

What I wish I'd known about Office 365 before I started...

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★ danusher.com

★ brewery.fm

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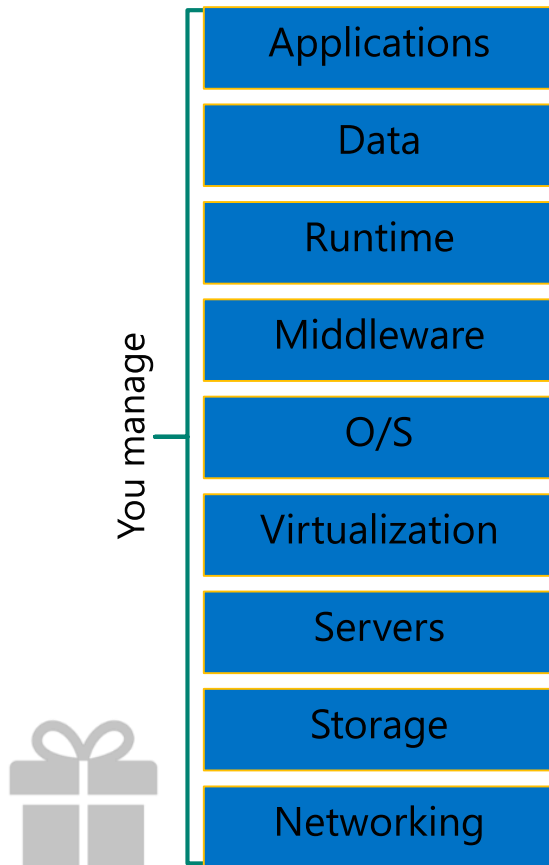
Agenda

- What is Office 365
- How do I setup an Office 365 instance?
- Capabilities and Experiences
- What is the underlying identity framework?
- What's the Developer Story?

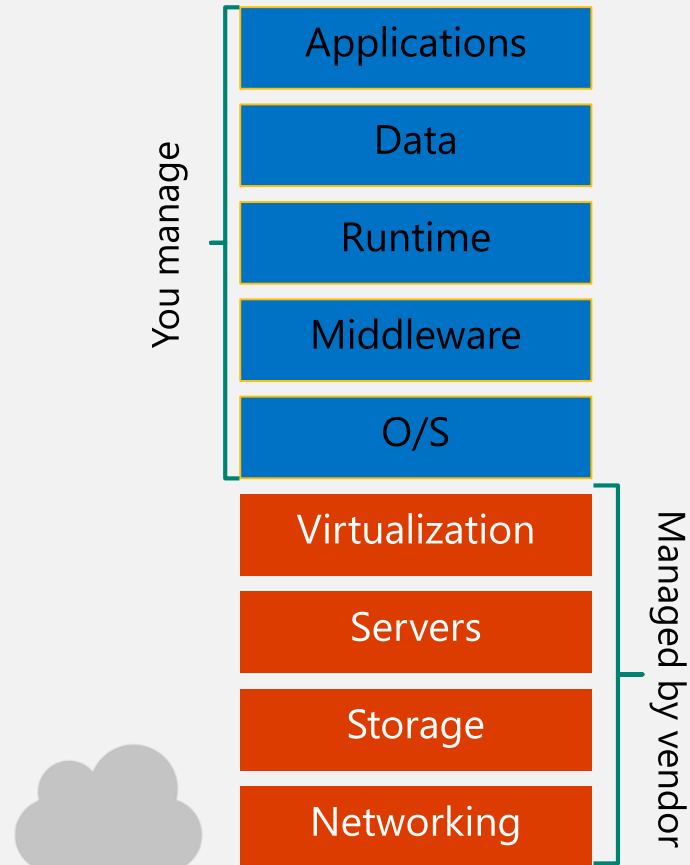


Cloud Computing

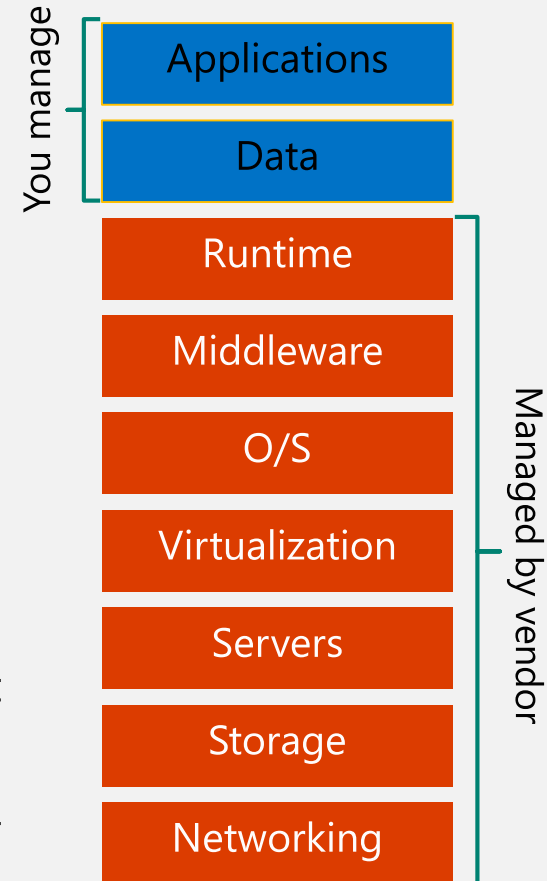
Packaged Software



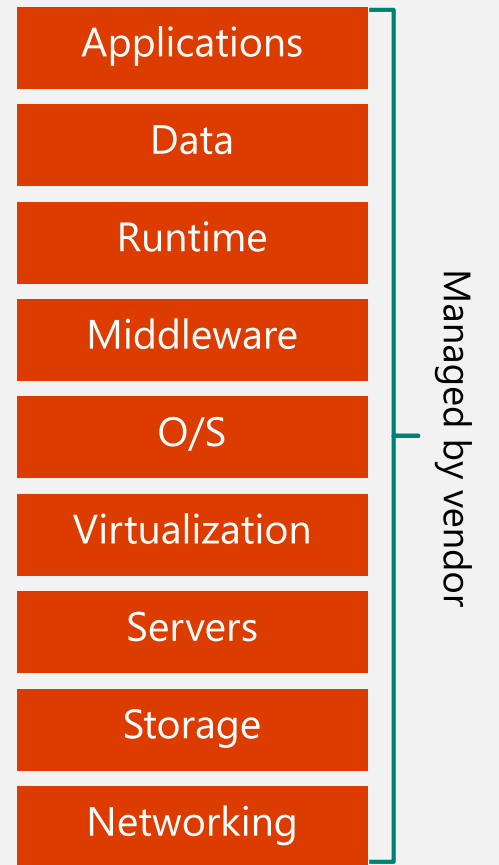
Infrastructure (as a Service)



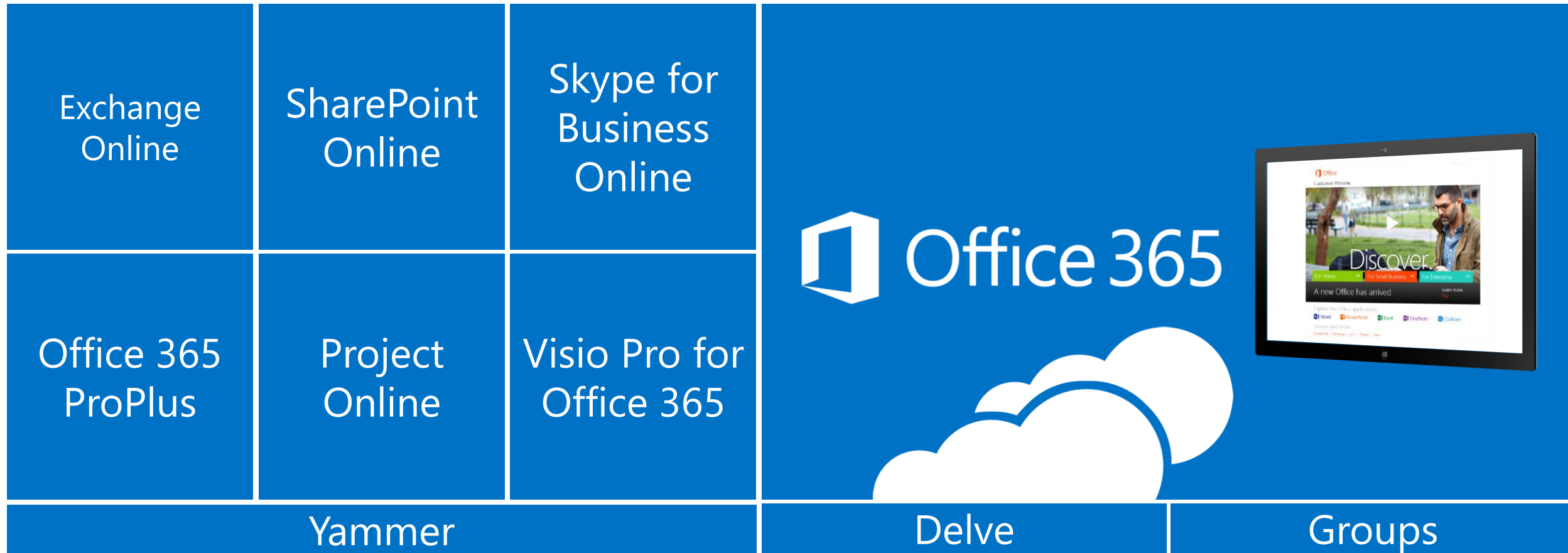
Platform (as a Service)



Software (as a Service)



Office 365 | What is it?



