SharePoint Development

2017 wrap-up

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January 2017

“Modern” experiences
Features

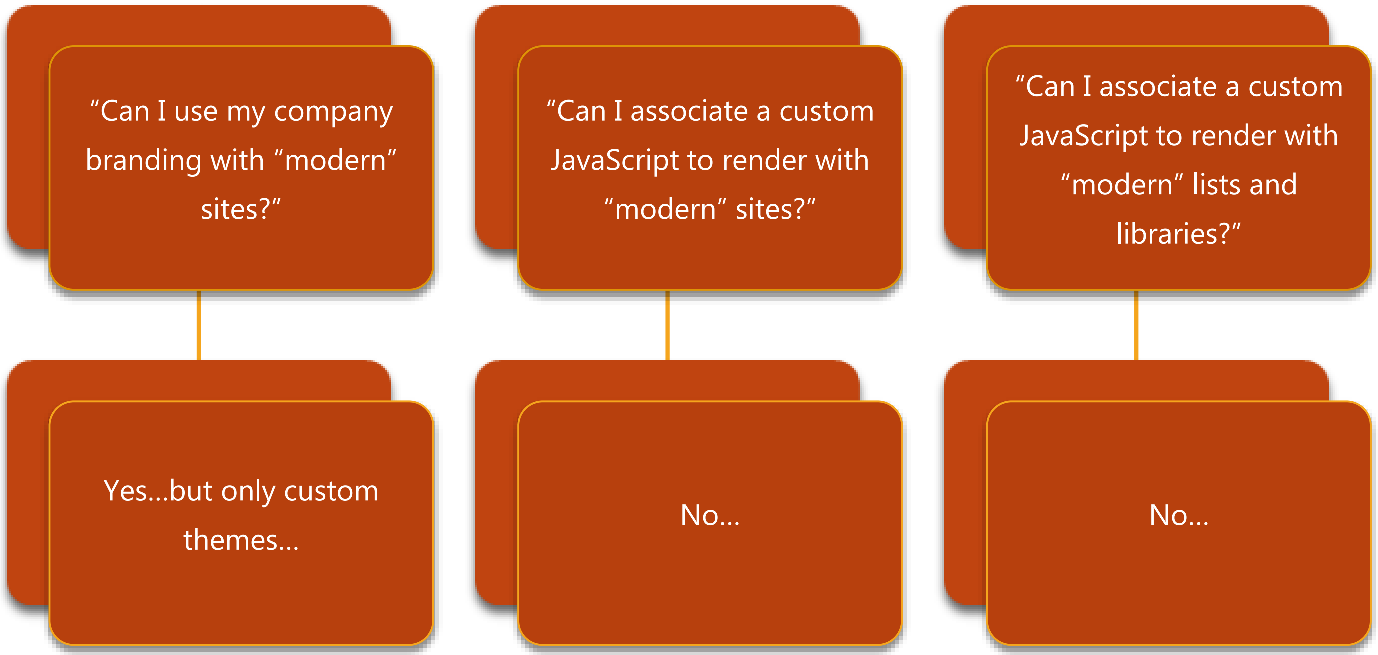
- Initial version released, but not the full story
  - Modern sites, lists and pages
- Recommendation to only use when all business requirements supported
- Gaps being addressed gradually
- All groups get a modern team site by default
- Modern team sites can be provisioned programmatically
- Branding – limited to custom theme!

“Modern” experiences Limitations

- Modern team sites have “noscript” capability enabled – limited customisations
- No support for custom master pages
- No support for custom page layouts
- Sites require “user token” for creation – incompatible with some provisioning engines
- Limited or no support for User Custom Actions (JavaScript)
- No support for adding custom “alternate” CSS
- Sub sites still using classic experience
- Lots of core web parts missing

“Modern” experiences

Common business questions



“Can I use my company branding with “modern” sites?”

Yes…but only custom themes…

“Can I associate a custom JavaScript to render with “modern” sites?”

No…

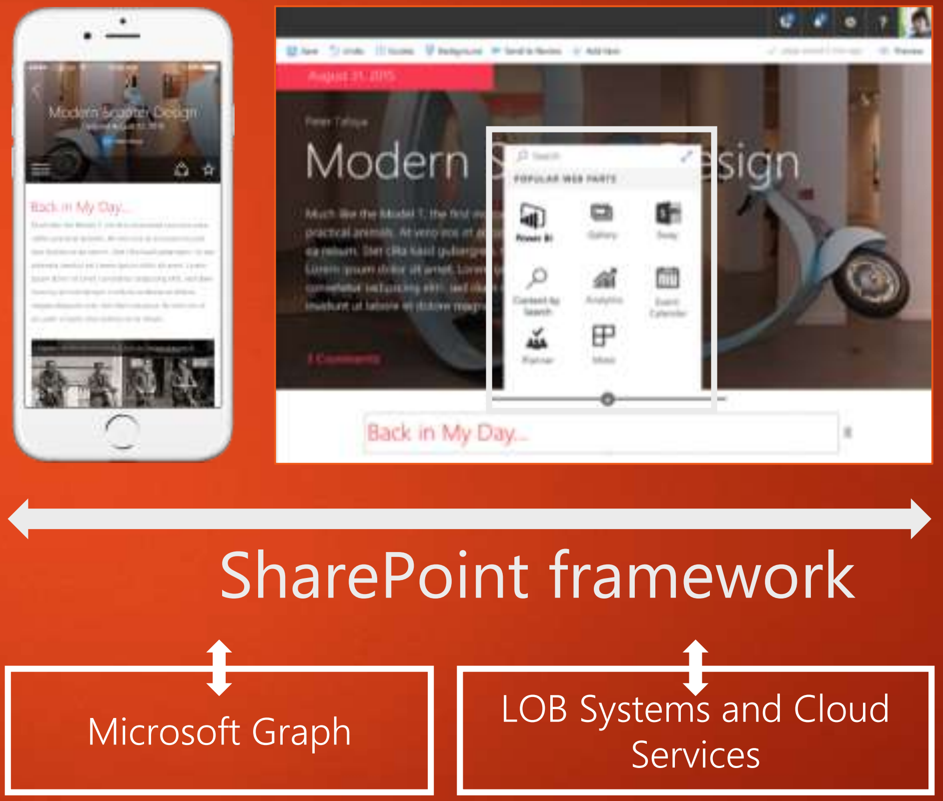
“Can I associate a custom JavaScript to render with “modern” lists and libraries?”

No…

SPFx

- Release Candidate (RC0) now available
  - Only support for web parts

- Modern client-side development
- Lightweight web and mobile
- Powers Microsoft own experiences
- Backward compatible for “classic” sites
- Supports open source tools and JavaScript web frameworks



SharePoint framework

Microsoft Graph

LOB Systems and Cloud Services

Webhooks

- SharePoint Webhooks is now Generally Available (GA)
- Only enabled for SharePoint list items or document library
- Only support asynchronous events – after a change happened
- Retry mechanist being one of the main features when compared to remote event receivers

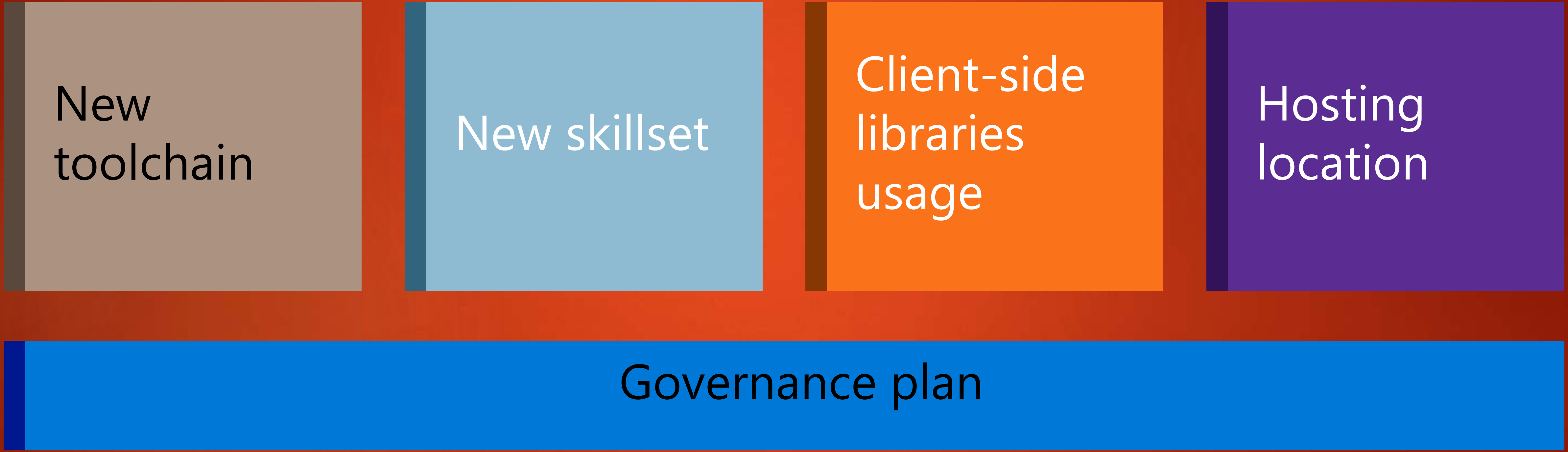
February 2017

SPFx

- Documentation updated and new documentation released around SPFx development
- Released training material, including a “Getting started with SPFx” training package

General Availability!

