

Join Your ERP and Microsoft Teams at the Hip Technical Deep Dive (Part 2 of 2)

Tuesday, February 23, 2021
12 - 1 PM Eastern Time

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2008

Envision IT built custom Extranet solution

2010



2012

Extranet User Manager (EUM) Installer created



Office 365 support

2014

2016



Azure B2B support

User-Centric EUM Login Teams, SPFx, and Flow

2017

Partner Program launched

2019

2009



2011

Productization of code base begins

2015

EUM Brand and Website launched



International Association of Microsoft Channel Partners
Apps Development Partner Award 2015
WINNER - CANADA Region

2018

EUM V4 Launched



2021

EUM Products Website Relaunched

Customers around the Globe



Agenda



Microsoft Forms Poll



3. Which of the following do you use today or are planning on using?

	Not sure what this is	Interested	Investigating	Actively using
Teams Provisioning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SharePoint Framework (SPFx)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Azure Logic Apps	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
PowerShell	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Azure Automation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Service Principals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Azure DevOps	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Continuous Integration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<https://bit.ly/3uhQpb8>

Quick Recap

- **COVID and remote working has caused an explosion of Teams adoption**
- **Most of this has been unplanned**
 - No consistency between Teams or SharePoint sites
- **Self-service is important**
- **No one likes rules – don't force me to work in a certain way**

In case you missed Part 1!

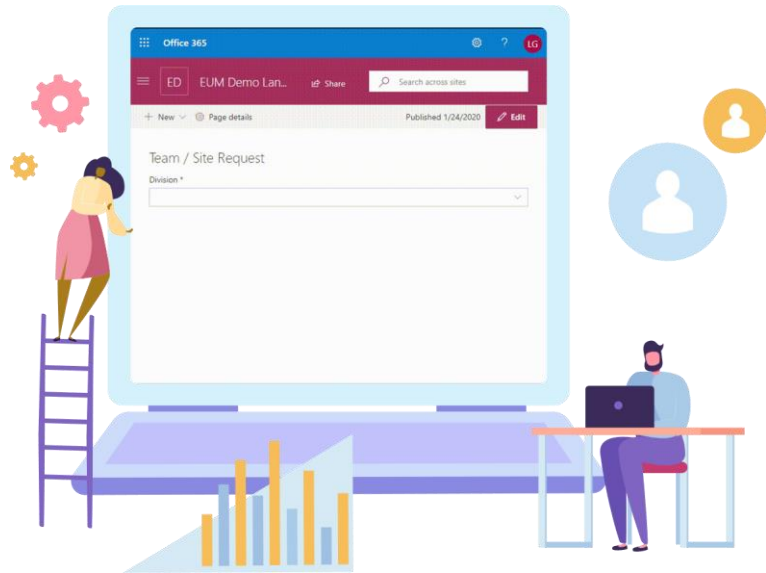


Join Your ERP and Microsoft Teams At The Hip (Part 1 of 2)

Feb 9, 2021 | 12–1 PM EST

<https://www.extranetusermanager.com/resources/events/webinar-2021-02-09-join-your-erp-and-microsoft-teams-at-the-hip>