Latest productivity services running in Microsoft's cloud

Why Office 365?



Devices



Fast and fluid experience with touch, pen, mouse & keyboard

Immersive touch-optimized Windows 8/8.1/10 apps

Support for Windows phone, iOS and Android phones



Cloud



Office – on the web, desktop and mobile

Open development model

Enterprise-grade reliability and standards

Modern Authentication



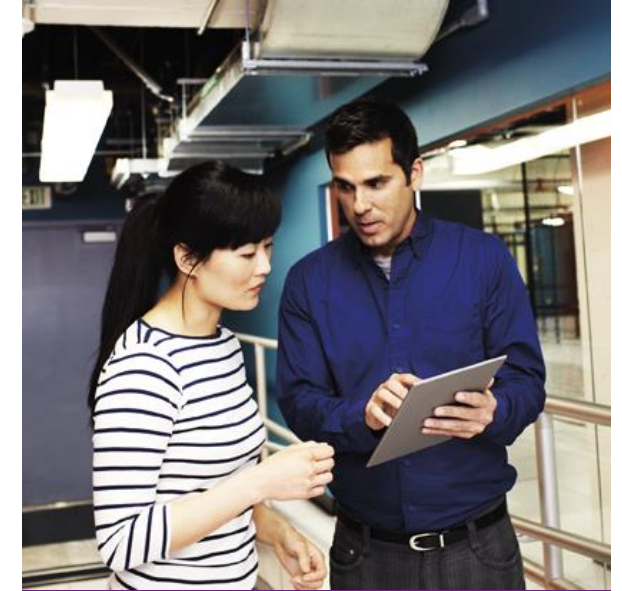
Social



Newsfeeds and microblogging, extend with Yammer

Pervasive social capabilities across Office

Multiparty HD video & Skype federation



Control



DLP, data retention & unified eDiscovery

Reimagined deployment model for Office apps with Click to Run and Mobility

Common management experience across Office 365

Setting up a Tenancy

Setting up a Tenant

What plan do I want?

What will my Tenant Name be?

Who will be my Tenant Administrator?

How will users Authenticate?



What's in a Name?

Where's a tenant name show up?

User Logons

- John.Doe@tenant.onmicrosoft.com*

Email Addresses

- John.Doe@tenant.onmicrosoft.com*

Private Collaboration Sites

- <https://tenant.sharepoint.com>



What are my options?

- Trial Tenant from Microsoft Office 365
 - 1 month
 - 25 Users
 - <http://go.microsoft.com/fwlink/p/?LinkID=403802>
- Developer Tenant
 - 12 months
 - 1 user
 - <http://dev.office.com>



Provisioning an Office 365 Tenant

<http://go.microsoft.com/fwlink/p/?LinkId=403802>

Pre-work...

- <http://dev.office.com> - signup



Thank You

Thank you for signing up for the Office 365 Developer Program

We have sent you a confirmation email with a link to activate an Office 365 Developer tenant. To create your account, you will need to click on the link in the email, as shown in the screenshot below:

Get your FREE Office 365 Developer Account to Get Started

To help you get started quickly, we are giving you a one 1 year FREE subscription for an Office 365 Development tenant.



[Click here to get your account](#) ➔

Once you've signed up for your account, you can [Get Started today](#) ➔

Once you have activated your account, you can [start developing on Office 365 today!](#)

Community Resources

[Office 365 Technical Network](#)

[MSDN Forums](#)

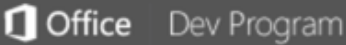
Follow Us


[Twitter](#)

[Facebook](#)

Pre-work...

- <http://dev.office.c>






Welcome to the Office 365 Developer Program


You've joined a vibrant and growing community of developers, veteran and newbie, who are developing solutions on Office 365.

Get your FREE Office 365 Developer Account to Get Started









To help you get started quickly, we are giving you a one 1 year FREE subscription for an Office 365 Development tenant.

[Click here to get your account](#) 

NOTE: When redeeming your code, please be sure you are InPrivate browsing.

Once you've signed up for your account, you can [Get Started](#) 

Want to keep in touch? Follow us.



How do I control the new Document Library experience?

- <https://support.office.com/en-us/article/Switch-the-default-for-document-libraries-from-new-or-classic-66dac24b-4177-4775-bf50-3d267318caa9>
- Single Document Library (Library Owners)
- All Document Libraries (Administrators)
- Site and Site Collection Level Document Libraries using PowerShell (Administrators)

List experience

Select the experience you want to use for this list. The new experience is faster, has more features, and works better across different devices.

Display this list using the new or classic experience?

- ☐ Default experience set by my administrator
- ☒ New experience
- ☐ Classic experience

What about controlling the Delve

- Per Tenant
 - Turn off Office Graph Access to the Tenant
- Per User
 - Settings through the UI
- Per Document
 - https://support.office.com/en-us/article/Manage-the-search-schema-in-SharePoint-Online-d4fab46d-ba41-4c03-9d4c-32b5b33198b6?ui=en-US&rs=en-US&ad=US#bkmk_hidefromdelvesteps

What about controlling the Delve

- Per Tenant
 - Turn off Office Graph
- Per User
 - Settings through the
- Per Document
 - <https://support.office.com/en-US/SharePoint-Online-d4US&rs=en-US&ad=U>

☒ OK ☐ Cancel

Feature settings

Delve helps you find information that's relevant to you. We organize information around you and the people you work with, and suggest documents that may be useful.

Delve uses document permissions that are set on documents where they're stored, for example in OneDrive for Business. Delve never changes permissions. This means that no one will see documents in Delve that they don't have access to. Only you will see documents that you haven't shared with anyone.

[Learn more](#)

Documents

Show documents in Delve and in the Discover view in OneDrive for Business.

If you turn this off, others will still be able to find your documents in Office 365 if they have access to them. They just won't show up in Delve or in the Discover view in OneDrive for Business.

☒ On

MyAnalytics

Show me statistics from MyAnalytics about how I spend my time at work. My dashboard is not shared with anyone else, but my data will be used in de-identified aggregated form to provide statistics and benchmarks to people in my organization.

☒ On

[Learn more](#)

