

# FUTURE DECODED

6-7 OTT '16 / MILANO

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# Introduzione a SharePoint 2016

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# WHO I AM

- Co-founder of Dev4Side S.r.l. ([www.dev4side.com](http://www.dev4side.com))
- 7 years Microsoft SharePoint MVP
- Speaker in Microsoft communities events in Italy
- "SharePointer" from 2005
- Father of [www.peppedotnet.it](http://www.peppedotnet.it) 😊
- Author of the book "Pocket C#" from Apogeo
- One of the top SharePoint and Office 365 influencers (for 2014 and 2015)



# WHO ARE YOU?

# Agenda

- History of SharePoint
- What's new for..
  - Power users
  - IT PRO
  - Developers
- What's missing
- The future of SharePoint



SharePoint  
Portal Server 2001

2001



SharePoint  
Portal Server 2003

2003



Office SharePoint  
Server 2007

2006



SharePoint  
Server 2010

2009



SharePoint  
Server 2013

2012



SharePoint  
Server 2016

2016



Microsoft  
Managed Solutions



Microsoft  
Online Services



Office 365

Core  
Collaboration

Content  
Management

Cloud and Enterprise  
Social

Cloud-Inspired  
Experiences

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# What's new for end users?

Focus on intuitive experiences,  
compliance and security

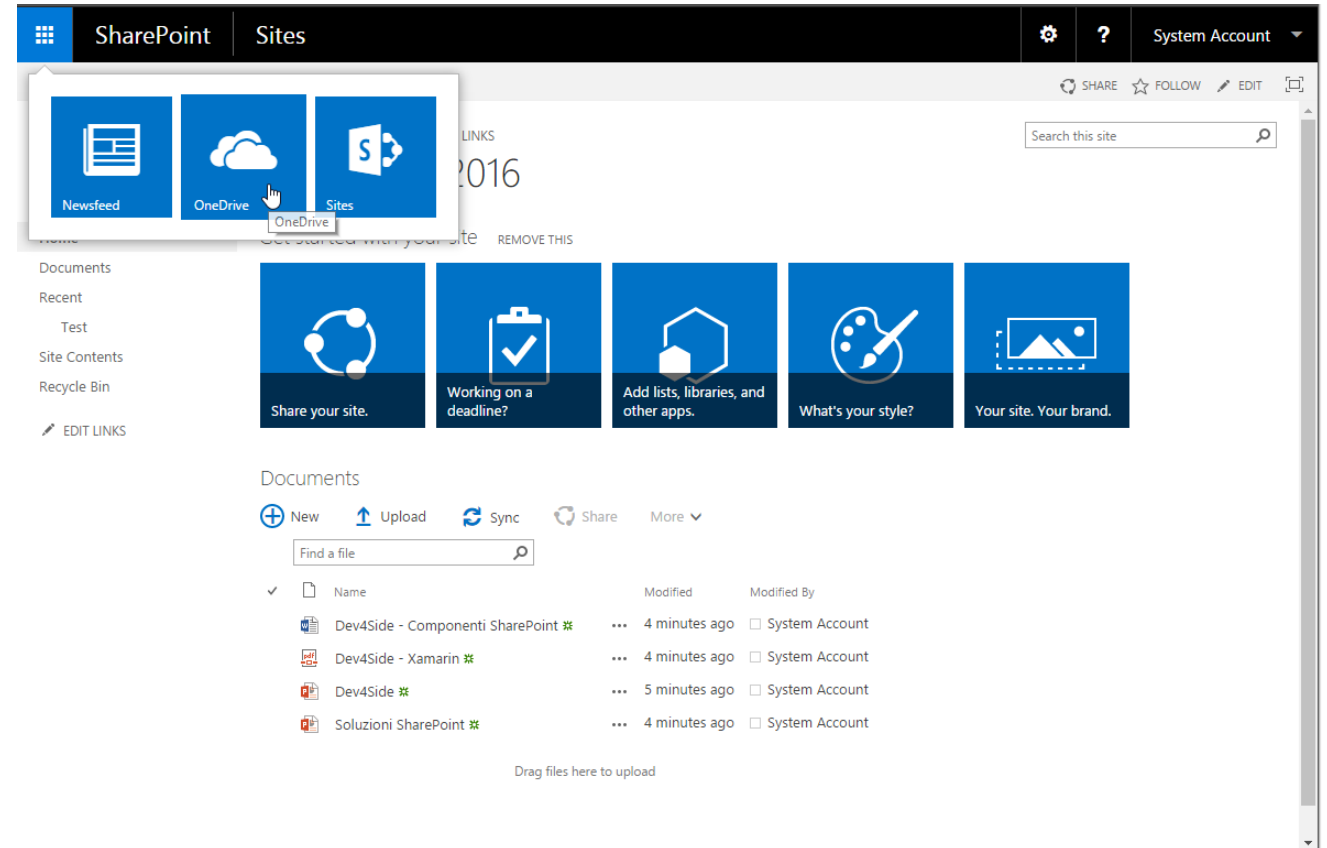
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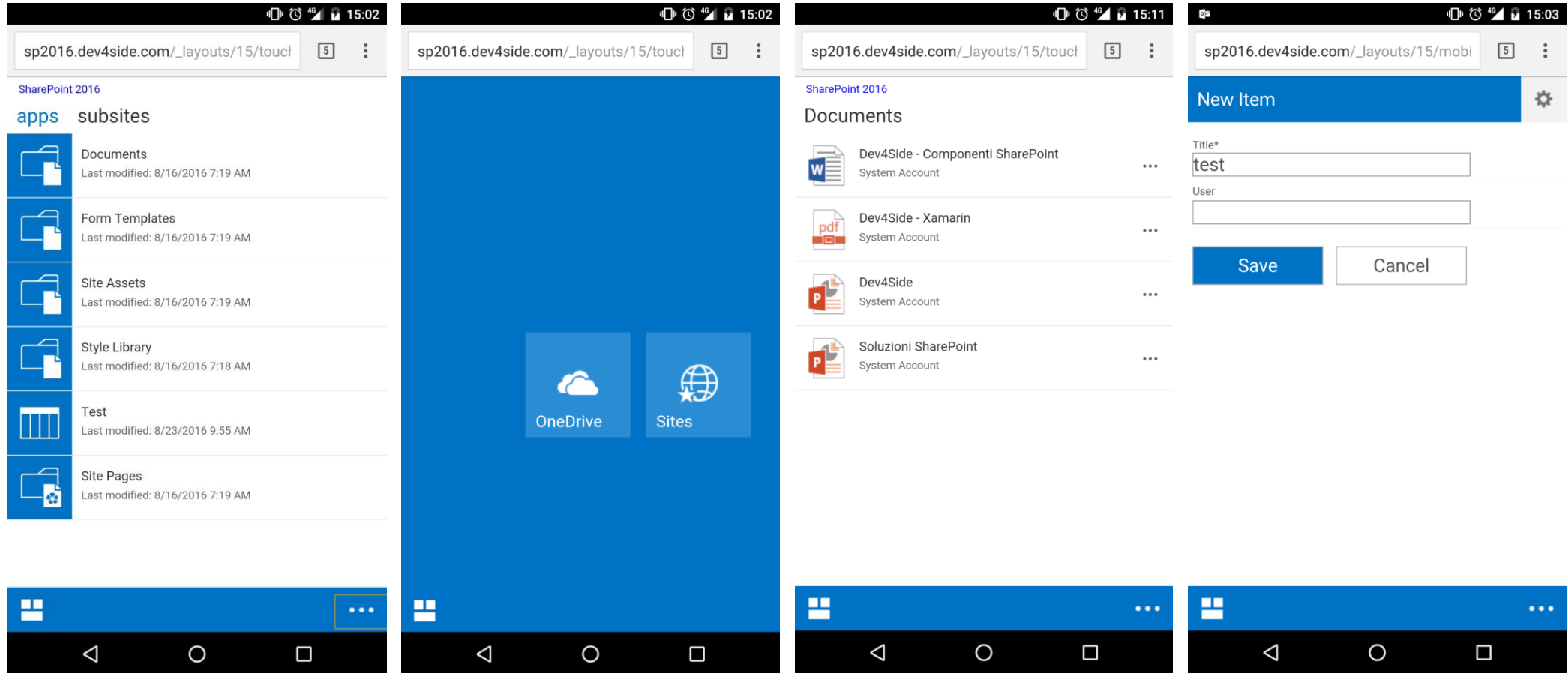
# Almost the same UI