SPFx
Organizational considerations



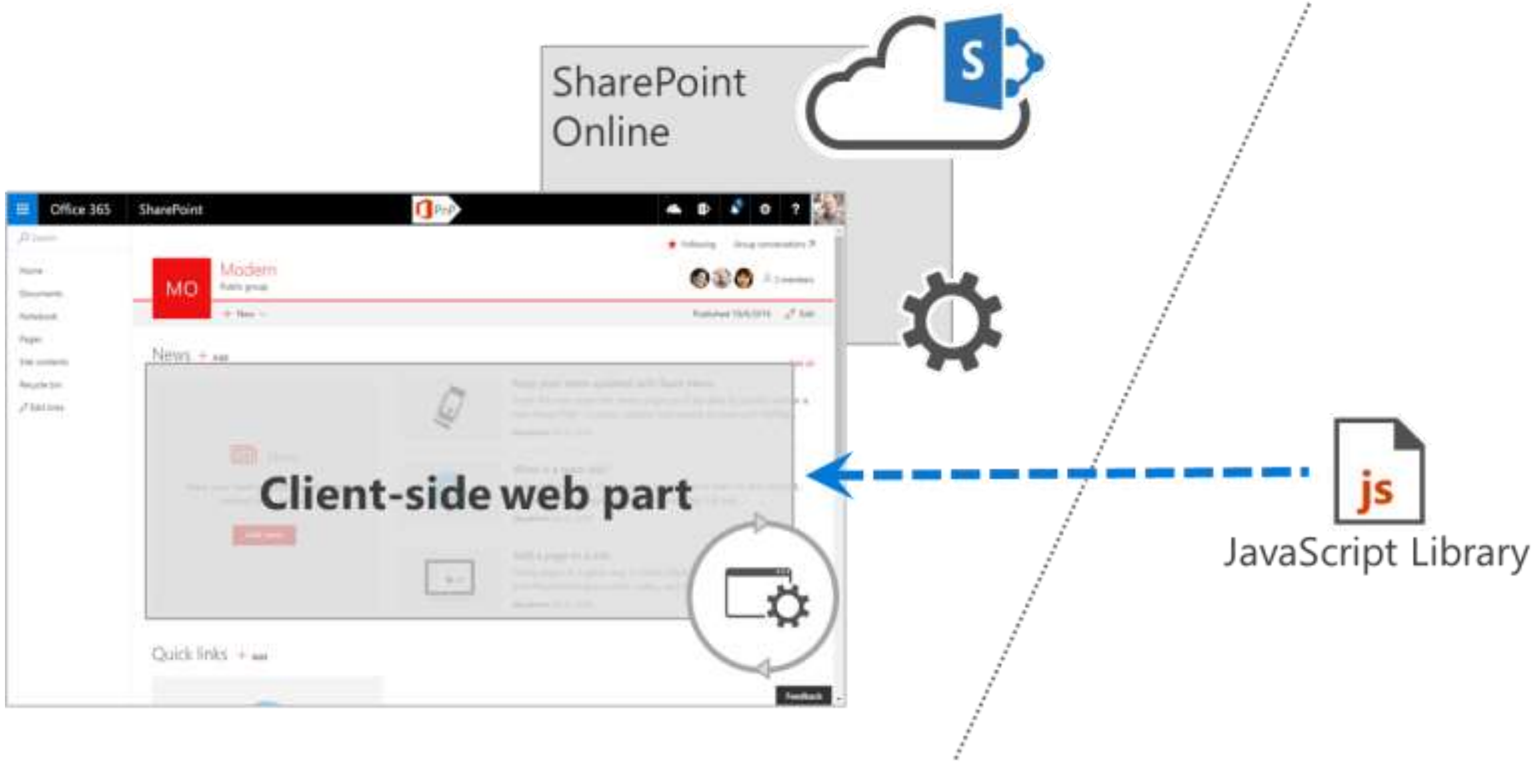
New toolchain

New skillset

Client-side libraries usage

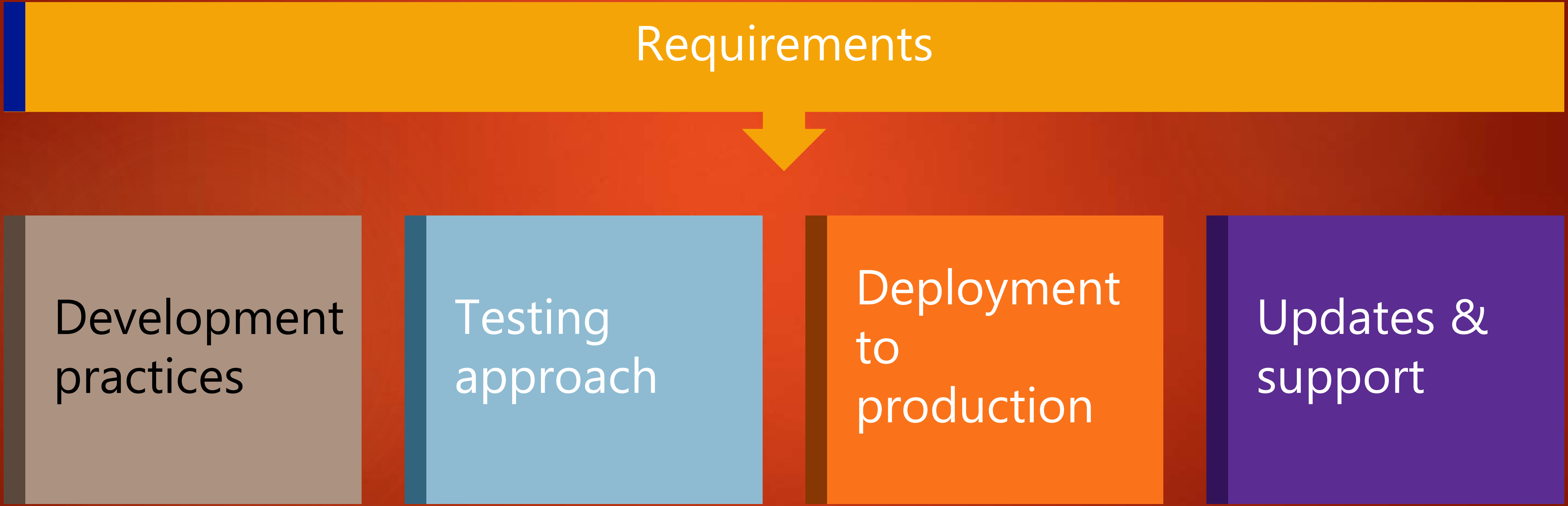
Hosting location

Governance plan



SPFx – Anatomy

SPFx Development/Architecture



Requirements

Development practices

Testing approach

Deployment to production

Updates & support

Development models comparison

	WSPs	Add-ins	External apps / SPAs	SharePoint Framework
Characteristics	• Farm solutions only supported in on-premises • Only declarative sandbox solutions supported in SharePoint Online • Requires deep knowledge on SharePoint internals (xml structures)	• Decoupling customizations from SharePoint • Provides security model for the customization permissions • Limited web part experience as add-in part • Additional operational and maintenance requirements	• Decouples customizations from SharePoint • Bring your own technology stack • Provides security model for customization permissions • Requires custom implementation of user interface	• Customization runs as part of the SharePoint page • Flexible web part and extension experience • Runs under permissions of current user • Industry standard development model
Support in cloud	~~Office 365~~	Office 365	Office 365	Office 365
Flexibility	Limited	Fair	Good	Excellent
Cost impact (short and long term)	$$$	$$	$$	$

Client-side customizations in SharePoint

	SPFx	Add-ins	Script editor web part	Script embedding
Characteristics	• Solutions are deployed centrally as a tenant admin • JavaScript is executed with the permissions of end user	• Isolated functionalities hosted either in iframe or outside of the SharePoint	• Scripts are added on the pages by end users • Scripts can be hosted anywhere • Same with content editor web part	• Embedding scripts with Usercustomactions or JSLink • JavaScript files can be added by site owners using API • JS files hosted in the site
Works on ‘no-script’ sites	✓	✓	⛔	⛔
Permissions model	⛔	✓	⛔	⛔
Centralized approval	✓	✓	⛔	⛔

