
<td>Greater cost, time and resources to implement</td>
</tr>
<tr>
<td>Fault tolerant and load balancing</td>
<td>Additional infrastructure</td>
</tr>
<tr>
<td>Single sign-on with on premise and other Apps available since re-entry of the password is not required.</td>
<td>When ADFS services are down, users won’t be able authenticate to access Office 365.</td>
</tr>
<tr>
<td>Can include web pages for users to change their passwords outside the corporate network</td>
<td>SSL certificate from a public CA is required</td>
</tr>
<tr>
<td>Support for on-premises multi-factor authentication products.</td>
<td>Adds an additional point(s) of failure</td>
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<tr>
<td>Some on-premises to cloud hybrid scenarios require ADFS such as hybrid search.</td>
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CLOUD Hybrid Search

- Cloud hybrid search
- Hybrid federated search

Information Architecture

SharePoint

Office 365

Search result from Online Content
Search result from on-premise content
Search result from Online content
Search result from on-premise content

Security and identity Management

Search

Content

Index

Content
Hybrid Federated Search

Information Architecture

- SharePoint Server
  - Content
  - Index

- Office 365
  - Content
  - Index

Security and identity Management

Search

- Cloud hybrid search
- Hybrid federated search

Office 365

Search Center

- SharePoint Online
  - Search result from Online Content
  - Search result from Online content

- SharePoint Server
  - Search result from on-premise content
## Considerations for Both Solutions

<table>
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<tr>
<th>Cloud Hybrid Search</th>
<th>Hybrid Federated Search</th>
</tr>
</thead>
<tbody>
<tr>
<td>Users get unified search results, search relevance ranking, and refiners</td>
<td>On Premise Content Never gets indexed in the cloud</td>
</tr>
<tr>
<td>Users automatically get the newest SharePoint Online search experience</td>
<td>Clunky UI for end users</td>
</tr>
<tr>
<td>Users can use SharePoint Online Features such as Office Delve also for your on-premises content</td>
<td></td>
</tr>
<tr>
<td>Size of your search index becomes irrelevant</td>
<td></td>
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Thank You

For questions please feel free to contact me:

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