- New navigation experience
  - Consistent navigation between O365 and SharePoint on-premise
- Can render Office 365 links if Hybrid has been configured





# Improved mobile experience



# Changes to lists and document libraries

- Support for special characters in file names
- Durable links
- Image and video previews
- Accessibilities improvements for document libraries
  - Alt + N, Alt + E, Alt + U, Alt + S, Alt + M, Alt + y
- Updated mechanism related to 5.000 view threshold
- Open Document Format (ODF) support



# Durable links

- This feature help to resolve some issues we had with the past versions of the product:
  - 255 characters limit for URLs
  - Rename actions
  - File relocations (move)
- Note: need Office Online Server

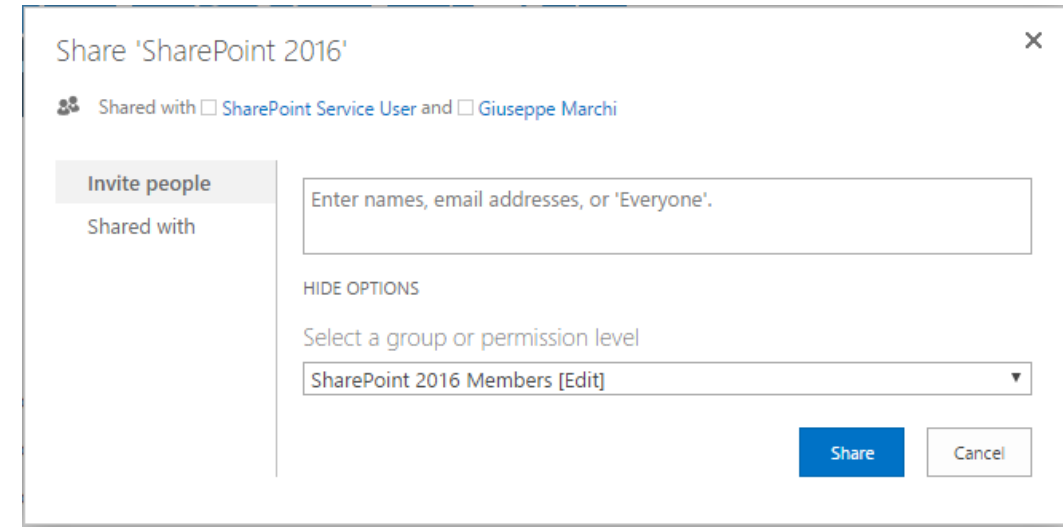
# Large file support

- Previous versions of SharePoint did not support uploading or downloading files larger than 2GB. SharePoint 2016 now allows you to upload files up to 10GB
  - The best practice is always to avoid the upload of huge files on SharePoint and use the product for collaboration (not archiving)
- Maximum file-size limit configurable per-web application



# Simple sharing

- The "Share" window has been updated:
  - You can invite people
  - You can directly see the list of people
- Share folders
  - See who the folder is shared with
- Site members can also share
- The invitation e-mail has been improved
- One-click e-mail to approve or deny a request for access



The screenshot shows the 'Share' window for a document titled 'SharePoint 2016'. The window has a close button (X) in the top right corner. Below the title, it says 'Shared with' followed by two checkboxes and names: 'SharePoint Service User' and 'Giuseppe Marchi'. On the left side, there are two buttons: 'Invite people' (highlighted) and 'Shared with'. The main area contains a text input field with the placeholder 'Enter names, email addresses, or \'Everyone\'.' Below this is a section titled 'HIDE OPTIONS' with a dropdown menu labeled 'Select a group or permission level'. The dropdown menu is currently set to 'SharePoint 2016 Members [Edit]'. At the bottom right, there are two buttons: 'Share' (in blue) and 'Cancel'.