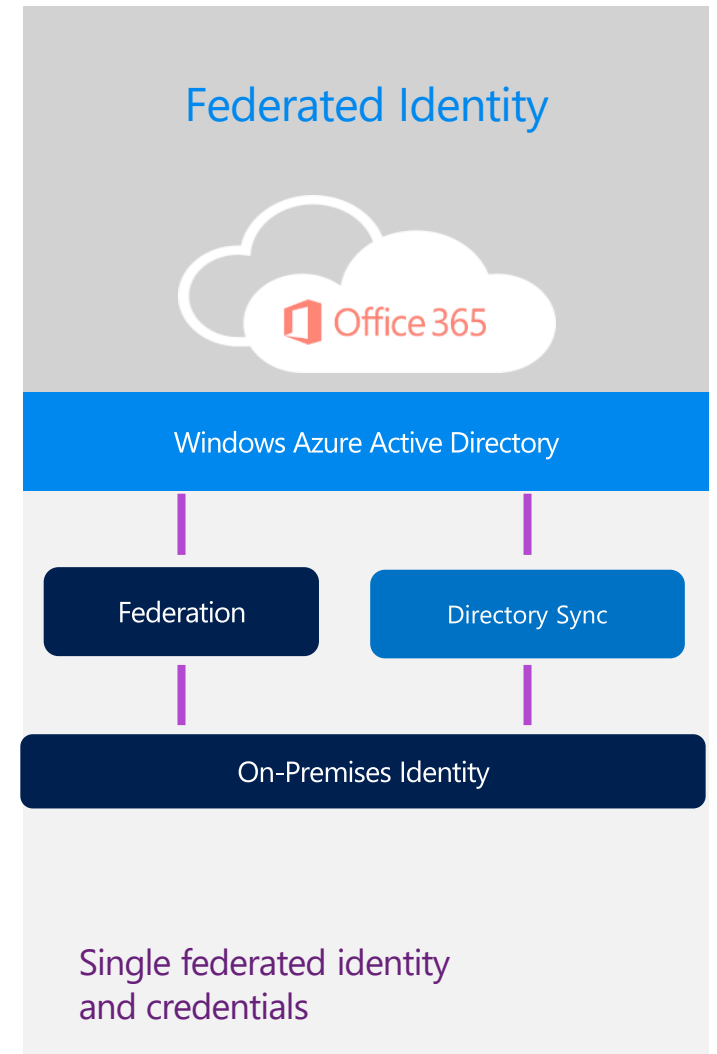
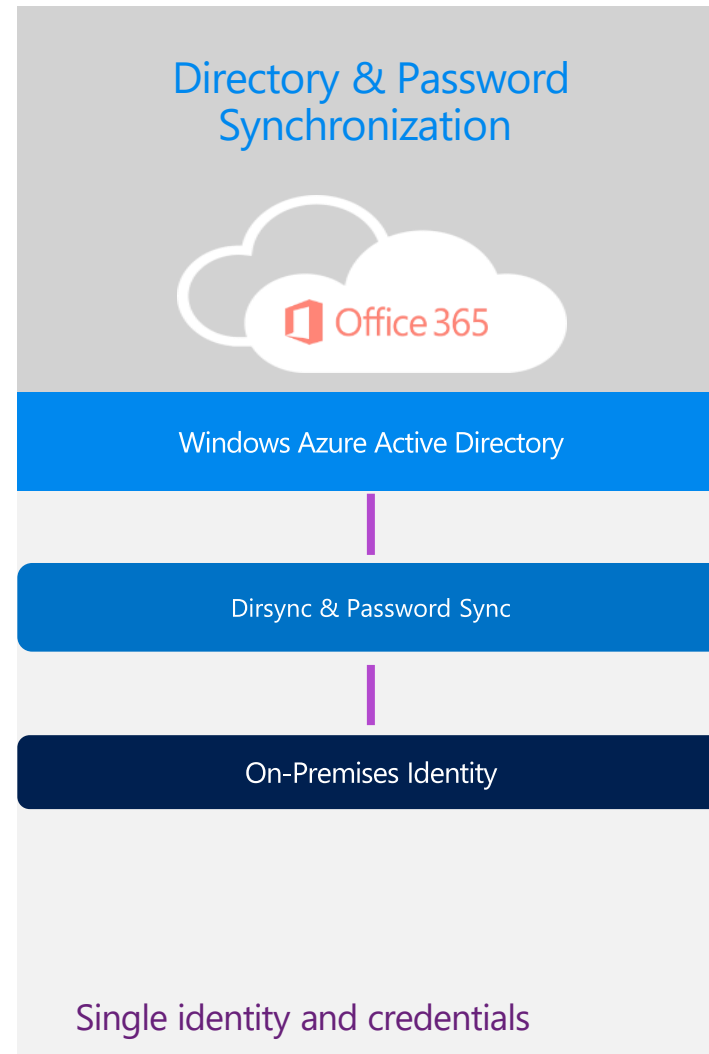
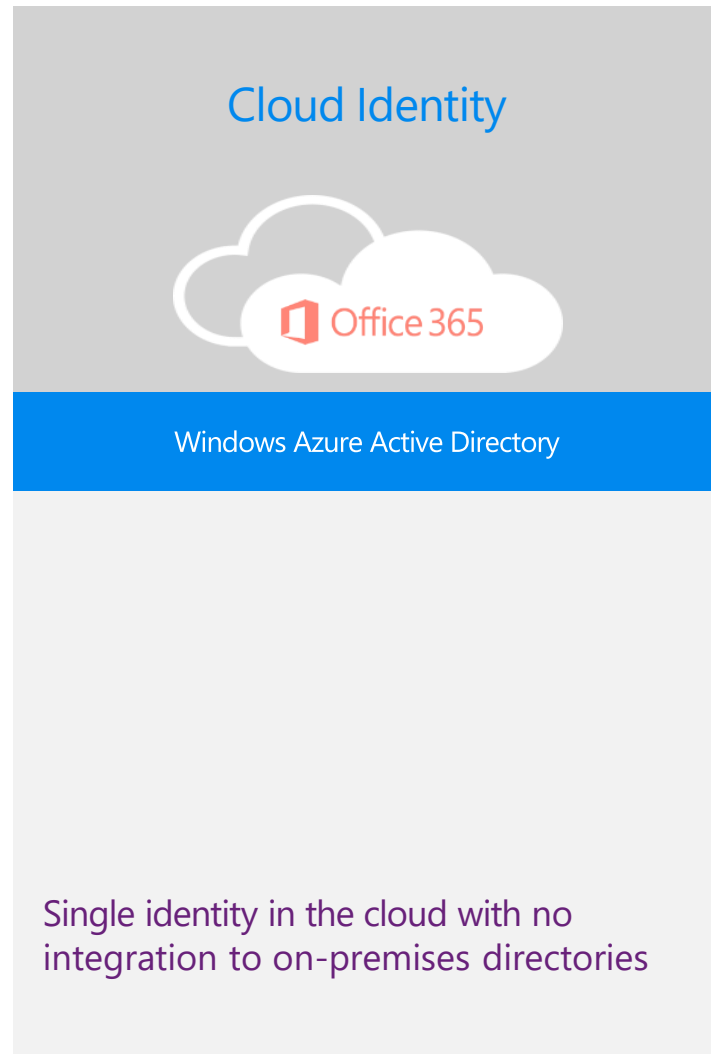
search-schema-in-
c33198b6?ui=en-

Where's my cheese?

- Things change...
 - Do you remember your reaction when you opened up SharePoint 2013?
- User Interfaces changing and becoming more responsive to your device...
 - Admin Center changed
 - OneDrive and Document Libraries
 - Lists

