Practical Tips for Migrating SharePoint Customizations to Office 365

How to obtain the functionality you really need in the cloud

Haniel Croitoru
Thank You!
• Bingo Cards = how you win prizes at the end of the event.
• The cards must be stamped by ALL the Sponsors by the last session (4pm)
• Fill out speakers evaluations (located in the front of the rooms)
• Fill out the event evaluations

And more … Surface Go

Xbox One X
HANIEL CROITORU

Office 365 & SharePoint Consultant

I’m passionate about business process automation
MIGRATING TO OFFICE 365
CUSTOMIZATION STRATEGY
CUSTOMIZATION APPROACHES
OPTIONS & CONSIDERATIONS
LET’S TALK – OPEN Q&A
WHY MIGRATE TO OFFICE 365

Why fix it if it isn’t broken?

• **Technical**
  • It is broken
  • Running old versions of SharePoint that are no longer supported (SharePoint 2003, 2007)
  • IT Overhead costs, such as VPN

• **Regulatory**
  • Enhanced security
  • Breaches

• **Business**
  • Better internal and external collaboration
  • Consolidate content
  • Improved user experience
  • Superior mobile access
WHAT GETS MIGRATED

Main areas of consideration when planning migrations

Information Architecture  Content  Configurations  Custom Solutions
MIGRATION OVERVIEW

General Migration Process

ANALYZE
DESIGN
MIGRATE
VERIFY
DECOMMISSION
Create an inventory of existing content and what needs to get migrated.
• What will the future state look like?
• How will the old map to the new?
• Does existing content need to be updated?
• Do we need new Governance

MIGRATION OVERVIEW - DESIGN

Before migrating to SharePoint Online, you need to set it up first!
Before migrating to SharePoint Online, you need to set it up first!

Break down migrations into logical units
Create a migration schedule that will minimize impact
Communicate often
Test out content and solution for various scenarios
Consider users, load, test data, access

💡 MIGRATION OVERVIEW - VERIFY

Verify your migration often to catch any issues early on
Old solutions can be turned off
Recover license costs, where possible
MIGRATING TO OFFICE 365
CUSTOMIZATION STRATEGY
CUSTOMIZATION APPROACHES
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LET’S TALK – OPEN Q&A
CUSTOMIZATION STRATEGY - NEED

Just because you needed it yesterday doesn’t mean you will need it tomorrow
Don’t rewrite SharePoint. Make sure your changes are justified and there’s no better alternative.
CUSTOMIZATION STRATEGY – LIMITATIONS

Working in SharePoint Online is quite different from SharePoint on-premises
### SHAREPOINT VS SHAREPOINT

What’s the difference?

<table>
<thead>
<tr>
<th>Customization</th>
<th>SharePoint On-premises</th>
<th>SharePoint Online</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master Pages / Page Layouts</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Headers / Footers</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Full Trust Solutions</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Sandbox Solutions</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Event Handlers</td>
<td>✓</td>
<td>✗</td>
</tr>
</tbody>
</table>

Etc...
Choosing Classic or Modern SharePoint sites may impact your customization strategy.
MIGRATING TO OFFICE 365
CUSTOMIZATION STRATEGY
CUSTOMIZATION APPROACHES
OPTIONS & CONSIDERATIONS
LET’S TALK – OPEN Q&A
CUSTOMIZATION APPROACHES

What’s the difference?

• Browser Configurations
• Leverage SharePoint-supported tools (e.g. Access, Excel, Visio)
• Remote Provisioning (IA, branding)
• Add-ins for SharePoint (custom, 3rd party)
CUSTOMIZATION APPROACHES

Decision matrix for solution migration

- **3rd party solution**: Contact publisher and check if there is a compatible version
- **Custom solution using ‘Server-side’ code**: Solution requires redevelopment
- **Custom solution using ‘Client-side’ code**: Solution requires redesign
MIGRATING TO OFFICE 365
CUSTOMIZATION STRATEGY
CUSTOMIZATION APPROACHES
OPTIONS & CONSIDERATIONS
LET’S TALK – OPEN Q&A
TYPES OF CUSTOMIZATIONS

Manage all project artefacts from a single location
BRANDING

Colours, Fonts, Logos, Themes
SHAREPOINT BRANDING

There are things you should and shouldn’t do

Do
• Implement colour theme
• Add logos
• Customize login page
• Change look of navigation controls
• Change layout of pages
• Make site responsive
• Include custom footer
• Make it Responsive

Don’t
• Overcomplicate things
• Customize Master Pages
• Override Office 365 Suite Bar
• Customize branding for Personal sites
SHAREPOINT BRANDING CONSIDERATIONS

