

# Hybrid Lessons from the Field

 SharePoint 2013

 Office 365

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 Cognizant



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- SharePoint Competency Lead
  - @ Cognizant Technology Solutions
- Working with SharePoint since 2005
- Working with SQL Server since 2004

**Microsoft**  
**CERTIFIED**

Solutions Expert

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SharePoint

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IT Professional

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Database Administrator  
2008



# SharePoint Service Offering



# Agenda

- What is “Hybrid”?
- High Level Service Diagram
- Foundations of Hybrid
- Hybrid-enabled Services
- Services not Hybrid-enabled
- Considerations for your Deployment
- Wrap up / Q & A

# Survey

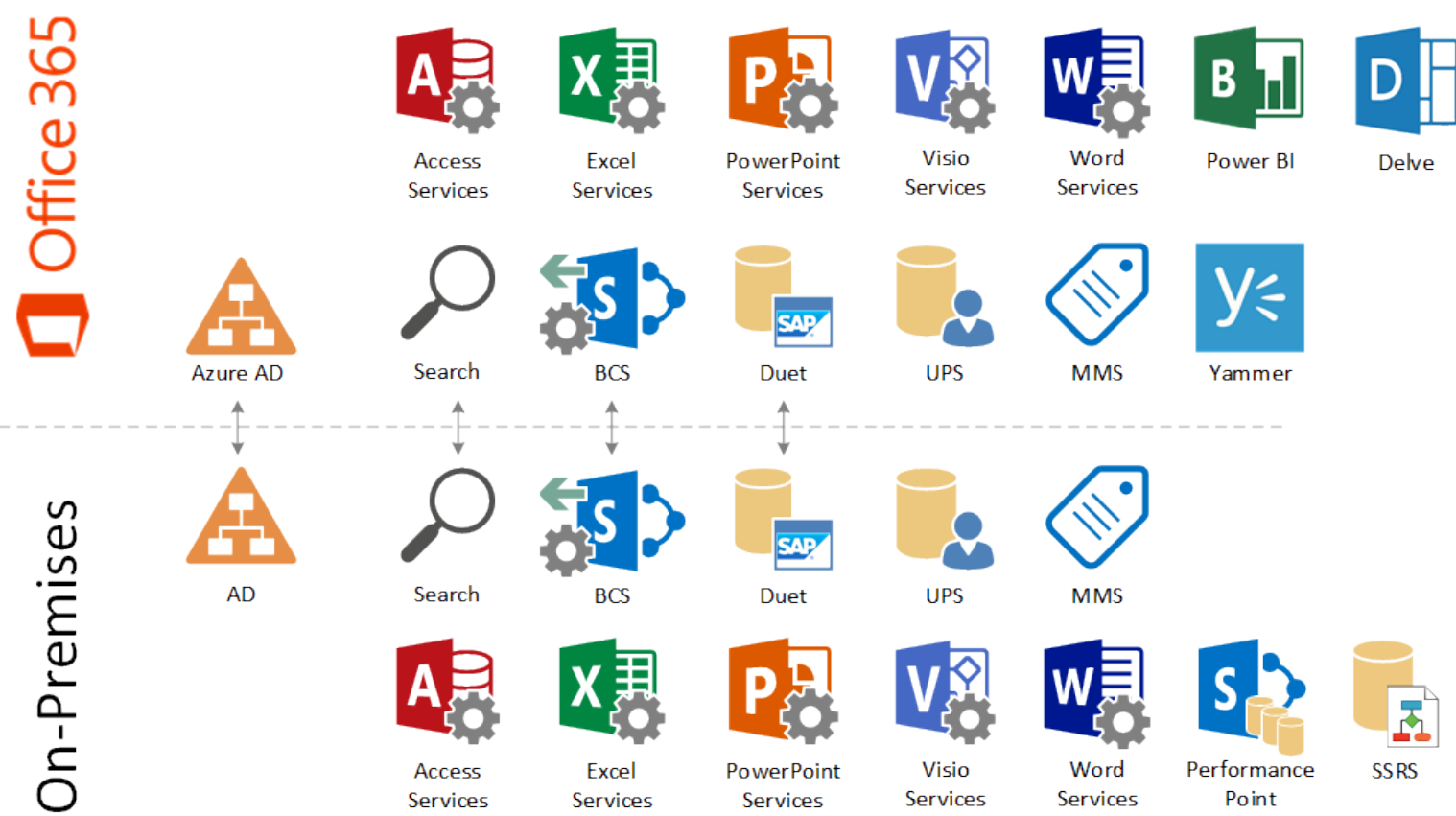
1. How many are on SharePoint Online (SPO) today?
2. How many are currently deploying SPO?
3. How many are thinking about deploying SPO?
4. How many are just interested in learning more?