Identity Management

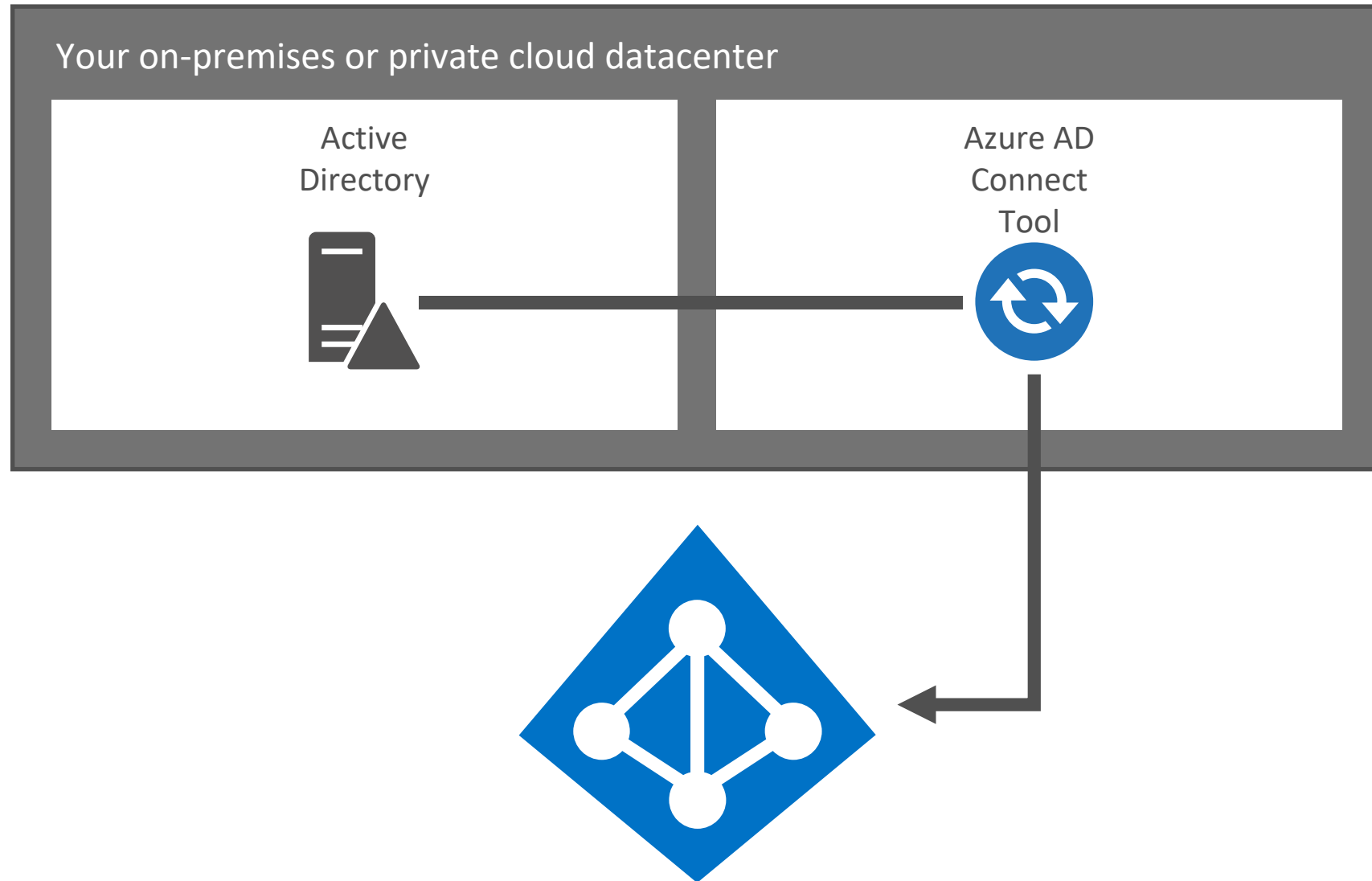
Identity Scenarios



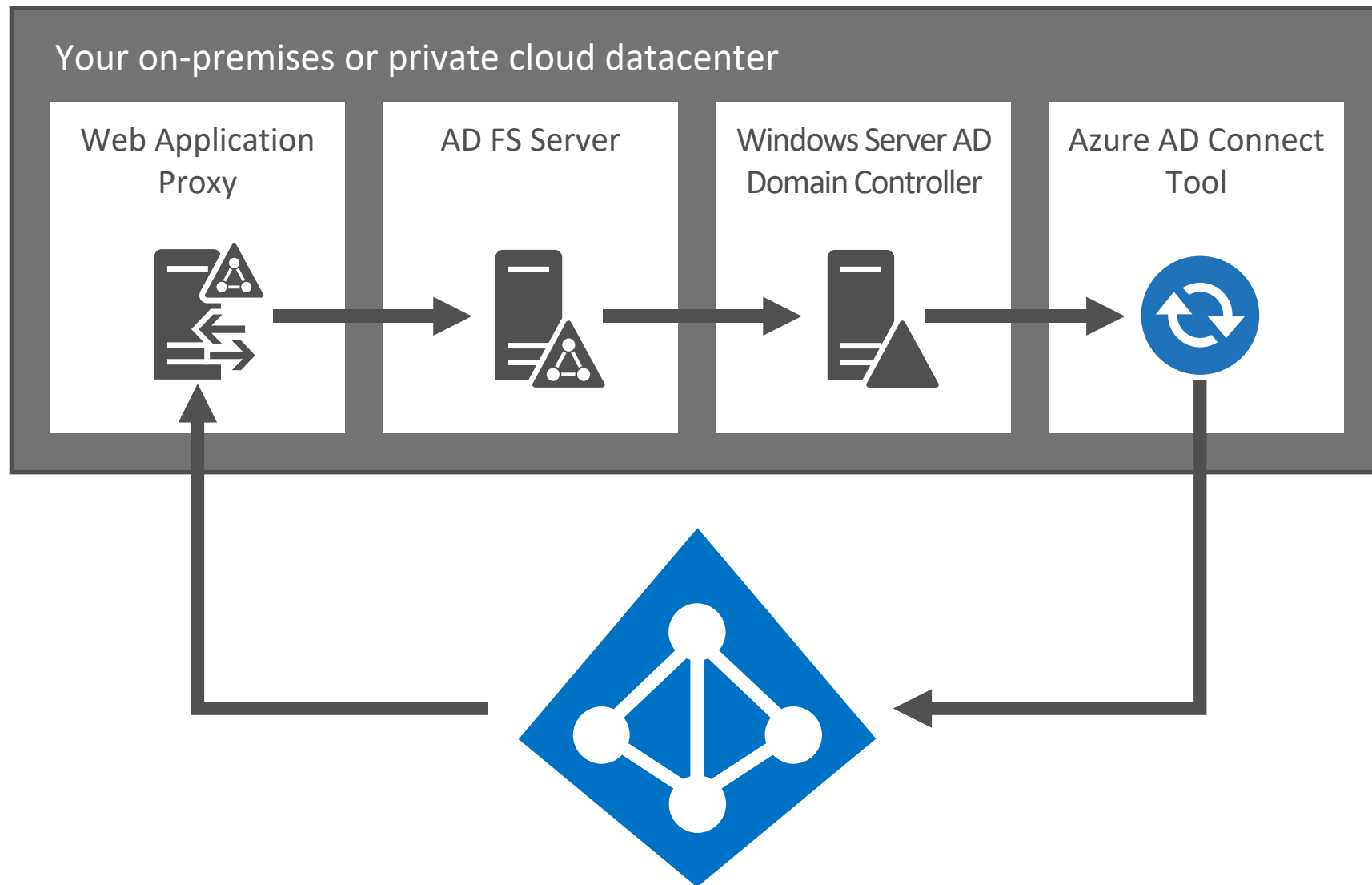
Cloud Identities



Directory and password synchronization

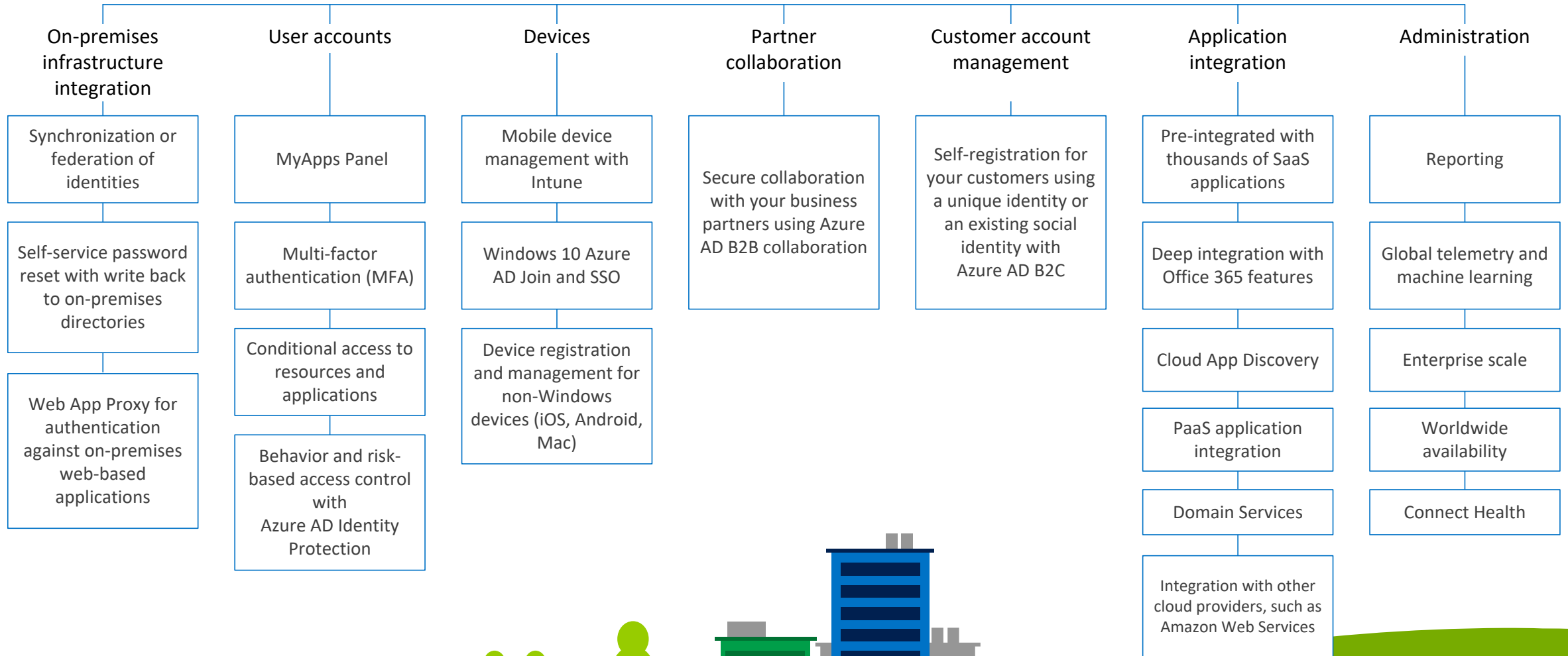


Federation



What is Microsoft IDaaS?

Azure Active Directory



What about Live IDs?

- Email as Sign In (EASI) IDs or @outlook.com, @live.com, @hotmail.com
 - <https://www.microsoft.com/en-us/account/default.aspx>
- Identity Cleanup of Work IDs and Windows Live IDs
 - <https://blogs.technet.microsoft.com/enterprisemobility/2016/09/15/cleaning-up-the-azure-ad-and-microsoft-account-overlap/>

What about Live IDs?



Create account

Microsoft account opens a world of benefits.

☐ Send me promotional emails from Microsoft

[Use a phone number instead](#)

[Get a new email address](#)

Choosing **Next** means that you agree to the [Privacy Statement](#) and [Microsoft Services Agreement](#).

Next

Microsoft

What about MSDN... do I need it?

