Powell Manager Value Proposition to Design, Deploy and Manage Office 365-based Portals

November 2019

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1. Introduction

The objective of this document is to demonstrate the value that Powell Manager offers in order to design, deploy and manage portals based on the Office 365 suite, with Microsoft SharePoint and Microsoft Teams as foundational components.

In this document, we will describe three main scenarios:

- Scenario 1: Portals based on SharePoint Out of the Box
- Scenario 2: Portals based on SharePoint Out of the Box with custom development components
- Scenario 3: Portals based on SharePoint Out of the Box with custom development components and with Powell 365 features.

It is important to note that Powell Manager enables to design, deploy and manage portals based on SharePoint Online or SharePoint On-Premise versions 2016 and 2019. Most information available in this document are valid for both configurations: Online or On-Premise.

For each scenario, we will analyze the two main steps that characterize the lifecycle of a portal:

- The first step consists of the first design and deployment of the portal
- The second step consists of its ongoing updates to respond to new business and user needs.

And we will also explain the level of dependency to Powell Software for each scenario, i.e. how much a customer is dependent for each scenario on its Powell Software subscriptions to run an Office 365 portal.

Finally, we will talk about the different functionalities that Powell Software offers to design and manage Microsoft Teams

2. Executive Summary

Across organizations, the development and ongoing management (updates) of any SharePoint based portal can come with challenges of time, resource availability and technical know-how to enable the rapid changes that come with business demands. As companies become stretched for time and aim to optimize the utilization of their technical and functional resources, Powell Manager has been developed as a solution to address these time and resource constraints.

Powell Manager is a provisioning platform specifically developed to allow the easy design, deployment and management of site templates and features to your Office 365 SharePoint Online and Microsoft Teams applications. The tool allows you to create and manage your templates, themes and navigations across all (or target) sites with a few simple clicks. Furthermore, it offers Powell 365 features, functionalities and pre-built templates that provide no code, custom branded intranet portals to organizations. Product developers can further customize their solution by leveraging the SPFx extensions and development tools available.

Through tested and proven implementations with clients, Powell Manager has demonstrated its value in being able to streamline and industrialize the management of any SharePoint based portal. As an example, when compared to using SharePoint Out of the Box or Dev PnP schemas, Powell Manager enables the reduction of workloads and time to delivery by a factor of 2 to 10 across the whole lifecycle of a portal project (build and run phases).

This type of efficiency saving is why more companies are leveraging the capabilities of Powell Manager as an integral part of their management tool portfolio. Additionally, because Powell Manager allows all level of IT staff to quickly build and deploy ‘no code’ solutions to their O365 tenant, site governance can be conducted in a simplified and organized way. This removes discrepancies in configuration and coding standards across the organization and allows for easier technical repair and remediation if needed.

To highlight how easy Powell Manager can be implemented within your organization, below are the three main capabilities of the tool:

Design - Powell Manager requires no code in enabling the customization of templates. Rather, it allows the user to intuitively build desired templates through a user-friendly interface where they can choose from multiple pre-built templates and Powell 365 features. Where necessary, further customization of templates can be made possible with custom code.

Deploy - Deployment of templates has never been easier with Powell Manager. The Tenant Administrator can start the provisioning process with a few simple clicks. This is done via the intuitive user interface by applying the new templates to target sites. The Tenant Administrator also has the

ability to deploy the site templates either as a site design in the Office 365 tenant for site provisioning, or via Powell Manager site collection provisioning.

Manage - Successful portal solutions are updated regularly to match the organization business needs. The functionality of Powell Manager extends far beyond merely designing and deploying the first phase of a portal solution. The tool allows for easy iterations and improvements to be made to your intranet sites through the easy modification and syncing of templates across multiple sites. As a result, valuable time and critical resources are saved by a factor of 2 to 10

3. Main Terms Definition

Information architecture: Set of rules that defines how the information is organized across the SharePoint portal.

SharePoint artefacts: Any SharePoint components that are deployed in a SharePoint portal. A SharePoint portal is composed of all the SharePoint artefacts that have been deployed. All these SharePoint artefacts are configured to comply with the Information Architecture that has been defined.

An enterprise portal can easily contain hundreds or thousands of artefacts.

SharePoint templates: Configuration of a SharePoint component (lists/libraries, pages, sites, site designs) that can be reused and deployed as SharePoint artefacts.

4. Scenario 1: Portals based on SharePoint Out of the Box

a. Phase 1: Portal Design

Designing a SharePoint portal consists of designing an information architecture that includes the following SharePoint artefacts:

- Content Types & fields
- Lists/Libraries
- Pages
- Sites
- Site Collections (including portal hubs and homesites tomorrow)
- Site Design
- Navigation / Mega menus
- Themes

i. Manual Approach

Designing and implementing a SharePoint portal consists of building all SharePoint artefacts described above one by one. A portal that requires numerous lists and libraries and is composed of tens of pages and site collections will have to be built manually one artefact after the other. It requires a significant effort and it can provide a lot of errors due to human actions as it is impossible with SharePoint Out of the Box to replicate any of these artefacts and it is impossible to re-use any configuration across other site collections and O365 environments.

ii. PnP Schemas

The alternative to building a portal manually is to implement re-usable components and Microsoft development practices such as PnP Schemas and Site Designs.