# What is "Hybrid"?

**Hybrid (n):** Allowing users to access information and services across platforms, irrespective of where the information lives and how it is managed



# High Level Service Diagram



# Foundations of Hybrid





# Authentication



Zero on-premises servers 




Directory sync with password sync 

On-premises identity 



Federation | Directory sync

On-premises identity 

Source: <http://blogs.office.com/2014/05/13/choosing-a-sign-in-model-for-office-365/>

# Authentication

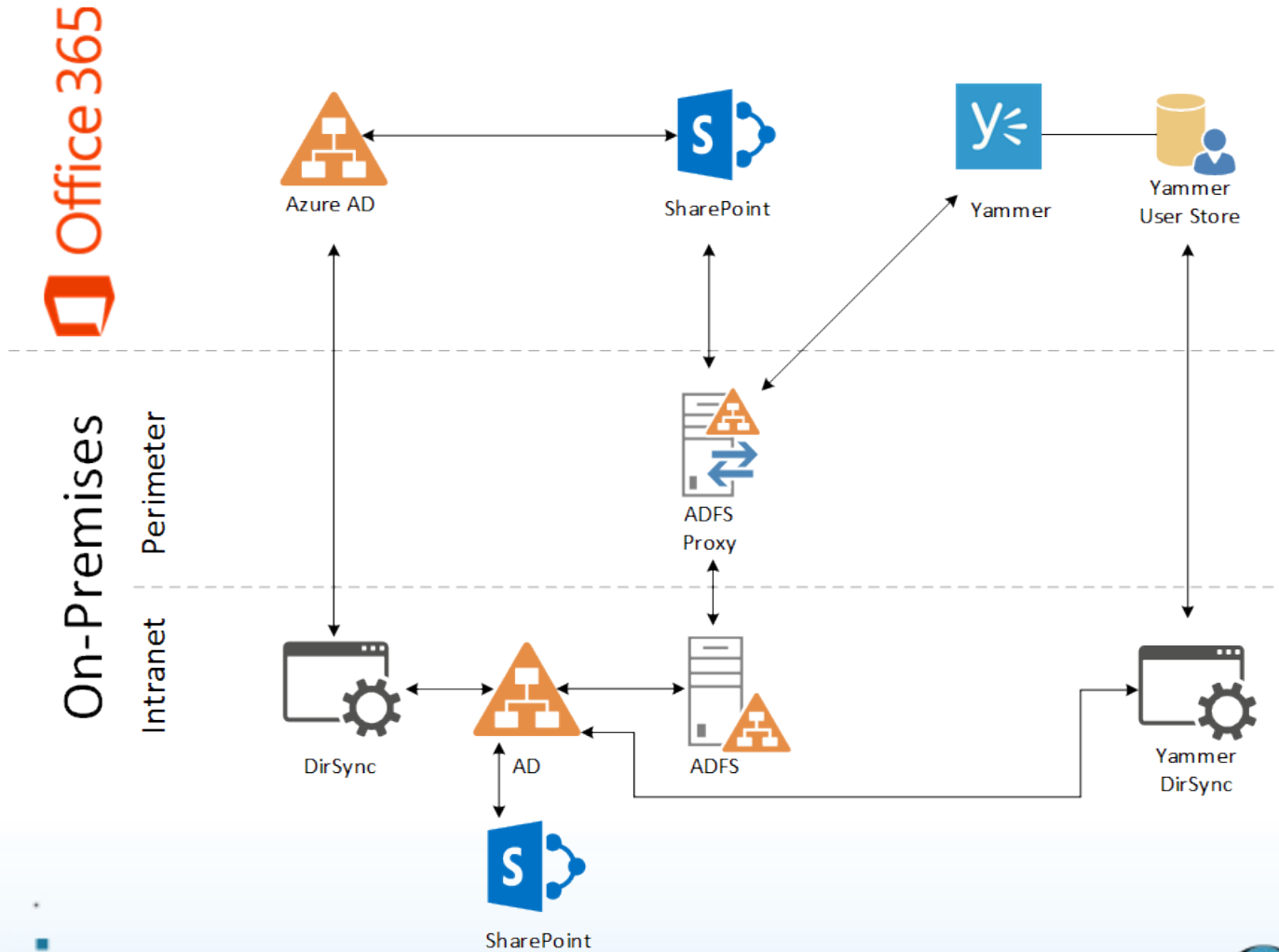
	Cloud Identity	Cloud Identity + DirSync	Federated Identity
<b>Scenario</b>	<ul style="list-style-type: none"> <li>Smaller organizations with or without on-premises Active Directory</li> </ul>	<ul style="list-style-type: none"> <li>Medium to Large organizations with Active Directory on-premises</li> </ul>	<ul style="list-style-type: none"> <li>Large enterprise organizations with Active Directory on-premises</li> </ul>
<b>Benefits</b>	<ul style="list-style-type: none"> <li>Does not require on-premises server deployment</li> </ul>	<ul style="list-style-type: none"> <li>“Source of Authority” is on-premises</li> <li>Enables coexistence</li> </ul>	<ul style="list-style-type: none"> <li><b>Single Sign-On experience</b></li> <li>“Source of Authority” is on-premises</li> <li>2 Factor Authentication options</li> </ul>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>No Single Sign-On</li> <li>No 2 Factor Authentication options (*)</li> <li>Two sets of credentials to manage</li> <li>Different password policies</li> </ul>	<ul style="list-style-type: none"> <li>No Single Sign-On</li> <li>No 2 Factor Authentication options (*)</li> <li>Requires on-premises DirSync server deployment (**)</li> </ul>	<ul style="list-style-type: none"> <li>Requires on-premises AD FS server deployment in high availability scenario</li> <li>Requires on-premises DirSync server deployment</li> </ul>