- Windows Server Images
- SharePoint Server Images
- SQL Server Images
- Office Software
- Visual Studio Professional
- Office 365 Developer Tenant*
- Azure Credits

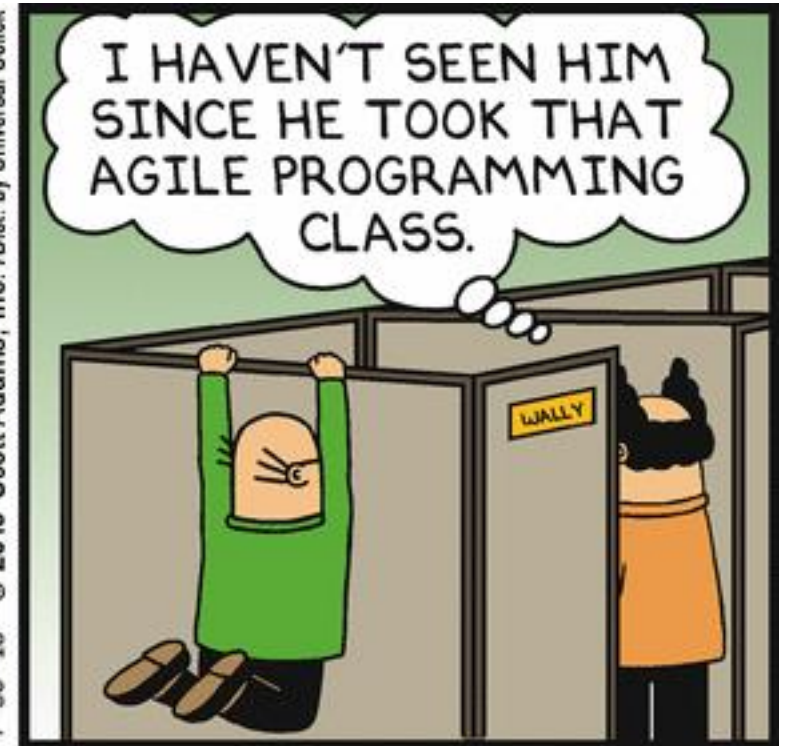
Developer Story



Dilbert.com @ScottAdamsSays



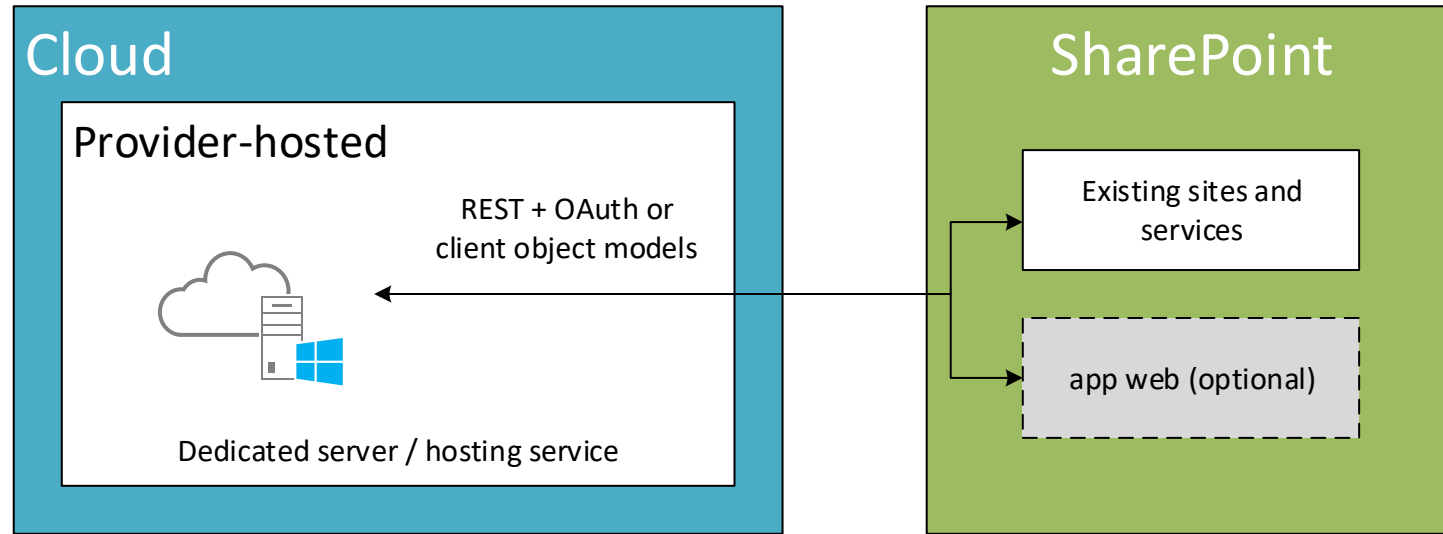
7-30-16 © 2016 Scott Adams, Inc. /Dist. by Universal Uclick



Limits to be aware of..

- SharePoint Online Boundaries and Limits
 - <https://support.office.com/en-us/article/SharePoint-Online-software-boundaries-and-limits-8f34ff47-b749-408b-abc0-b605e1f6d498?ui=en-US&rs=en-US&ad=US>
- SharePoint 2013 workflow throttling and performance in SharePoint Online
 - In a 24-hour period, a single workflow instance can generate up to 5,000 outbound requests. After 5,000 outbound requests are generated in a 24-hour period, the workflow is suspended by the Workflow service.
 - <https://support.microsoft.com/en-us/kb/3076399>
- List View Thresholds
 - <https://support.microsoft.com/en-us/kb/2759051>

SharePoint Online App Types – Provider Hosted



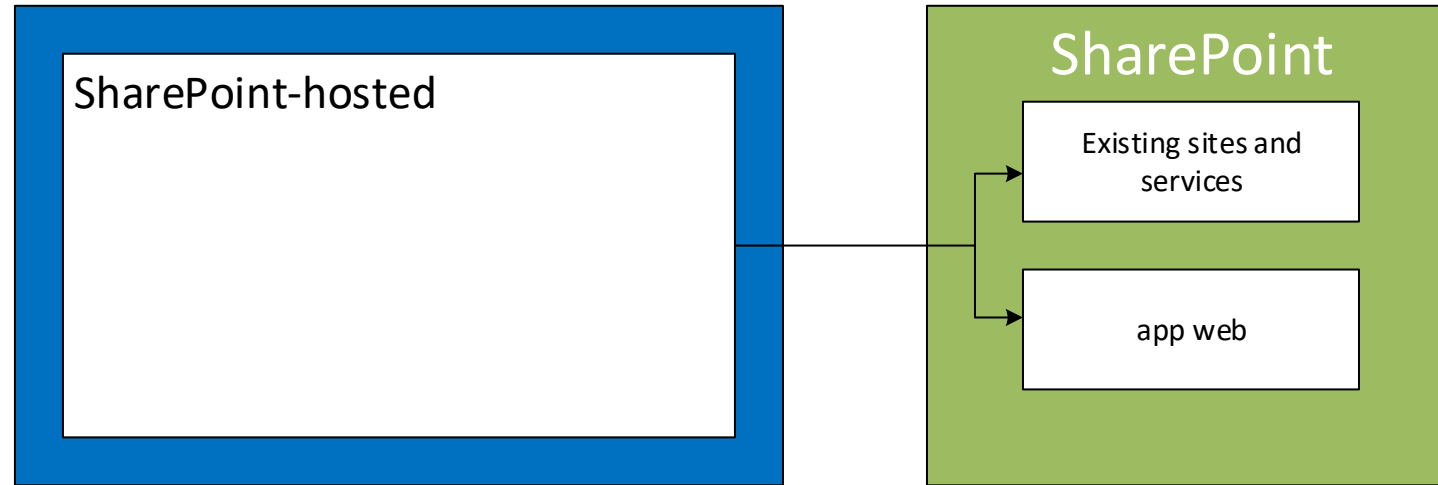
ISV or IT organization provides the hosting infrastructure

ISV / IT is responsible for tenant isolation

Allows for greatest flexibility, requires greatest responsibility

Can use site elements, lists, files, web parts

SharePoint Online App Types – SharePoint Hosted



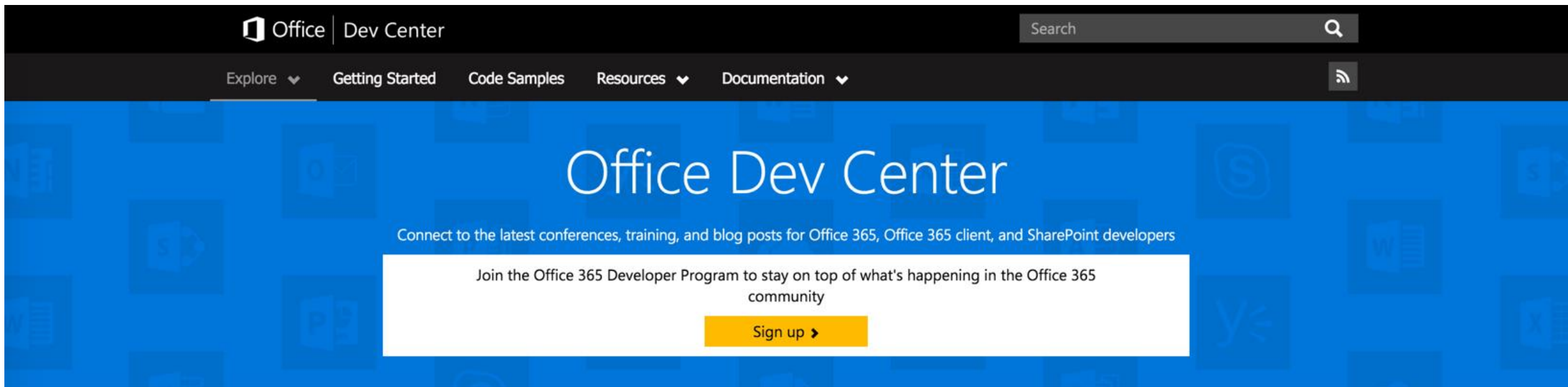
Can use site elements, lists, files web parts