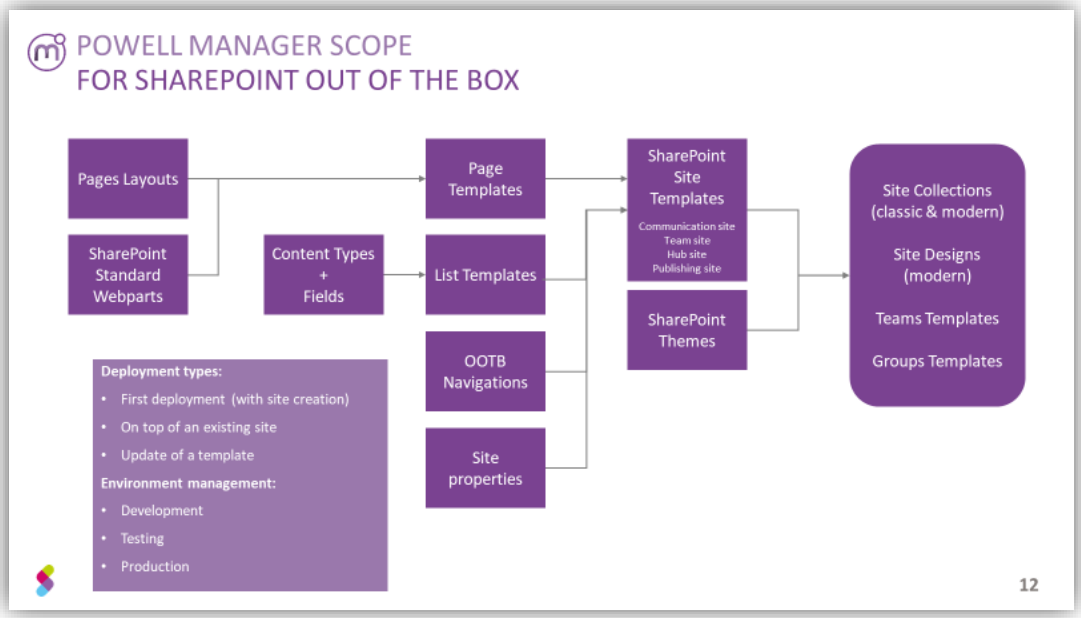
PnP schemas enable to design and deploy all SharePoint artefacts as mentioned above. It requires specific development expertise in both SharePoint and the PnP schemas in order to manage the XML files that are used to design and deploy the SharePoint information architecture. It is a cumbersome approach that is intended to be a one-off solution to accelerate design and initial deployment.

iii. Building a SharePoint Out of the Box Portal with Powell Manager

Powell Manager enables to design and deploy ALL the SharePoint templates and artefacts that will compose the portal:

- Content Types
- Lists/Libraries templates
- Pages layout templates
- Pages templates
- Site templates (including Homesites tomorrow)
- Site Designs
- Site Collections
- Navigation / Mega Menus
- Themes

The slide below summarizes all SharePoint objects that Powell Manager manages:



Powell Manager manages all the SharePoint Information Architecture. However, it is important to note that Powell Manager doesn't manage User Authentication. All security related topics are left to Microsoft.

Instead of building these artefacts manually one by one as described above or with Dev PnP schemas that require writing PowerShell scripts, Powell Manager enables to design all templates with a WYSIWIG

tool and deploy these templates as artefacts in an Office 365 / SharePoint tenant. . It enables to create a full fledge repository of templates that can be reused and modified at will. It enables to deploy these templates as many times as needed. It provides a full fledge view of the portal information architecture.

Powell Manager provides a lot of value if a company wants to design an elaborate information architecture where multiple templates will be used multiple times to deploy tens, hundreds or thousands of artefacts.

iv. Comparison of the 3 methods

You will find below tables that summarizes the methods described above and highlights the differences between each method.

Times to configure and deploy templates are based on Powell Software's extensive experience in deploying SharePoint portals with or without Powell Manager. Although these figures can always be challenged and revised in a specific context, we believe that they are relevant and that they translate a honest view of the reality of a SharePoint project. Of course, we are available to discuss these data points with the readers of this document.

Method overview:

Methods	SharePoint Profile	Template configuration	Template deployment method
SharePoint Out of the Box	SharePoint Business Consultant	1 day	Each template is built manually directly into SharePoint
Dev PnP	SharePoint Developer	3 days	Creation of Dev PnP Schemas + Tests + PowerShell Command to deploy
Powell Manager	SharePoint Business Consultant or Developer depending on portal's scope	1 day	Each template is built into Powell Manager and is deployed with a sync button.

The most common scenario for building a SharePoint portal, based on our experience, is around 10 templates for an intranet project. Theses templates are replicated several times depending on the size of the company.

Workload differences depending on SharePoint deployment sizes:

	10 different templates deployed 1 time only each	10 different templates deployed 10 times each	10 different templates deployed 50 times each	10 different templates deployed 100 times each
SharePoint OOB	**10 days**	**100 days**	**500 days**	**1000 days**
Dev PnP	**Total: 32 days**	**Total: 50 days**	**Total: 120 days**	**Total: 230 days**
Configuration: 3 days	30	30	30	30
Deployment: 0.2 day / template	2	20	100	200
Powell Manager	**Total: 11 days**	**Total: 20 days**	**Total: 60 days**	**Total: 110 days**
Configuration: 1 days	10	10	10	10
Deployment: 0.1 day/ template	1	10	50	100

In summary, based on our extensive experience in deploying Enterprise portals on SharePoint and based on the comparison table above, we estimate that Time to Delivery and Workloads for a SharePoint out of the Box portal can be divided by a factor of 2 to 3 between using Dev PnP Schemas and Powell Manager.

Data in the table above are conservative. For example, one Powell Software customer headquartered in New York launched its Powell 365 portal in March 2019. It currently has 7,000 users using the portal. After a couple of weeks only, one site template had already been deployed more than 300 times. It also do not take into account changes in the build step when you need to apply a change after the deployment because you forget a feature or you are not satisfied with a feature you defined in the specification step and you need to apply a fix before the launch of the portal.

