App Catalog Management

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# Overview

This document will give an overview of the “App Catalog Management” proof of concept solution for SharePoint On-Premise and Online environments. This solution will allow development groups to help manage custom SharePoint applications requests for the tenant app catalog. A main group identified as approvers will have the ability to approve and deploy/retract solutions from the tenant app catalog.

# Requirements

This JavaScript (client-side) solution is designed to run in a SharePoint 2013+/Online environment. It utilizes the following features in SharePoint:

* Document Set Content Type
  + Site Collection Feature
* Security Groups
  + App Developers – Ability to add app requests
  + App Approvers – Ability to approve and deploy apps to the tenant app catalog
    - Must have security rights to the tenant app catalog

Currently, the solution utilizes a classic webpart page and a content editor webpart. The solution can be updated as a SPFx solution.

## Installation

### Upload Solution Assets

1. Access the site collection to install the solution to
   1. It’s recommended to create a new site collection for this solution
2. Upload the SharePoint solution assets to the “Site Assets” library

Table

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Figure 1 - Solution Assets

* 1. app-catalog-dashboard.js/app-catalog-dashboard.min.js
     1. JavaScript solution bundled file
  2. config.json
     1. Configuration specific to the client’s environment
  3. dashboard.aspx
     1. Web Part page for the solution (Created in the next step)
  4. index.html
     1. Referenced by the content editor webpart
  5. user\_agreement.html
     1. User agreement content that is customizable by the client

### Create Dashboard Page

1. Access the “Site Pages” or “Pages” library
2. Select the “New” menu button and select “Web Part Page”

Graphical user interface, application

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Figure 2 - Create Web Part Page

1. Set the values and click on “Create”

Graphical user interface, text, application

Description automatically generated

Figure 3 - Web Part Page Creation

1. Click on “Add a web part” and select the “Content Editor” webpart

Graphical user interface, application, Word

Description automatically generated

Figure 4 - Add Content Editor Web Part

1. Edit the web part and set the content link and chrome type properties

Graphical user interface, text, application

Description automatically generated

Figure 5 – Content Editor Web Part Properties

1. Click on “Install” to create the SharePoint solution assets, and then “Security” to create the security groups used by the solution

Graphical user interface, text, application, email

Description automatically generated

Figure 6 - Installation Modal

1. Once the installation completes, click on the “x” button to close the modal and select “Stop Editing” from the ribbon

Graphical user interface, application, Word

Description automatically generated

Figure 7 - Complete Web Part Page Edits

### Configure Document Set Homepage

1. Access the “Developer Apps” library settings

Graphical user interface, application

Description automatically generated

Figure 8 - Developer Apps Library Settings

1. Click on the “App” content type under the “Content Types” section

Graphical user interface, text, application, email

Description automatically generated

Figure 9 - Document Set Content Type

1. Click on “Document Set Settings”

Graphical user interface, text, application

Description automatically generated

Figure 10 - Document Set Settings

1. Click on the “Customize the Welcome Page” link

Graphical user interface, text, application

Description automatically generated

Figure 11 - Edit the Document Set Homepage

1. Edit the Page

Graphical user interface, application, Word

Description automatically generated

Figure 12 - Edit Document Set Home Web Part Page

1. Delete the Image Webpart

Graphical user interface, application

Description automatically generated

Figure 13 - Delete Image Web Part

1. Delete Document Set Properties

Text

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Figure 14 - Delete Document Set Properties Web Part

1. Delete Document Set Contents

Graphical user interface, text, application, email

Description automatically generated

Figure 15 - Delete Document Set Contents

# Solution

## User Agreement

Graphical user interface, text, application

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Figure 16 - User Agreement

A user agreement will be displayed for any user that doesn’t belong to either the “Developers” or “Approvers” security group. Clicking on “Agree” will automatically add you to the developer’s security group.

Graphical user interface, text, application, email

Description automatically generated

Figure 17 - User Agreement HTML File

The user agreement can be found in the “Site Assets” library as part of the solution assets. SharePoint Online has a built-in text editor which will allow the administrators to edit the file contents and add their policy requirements.

## Configuration

Graphical user interface, text, application

Description automatically generated

Figure 18 - Solution Configuration

A JSON (config.json) file is used to hold the solution’s dynamic configuration options.

* (Optional) appCatalogAdminEmailGroup
  + The email user/group that is CC’ed on emails sent to the approvers
* (Optional) appCatalogUrl
  + The url to a site collection app catalog
* (Optional) helpPageUrl
  + The url to a page for additional help
  + Displays a dropdown on the app dashboard if set
* (Optional) templatesLibraryUrl
  + The url to the templates library’s (root-folder or sub-folder) containing template documents
  + Displays a dropdown on the app dashboard if set
* (Required) tenantAppCatalogUrl
  + The url to the tenant app catalog

## Main Dashboard

Graphical user interface, application

Description automatically generated

Figure 19 - Main Dashboard

The main dashboard will display the app requests and current status from all developers.

### Admin Navigation Menu

Graphical user interface, text, application, chat or text message

Description automatically generated

Figure 20 - Administration Menu

The “Admin” navigation menu will be made available for the members of the approver group. This menu will provide links to the security groups used by this solution so they are able to add/remove users. The “Manage App” option will display the “Installation” modal allowing an administrator to reinstall the solution, as shown in the figure below.