# Sites page pinning

- On the "Sites" view, inside your personal site, you can now pin several team sites to the top of the page



# Updates to OneDrive for Business

- New controls for working with OneDrive for Business
- “Shared with me” view
- “Site folders” view



# What's new for IT PROs?

This release is for them!

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# Hardware requirements

SharePoint 2016	Scenario	RAM	Processor	Disk
Single Database server	Development/evaluation	16 GB	64 bit, 4 core	OS: 80 GB Data: 100 GB
Single Database server	Production	24 GB	64 bit, 4 core	OS: 80 GB Data: 100 GB
Single Front-end/Application server	Development/evaluation	12 GB	64 bit, 4 core	OS: 80 GB Data: 80 GB
Single Front-end/Application server	Production	16 GB	64 bit, 4 core	OS: 80 GB Data: 80 GB



# Software requirements

	SharePoint 2016	SharePoint 2013
Operating systems	Windows Server 2012 R2 Windows Server 2016	Windows Server 2008 R2 SP1 Windows Server 2012
Database systems	SQL Server 2014 SP1 SQL Server 2016	SQL Server 2008 R2 SP1 SQL Server 2012 SQL Server 2014
Software prerequisites	.NET Framework 4.6 AppFabric 1.1 SQL Server 2012 SP1 native client WCF Data Services 5.6 Microsoft Information Protection and Control Client (MSIPC) Sync Framework v1.0 SP1 Visual C++ for VS2012 and VS2015	.NET Framework 4.5 AppFabric 1 SQL Server 2012 SP1 native client WCF Data Services 5.0 Microsoft Information Protection and Control Client (MSIPC) Sync Framework v1.0 SP1

Note: Beginning January 13, 2016, .NET Framework 4.5.2 will be the minimum version of .NET Framework 4.x supported by Microsoft.

# Limits and boundaries upgrades

- Content database size up to 1TB
- Search indexing supports up to 500 million items
- 100.000 site collections per content database
- List view threshold > 5.000 items (sort of..)
- Upload file size limit up to 10GB

# Migration

- Easy migration path using database attach approach



# Updates to outgoing service (SMTP)

- SMTP connection encryption using TLS
- No fallback support for unencrypted connections
- You can configure a non-default port (25)

# File transfer improvements

- Byte-range HTTP GETs for download
- BITS protocol for upload, instead of COBALT

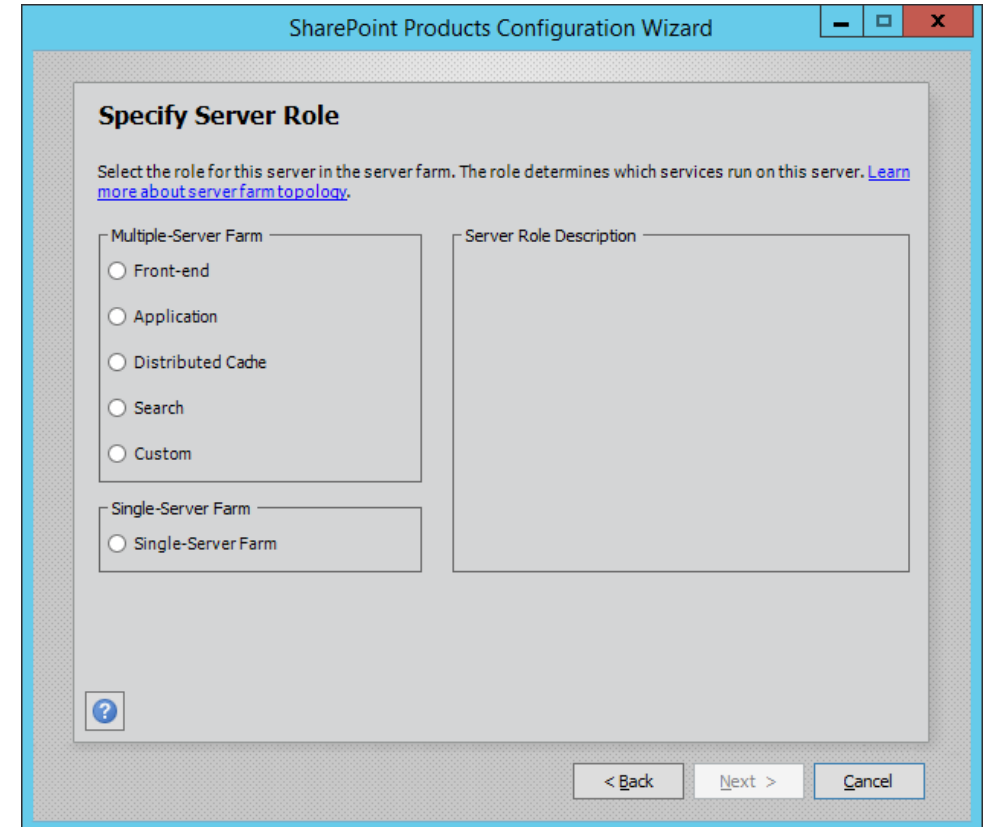
# Fast site creation

- Improves provisioning of Site Collection creation
  - Reduces 40+ seconds to 5+ seconds
- Connected to a specific Site Template (ex: STS#0)
- Avoids feature activation time
- Works directly at the Content Database level
- New Powershell commands/attributes for this:
  - Enable-SPWebTemplateForSiteMaster
  - New-SPSiteMaster
  - New-SPSite -CreateFromSiteMaster



# Min Role

- This is the main change for SharePoint infrastructure
- Now, administrators can define a ROLE for each SERVER in the farm (during farm creation or adding a new server)
- SharePoint automatically configures the services on each server, based on the server role specified, optimizing performances



# Min Role – Server roles

Front-end	Service applications and components that serve user requests
Application	Service applications that serve backend tasks (ex: App Management Service, etc...)
Distributed cache	Service applications and components required for caching
Search	Search related services (Host Controller Service, Search Query, etc...)
Custom	Backward compatibility with SharePoint 2013
Single server farm	Only for developing/testing