Cost Gain versus Powell Manager price:

	10 different templates deployed 1 time only each	10 different templates deployed 10 times each	10 different templates deployed 50 times each	10 different templates deployed 100 times each
Time gain between Powell Manager and SharePoint OOB or Dev PnP	-1 day	+ 30 days	+ 60 days	+ 120 days
Cost gain	$ -1,000	$30,000	$60,000	$120,000

Powell Manager enables to industrialize and scale. The more SharePoint-based portals will be designed and deployed, the more value Powell Manager will provide to industrialize the design and deployment phases.

b. Phase 2: Portal Updates

A portal is not a static information system that will remain as is for the next 3 to 5 years. It will evolve on a very regular basis. End-users will provide feedback and ask for updates. Business will evolve as well and will require to adapt the portal.

"Portals are not used and die because they are not updated. Only portals that are updated on a regular basis are relevant for end users and businesses."

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i. Manual Approach

Updating a SharePoint portal with Out of the Box functionalities is very cumbersome. You will need first to identify where the component that you want to update has been deployed. SharePoint doesn't offer any automatic tool for this purpose. And in a second step, you will have to update this component manually across all artefacts one by one where it has been deployed.

Let's take two examples

Let's assume that a template used to manage engineering projects has been deployed 50 times in order to manage the 50 projects that the company is currently running. And let's assume that the finance leadership has decided to update the Finance Project KPIs. It requires to update the 50 projects manually the ones after the others. It is time consuming and it is prone to manual errors.

Let's assume that the layout of the HR portal deployed across the 15 sales agencies and 10 manufacturing units of the company has to be updated in order to present specific information differently. As described above, with SharePoint Out of the Box, all these updates are manual.

It is also important to highlight that before doing the manual updates, you will have to identify manually where the components have been used.

ii. PnP Schemas

PnP schemas don't offer any update functionalities. The process will be as follows:

- First, identify all existing SharePoint sites that are using the template that needs to be udpated.
- Second, write a new DevPnP Schema that will update all the sites.
- Third, test this schema.
- Fourth, deploy the DevPnP Schema with a PowerShell command.

In a nutshell, it is a cumbersome process and PnP schemas are not sustainable for regular updates on a large scale.

iii. Updating a SharePoint Out of the Box Portal with Powell Manager

Powell Manager enables to automate and industrialize portal updates. With Powell Manager, you can update a template once and redeploy it in a couple of clicks.

Powell Manager identifies and lists all templates deployed as artefacts. It also identifies manual configuration updates that may have occurred on SharePoint. You can decide where you want to deploy the update and whether you want to keep the manual updates or whether you want to erase them.

In the case of the Finance Project KPIs described above, you simply need to update the Engineering project template once and redeploy it. It will automatically update the 50 impacted deployed sites.

Same with the HR portal. You update the layout to respond to the new business needs and you redeploy. It is done in a couple of clicks.

Powell Manager accelerates significantly the time to delivery. It also significantly improves quality as it eliminates manual errors.

iv. Comparison of the 3 methods

In this scenario, we will suppose that you need to apply 10 template updates to your portal in a year.

See table below with workload estimation for portal updates:

	10 template updates deployed 1 time each	**10 template updates. Templates deployed 10 times**	**10 template updates. Templates deployed 50 times each**	**10 template updates. Templates deployed 100 times each**	**20 template updates. Templates deployed 100 times each**
SharePoint OOB Update = 1 day	**10**	**100**	**500**	**1,000**	**2,000**
Dev PnP Update = 3 days Deploy = 0.2 days	**32** 30 2	**50** 30 20	**130** 30 100	**230** 30 200	**460** 60 400
Powell Manager Update = 1 day Deploy = 0.1	**11** 10 1	**20** 10 10	**60** 10 50	**110** 10 100	**220** 20 200

As you can read above, same factors of 2 to 3 are estimated between using Dev PnP and Powell Manager. And the more templates will be updated and deployed, the more value Powell Manager will provide. You can also see that it becomes totally unmanageable with the out-of-the box approach.

c. Dependency to Powell Software in Scenario 1:

Customers are not dependent to Powell Manager at all. They can stop their Powell Manager subscriptions anytime. All the SharePoint Out of the Box artefacts deployed to their Office 365 / SharePoint tenants from Powell Manager will continue to run 100%.

In reality, all our customers that are using Powell Manager in Scenario 1 keep their subscription because it enables them to update their portals with all the advantages described above.

5. Scenario 2: SharePoint Portals with Custom Development:

a. Phase 1: Portal Design

Most often, SharePoint Out of the Box features don't meet all business requirements for a mid-size or enterprise organization. Therefore, SharePoint offers the possibility to extend the SharePoint OOTB features with custom coded components.

i. Implementing Custom Components in SharePoint Out of the Box

SharePoint enables developers to extend functionalities with the SPFX framework in order to develop additional web parts and portal extensions. Developers require web development skills such as TypeScript, Json, SP Object Model, Node.JS, Graph API, etc.

Building SPFX custom code may better meet the needs of an organization but, as every custom development, it requires significant effort and expertise in order to 1/ design, 2/ build and 3/ test these components. SPFX custom code can also be regularly impacted by two factors: the SPFX rapidly evolving framework and the SharePoint / O365 ongoing updates. All these updates require ongoing maintenance that is costly and has an impact on the reliability of the portal.

Once designed, these custom components will have to be integrated into the different SharePoint artefacts of the Portal Information Architecture. If a custom component is intended to be used across multiple artefacts, it will have to be integrated manually across all these multiple artefacts.

For example, a company may want to develop a specific mega menu and a specific theme that match its specific business requirements and branding. These specific mega menus and themes are SPFX extensions in SharePoint. They will have to be integrated manually across all the SharePoint sites and pages of the information architecture where they are required to be used.

ii. Dev PnP Schemas

Dev PnP Schemas can be used in order to deploy SharePoint templates with custom components the same way as described above for SharePoint Out of the Box components.