What you need to think about when choosing your options

- Office 365 and SharePoint continue to evolve
- SharePoint Online is part of Office 365
- Leverage Office 365 and SharePoint Themes
- Follow Office 365 PnP development recommendations
- Use SharePoint Framework (SPFx) to customized user experience
- Respect restrictions set forth around branding customizations
TYPES OF CUSTOMIZATIONS - FUNCTIONAL

Computations, web parts, navigation, etc.
FUNCTIONAL CUSTOMIZATIONS

Provide users with a well-structured format for their information

• Traditionally,
  • Server-side solutions
  • Client-side solutions
  • 3rd party
  • Custom development
FUNCTIONAL CUSTOMIZATIONS CONSIDERATIONS
What you need to think about when choosing your options

• Scope of customization
• Skills required for creation and maintenance
• Published standards / best practices
  • SPFx
  • Office 365
  • OfficeDev PnP
• Most importantly...
I don’t always test my code, but when I do – I do it in production

DON’T BE A COWBOY
Types of Customizations - Workflow

Approvals, moving content between systems, update content based on events, timer jobs
WORKFLOWS
Capturing input from your users

• Traditionally,
  • SharePoint OOTB Workflows
  • SharePoint Designer
  • 3rd party
  • Custom
MICROSOFT FLOW
Office 365-based visual tool to quickly create workflows

• Trigger-driven service that allows users to perform actions and interact with data
• Can be triggered directly from mobile devices
• Service comes pre-packaged with many common workflow scenarios
• Create Flow templates
• Share Flows with other users
MICROSOFT FLOW
Rich Connectors Ecosystem

• Over 200 SaaS-based connectors available
• Microsoft Flow Gateway extends functionality to on-premises systems
  • SharePoint
  • SQL Server
  • Oracle
  • Informix
  • Filesystem
  • DB2
MICROSOFT FLOW
Extensibility via Expressions

• Expressions provide additional functionality to operate on content
  • String Operations
  • Collections
  • Logical Operations
  • Conversions
  • Math Operations
  • Date and Time Operations
  • Workflow Operations
  • URI Parsing
  • Object specific Manipulation
# MICROSOFT FLOW

## Pricing

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General</strong></td>
<td>Free</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create unlimited automated workflows</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>and powerful multi-step processes</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Maximum number of runs per month</td>
<td>750</td>
<td>2,000 (^1)</td>
<td>4,500 (^1)</td>
<td>15,000 (^1)</td>
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<tr>
<td>(per user)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum flow frequency</td>
<td>15 minutes</td>
<td>5 minutes</td>
<td>3 minutes</td>
<td>1 minute</td>
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<tr>
<td>Access your flows on native apps for</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>iOS and Android</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Create flows from thousands of</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
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<tr>
<td>templates available in the public</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>gallery</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Publish flows to the public gallery</td>
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<td>✓</td>
<td>✓</td>
<td></td>
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<tr>
<td>SLA</td>
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<td>99.9%</td>
<td>99.9%</td>
<td>99.9%</td>
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<td><strong>Connectivity</strong></td>
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<td></td>
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</tr>
<tr>
<td>Connect to Office 365, Dynamics 365,</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Azure SQL, and other Microsoft</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>services</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connect to common cloud-based</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>services like Twitter and Wordpress</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>using standard connectors</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connect to line of business services</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>like Salesforce and Oracle using</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>premium connectors</td>
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<td></td>
</tr>
<tr>
<td>Access on-premises data using on</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>premises data gateway</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create custom connectors to connect</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>to your own systems (per user)</td>
<td>One (^3)</td>
<td>One</td>
<td>Unlimited</td>
<td>Unlimited</td>
</tr>
</tbody>
</table>

AZURE LOGIC APPS

Azure-based visual tool to quickly create workflows

- Azure service that provides the same great features of Microsoft Flow plus integration with
  - Azure Resource Manager
  - Azure Portal
  - PowerShell
  - xPlat CLI
  - Visual Studio
  - Additional connectors
AZURE FUNCTIONS
Developer-centric service that provides increased flexibility

- Event-driven, compute on-demand service on the Azure platform (PaaS)
- Intended to run small pieces of code, or "functions," in the cloud without worrying about the underlying infrastructure it’s running on.
- Triggered by events or run on scheduled batches in Azure or 3rd party cloud or on-premises systems.
- Developer-centric (Level 300)
AZURE FUNCTIONS
Extend and integrate into other Azure and non-Azure services