(\*) Windows Azure AD Multi-Factor Authentication (MFA)

(\*\*) Password Synchronization is an option

Source: <http://summit.office.com/resources/download/634>

# Authentication – Federated Identity



# Hybrid-enabled Services

# Search Service

Office 365



Search Service

- Index
- Crawler
- Crawled Properties
- Managed Properties
- Search Schema
- Analytics

On-Premises

Intranet Perimeter

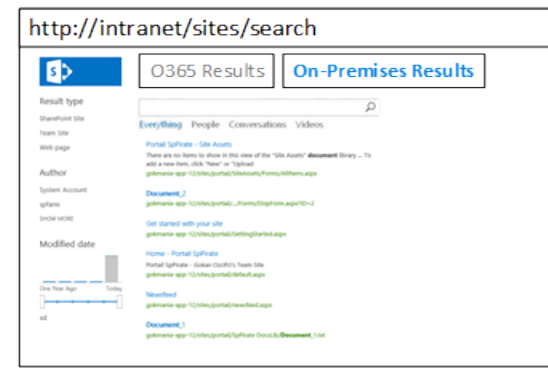
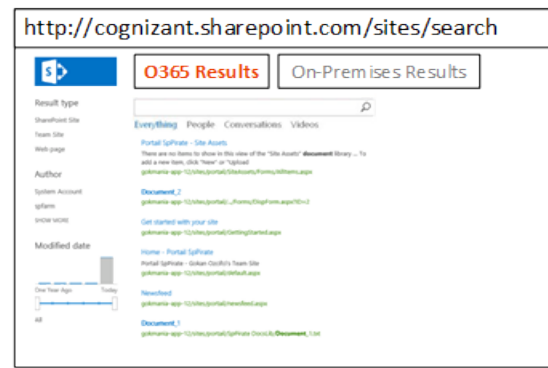