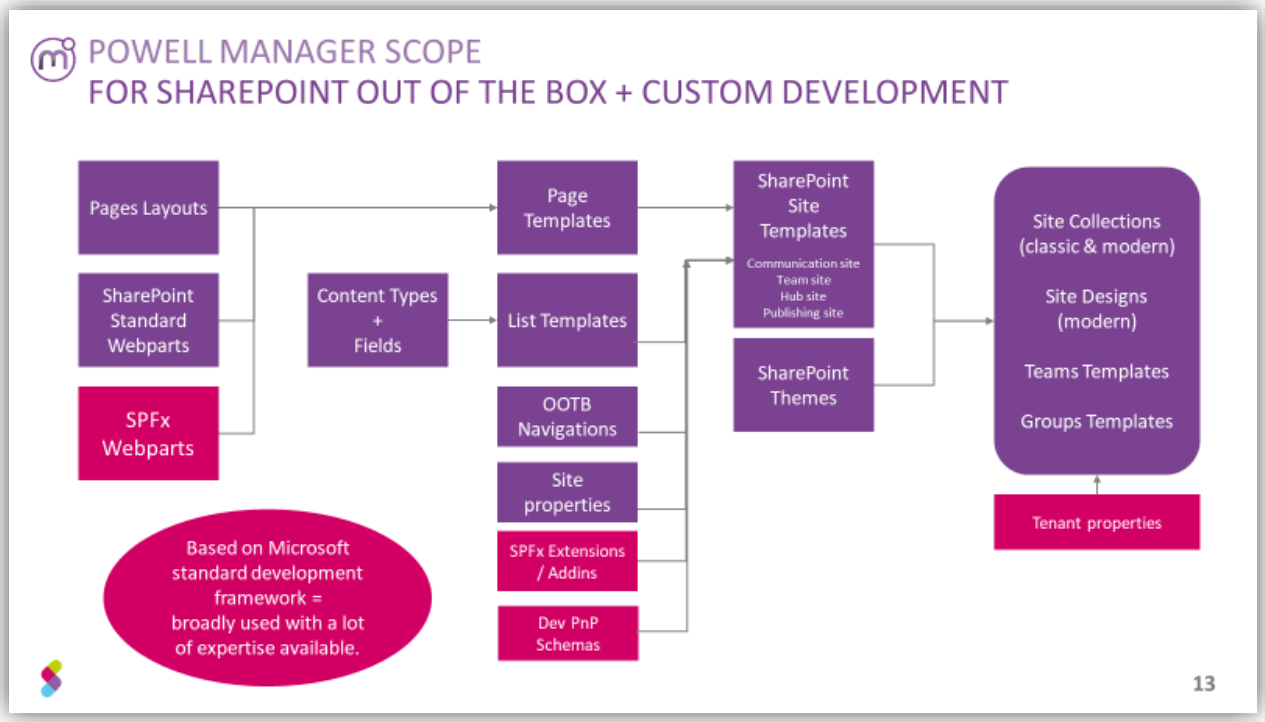
iii. Implementing Custom Development Components with Powell Manager

In Powell Manager, it is possible to upload all custom development components (SPFX webparts and components) and to integrate them into all SharePoint templates.

It significantly facilitates the management of these custom components. Instead of having to integrate these components one by one across all the portal artefacts, you integrate them only once into the different templates that you deploy with the integrated custom components.

The SPFX components will be part of the repository of SharePoint components that will be managed by Powell Manager.

See overview slide:



The workload and time to delivery ratios described in the table above are the same for the design of a portal with SharePoint Out of the Box or with SharePoint including SPFX custom development.

b. Phase 2: Portal Updates

i. Updating Custom Components with SharePoint Out of the Box

It is important to underline that SharePoint custom components may need to be updated often for two main reasons:

- The SPFX framework is evolving rapidly
- The Office 365 / SharePoint platform is a Saas service that is updated on a regular basis - sometimes without any notice or very short notice from Microsoft.

Like all custom development in IT, managing these updates can be cumbersome and costly. You need 1/ to identify the technical issue, 2/update the code of the custom component, 3/test the quality of the code and 4/redeploy the updated code.

All these different steps are costly and require a lot of time. They can be even more challenging if the resource that developed the original custom development left the organization.

Also, in SharePoint, you have no way to identify easily in which SharePoint pages the custom component has been used. You need first to identify manually where the custom components have been used and then you need to update all SharePoint pages the ones after the others.

ii. Dev PnP

Dev PnP faces the same challenges as described in the section for SharePoint Out of te Box. Dev PnP doesn't update but fully redeploys.

iii. Updating Custom Components with Powell Manager

Powell Manager will not help to update the code and test the custom components. These steps are processed externally from Powell Manager with the SPFX framework.

But Powell Manager will significantly help to redeploy the updated custom components. Instead of having to update all SharePoint pages one by one, Powell Manager enables to update all the pages automatically.

The same logic applies as for SharePoint Out of the Box.

If a custom code has been deployed 50 or 100 times across 50 or 100 SharePoint pages, Powell Manager provides a big benefit. The workload and time to delivery ratios described in the table above are the same for the update of a portal with SharePoint Out of the Box or with SharePoint including SPFX custom development.

iv. Dependency to Powell Software in Scenario 2

Customers are not dependent to Powell Manager at all. They can stop their Powell Manager subscriptions anytime. All the SharePoint Out of the Box artefacts and custom development components deployed to their Office 365 / SharePoint tenants from Powell Manager will continue to run 100%.

In reality, all our customers that are using Powell Manager in Scenario 2 keep their subscription because it enables them to update their portals with all the advantages described above.

6. Scenario 3: SharePoint portal with Powell 365 features

Powell 365 offers powerful components that enable to streamline the design and the updates of the portal. However, as it has been explained above, it is not required to use them. You can use Powell Manager without using Powell 365 features.

