

#### BUILDING PORTALS WITH MODERN SHAREPOINT EXPERIENCES

## Main Topics



- Common requirements for Portal solutions
- Technical solutions in "classic" vs. "modern" UI
- Customization options and boundaries



#### PORTAL SOLUTIONS WITH SHAREPOINT

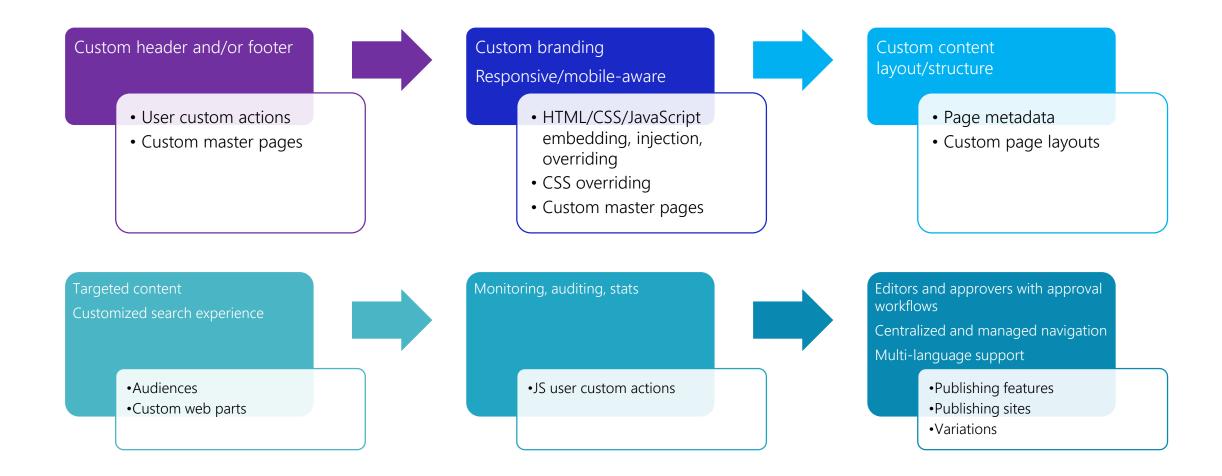
## Common business requirements



- Custom header and/or footer
- Custom branding
- Custom content layout/structure
- Targeted content
- Monitoring, auditing, stats
- Metadata for pages/news
- Editors and approvers with approval workflows
- Centralized and managed navigation
- Responsive design and mobile-aware
- Customizable search experience
- Multi-language support

#### "Classic" technical solutions





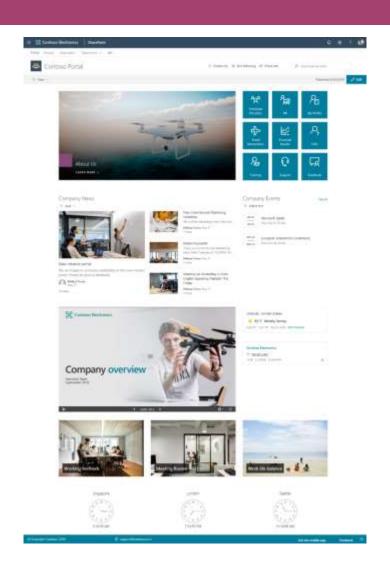


#### "MODERN" TECHNICAL SOLUTIONS

#### SharePoint Starter Kit



- Getting started with modern experiences
  - https://aka.ms/sp-starter-kit
- Ready to use open-source demo solution
- Open-source code and assets for reuse anyway you want
- Provisioning service for easy deployment across tenants
  - https://provisioning.sharepointpnp.com/



#### What's included in the SP Starter Kit



- SPFx Web Parts
  - Banner
  - Followed Sites
  - Links
  - LOB Integration
  - People Directory
  - Personal Calendar
  - Personal Contacts
  - Personal Email
  - Personal Tasks
  - Recent Contacts
  - Recently Used Documents
  - Recently Visited Sites
  - Site Information
  - Stock Information
  - Tiles
  - Weather Information
  - World Time

- SPFx Extensions
  - Alert Notification
  - Collab Footer (Taxonomy based)
  - Discuss Now
  - Portal Footer
  - Redirect
  - Site Classification
  - Tab Page
- Client-side Services
  - User Profile
  - Taxonomy
- REST APIs
  - LOB Azure Function
  - LOB ASP.NET REST API
- Automated Provisioning with PnP





#### A LAP AROUND THE SHAREPOINT STARTER KIT

### Choose the right site template



- Communication Site
  - News, articles, company intranet
- "Modern" Team Site
  - Collaboration and content sharing
  - Shared Calendar
  - Shared Mailbox
  - Planner
  - Optionally Microsoft Teams (kindly suggested . . . )
- "Modern" Team Site No-Group
  - Content sharing with no full collaboration stack
  - You can always "groupify" (i.e. add a Group) it, later on ...
  - And eventually "teamify" (i.e. add a Team) it, too ...
- You can always create a hierarchy of sites within a unique Hub Site
  - Shared logo, top navigation, Site Design, and theme across the sites in the Hub Site

#### How to build the Information Architecture



- You can use Site Designs + Site Scripts
  - For provisioning of basic artifacts
    - Fields, Content Types, Lists, etc.
- You can use PnP Remote Provisioning
  - For full provisioning
- You can use a Site Design + Site Scripts + Microsoft Flow
  - To invoke a back-end Azure Function to run PnP Provisioning Engine
  - To mix both of the previous scenarios