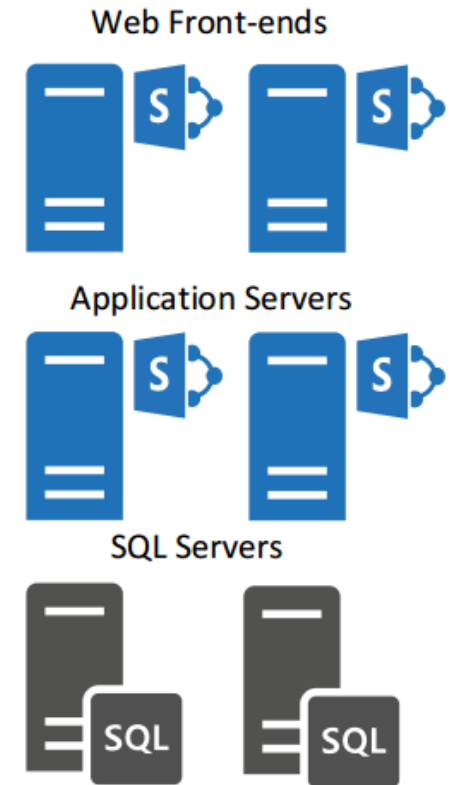
Cool!

But how this change affects our topologies?



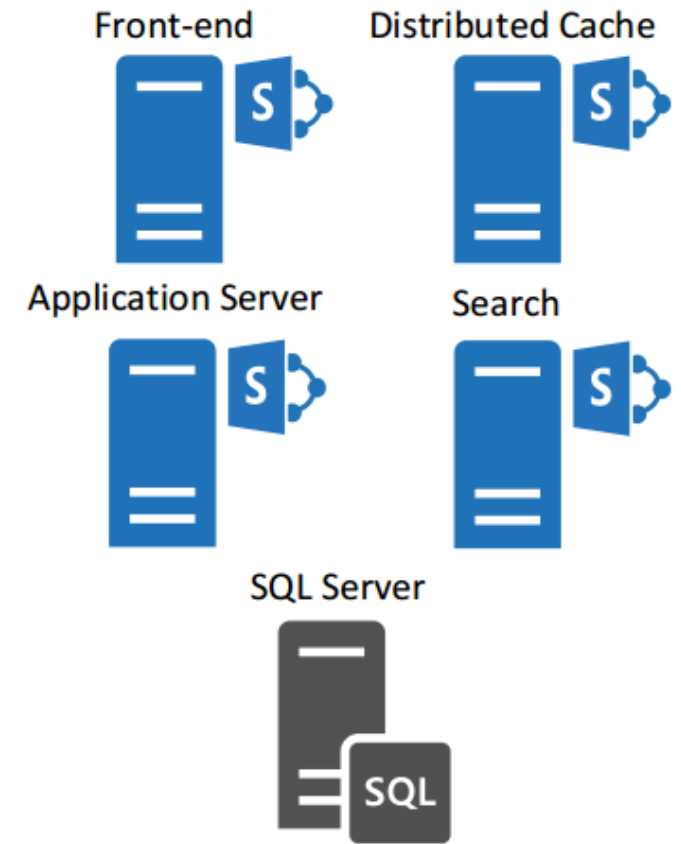
# Classic SharePoint 2013 topology

- 1 or more front-end server
- 1 or more application server
- 1 or more database server
- Administrators manually configures services on each server



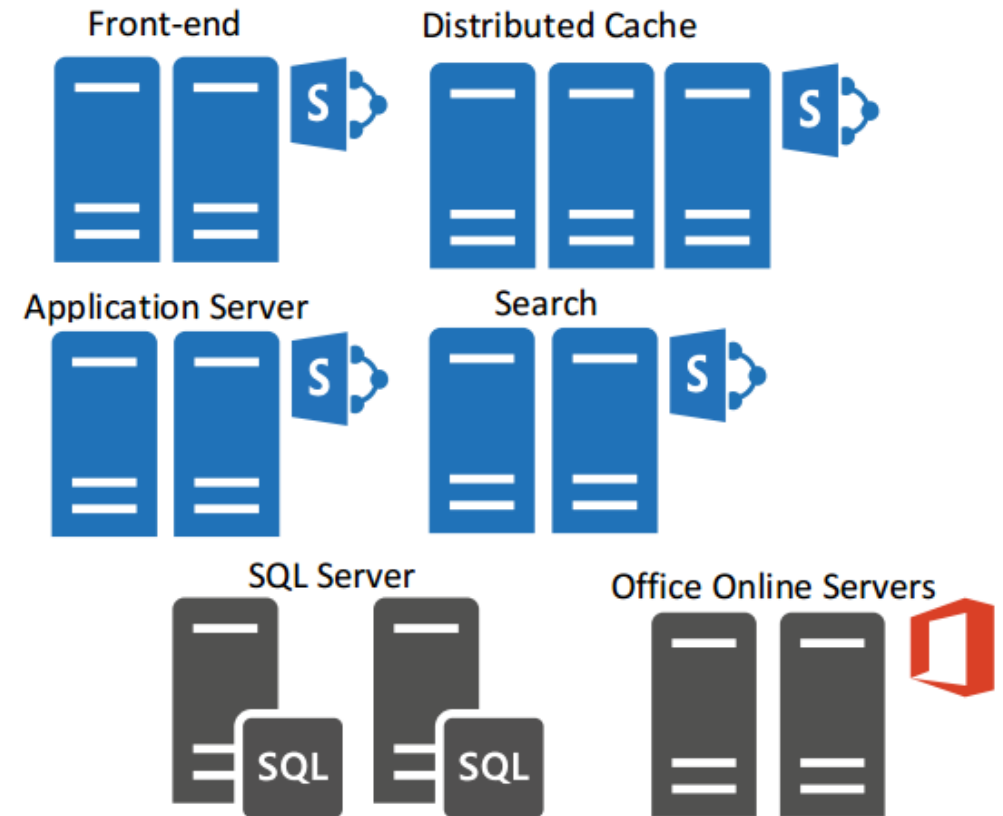
# SharePoint 2016 minimum topology using Min Role feature