Can use HTML and JavaScript

Isolation is contained through app web provisioning

Resources for Developers

Tools, Training and Documentation to get started -
<http://Dev.office.com>



Or, connect to Office 365 data with the Microsoft Graph

Resources for Developers

MSDN Office Developer API Sandbox

<http://apisandbox.msdn.Microsoft.com>

The screenshot shows the MSDN Office Developer API Sandbox interface. The top navigation bar includes the Microsoft logo, the text "API Sandbox Preview", and a "Feedback" link. The left sidebar contains a "Services" section with a tree view. Under "Services using Azure AD", there is a link to "Using sample data" (signed in as Tami Glover) and a section for "Office 365" which includes "Code Samples", "Help" (with links to "API reference", "Sample data", and "OAuth Sandbox"), and a "Next Steps" button. Below this is a section for "Office 365 unified API (Preview)" with similar links and a "Next Steps" button. At the bottom of the sidebar is a section for "Other Services" with a link to "Visual Studio Online". The main content area features a green "Run" button at the top left. To the right of the button are tabs for "C#", "JavaScript", and "More". The central area displays a C# code snippet for interacting with the Outlook API. The code includes using statements for System, System.Collections.Generic, System.Linq, System.Text, System.Threading.Tasks, Microsoft.OData.ProxyExtensions, and Microsoft.Office365.OutlookServices. It defines a partial class Program with a static async Task RunAsync() method. The method contains comments about defining "CreateOutlookClientAsync" and a link to the API documentation. It then uses await to create an outlookClient, retrieves messages from the "Inbox" folder, and logs each message's subject and received date.

Microsoft | API Sandbox Preview Feedback

Services

- Services using Azure AD
 - Using **sample data** [Sign in](#) as Tami Glover
 - Office 365
 - Code Samples
 - Help
 - API reference
 - Sample data
 - OAuth Sandbox
 - Next Steps
 - Office 365 unified API (Preview)
 - Code Samples
 - Help
 - API reference
 - Sample data
 - Next Steps
 - Other Services
 - Visual Studio Online

Run

C# JavaScript More ▾

```
1 using System;
2 using System.Collections.Generic;
3 using System.Linq;
4 using System.Text;
5 using System.Threading.Tasks;
6 using Microsoft.OData.ProxyExtensions;
7 using Microsoft.Office365.OutlookServices;
8
9 // DO NOT change the name of Program class and the signature of RunAsync() method.
10 public partial class Program
11 {
12     public static async Task RunAsync()
13     {
14         // For more info on defining "CreateOutlookClientAsync", see
15         // https://msdn.microsoft.com/office/office365/API/mail-rest-operations#GetClient
16
17         var outlookClient = await CreateOutlookClientAsync("Mail");
18         var messages = await outlookClient.Me.Folders["Inbox"].Messages.OrderByDescending(m => m.DateTimeReceived).Take(10).ExecuteAsync();
19         foreach (var message in messages.CurrentPage)
20         {
21             Console.WriteLine("Message '{0}' received at '{1}'.", message.Subject, message.DateTimeReceived.ToString());
22         }
23     }
24 }
25
```

SharePoint Framework Developer Preview Release

- <http://dev.office.com/blogs/sharepoint-framework-developer-preview-release>

The screenshot displays the SharePoint Workbench interface. At the top, the header shows 'Office 365 | SharePoint Workbench' with a user profile icon on the right. Below the header, a toolbar contains 'Save' and 'Discard' buttons, and a view selector with 'Mobile', 'Tablet', and 'Preview' options. The main workspace shows a 'Todo List' web part. It includes a text input field labeled 'Add a task...' with an 'Add' button. Below this, there are two tabs: 'Active (3)' and 'All Tasks (3)'. The 'Active (3)' tab is selected, showing a list of tasks. The first task is 'Read about SharePoint Framework' by 'Yusong Liu, Creator'. The second task is 'Complete client-side web part tutorials'. To the right of the workspace, a configuration panel for the 'Todo' web part is visible. It includes a 'Configure source' section with a 'Tasks list' dropdown set to 'DefaultToDoList'. The 'Configure display' section has a toggle for 'Show completed tasks' which is turned on, and a 'Select display fields to show' section with checkboxes for 'Created By' and 'Completed By', both of which are checked. At the bottom of the configuration panel, there is a slider for 'Show this many tasks at a time' set to 10.

Office 365 | SharePoint Workbench

Save Discard Mobile Tablet Preview

Todo

Set the properties of your todo items.

Configure source

Tasks list
DefaultToDoList

Configure display

Show completed tasks

Select display fields to show

Created By

Completed By

Show this many tasks at a time 10

Todo List

Add a task... Add

Active (3) All Tasks (3)