Reverse Proxy



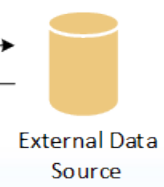
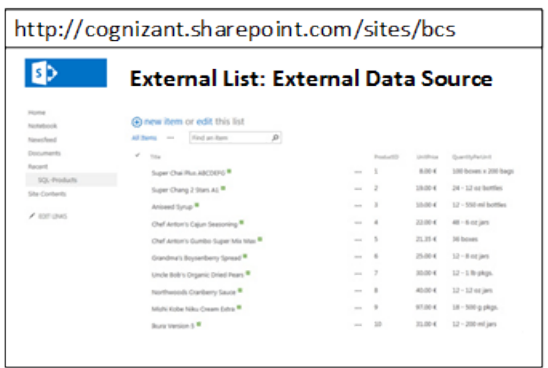
Search Service

- Index
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# Business Connectivity Services (BCS)

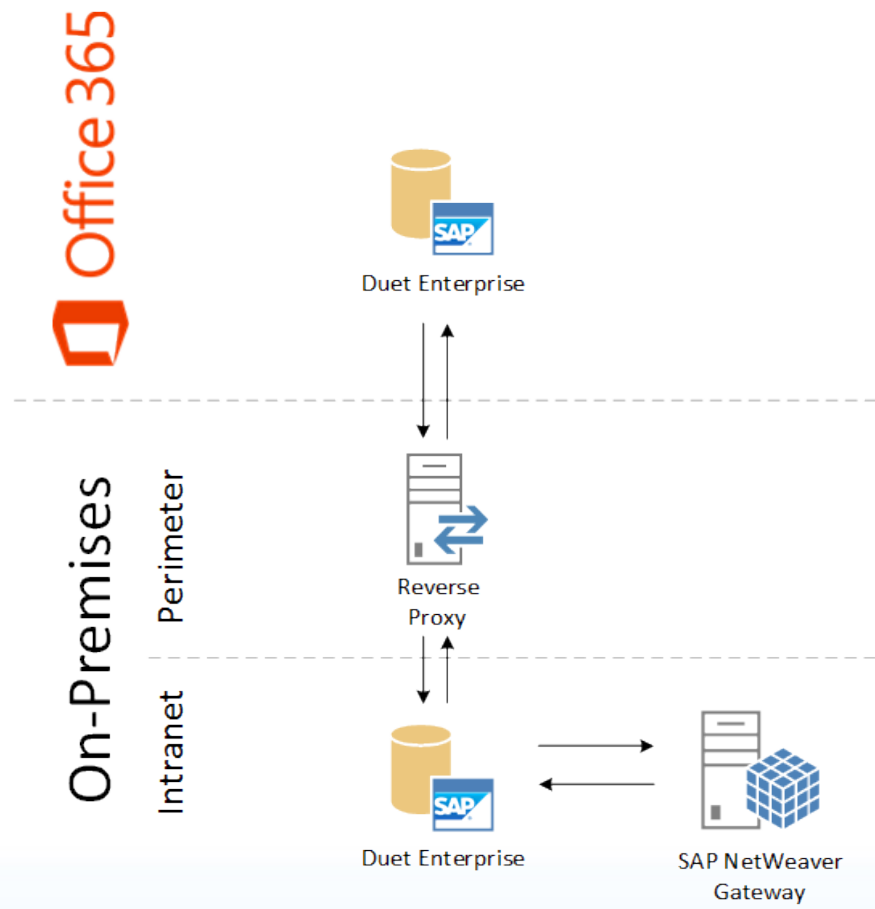
Office 365



On-Premises

Intranet Perimeter

# Duet Enterprise

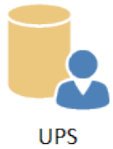


# Services not Hybrid-enabled



# User Profile Service (UPS)

Office 365



On-Premises



- There is no OOTB mechanism to publish the UPS from O365 to On-Premises
- If profile properties are being imported beyond AD attributes, the import will need to be configured in both places
- User-modifiable attributes such as “About Me” will need customization to be synced
- Microsoft provides code samples on their Patterns & Practices site to help build a solution  
<https://github.com/OfficeDev/PnP>

# Managed Metadata Service (MMS)

Office 365



MMS

On-Premises



MMS

- Similar to the UPS, the MMS also lives independently in O365 and On-Premise
- There is no OOTB mechanism to sync them, nor publish one to the other
- Cognizant's recommended approach is to pick one to be the source-of-record and use governance to keep both in sync
- Microsoft provides code samples on their Patterns & Practices site to help build a solution  
<https://github.com/OfficeDev/PnP>

# OOTB Social

- SharePoint 2013 OOTB Social is not Hybrid-Enabled
- Not Possible to follow activities between O365 and On-Premises
- “News Stream” / “Activity Feed” act independently
- Yammer can be integrated with SSO to both O365 and your On-Premises Deployment

# Delve formally known as “Oslo”

Office 365

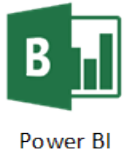


- As of this presentation, Microsoft Delve cannot accept “signals” from On-Premise SharePoint 2013
- Delve has a roadmap to open the API to allow for applications outside of O365 to send signals, but the dates are not yet confirmed