March 2017

Special characters

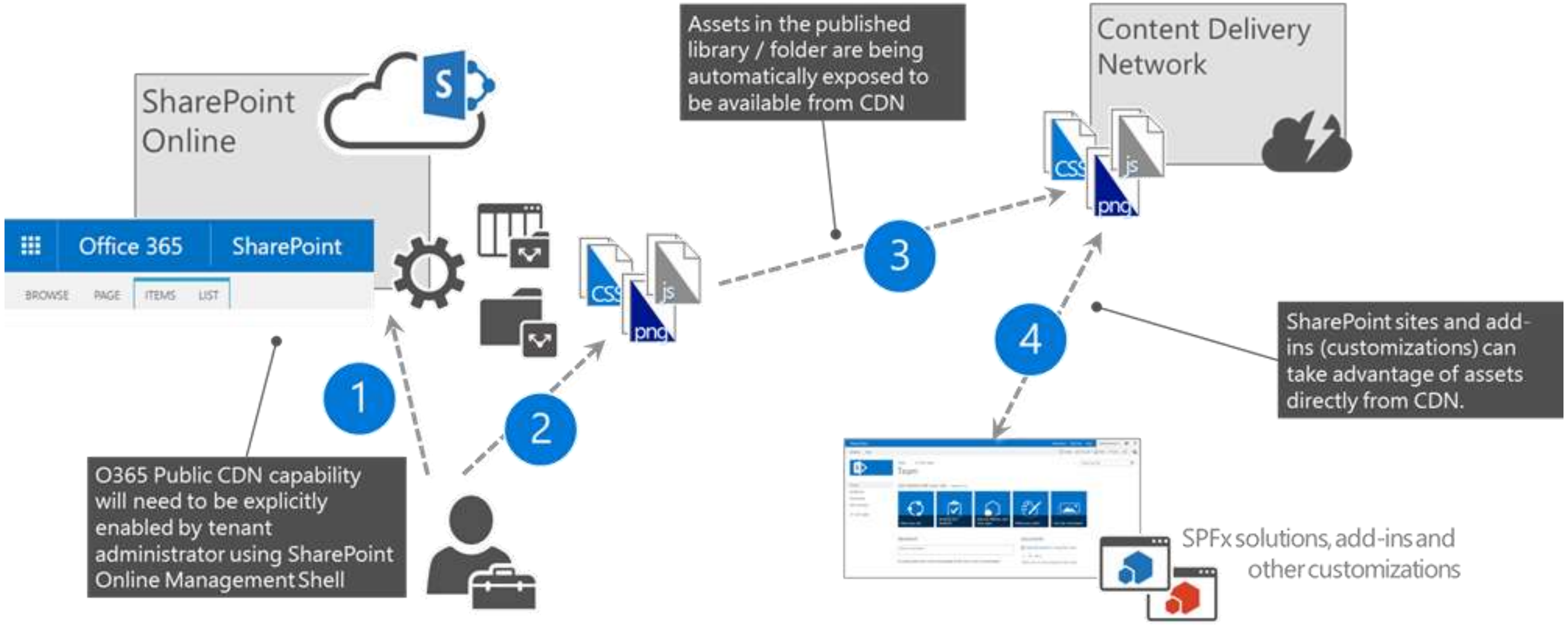
- Support for % and # in SharePoint Online!

April 2017

Guidance

- Additional guidance for SPFx solutions
  - Including guidance on how to debug!
- Guidelines for building well performing portals on SharePoint Online - to tackle impact on performance caused by growth and bad implementations
  - Performance
  - Information Architecture
  - Navigation
  - Data aggregation
  - Branding
  - Portal go live

Office 365 Public CDN General Available



O365 Public CDN capability will need to be explicitly enabled by tenant administrator using SharePoint Online Management Shell

Assets in the published library / folder are being automatically exposed to be available from CDN

SharePoint sites and add-ins (customizations) can take advantage of assets directly from CDN.

May 2017

Add-in Web Parts

- Ability to add app parts from SharePoint add-ins to modern pages
  - Provider-Hosted SharePoint Add-ins
    - Including remote event receivers
  - SharePoint-hosted add-ins
- Opens the possibility to add existing add-ins to modern pages
- Opens the possibility to add apps from the SharePoint Store to a modern page

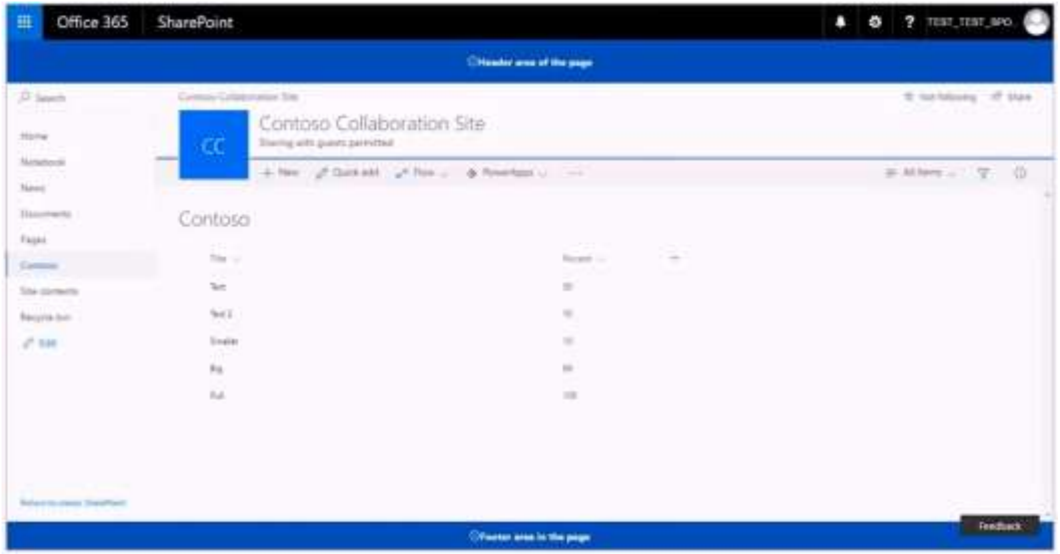
SPFx
Developer training

- Module 1: Getting Started with the SharePoint Framework
- Module 2: Deep Dive of the SharePoint Framework
- Module 3: Working with SharePoint Content
- Module 4: Deploying SharePoint Framework to Production
- Module 5: Working with the Property Pane
- Module 6: Using React and Office UI Fabric
- Module 7: Working with different JavaScript Frameworks and Libraries

June 2017

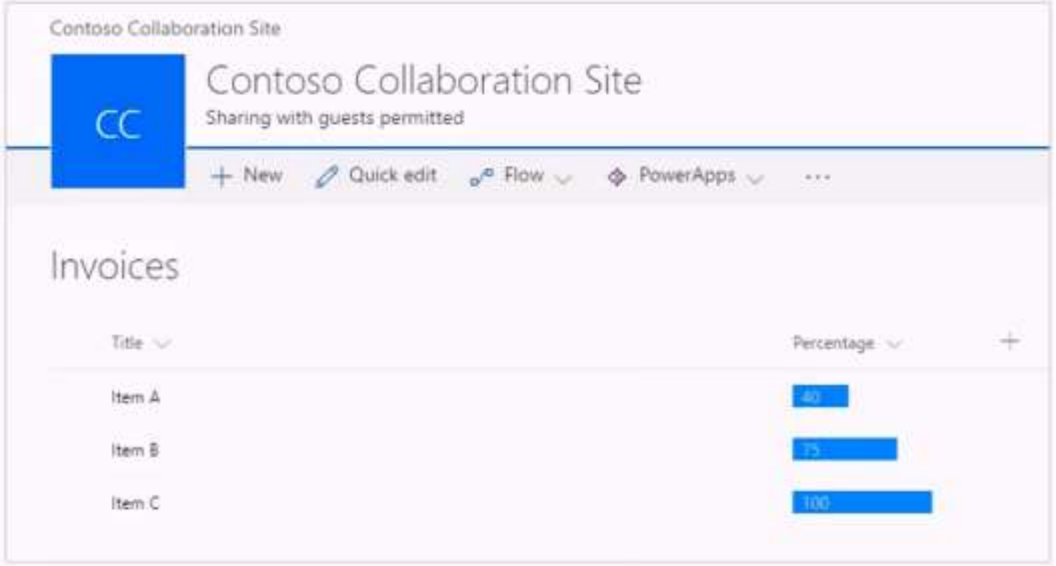
SPFx Extensions Dev Preview

- Application customizer
  - To embed visible or hidden customizations on a site
  - Can be associated to **Site Collection**, **Site** or a **List**



SPFx Extensions Dev Preview

- Field customizer
  - To override field presentation in lists
  - Can be used with site columns or directly for a field in a list