Read about SharePoint Framework

Yusong Liu
Creator

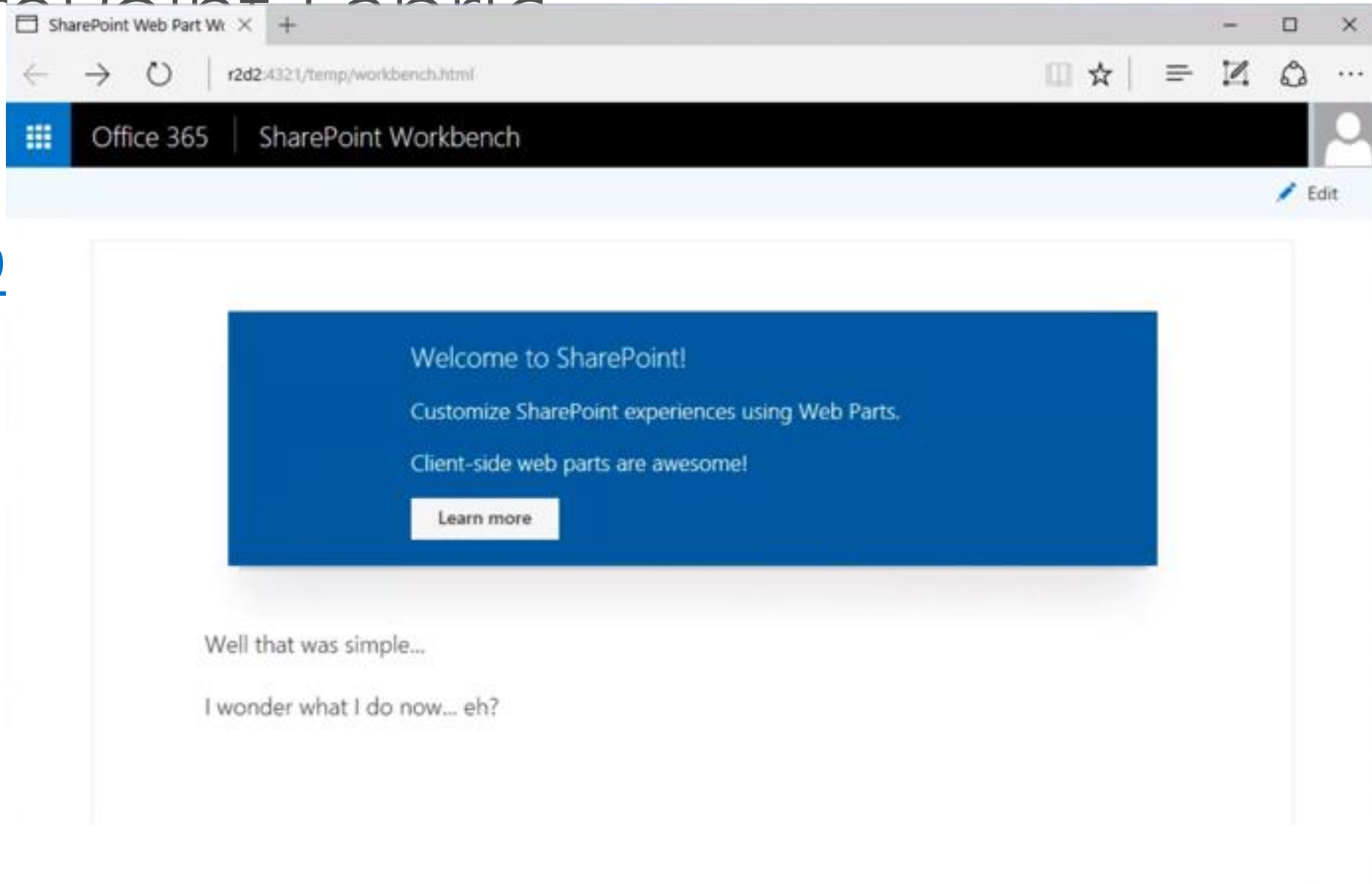
Complete client-side web part tutorials

SharePoint Fabric

- Public Preview
- <https://github.com/SharePoint/sp-dev-docs>

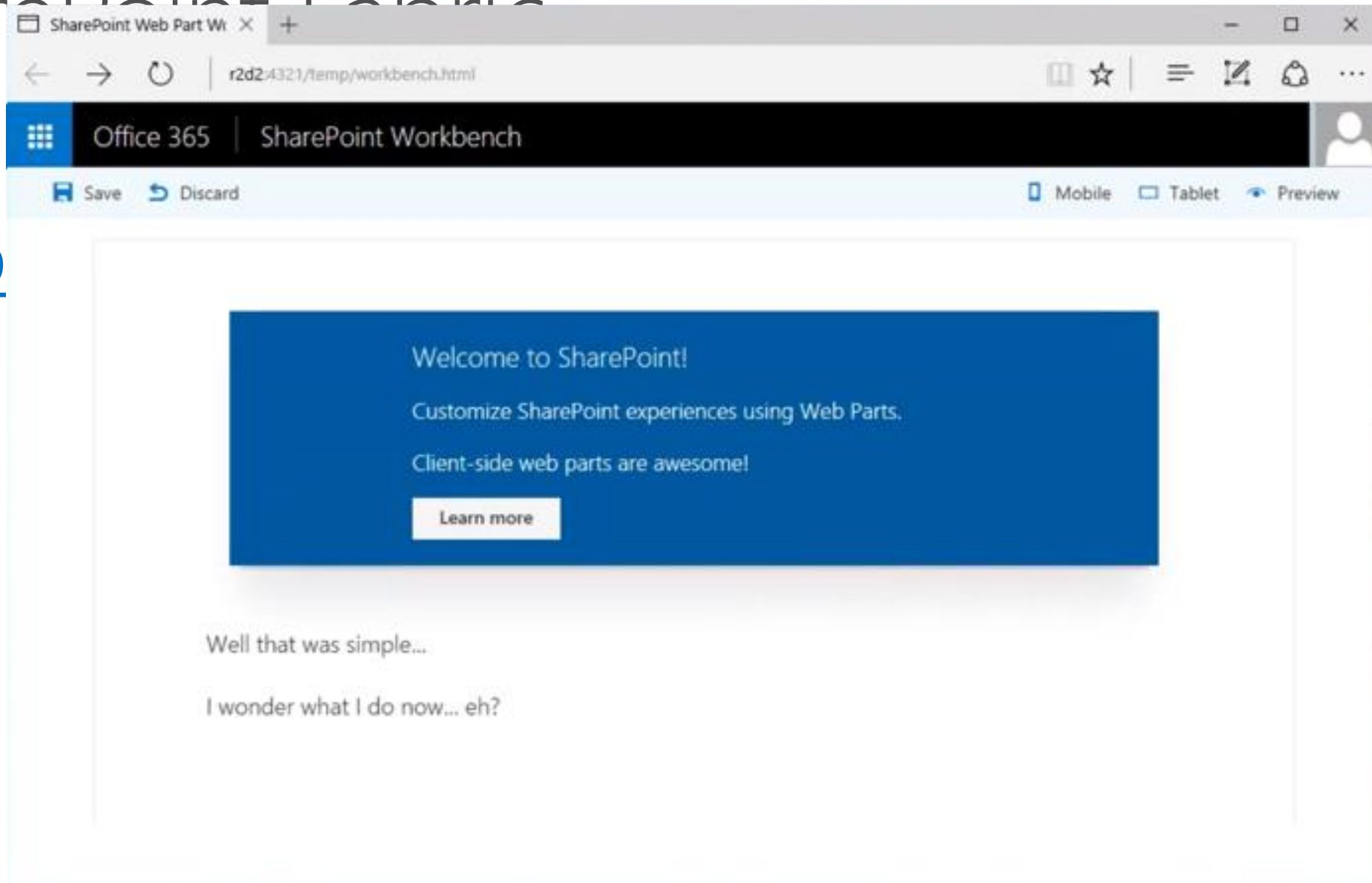
SharePoint Fabric

- Pub
- [http](http://)



SharePoint Fabric

- Pub
- [http](http://)





Sharing is caring...

Code samples

Reusable components and solutions

Guidance documentation

Monthly community calls

Case Studies

SharePoint Framework

SharePoint add-ins

Microsoft Graph, Office 365 APIs etc.

Remote provisioning and client side development

<http://aka.ms/SharePointPnP>



Microsoft Graph Overview

Office Platform

WHAT CAN I BUILD?



ADD-INS AND WEB PARTS:

Make your solution a native part of the modern Office



WEB AND DEVICE APPS:

Build smarter apps by connecting to Office services



VOICE, VIDEO, CONNECTORS, AND BOTS:

Create the next generation of productivity solutions



What is Microsoft Graph?

Single API for:

1. Accessing data

/me, /users, /groups, /messages, /drive, ...