- The supported topology needs at least one server for each role
- With this minimum configuration you don't have high availability in the farm



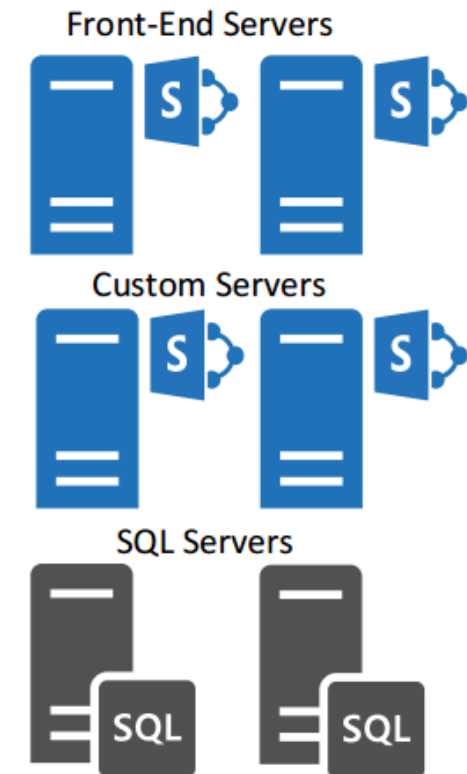
# SharePoint 2016 topology with high availability

- Two of each server is recommended
- A cluster quorum requires 3 servers for distributed cache
- High-availability in SQL requires at least 2 servers
- Potentially requires 11 servers
- With Office Online Servers you can reach a total of 13 servers



# Custom three-tier topology

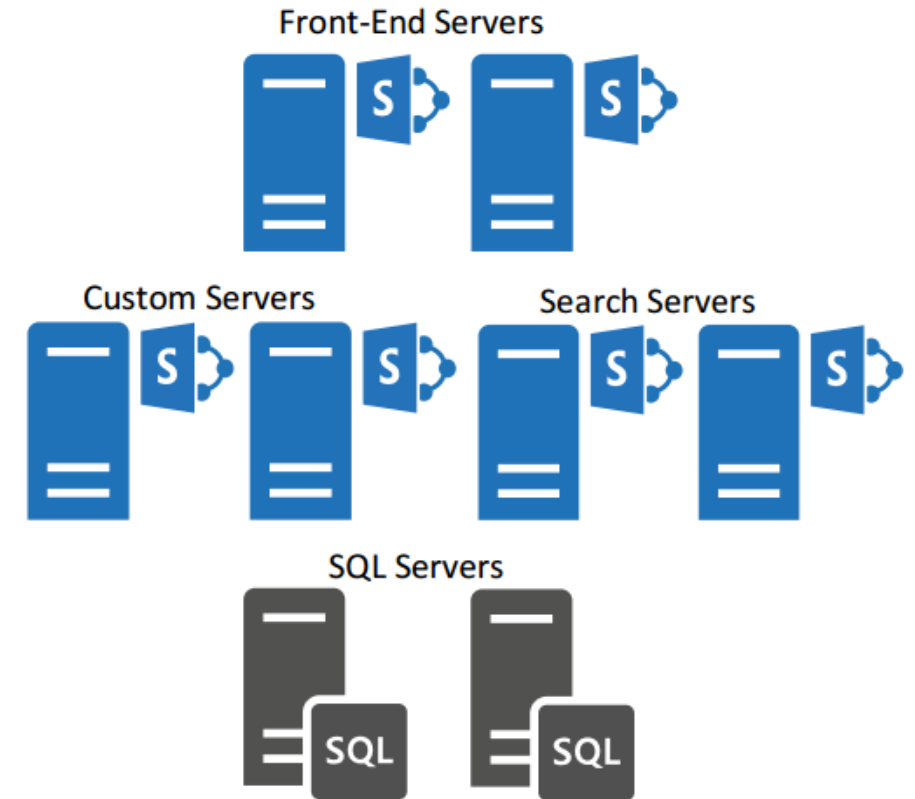
- Min role for front-end servers
- Manual configuration for the others





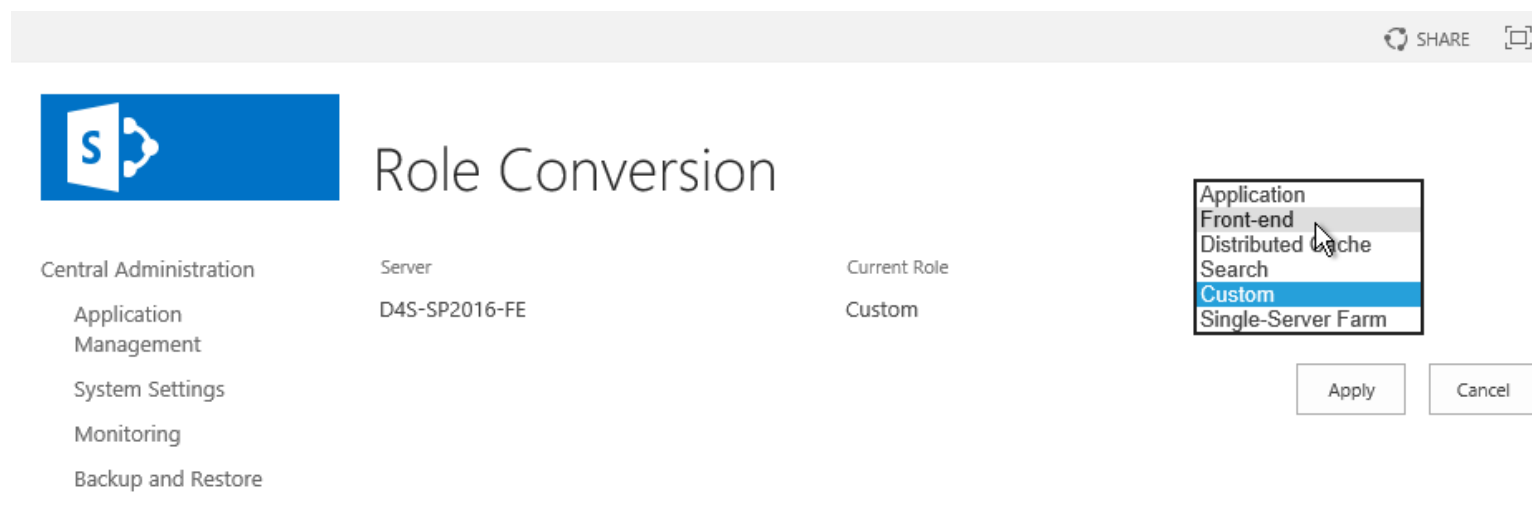
# Custom High-Availability topology

- 2 front-end servers
- 2 custom servers for running service applications
- 2 search servers
- At least 2 SQL servers