- A wide range of triggers and connectors allows developers react to events in Azure services
- Data processed by Azure Functions can persist into Azure data services such as Azure storage, Azure SQL DB and Document DB
• Implement events in
  • Languages - JavaScript, C#, Python, PHP
  • Scripting options - Bash, Batch and PowerShell
• Upload and trigger pre-compiled executables
• Support seamless local development and Continuous Integration using services like Visual Studio Team Services, GitHub and BitBucket
• Developers can monitor and troubleshoot Azure Functions with logging capabilities included in the Azure Functions experience
• Access and process data from different services
AZURE FUNCTIONS
Scalable pricing model

- Consumption Plan
  - Billed on per-second resource consumption and executions
  - Includes a monthly free grant of 1 million requests and 400,000 GB-s of resource consumption per month

- App Service Plan

https://azure.microsoft.com/en-us/pricing/calculator/?service=functions
AZURE WEBJOBS
Azure App Service to run a program or script in the same context as another app

• Managed via the Azure Portal
• Can run either continuous or as a result of a trigger
• WebJobs are developed in Visual Studio
• Requires a VM
• Cost implications if there is no VM host already
WORKFLOW CONSIDERATIONS

What you need to think about when choosing your options

• Scope of workflows
• Skills required for creation and maintenance
• Accessibility to external data sources
• For Office 365-based workflow solutions, consider potential cost implications based on number of time of execution
TYPES OF CUSTOMIZATIONS - FORMS

Surveys, service requests, HR forms, polls
Traditionally,
- SharePoint list forms
- InfoPath
- 3rd party
- Custom development
MICROSOFT FORMS
Cloud-based survey, quiz, and poll solution

- Originally created for the Education community to deliver online tests
- Responsive, browser-based interface
- Share within organization or publicly
- Similar to other cloud-based solutions, the forms are automatically saved and available for sharing
SHAREPOINT FORMS AND SURVEYS

Leveraging native SharePoint functionality

• Supports multiple field types
• Surveys support branching
• Browser-based interface
• Store data directly in SharePoint lists
POWERAPPS

Your optimal flexibility for forms in Office 365

- Highly customizable user interface
- Mobile first design
- Integrate with many types of data sources/destinations
- Use PowerApps as default form for SharePoint lists
• SharePoint enables you to add Microsoft Forms and PowerApps directly to a page
# Office 365 Form Considerations

Know when to use what

## Structure

<table>
<thead>
<tr>
<th>Feature</th>
<th>SharePoint Online Item Forms</th>
<th>Microsoft Forms</th>
<th>PowerApps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variety of question types</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Logic (e.g. branching)</td>
<td>x</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Default Answers</td>
<td>✓</td>
<td>x</td>
<td>✓</td>
</tr>
<tr>
<td>Pre-load fields</td>
<td>x</td>
<td>x</td>
<td>✓</td>
</tr>
</tbody>
</table>

## User Experience

<table>
<thead>
<tr>
<th>Feature</th>
<th>SharePoint Online Item Forms</th>
<th>Microsoft Forms</th>
<th>PowerApps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usage</td>
<td>Native Browser support</td>
<td>Native Browser support</td>
<td>Dedicated App when not integrated in another app</td>
</tr>
<tr>
<td>Responsive</td>
<td>x</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Customizable Design</td>
<td>x</td>
<td>x</td>
<td>✓</td>
</tr>
<tr>
<td>Anonymous Access</td>
<td>x</td>
<td>✓</td>
<td>x</td>
</tr>
</tbody>
</table>

## Responses

<table>
<thead>
<tr>
<th>Feature</th>
<th>SharePoint Online Item Forms</th>
<th>Microsoft Forms</th>
<th>PowerApps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Export Results</td>
<td>✓</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>Integrate with Flows</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

## Usage Cost

- **SharePoint Online Item Forms**: Free
- **Microsoft Forms**: Free
- **PowerApps**: Free Version*  

*Limited functionality. Enhanced functionality requires paid subscription
TYPES OF CUSTOMIZATIONS - REPORTING

Dashboards, reports for sharing and printing
REPORTS

Provide users with a well-structured format for their information

- Traditionally,
  - SQL-based reporting (SSRS)
  - PowerPivot
  - Report Services
  - Performance Point
  - Excel Services
  - 3rd party
  - Custom development
POWER BI
Cloud-based rich data analysis and reporting

- Suite of business analytics tools that deliver data insights
- Connects to hundreds of data sources
- Provide ad hoc analysis
- Create reports and publish them on the web and across mobile devices
REPORT CONSIDERATIONS
What you need to think about when choosing your options

- Scope of report
- Static or dynamic
- Skills required for creation and maintenance
- Accessibility to external data sources
MIGRATION OVERVIEW

General Migration Process

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We work hard, we party hard! 😊
Thank You!

Organizers, Sponsors and You for making this possible.

Let’s continue the conversation

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