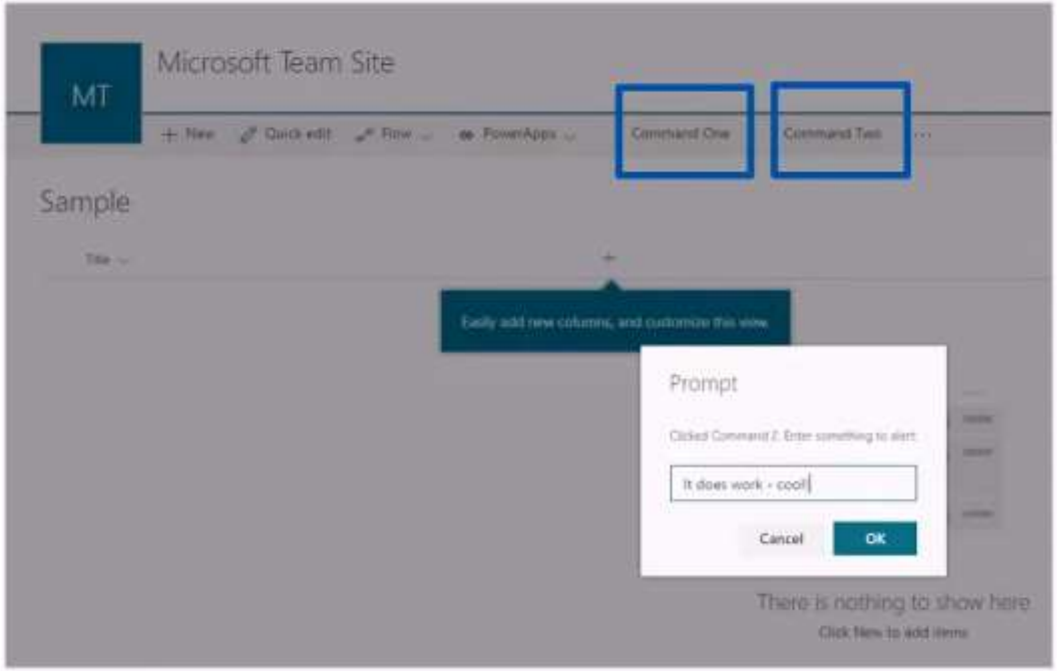

Contoso Collaboration Site
CC
Contoso Collaboration Site
Sharing with guests permitted
New
Quick edit
Flow
PowerApps
...

Invoices

Title	Percentage
Item A	40
Item B	75
Item C	100

SPFx Extensions Dev Preview

- ListView command set
  - To provide action buttons to lists
  - Supports **toolbar** and item context menu



Easily add new columns, and customize this view

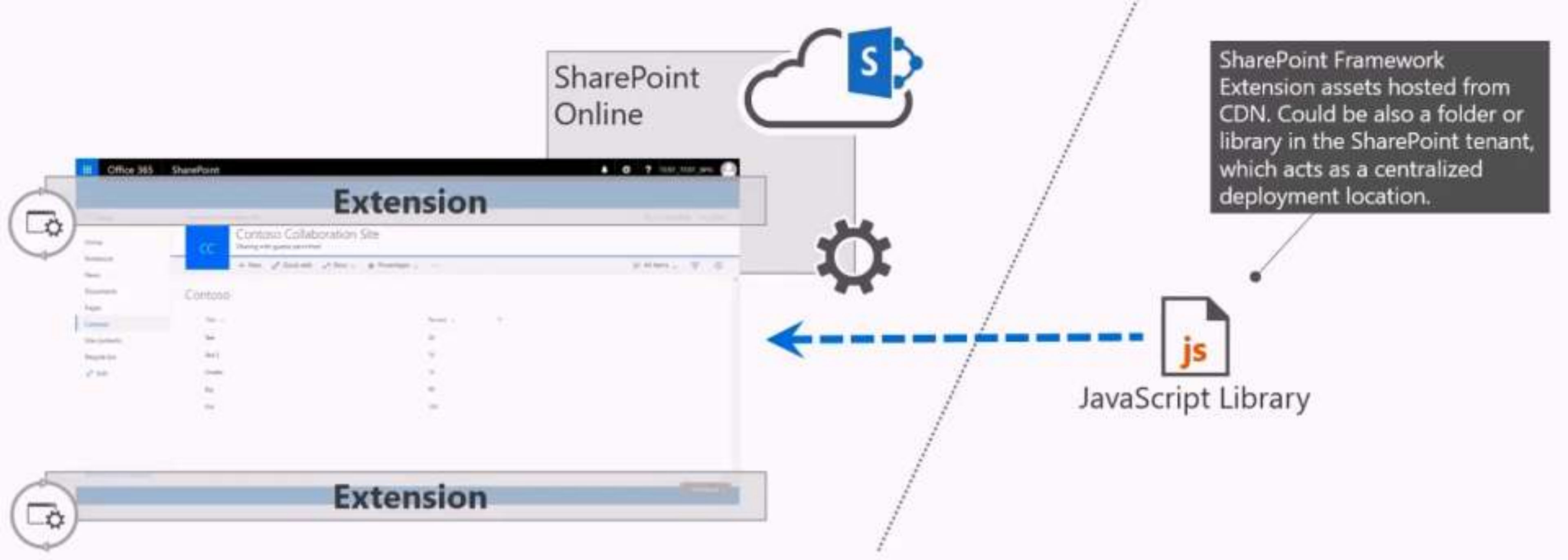
Prompt

Clicked Command 2. Enter something to alert

It does work - cool

There is nothing to show here

Click New to add items



SharePoint Framework Extension assets hosted from CDN. Could be also a folder or library in the SharePoint tenant, which acts as a centralized deployment location.

SPFx Extensions Architecture

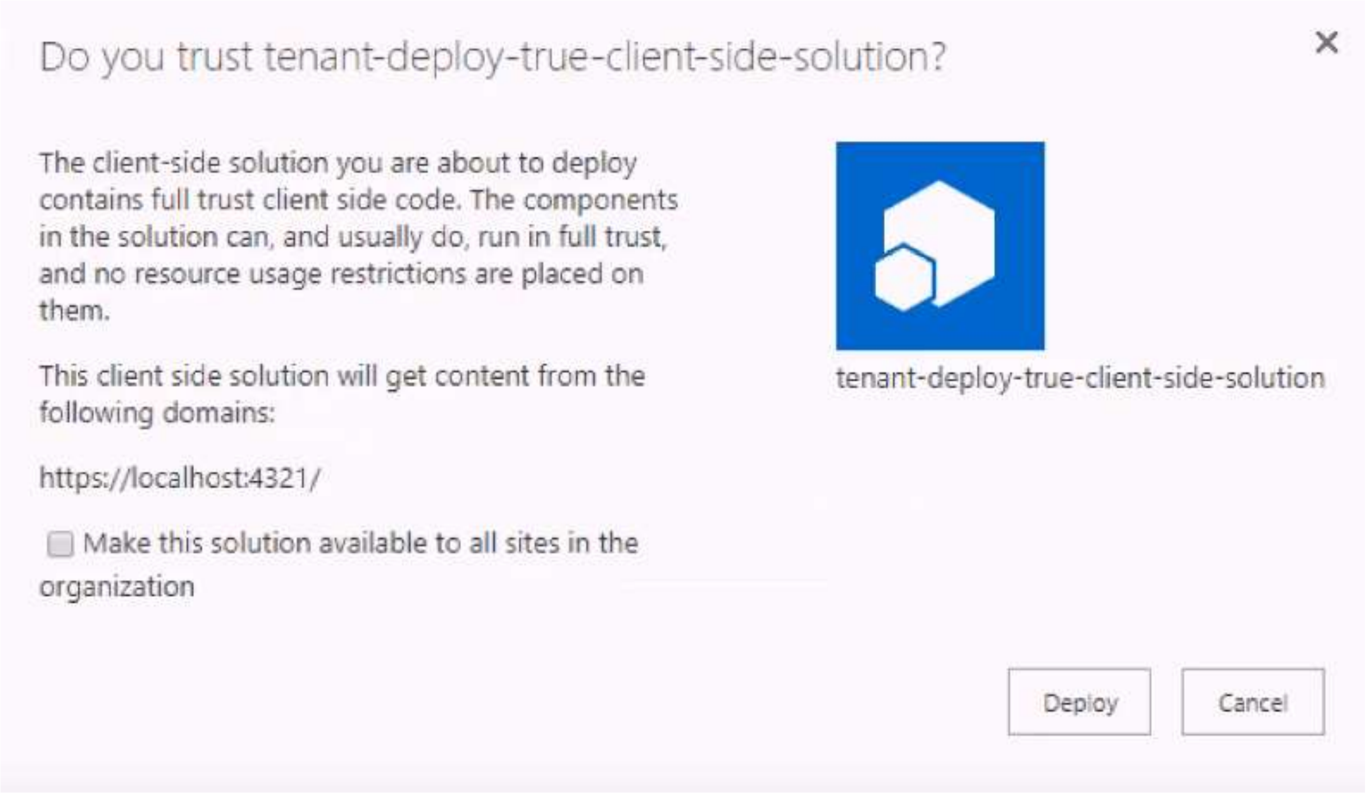
July 2017

Nothing to see here…move on…

August 2017

Tenant-Scoped SPFx Package Deployment

- Install solution to app catalog
- Web parts are immediately available for usage
- Extensions are available if they are being associated to the right objects



Do you trust tenant-deploy-true-client-side-solution?

The client-side solution you are about to deploy contains full trust client side code. The components in the solution can, and usually do, run in full trust, and no resource usage restrictions are placed on them.