2. Traversing data

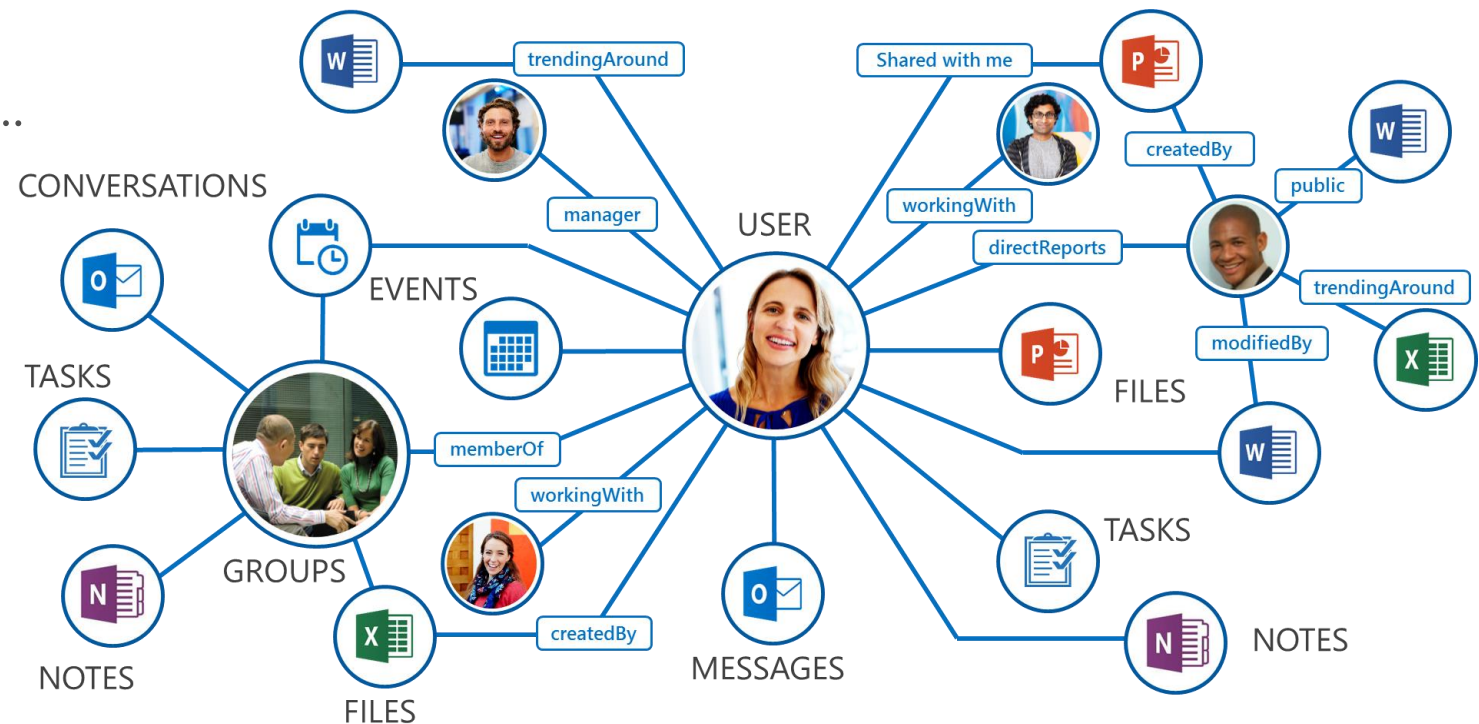
/drive/items/<id>/lastmodifiedByUser

3. Accessing insights

/insights/trending

4. Work/School and Personal

<https://graph.microsoft.com/>

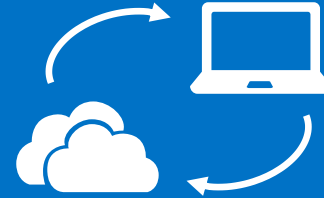


Microsoft Graph APIs

Access **data** and
intelligence from
the Microsoft cloud



Enabling a
consistent
development
platform



For both
commercial
and consumer



<https://graph.microsoft.com>

Users



Groups



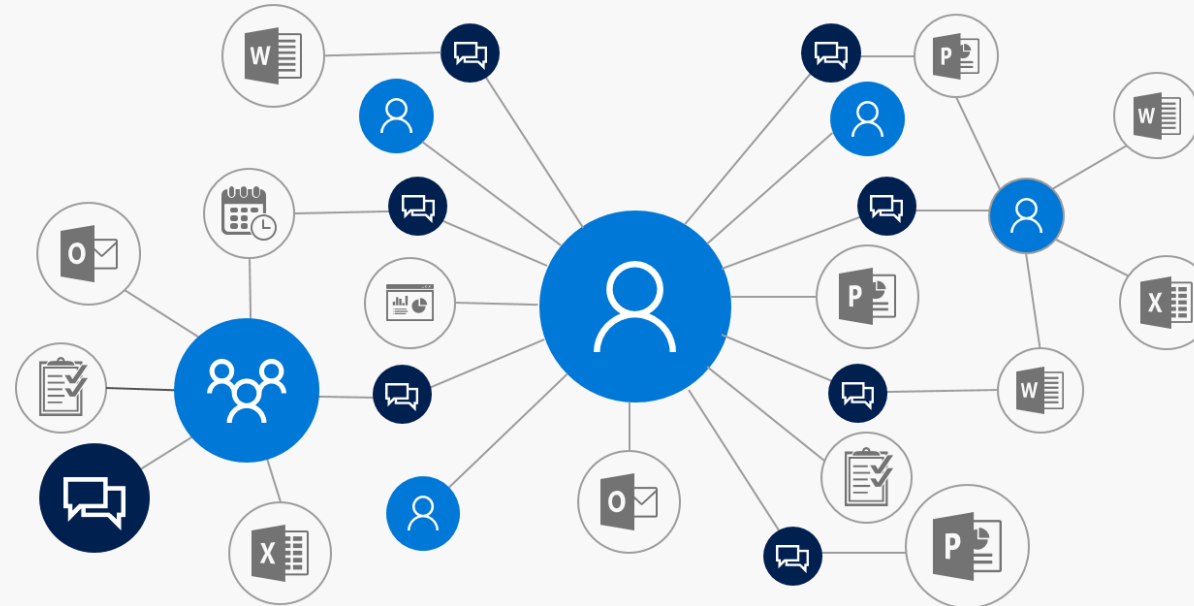
Mail



Documents



Notebooks



Calendar

25

Excel



Office Graph

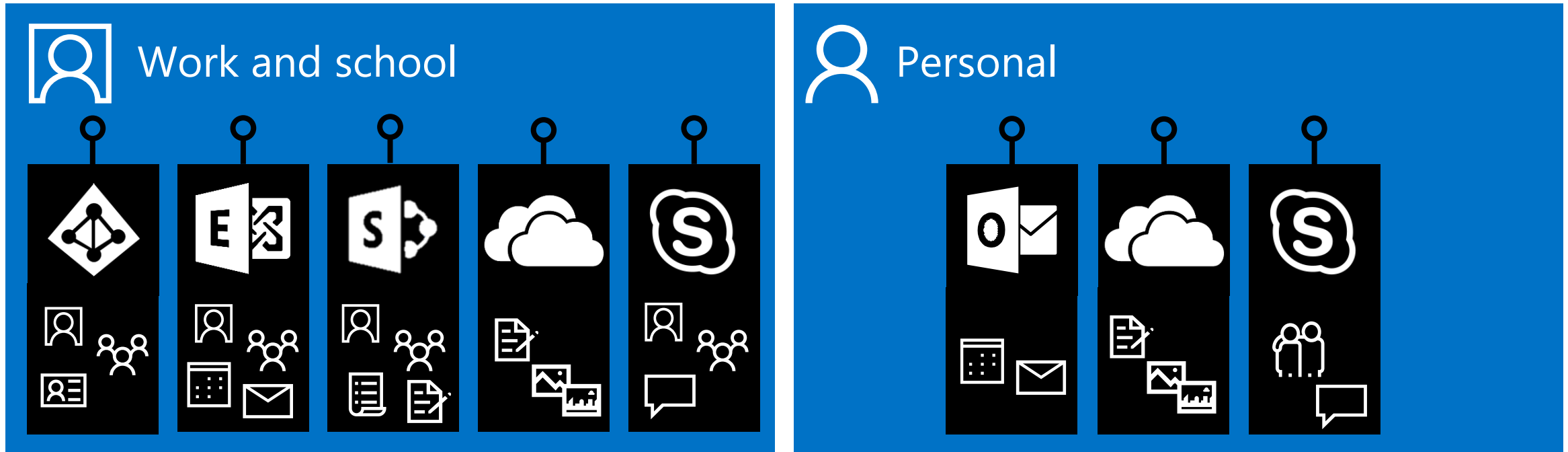


People



And more ...

State of the world before Microsoft Graph



- Many different APIs to access data
- Separate auth stacks for work and personal

Today's world with Microsoft Graph

Microsoft Graph
<https://graph.microsoft.com>

 Work and school

 Personal



Diverse API styles and endpoints



Azure Active Directory Graph API

<https://graph.windows.net/contoso.com/users>
<https://graph.windows.net/contoso.com/groups>



Windows Live profile API

<https://apis.live.net/v5.0/me>



SharePoint User Profile API

https://contoso.sharepoint.com/_api/SP.UserProfiles.PeopleManager/GetMyProperties

Exchange HD Picture API

<https://graph.microsoft.com/v1.0/me/photo>



Outlook REST API

<https://outlook.office.com/api/v2.0/me/Messages>



<https://outlook.office.com/api/v2.0/me/Events>



Office Graph in SharePoint Online

[https://contoso.sharepoint.com/_api/search/query?Querytext='*&Properties='GraphQuery:actor\(ME,action\:1020,or\(action\:1020\,action\:1003,action\:1001,action\:1024,action\:1005,action\:1037,action\:1039,action\:1036\)'\&SelectProperties='Docid,Title](https://contoso.sharepoint.com/_api/search/query?Querytext='*&Properties='GraphQuery:actor(ME,action\:1020,or(action\:1020\,action\:1003,action\:1001,action\:1024,action\:1005,action\:1037,action\:1039,action\:1036)'\&SelectProperties='Docid,Title)



OneDrive for Business API

https://contoso-my.sharepoint.com/personal/yina_contoso_com/_api/v2.0/drive
https://contoso.sharepoint.com/sites/designCouncil/_api/v2./drive



OneDrive API

<https://api.onedrive.com/v1.0/drive>

Unified API style – single endpoint

<https://graph.microsoft.com>  

Operation

GET my profile

GET my files

GET my photo

GET my mail

GET my calendar

GET my manager

GET last user to modify file foo.txt

GET users in my organization

GET group conversations

GET people related to me

GET my tasks

GET my notes

GET files trending around me

Service endpoint

<https://graph.microsoft.com/v1.0/me>

<https://graph.microsoft.com/v1.0/me/drive/root/children>

[https://graph.microsoft.com/v1.0/me/photo/\\$value](https://graph.microsoft.com/v1.0/me/photo/$value)

<https://graph.microsoft.com/v1.0/me/messages>

<https://graph.microsoft.com/v1.0/me/calendar>

<https://graph.microsoft.com/v1.0/me/manager>

<https://graph.microsoft.com/v1.0/me/drive/root/children/foo.txt/lastModifiedByUser>

<https://graph.microsoft.com/v1.0/users>

<https://graph.microsoft.com/v1.0/groups/<id>/conversations>

<https://graph.microsoft.com/beta/me/people>

<https://graph.microsoft.com/beta/me/tasks>

<https://graph.microsoft.com/beta/me/notes/notebooks>

<https://graph.microsoft.com/beta/me/insights/trending>

Looking for Information and Updates...

- Office 365 Community
 - <https://techcommunity.microsoft.com/t5/Office-365/ctp/Office365>
- Office 365 Service Description
 - <http://www.office365sd.com>
- Setting up a Dev Environment
 - <https://msdn.microsoft.com/en-us/office/office365/howto/setup-development-environment>



TIME FOR QUESTIONS

★ danusher.com

★ brewery.fm

Dan Usher



Microsoft
CERTIFIED
Solutions Expert

SharePoint

Microsoft
CERTIFIED
Solutions Associate

Office 365

danusher@live.com



@binarybrewery
@breweryfm