Key benefits of Powell 365 features:

- They offer functionalities that are not delivered by SharePoint Out of the Box
- These functionalities are managed and updated by Powell Software as part of the Powell 365 license fees. You don't have to take care of their maintenance.
-

a. Main functionalities offered by Powell 365 and not offered by SharePoint Out of the Box

You will find below the list of the main components that are available with Powell 365 and not available with SharePoint Out of the Box:

i. Multilingual Capabilities

Powell 365 offers two types of multilingual capabilities:

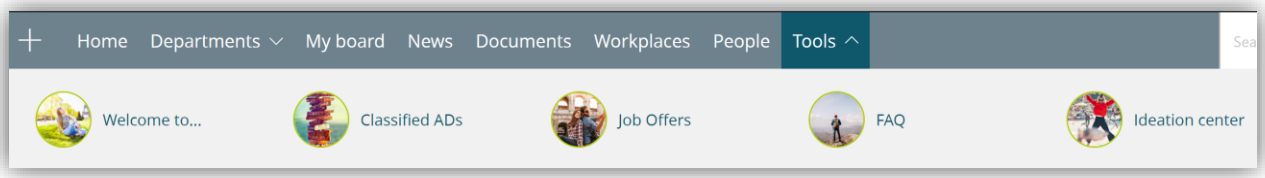
- Dynamic Translation on demand of any page based on Bing or Google translate or the Azure translation cognitive services
- Full multilingual capabilities in order to offer a multilingual portal based on end-user language configuration

ii. Mega Menu Design and Management

Powell 365 mega-menus offer powerful options that are required by most companies and not available in SharePoint Out of the Box:

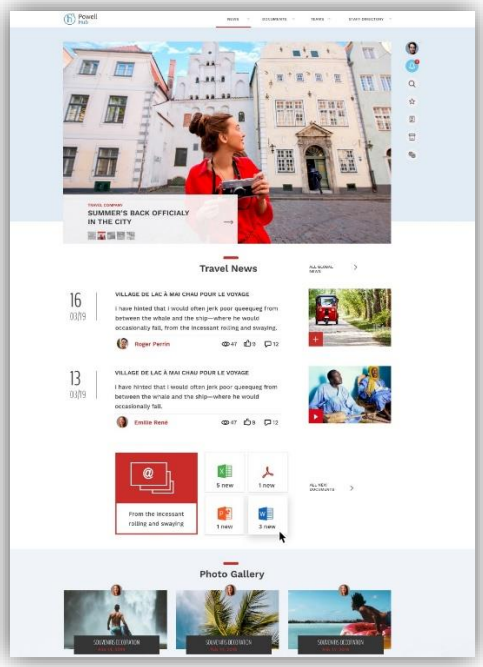
- Mega menu based on end-user context: authorizations, locations, etc. Because Mega Menus leverage search capabilities, the end users will only see the menus that are relevant to them.
- Multi-lingual capabilities: same menu will appear in different languages depending on end-user configuration

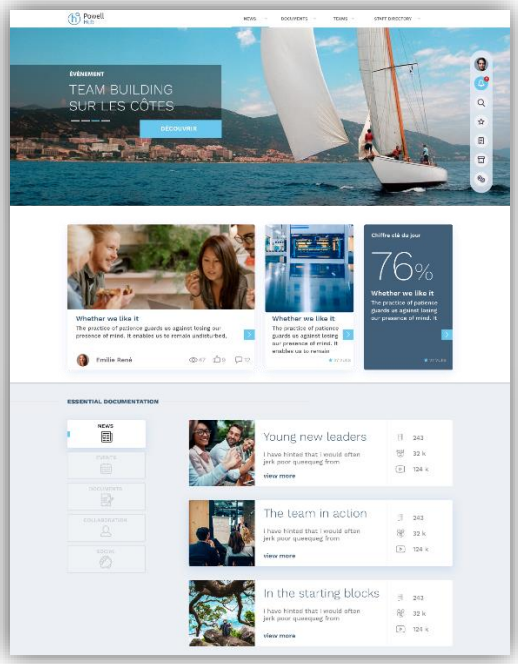
- Three-level mega menu (instead of two with SharePoint Out of the Box).
- Advanced theming capabilities to adapt to Companies' branding policy



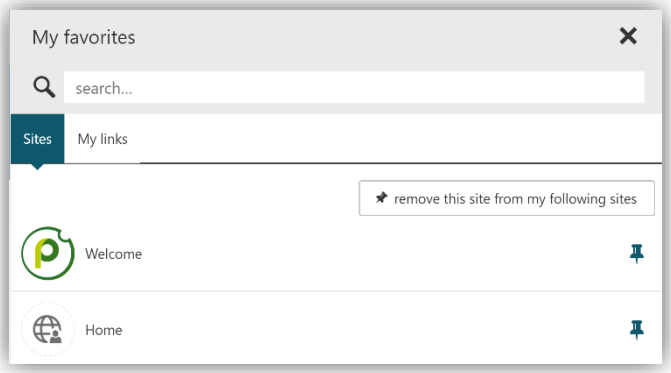
iii. Themes Management

- Powell 365 offers multiple themes that enhance the SharePoint Out of the Box themes. New themes are regularly available.
- Within these themes, all customers can add their own branding styles aligned to their specific branding strategy.
- Powell Manager enables to manage a repository of themes that can be duplicated (for different countries or subsidiaries or businesses for example) and that can be used and updated across all templates, all site collections and site designs.



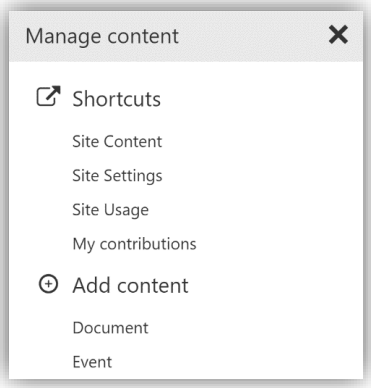


iv. Management of Favorites



Pin and organize any SharePoint sites or pages and any external links as favorites in your SharePoint portal.

v. Content Creation and Update with the Powell Gear

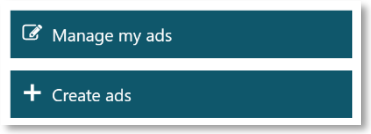


The Powell Gear simplifies significantly how content is created and updated in SharePoint. It provides guidance based on the templates designed in Powell Manager.