This client side solution will get content from the following domains:

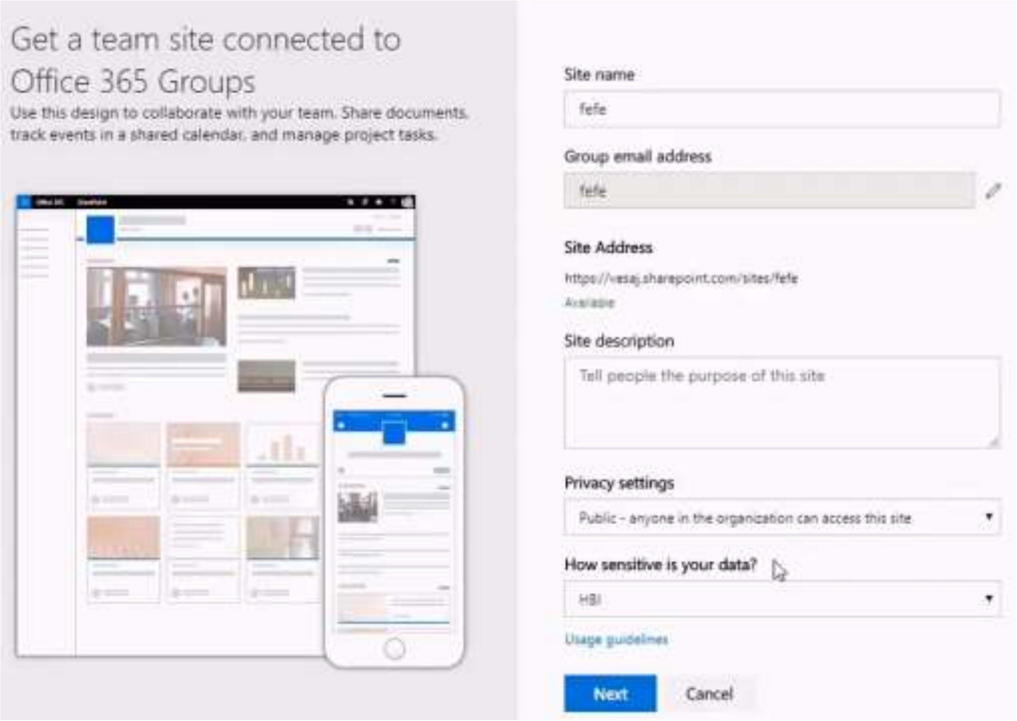
https://localhost:4321/

☐ Make this solution available to all sites in the organization

SPFx Extensions
Release Candidate (RC0)

- For developer and first release tenants
- Not ready for production usage
- To give feedback before General Availability
- No ETA for General Availability

September 2017



Get a team site connected to Office 365 Groups

Use this design to collaborate with your team. Share documents, track events in a shared calendar, and manage project tasks.

Site name

fefe

Group email address

fefe

Site Address

https://vesaj.sharepoint.com/sites/fefe

Available

Site description

Tell people the purpose of this site

Privacy settings

Public - anyone in the organization can access this site

How sensitive is your data?

HBI

Site classification

RELEASED PREVIOUSLY, BUT NOT ANNOUNCED

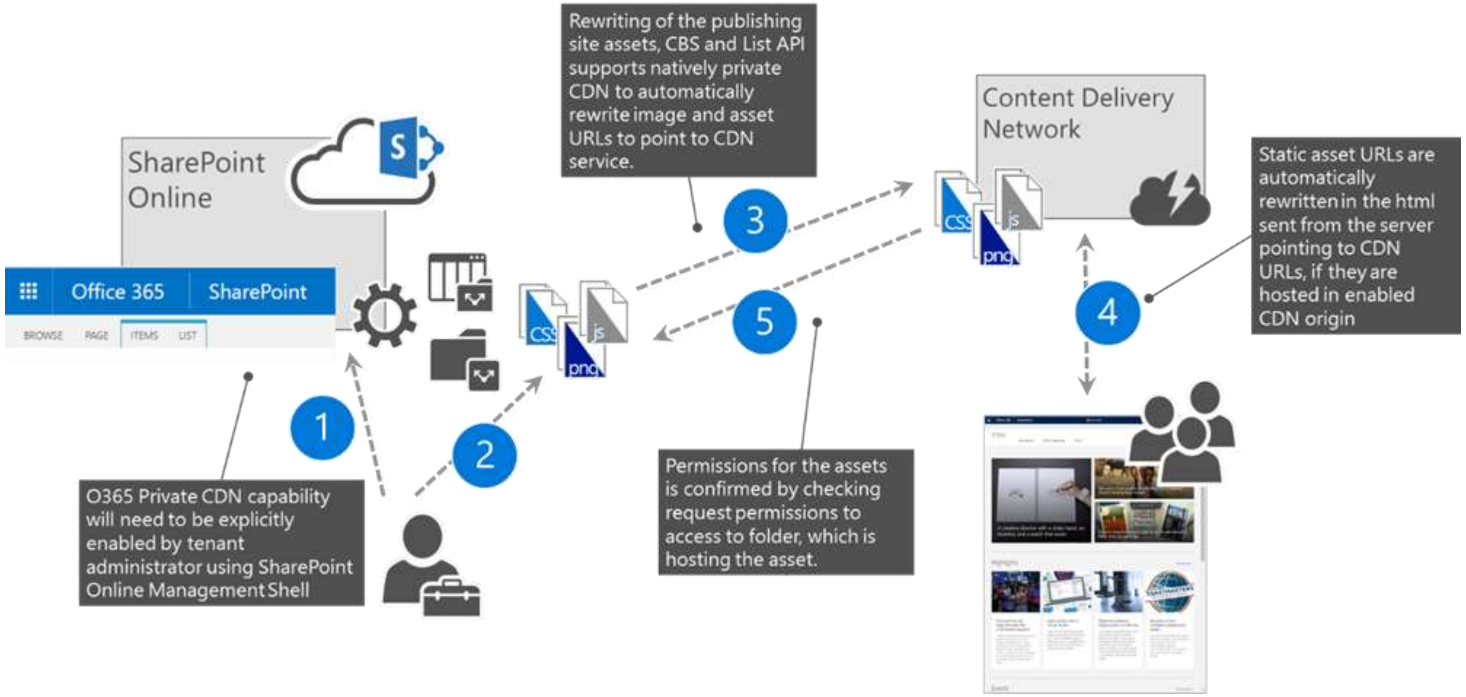
SharePoint Server 2016 Feature Pack 2

SharePoint Framework web parts in classic pages

Extensions not supported – not yet released for production

Support for Yeoman generator 1.X

Configuration required to allow hosting of .json files



Rewriting of the publishing site assets, CBS and List API supports natively private CDN to automatically rewrite image and asset URLs to point to CDN service.

Static asset URLs are automatically rewritten in the html sent from the server pointing to CDN URLs, if they are hosted in enabled CDN origin

O365 Private CDN capability will need to be explicitly enabled by tenant administrator using SharePoint Online Management Shell

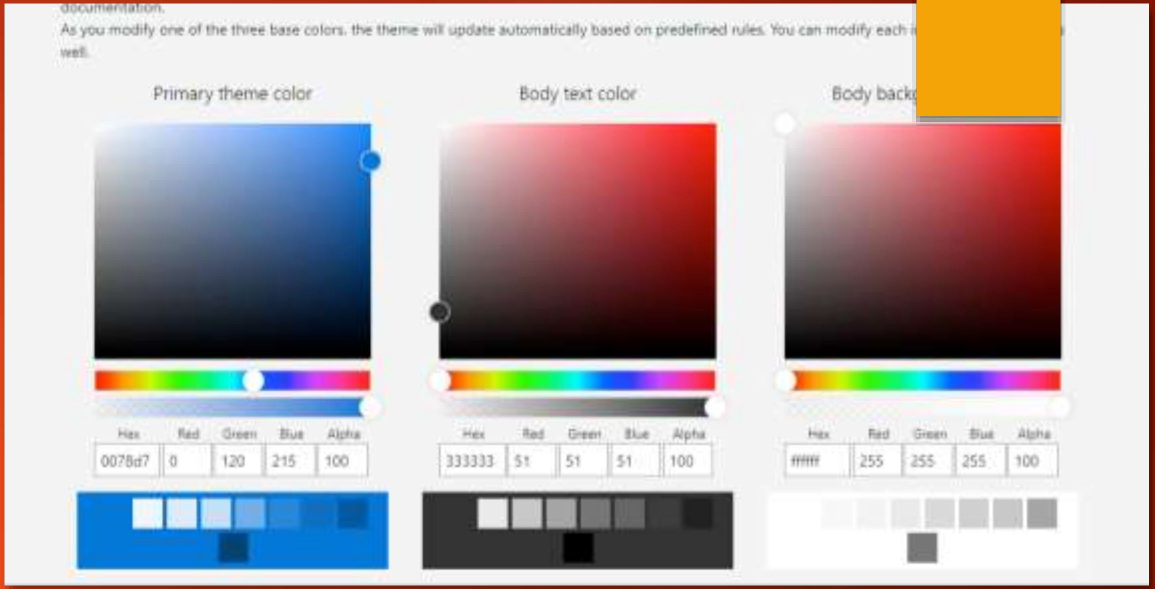
Permissions for the assets is confirmed by checking request permissions to access to folder, which is hosting the asset.