## "Modern" Branding



- No more master pages
- No more CSS overriding
- No more JS embedding
- SPO custom themes
- Site custom logo





CREATING SPO THEMES AND SETTING CUSTOM LOGOS

### For your own reference



- SharePoint Theme Generator Tool
  - <a href="https://fabricweb.z5.web.core.windows.net/pr-deploy-site/refs/pull/9015/merge/theming-designer/index.html">https://fabricweb.z5.web.core.windows.net/pr-deploy-site/refs/pull/9015/merge/theming-designer/index.html</a>
  - https://developer.microsoft.com/en-us/fabric#/styles/themegenerator
- SharePoint Site Theming
  - <a href="https://docs.microsoft.com/en-us/sharepoint/dev/declarative-customization/site-theming/sharepoint-site-theming-overview">https://docs.microsoft.com/en-us/sharepoint/dev/declarative-customization/site-theming/sharepoint-site-theming-overview</a>
  - <a href="https://laurakokkarinen.com/how-to-create-a-multicolored-theme-for-a-modern-sharepoint-online-site/">https://laurakokkarinen.com/how-to-create-a-multicolored-theme-for-a-modern-sharepoint-online-site/</a>
- PnP PowerShell command let to add a new SPO Theme
  - <a href="https://docs.microsoft.com/en-us/powershell/module/sharepoint-pnp/add-pnptenanttheme">https://docs.microsoft.com/en-us/powershell/module/sharepoint-pnp/add-pnptenanttheme</a>

## Headers/footers and managed navigation



- You can leverage the Hub Sites functionality of SPO
  - To have a unique menu across multiple sites
    - You can build it using:
      - The web UI
      - PnP PowerShell
      - PnP Sites Core
      - PnP Provisioning Engine
- You can build "SharePoint Framework Application Customizers"
  - Reading the menu items from the taxonomy service
  - Or from a list shared across the Hub Site
- You can leverage the new "Mega-menu"
- We now have the "modern" footer, too
  - For Communication Sites
  - Links/Labels (up to 8), logo, and/or name
  - Can be configured using
    - The web UI
    - PnP PowerShell
    - PnP Sites Core
    - PnP Provisioning Engine





BUILDING CUSTOM HEADERS AND FOOTERS WITH SPFX APPLICATION CUSTOMIZERS

# Building Application Customizers (reference only)



- Scaffold the SPFx extension
- Build custom UI elements when onlnit() fires
  - Or when placeholders change
- Use this.context.placeholderProvider to read available placeholders
- Available placeholders (so far):
  - Top
  - Bottom
- Debug integrated with Visual Studio Code and SPFx generator scaffolding
  - Config serve.json + gulp serve --config=configName

## FAQ on Application Customizers?



- Can I change their rendering based on page mode (Display/Edit)?
- Can I share them across multiple sites?
- Do they work in "classic" mode?

# Monitoring, auditing, stats



- You can create an Application Customizer
- Make it invisible to end users
  - Simply no UI elements
  - Just code
- Use Application Insights to keep track of usage
  - Or Google Analytics
  - Or whatever else you like . . .

# Custom page content/layout



- Build custom client-side web parts with SPFx
- Place them in the pages with custom layouts
  - Customizable sections and columns
- Save "modern" pages as Page Templates
- Custom metadata for pages/news





BUILDING CUSTOM CLIENT-SIDE WEB PARTS
SINGLE WEB PART APP PAGE
PAGE TEMPLATES

### Search Experience



- The new "modern" UI still lacks a native search UI
- However in PnP there are SPFx web parts to provide almost the same experience
  - <a href="https://github.com/SharePoint/sp-dev-solutions/tree/master/solutions/ModernSearch">https://github.com/SharePoint/sp-dev-solutions/tree/master/solutions/ModernSearch</a>





"MODERN" CUSTOMIZED SEARCH EXPERIENCE WITH SPFX CLIENT-SIDE WEB PARTS

# Multi-language support



- Upcoming out of the box functionality . . .
  - Did you see the SPC19 Keynote?

- In the meantime, there is a solution from the community
  - <a href="https://github.com/SharePoint/sp-dev-solutions/tree/master/solutions/MultilingualPages">https://github.com/SharePoint/sp-dev-solutions/tree/master/solutions/MultilingualPages</a>
  - Based on SPFx Application Customizers

# What is still missing?



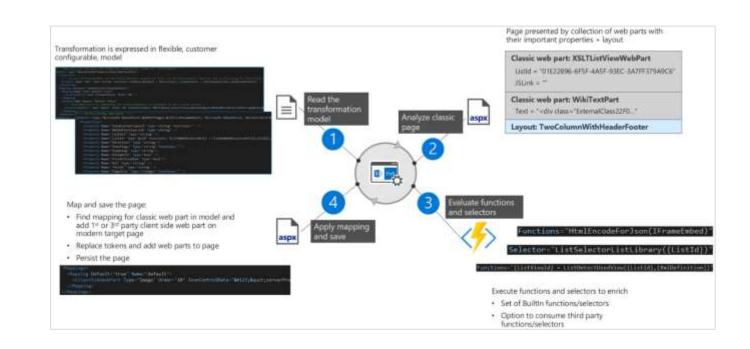
- Audience targeting for News, Pages, and highlighted content
- Content approval workflows and scheduling

• They will come in the «near» future . . .

# How can I "modernize" my existing solutions?



- Modernization Framework for SharePoint Online
  - aka.ms/sppnp-modernize
- Guidance and tooling for easy transformation from classic experiences to the modern SharePoint Online user experience
- Open Source initiative to help customers and partners in the modernization journey











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