# Managing Min-Role feature

- You can manage server role using Powershell
  - Set-SPServer –Role WebFrontEnd
- You can manage server role inside the Central Administration



# Managing Min-Role feature

- You can services provisioned inside the Central Administration

## Services in Farm

View: [Configurable](#) ▾

Service	Auto Provision	Action	Compliant
Access Services	No	<a href="#">Manage Service Application</a>	✓ Yes
Access Services 2010	No	<a href="#">Manage Service Application</a>	✓ Yes
App Management Service	No	<a href="#">Manage Service Application</a>	✓ Yes
Business Data Connectivity Service	No	<a href="#">Manage Service Application</a>	✓ Yes
Claims to Windows Token Service	Yes	<a href="#">Disable Auto Provision</a>	✓ Yes
Distributed Cache	Yes	<a href="#">Disable Auto Provision</a>	✓ Yes
Document Conversions Launcher Service	No	<a href="#">Enable Auto Provision</a>	✓ Yes

# Zero downtime patching

- Reduced number of MSI and MSP and size
  - Smaller packages (~100MB)
  - 2 files per package + 1 per language pack
- No downtime for patching the farm

Note: available only with High-availability farms

Demo: [https://technet.microsoft.com/EN-US/library/mt767550\(v=office.16\).aspx](https://technet.microsoft.com/EN-US/library/mt767550(v=office.16).aspx)



# Updates related to User Profile Service

- The built-in FIM service has been removed
  - User Profile Service Application is still there!
- Sync with AD (unidirectional)
- For bidirectional sync, it is supported only external services (ex: Microsoft Identity Manager)

## Configure Synchronization Settings

Use this page to manage the settings for profile synchronization of users and groups.

### Synchronization Options

To use the light-weight Active Directory Import option (with some limitations - see documentation), select 'Use SharePoint Active Directory Import'.

To use an external identity manager for Profile Synchronization, select 'Enable External Identity Manager'.

Note: Enabling external identity manager will disable all Profile Synchronization options and status display in SharePoint.

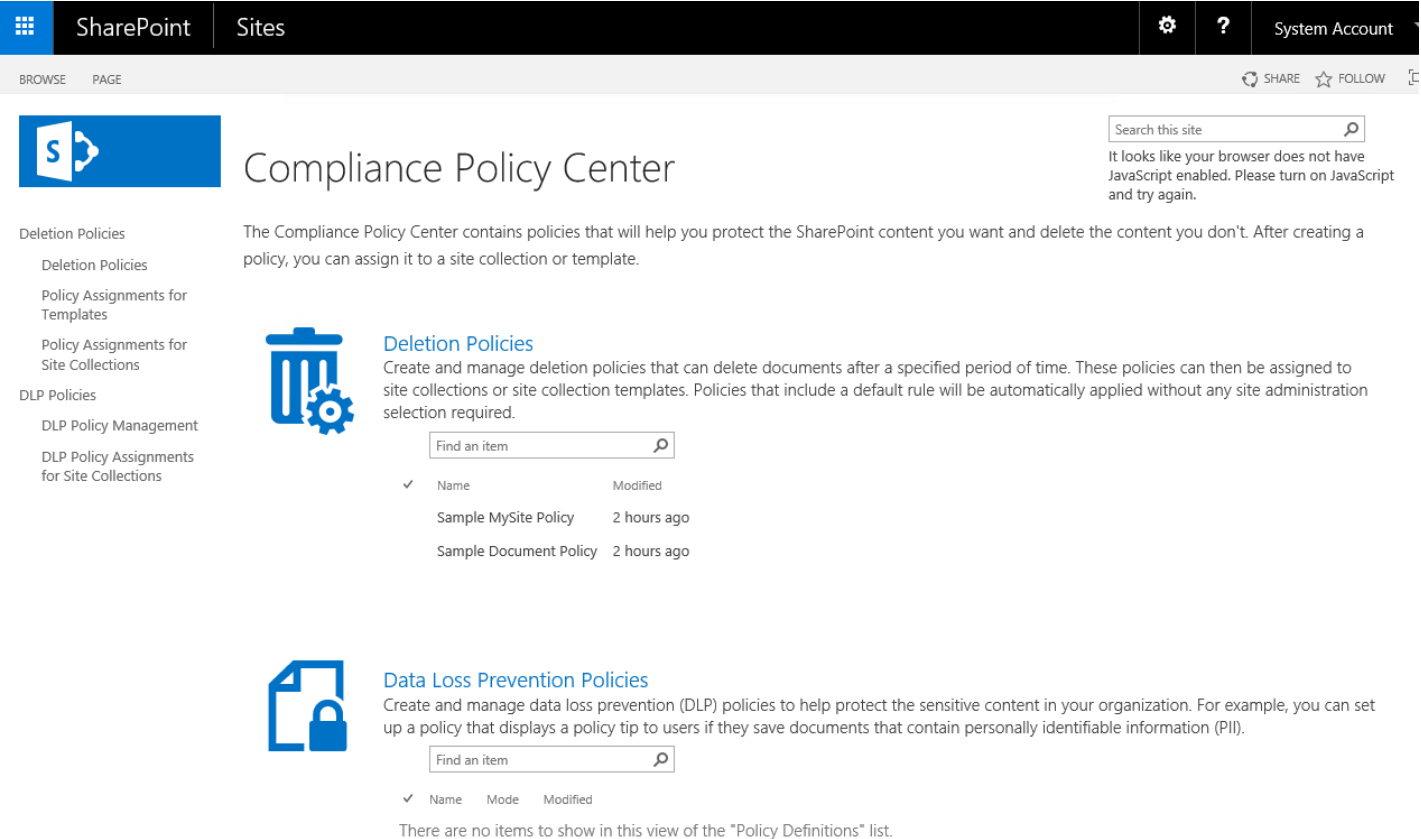
- ☒ Use SharePoint Active Directory Import
- ☐ Enable External Identity Manager