Office 365 Private CDN with Publishing Auto-Rewriting General Available

October 2017

Custom Themes

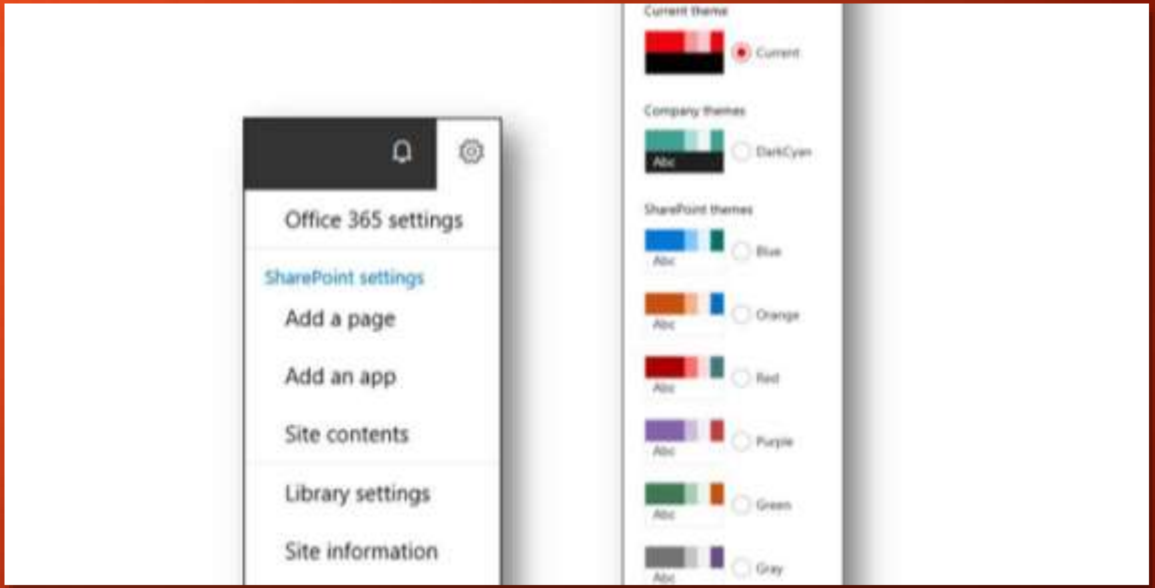
- Central gallery to host custom themes for entire organization
- PowerShell commands to manage and hide out-of-the-box themes



documentation.

As you modify one of the three base colors, the theme will update automatically based on predefined rules. You can modify each i
well.

	Primary theme color	Body text color	Body back
Hex	0078d7	333333	ffffff
Red	0	51	255
Green	120	51	255
Blue	215	51	255
Alpha	100	100	100



Current theme

● Current

Company themes

○ DarkCyan

SharePoint themes

○ Blue

○ Orange

○ Red

○ Purple

○ Green

○ Gray

Office UI Fabric Core Improved support

- New package (@microsoft/sp-office-ui-fabric-core)
- Package contains the following Office UI Fabric Core styles
  - Typography
  - Layouts
  - Colors
  - Themes
  - Text Direction
- Starting on version 1.3.4 of the Yeoman generator, new projects will use this package by default and stop using global styles

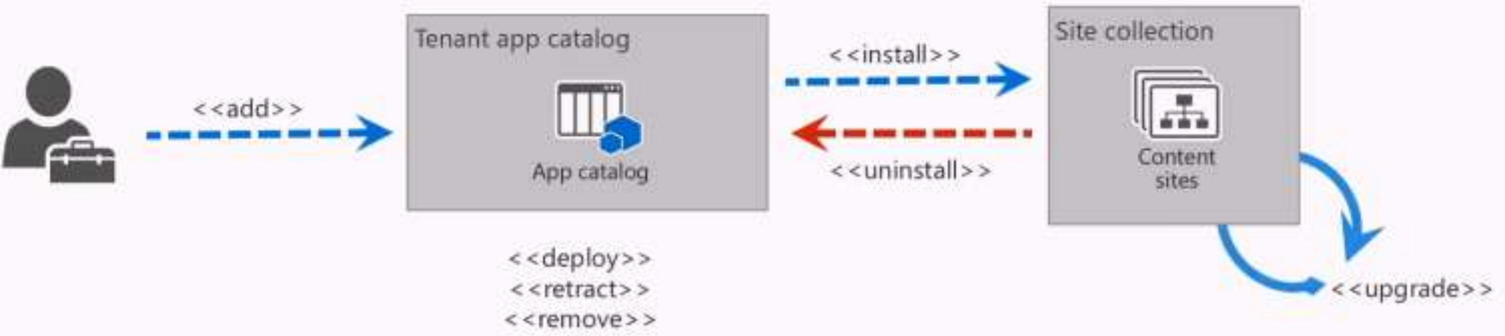
- The following modules are still not supported
  - Animations
  - Icons

November 2017

ALM APIs

- Site level operations
  - Available Apps
  - Get By Id
  - Install
  - Upgrade
  - Uninstall
- App catalog operations
  - Add
  - Deploy
  - Retract
  - Remove

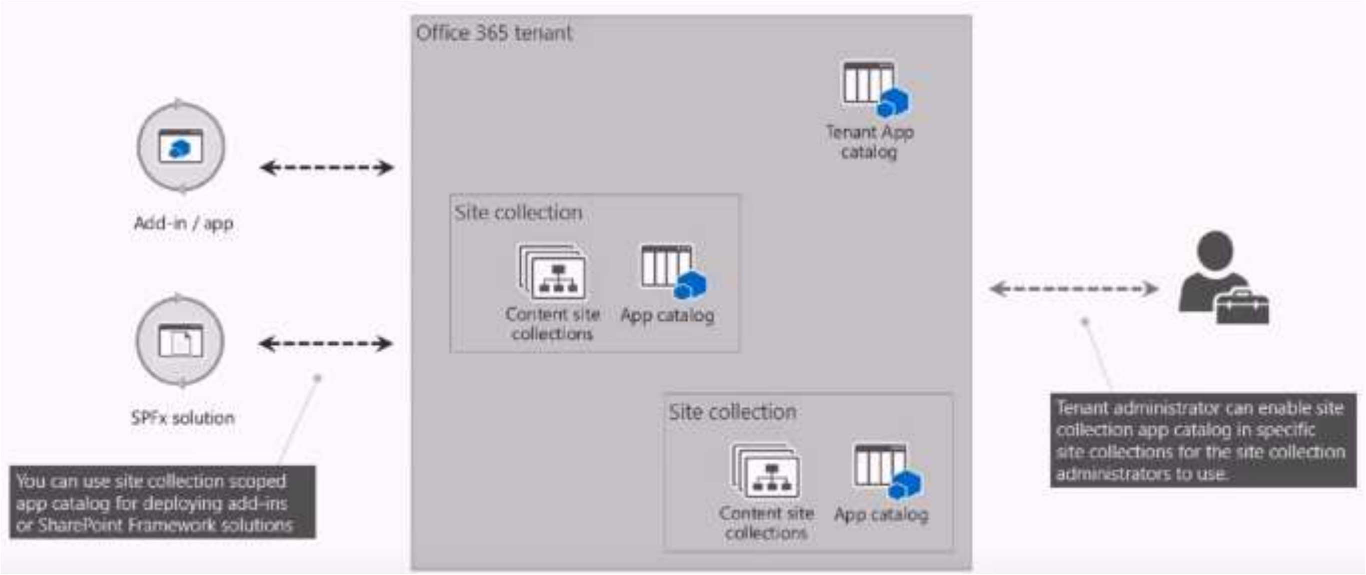
- Automate add-in or SPFx solution deployment and management
- REST format
- CSOM and PowerShell support provided through PnP channels



December 2017

Site collection App Catalog

- Provide flexibility for deployment options
- Decentralize management of add-ins and SPFx packages
- Scoped deployments