Graphical user interface, text, application, email, Teams

Description automatically generated

Figure 21 - Administration Installation Menu

This function should only be used for future upgrades when new fields have been added.

### Developer Navigation Menu

The developer menu is available for all users in the developer or approver security groups.

#### Add/Update an App

Graphical user interface, text, application

Description automatically generated

Figure 22 - Add/Update an App

Clicking the “Add/Update” button will display a file upload window, allowing the user to select a SPFx package file, as shown in the figure below.

A screenshot of a computer

Description automatically generated with medium confidence

Figure 23 - Upload SPFx Package

Once validated and uploaded, a “New App” form will be displayed for the developer to fill out. Some of the metadata will be pre-filled by the data extracted from the SPFx package file.

Graphical user interface, text, application, email

Description automatically generated

Figure 24 - New App Form

#### Filters

Text

Description automatically generated

Figure 25 - Filtering the Dashboard

Clicking on the “Filters” button will display a panel to view apps by status, as shown in the figure below.

Graphical user interface, text, application

Description automatically generated

Figure 26 - Filters Panel

#### Refresh

Graphical user interface, text, application, chat or text message

Description automatically generated

Figure 27 - Refresh the Dashboard

The refresh button will load the latest data for the user.

### Dashboard Actions

Graphical user interface, text, application

Description automatically generated

Figure 28 - Dashboard Actions

Each app will have a set of available actions. The actions will be made available based on the app’s status.

* Details
  + Redirects the user to the app dashboard
* Edit
  + Displays the item form in edit mode
* Submit
  + Submits the application for review
* Review
  + Creates/Continues an app assessment
* Reject
  + Sends the application back to the developer

## App Dashboard

Graphical user interface, application, website

Description automatically generated

Figure 29 - App Dashboard

The application dashboard contains information about the app and all related files for the application.

### Navigation Options

#### Breadcrumb

The breadcrumb’s “App Dashboard” will redirect the user to the main dashboard when clicked.

#### Documents

Graphical user interface, text, application

Description automatically generated

Figure 30 - Documents View

The documents view will contain all of the files related to the application. A templates folder can be linked to the application by the configuration settings. If present, a dropdown will be made available for the user.

#### Templates

Graphical user interface, text, application, chat or text message

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Figure - Templates Dropdown

The templates dropdown will display the available templates. Clients can utilize this feature along with guidance set in the help page for their defined review and approval processes. Selecting a template will copy it to the app’s folder.

Graphical user interface, text, application

Description automatically generated

Figure 32 - App Documents

Office files will have the “Edit” button made available for the user to easily open in the associated application. The user will have the ability to download and delete the files, with the exception of deleting the .sppkg file.

#### Help

Graphical user interface, text, application, email

Description automatically generated

Figure 33 - Help Page

The optional help page that is configurable by the solution’s configuration file. This will display a help page in a new window/tab.

Figure 34 - Application Request Assets

### Application Dashboard Actions

Graphical user interface, application

Description automatically generated

Figure 35 - Application Dashboard Actions

The application dashboard will display additional actions which are not available on the main dashboard. The actions will be made available based on the app’s status.

* Edit
  + Displays the item form in edit mode
* Submit for Review
  + Submits the application for review
* Review
  + Creates/Continues an app assessment
* Reject
  + Sends the application back to the developer
* Delete App/Solution
  + Deletes the app request
  + This option will only be available for apps that haven’t been deployed to the app catalog
* Assessment
  + Views the last/current assessment of the application
* Approve
  + Approves the application request
* Retract
  + Retracts the app from the tenant app catalog
* Deploy to Site Catalog
  + Copies and deploys the app to the optional site collection app catalog
* Deploy to Tenant
  + Copies and deploys the app to the tenant app catalog Application Processes

### Developer Access Request

Users who do not belong to the developer’s or approver’s security group will have the “User Agreement” displayed for them to agree to. Once they agree to the agreement, the user is automatically added to the developer’s security group.



Figure 36 - Developer Access Request

### Application Life Cycle

The application life cycle will utilize the developers group to complete the review process before submitting the app for approval. The approvers group will be allowed to approve an app. A yearly review of the application will be conducted to ensure an owner is still taking responsibility for the application.



Figure 37 – Application Life Cycle

### Developer App Submission

Developers and approvers will be able to submit packages for review. Some of the metadata will automatically be set based on the package being uploaded.



Figure 38 - Developer App Submission

### Developer App Review/Approval

The review process of an app can be done by anyone other than the original submitter. The request can be rejected and sent back to the developers for review. The “checklist” will need to be determined by the client.



Figure 39 - Developer App Review/Approval

### Approver App Deployment/Retraction

An app can be deployed and retracted from the app catalog. Please note that retracting an app that is already in use by other sites will cause the solution to no longer work in those sites.



Figure 40 - Approver App Deployment/Retraction

### App Support

The tool will help track the developers and owners of the application. This will assist the helpdesk in helping route issues to the appropriate users. The owner of the application is ultimately responsible for the application as part of the submission process.



Figure 41 - App Support