# Hybrid

- Hybrid Sites
  - SharePoint Server and SharePoint Online Sites
  - Single Profile for O365 and SharePoint on-premise
  - You can follow a site both on-premise and Office 365
- Hybrid OneDrive for Business
  - Sync files with Office 365
  - Access through Office 365 from any device
- Hybrid Search
  - Unified search results from both on-premises and Office 365 content

# Compliance center

- From the experience of Office 365
- Deletion policies
  - Rules for deleting documents in site collections or site collection templates
- Data loss prevention
  - Now it is possible to search for sensitive information in documents, set up automated notification functions for these, and prevent the unauthorized sharing of such documents



The screenshot shows the SharePoint Compliance Policy Center interface. The top navigation bar includes the SharePoint logo, 'SharePoint', 'Sites', and a 'System Account' dropdown. Below the navigation bar, the page title 'Compliance Policy Center' is displayed. The left sidebar contains a list of links: 'Deletion Policies', 'Deletion Policies', 'Policy Assignments for Templates', 'Policy Assignments for Site Collections', 'DLP Policies', 'DLP Policy Management', and 'DLP Policy Assignments for Site Collections'. The main content area is divided into two sections: 'Deletion Policies' and 'Data Loss Prevention Policies'. The 'Deletion Policies' section includes a description, a search bar, and a table with two rows: 'Sample MySite Policy' and 'Sample Document Policy', both marked as '2 hours ago'. The 'Data Loss Prevention Policies' section includes a description, a search bar, and a table with one row: 'Sample MySite Policy', marked as '2 hours ago'. A message at the bottom of the DLP section states: 'There are no items to show in this view of the "Policy Definitions" list.'

SharePoint Sites System Account

BROWSE PAGE SHARE FOLLOW

Search this site

It looks like your browser does not have JavaScript enabled. Please turn on JavaScript and try again.

## Compliance Policy Center

The Compliance Policy Center contains policies that will help you protect the SharePoint content you want and delete the content you don't. After creating a policy, you can assign it to a site collection or template.

### Deletion Policies

Create and manage deletion policies that can delete documents after a specified period of time. These policies can then be assigned to site collections or site collection templates. Policies that include a default rule will be automatically applied without any site administration selection required.

Find an item

✓	Name	Modified
	Sample MySite Policy	2 hours ago
	Sample Document Policy	2 hours ago

### Data Loss Prevention Policies

Create and manage data loss prevention (DLP) policies to help protect the sensitive content in your organization. For example, you can set up a policy that displays a policy tip to users if they save documents that contain personally identifiable information (PII).

Find an item

✓	Name	Mode	Modified
---	------	------	----------

There are no items to show in this view of the "Policy Definitions" list.

# Project Server 2016 embedded

- SharePoint 2016 integrates Project Server 2016
  - Project server database and features have been consolidated inside SharePoint product
- Separate licensing





# What's new for developers?

Few things, but the best is coming...

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# What's new for developers?

- SharePoint Root (folder /16)
- Visual Studio 2015 as IDE
  - With Office Developer Tools installed
  - No need to migrate solutions from Visual Studio 2013
- Updates on APIs (mostly on Client Object Model)
  - File management, document sets, compliance, search analytics, sharing, project server
- REST API batching made easy
- More to come in the future!
  - The new SharePoint Framework will be available also on-premise





# What's missing?

List of deprecated/removed features

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# What's deprecated or removed from SharePoint 2016

- Duet Enterprise for Microsoft SharePoint
- SharePoint Foundation
- Standalone install mode
- ForeFront Identity Manager client (FIM)
- Excel Services in SharePoint
- SharePoint BI capabilities with SQL 2014 (you need SQL 2016)
- Tags and notes
- Work management service application
- Stsadm.exe

Reference: [https://technet.microsoft.com/en-us/library/mt346112\(v=office.16\).aspx](https://technet.microsoft.com/en-us/library/mt346112(v=office.16).aspx)

# What about SharePoint Designer?

- Microsoft did not released a new version of SharePoint Designer (so there's no SharePoint 2016 available for download)
- SharePoint Designer 2013 is fully working with SharePoint 2016





# The future of SharePoint

Next steps for the product

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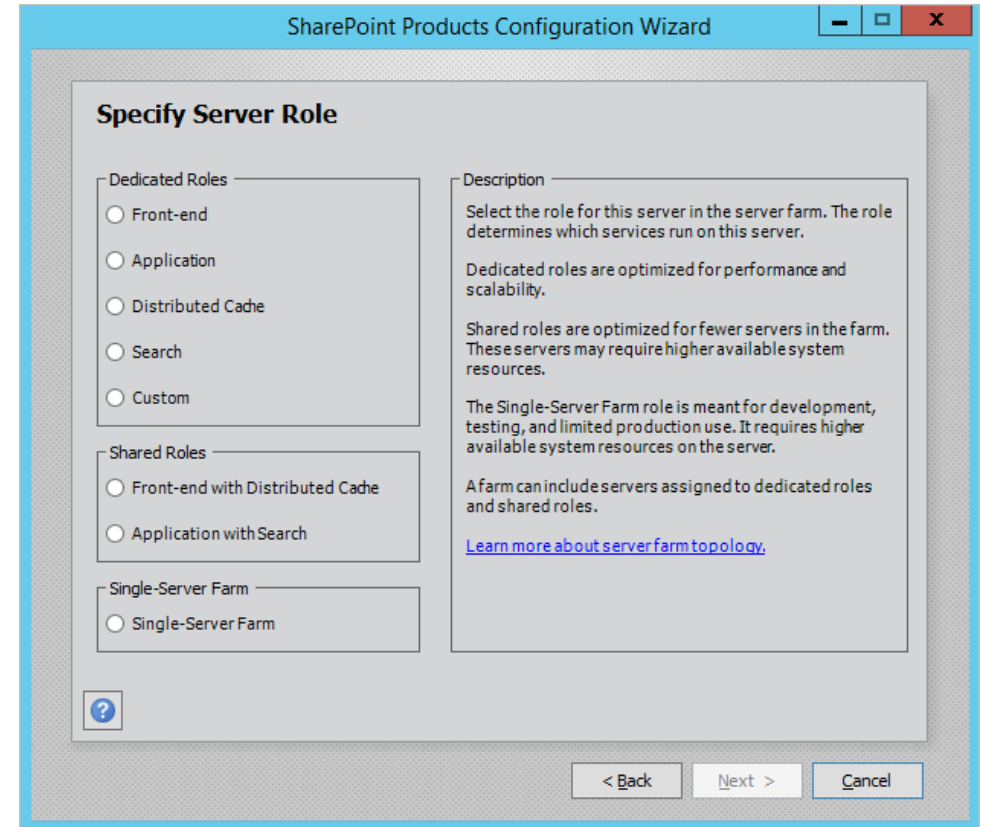
# Feature pack 1 for SharePoint 2016