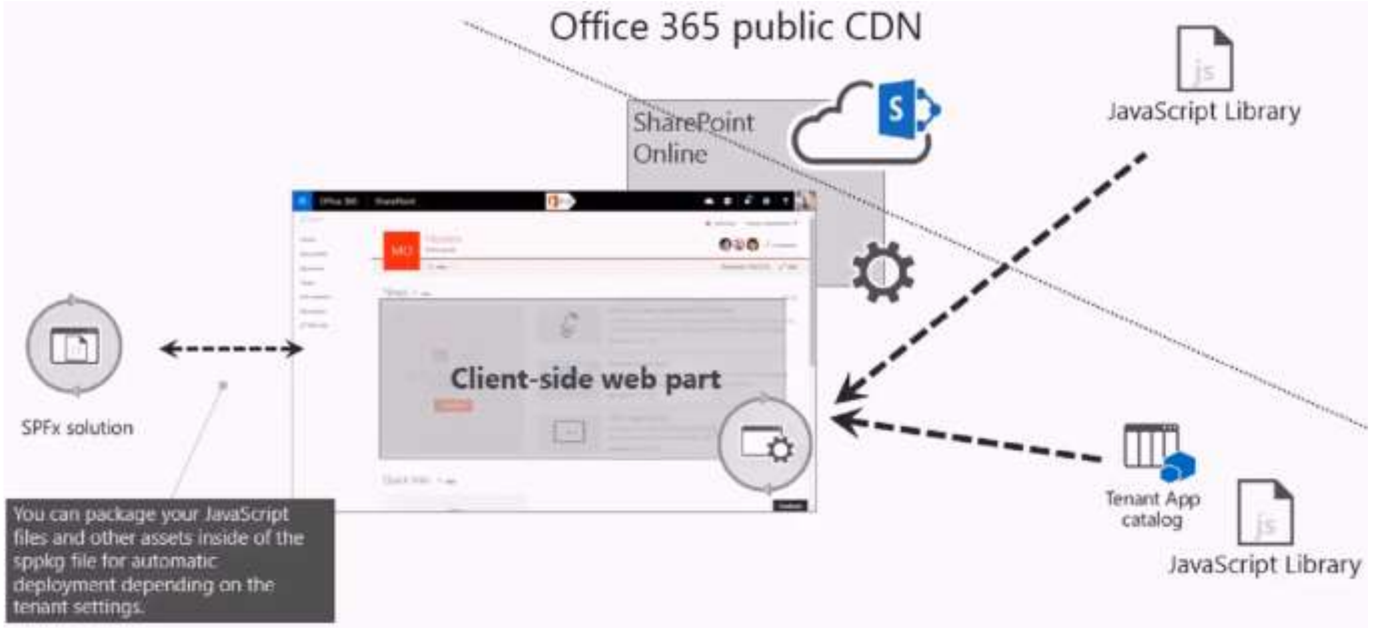


You can use site collection scoped app catalog for deploying add-ins or SharePoint Framework solutions

Tenant administrator can enable site collection app catalog in specific site collections for the site collection administrators to use.

Assets included in deployment packages

- No additional assets hosting location needed
- Organization in control of solution assets
- **Possible to promote the same package through dev, UAT and prod**



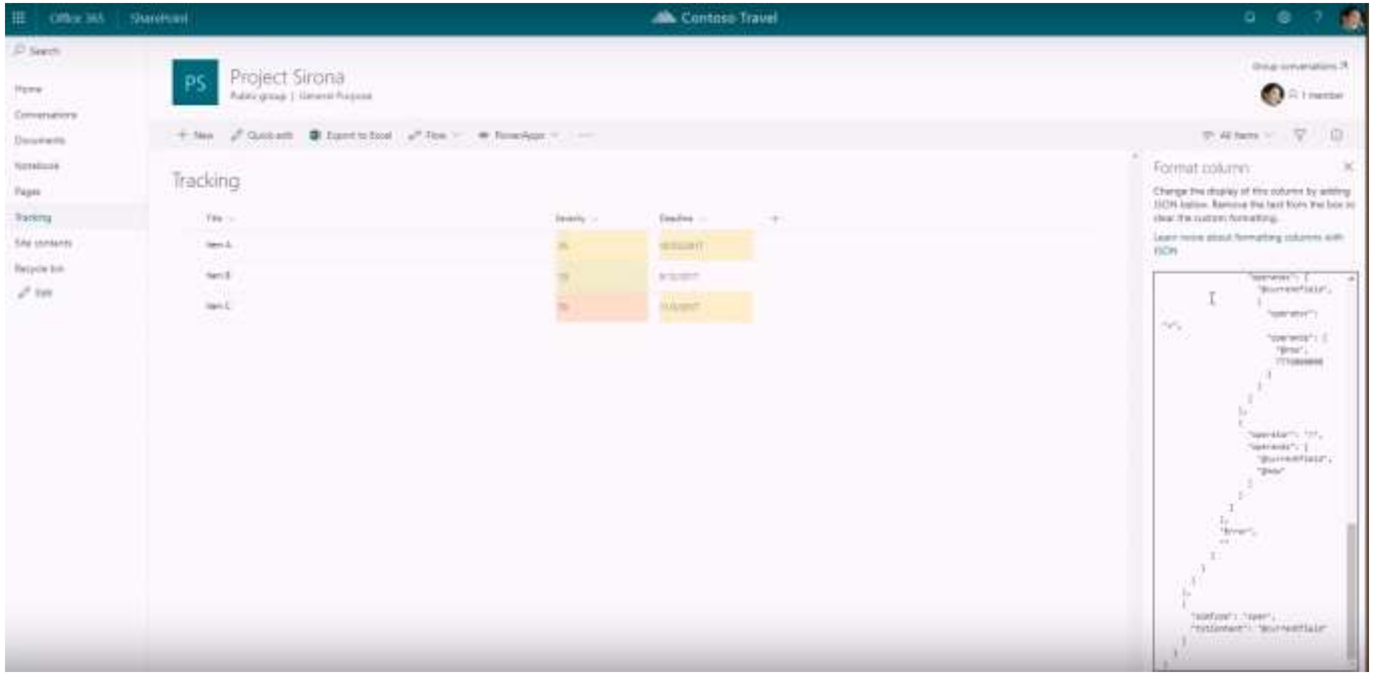
You can package your JavaScript files and other assets inside of the sppkg file for automatic deployment depending on the tenant settings.

2018

ROADMAP

Column formatting

- Enables simple UI level configurations
- Own json format to define the rendering rules

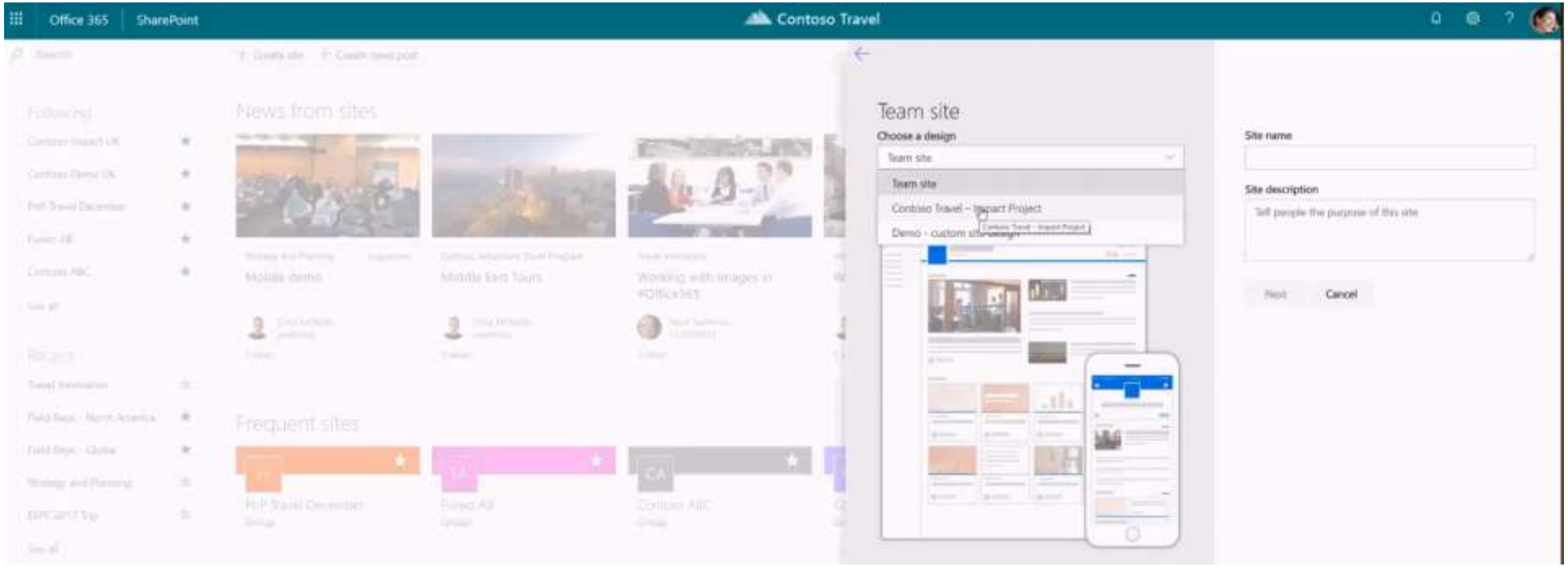


Change the display of this column by adding JSON below. Remove the text from the box to clear the custom formatting.