- Once this API is available, a certain level of customization will be required to your SP2013 farm in order to take advantage of this (unless future updates add this functionality)

On-Premises

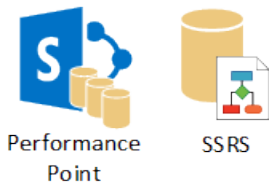
# Other Services not Hybrid-Enabled

Office 365



- PowerBI is only cloud-enabled and is considered a separate tenant that is licensed separately

On-Premises



- PerformancePoint and SSRS are currently only supported in On-Premises deployments

# Considerations for your Deployment

# Considerations for your Deployment

- Governance
  - Which services are required and where will they be offered?
  - What stays On-Premises and what goes to the Cloud?
  - How are sites provisioned and how are applications managed?
- Company Security Considerations
  - Will InfoSec allow the configuration of reverse proxies?
  - Will InfoSec allow identity federation and sync?
- SP2013 Service Pack 1 – Hybrid Improvements in UPS & Yammer
- Future Hybrid Evolution

# Further Reading

Topic	URL
Hybrid Topologies	<a href="https://technet.microsoft.com/library/jj838715">https://technet.microsoft.com/library/jj838715</a>
Hybrid Search	<a href="https://technet.microsoft.com/en-us/library/dn197172">https://technet.microsoft.com/en-us/library/dn197172</a>
Hybrid BCS	<a href="https://technet.microsoft.com/en-us/library/dn197239">https://technet.microsoft.com/en-us/library/dn197239</a>
Hybrid Duet Enterprise	<a href="https://technet.microsoft.com/en-us/library/dn144962">https://technet.microsoft.com/en-us/library/dn144962</a>
Office 365 Roadmap	<a href="http://roadmap.office.com/en-us">http://roadmap.office.com/en-us</a>



# Wrap Up

- Thank you for attending!
- This deck can be found on my blog:  
<http://dimitri.spgurus.com>
- Follow me on my Twitter: @dayrapetov
- Connect on LinkedIn:  
<linkedin.com/in/dimitriayrapetov/>
- Email me: [Dimitri.Ayrapetov at Cognizant.com](mailto:Dimitri.Ayrapetov@Cognizant.com)
- Q & A