- New capabilities for administrators
  - Administrative actions logging
  - MinRole enhancements
- New user experiences
  - Update UI for OneDrive for Business (modern UI introduced in O365)
  - App Launcher custom tiles
- Hybrid capabilities
  - Unified auditing
  - Unified taxonomy
- Developer enhancements
  - OneDrive API 2.0
- Available from November 2016



# Feature Pack 1: Min Role enhancements

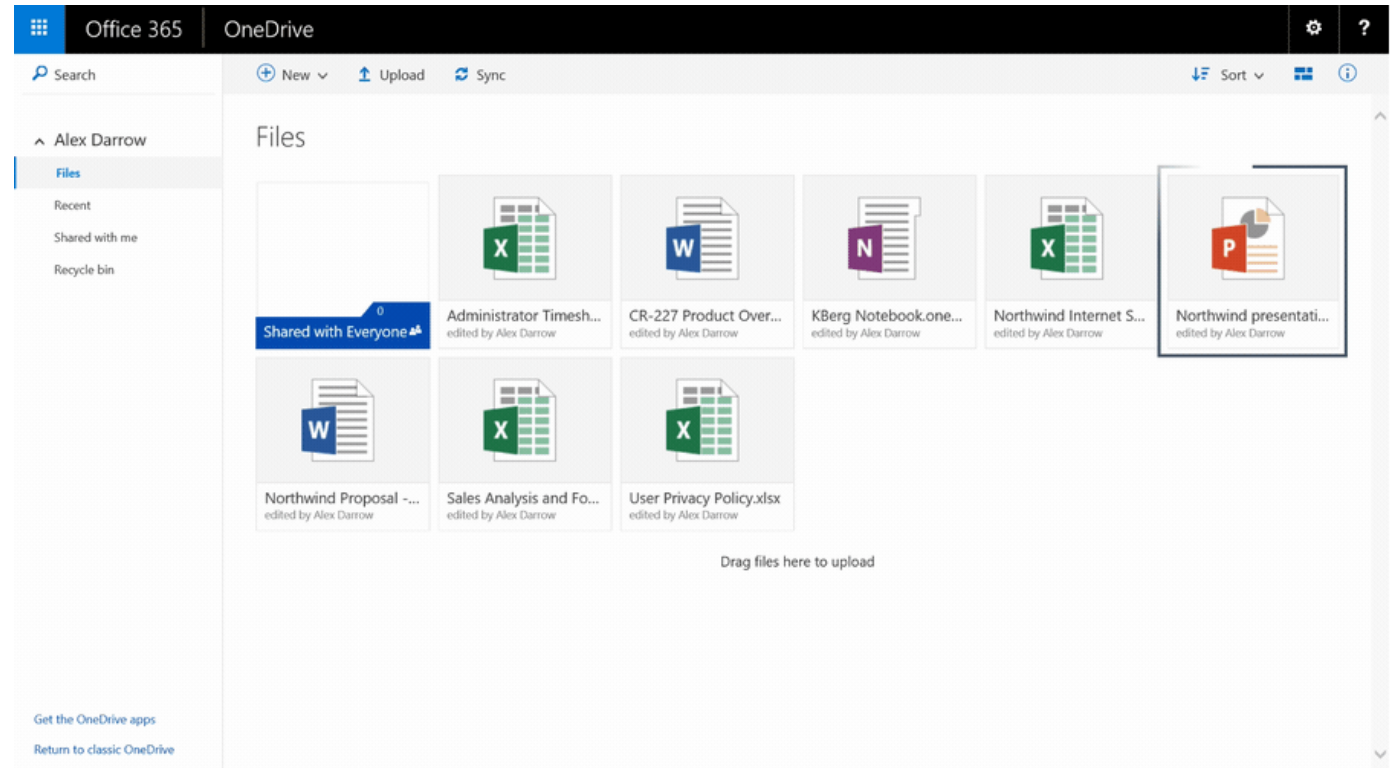
- Introduction of "Shared roles"
  - Front-end + distributed cache
  - Application + Search
- This means that we can have a farm in High Availability with 4 servers + SQL





# Feature Pack 1: modern UI for OneDrive

- The new modern UI introduced in Office 365 is going to be ported also on-premise





A night cityscape featuring several tall skyscrapers with illuminated windows. In the foreground, a multi-lane highway is visible with long-exposure light trails from cars, showing red and white streaks. A pedestrian bridge with a railing and some greenery runs across the highway. The sky is dark blue.

# THE END

Thank you for attending 😊

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A nighttime cityscape featuring several tall skyscrapers with illuminated windows. In the foreground, a multi-lane highway shows long-exposure light trails from vehicles, with red trails from taillights and white/yellow trails from headlights. A pedestrian bridge with railings and some greenery is visible on the right side of the highway. The overall scene is a vibrant urban environment at night.

# Questions?

Slides available on  
<http://www.communitydays.it/>

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