With the Powell Wheel, you can create and edit sites, pages, lists and libraries based on structured templates designed in Powell Manager.

It makes sure that content is created and updated in full alignment with the defined information architecture.

In addition to the Powell Gear, Powell 365 offers a web part to create and edit SharePoint content directly from the page.



vi. Webpart Portfolio

Powell 365 offers an incomparable set of 47 webparts. All these webparts offer business features that are not available in SharePoint Out of the Box. These business features have proved to be very relevant as they have been designed based on real customer requests coming from the 200 customers that are currently using Powell 365 and that Powell Software is working closely with.

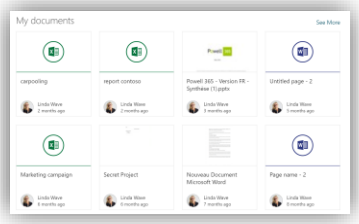
New webparts are added on a regular basis depending on customers' demands.

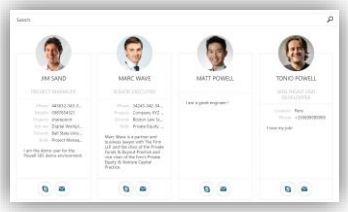
You will find below a short description of the most important webparts:

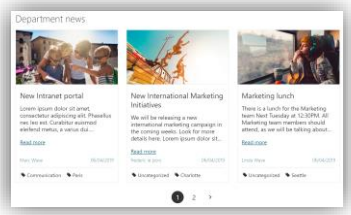
1. Search Webpart

Powell Software offers one of the most powerful Search webpart on the market. It enables to search by content types, site templates and specific paths. You can add and combine these search criteria as much as needed. The Powell 365 webpart enables to search any type of Office 365 content with many different search criteria and showcase them as search results in 40+ displays. And all these displays can be further customized by the customers.

You will find below a couple of display examples:







Finally, the Powell 365 Search Webpart enables the end-users to configure the Search results themselves, the way they want based on any Search criteria.

2. Graph API Web Part

The Graph API Webpart is similar to the Search Webpart. However, it leverages the Graph API instead of the Search API.

Advantage: Results are immediate because the Graph API doesn't require any indexing.

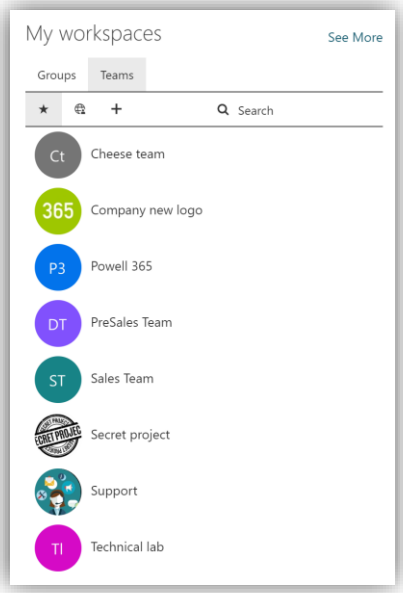
Limitations: It is not possible to search across multiple site collections contrary to with the Search webpart.

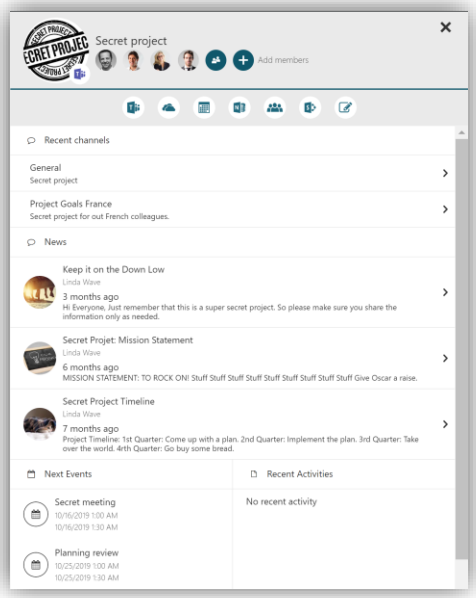
The Graph API offers the same broad variety of display as the Search API.

3. Teams Web Part and Teams Dashboard

The Teams Webpart enables to display all the following information:

- List all favorites Teams
- List all Teams
- Search Teams
- Display and edit conversations in Channel
- Display Teams news
- Display next events
- Display recent activities
- Add Teams members
- Display update notifications
- Direct access to Teams





4. Yammer Webpart:

The Powell 365 webpart offers several features that are not available in the SharePoint Out of the Box webpart and that are very valuable. It includes:

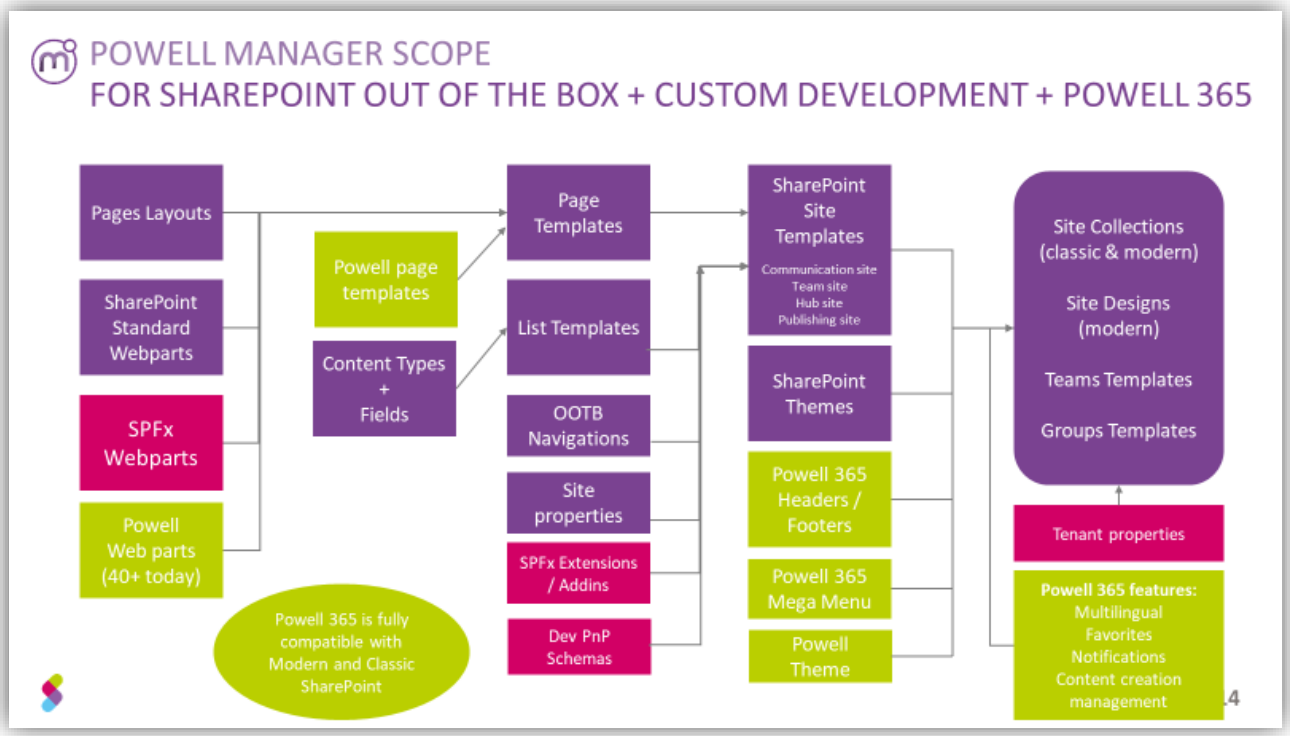
- Manage attached document
- Switch Groups
- Praise & Announcement management

5. Powell 365 Discussion Webpart

It replaces Yammer capabilities for the customers that don't want to deploy Yammer or for customers that want to deploy portals based on SharePoint On Premise (2016 or 2019). All content is stored on SharePoint. It simplifies external sharing, offers multilingual capabilities and enables targeted deployment.

b. Powell 365 additional features coverage

The slide below summarizes the scope of Powell Manager with Powell 365 features.



For a complete overview of the Powell 365 benefits you can read the associated document: **Powell 365 + Powell Manager and the SharePoint Modern experience.**

c. Cost Comparison between Powell 365 and Custom Development

The Powell 365 features described above represent a development workload above 4,000 days which means that it represents a value of at least $2 Million.

Developing a set of limited features that could be compared with the Powell 365 features would represent a total cost of build of at least $1 Million.

Also, Powell 365 license fees include all updates and support on existing Powell 365 features. It also includes ongoing improvement, new webparts and new Powell 365 features. Updating and supporting similar features in a custom development model would cost at least $500K / year.

d. Time to Delivery Comparison between Powell 365 and Custom Development

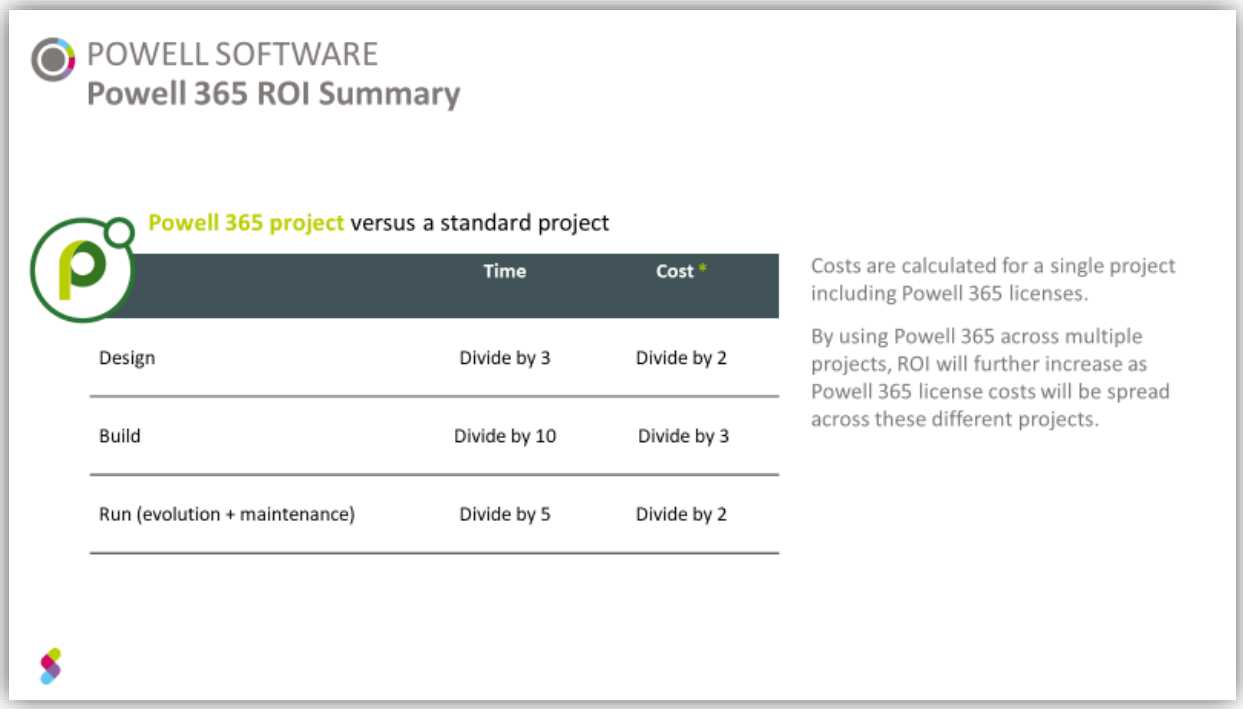
Once discovery phase and information architecture are validated, all Powell 365 features described above can easily be configured and implemented within an Enterprise organization in a couple of weeks.