Learn more about formatting columns with JSON

Tenant Properties

- Store publicly available values
- Managed by admins using PowerShell
- Stored in the App Catalog
- Not specific to SharePoint Framework
- REST API to retrieve values using the configuration key set by the admin



Team site

Choose a design

Team site

Team site
Contoso Travel – Impact Project
Demo - custom site design

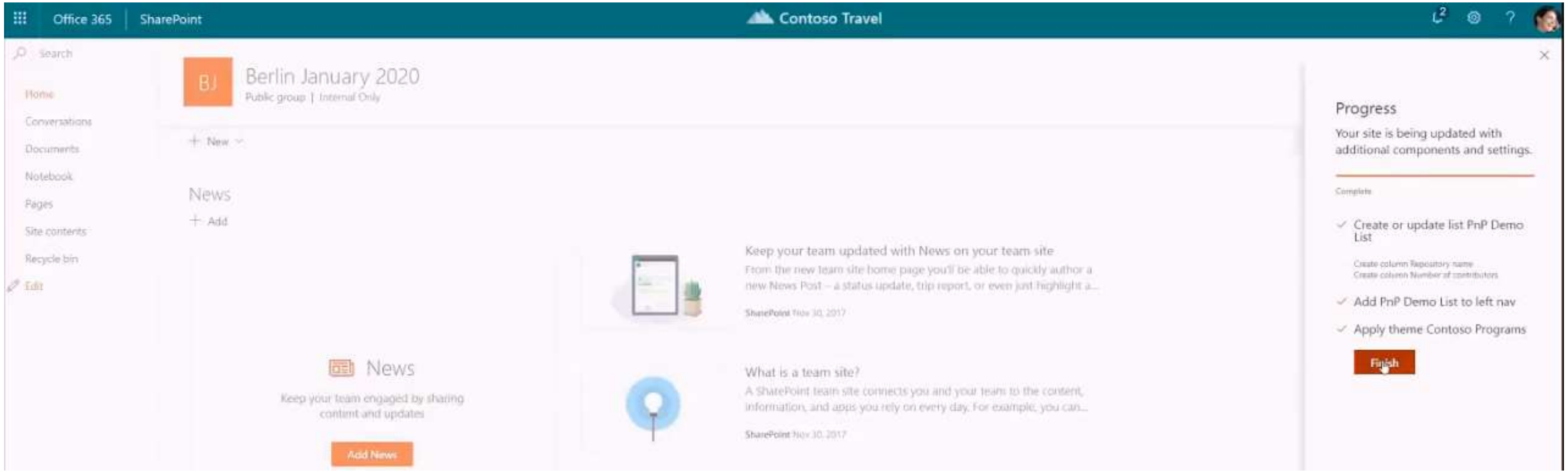
Site name

Site description

Tell people the purpose of this site

Next
Cancel

Site Designs – First Release tenants



Berlin January 2020

Public group | Internal Only

Keep your team updated with News on your team site

From the new team site home page you'll be able to quickly author a new News Post – a status update, trip report, or even just highlight a...

SharePoint Nov 30, 2017

What is a team site?

A SharePoint team site connects you and your team to the content, information, and apps you rely on every day. For example, you can...

SharePoint Nov 30, 2017

Keep your team engaged by sharing content and updates

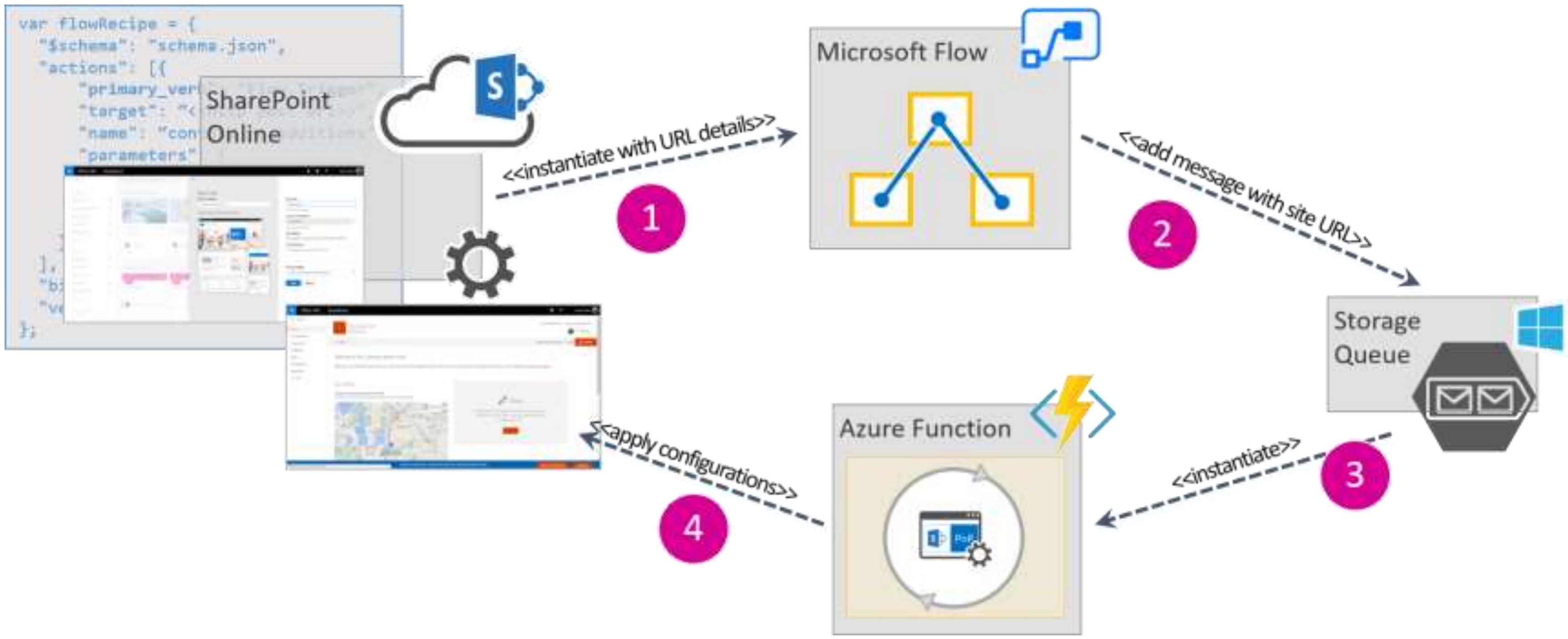
Progress

Your site is being updated with additional components and settings.

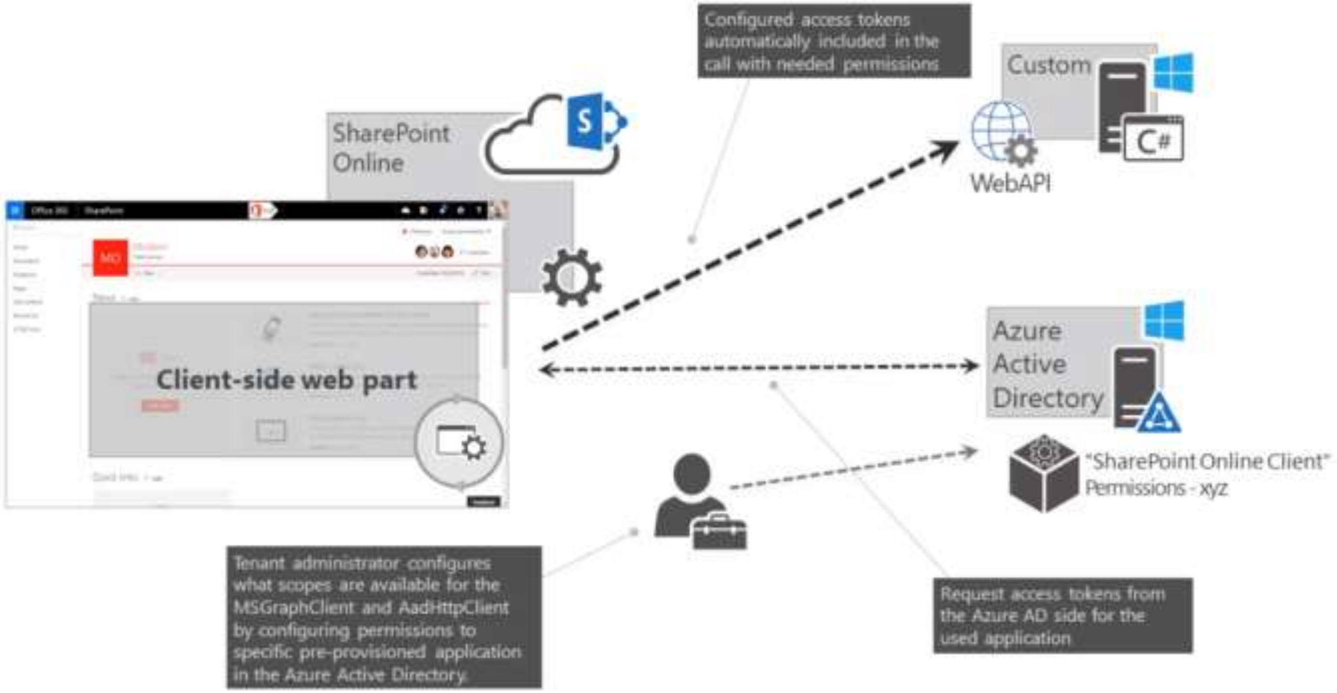
Complete

- ✓ Create or update list PnP Demo List
  - Create column Repository name
  - Create column Number of contributors
- ✓ Add PnP Demo List to left nav
- ✓ Apply theme Contoso Programs

Site Designs



Site Designs



Configured access tokens automatically included in the call with needed permissions

Tenant administrator configures what scopes are available for the MSGraphClient and AadHttpClient by configuring permissions to specific pre-provisioned application in the Azure Active Directory.

Request access tokens from the Azure AD side for the used application

MS Graph - Additional support

Roadmap

- Hub sites and APIs
- Groupify APIs