Similar – although functionally and technically more limited – custom development features will require 1/ design, 2/build, 3/ testing and 4/ deployment phases. It would take at least 1 year of time to delivery.

Same comparison logic would apply with ongoing updates. Powell 365 updates can be deployed in hours or days while custom development updates will be deployed in weeks or months as they would require 1/ to identify where the custom components have been deployed, 2/ to update the code, 3/ to test the custom development code and 4/ to deploy it again.

In summary, based on our experience, we estimate that time to market is reduced by a factor 10 for the build and run phases between Powell 365 and custom development implementations.

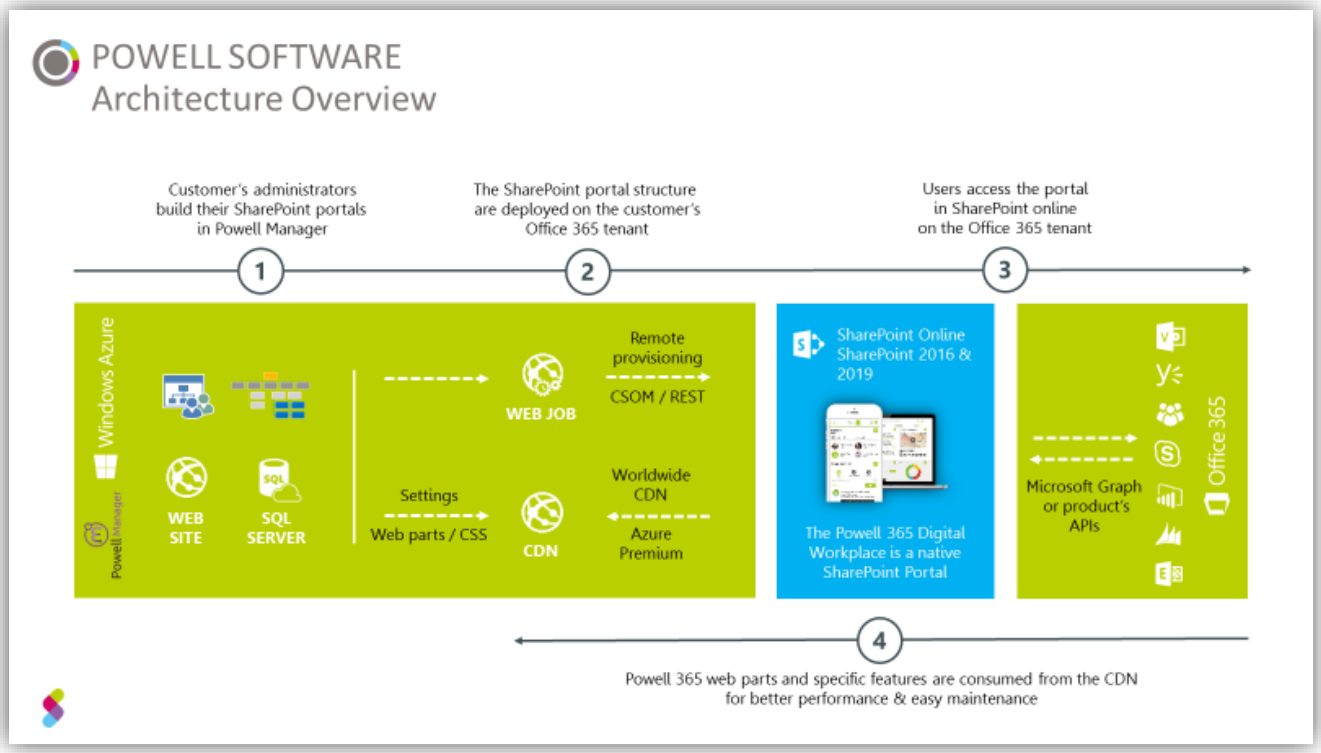
See summary slide below:



e. Dependency to Powell Software in Scenario 3

Customers are not dependent on Powell 365 subscriptions for all SharePoint artefacts and custom development components as described above for scenarios 1 and 2.

However, customers are dependent on their Powell 365 subscriptions in order to use the Powell 365 features and webparts that are integrated into the SharePoint artefacts. All these Powell 365 components are deployed on a Microsoft Azure CDN and are called by the SharePoint artefacts in a dynamic way. See architecture slide below.



This architecture significantly simplifies updates and maintenance. All Powell 365 components are updated once on the Microsoft Azure CDN. And these updates are immediately available to all customers. There is no need for individual redeployment customer by customer.

If the Powell 365 subscription ends, access to the Powell 365 features on the Microsoft Azure CDN stops as well. All SharePoint artefacts remain fully deployed. All Information Architecture remains intact: Content Types, List/Library Templates, Page Templates, Site Templates, Site Collections, Site Designs. But all Powell 365 components cannot be used anymore.

It is important to underline that these Powell 365 components replace Custom Development components whose maintenance can be by nature challenging and costly, even uncertain. With more than 200 customers and a global team of more than 50 people, we believe that Powell Software offers more guarantee and better service to maintain and update its components to its customers than one-off custom components that would be developed for the needs of one specific customer.