Teams Governance, Templating, and Provisioning



EUM Open Source Solution
<http://eum.co/teams>

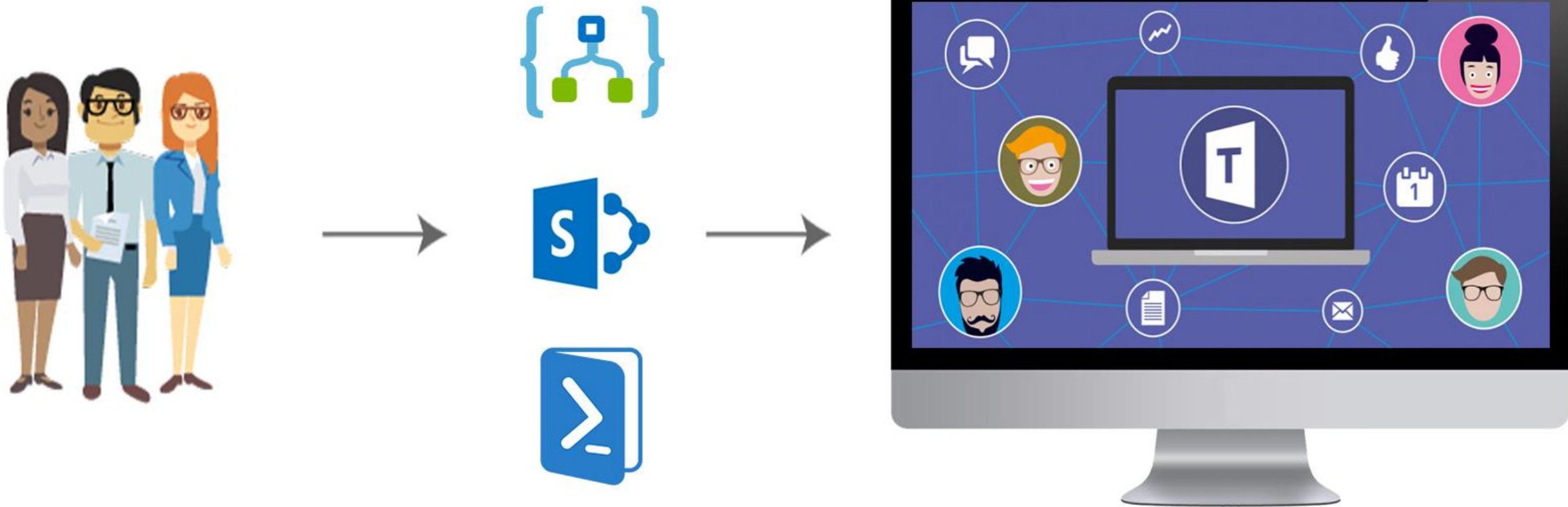


Orchestry
www.orchestry.com

Solution Requirements

- **Self service form for end users**
- **Approvals if required**
- **Easily extensible and customizable for each organization's requirements**
- **Leverage out of the box and customized site templates**
- **Support for Modern sites, Microsoft 365 Groups, and Microsoft Teams**
- **No Visual Studio or compiled code needed. PowerShell and configuration that IT Pros can get their heads around**

Supporting Technologies



When Creating a Team You Get



- **Microsoft 365 Group**
- **SharePoint Modern Team Site**
- **OneNote notebook**
- **Planner Plan**
- **Stream Group**

Requesting a Team, Microsoft 365 Group, or SharePoint Site

Team / Site Request

Division *
Demo

Site Template *
Modern Team Site

Title *

Purpose

Alias

Public Group
 Yes





Create Team
 Yes

Submit Cancel

- **SPFx web part to make the self-service request**
- **Can be used from Teams or SharePoint**
- **Supports different Templates grouped under different Divisions**
- **Options for creating Teams, Groups, Sites, OneNotes, and Plans**
 - PnP template for SharePoint Site
 - Planner template for Buckets and Tasks
 - Templating of Tabs in Teams for above
- **Form fields are dynamically generated based on template content types**
 - Easy to add or change fields on the form – no programming required

Sites List Web Part

Sites

 Private Group - No Approvals This group is private and is not shown on the list page of all public groups. To join the group you need the invitation URL. Joining a group is done immediately with no approvals required.	 Private Group with Approval This group is private and is not shown on the list page of all public groups. To join the group you need the invitation URL. Joining a group submits a request for approval before you are added to the group.	 Public Group - No Approval This is a Public Group that anyone can join. It does not require approval.	 Public Group with Approval This is a Public Group that anyone can request to join. The user will be notified via email once the request has been approved.
--	---	--	---

- **Displays Sites from the Sites list**
- **Filters down to sites under a Parent URL**
- **Different views**
 - Tile
 - List
 - A – Z List

Demo Sites

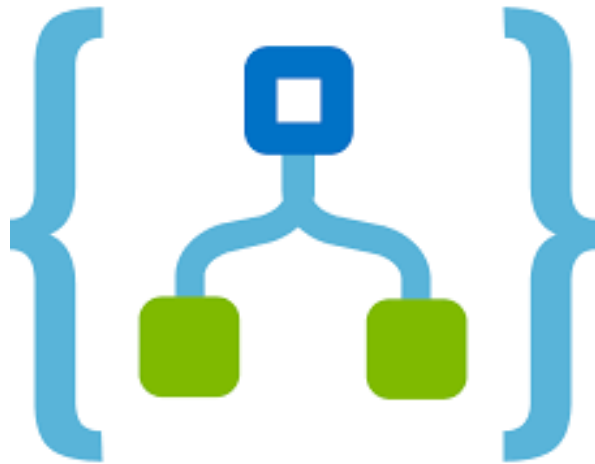
- [Private Group - No Approvals](#)
- [Private Group with Approval](#)
- [Public Group - No Approval](#)
- [Public Group with Approval](#)

All Sites

A B C E F H I K L M N O P R S T V W

- [About Us](#)
- [Annual reports](#)

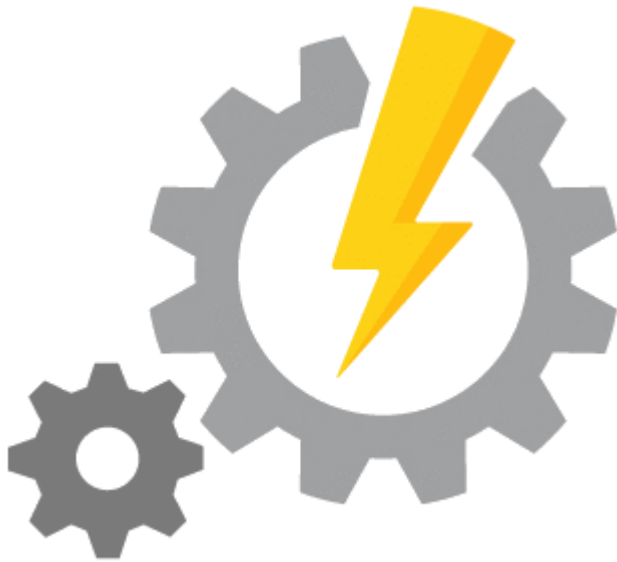
Azure Logic Apps



- Platform underneath Power Automate
- Same designer
- Slightly different set of actions
 - No pre-built approval
- Visual Studio and Azure DevOps integration

<https://azure.microsoft.com/en-ca/services/logic-apps/>

Azure Automation



- **Run PowerShell scripts in the cloud**
- **No management of the VM needed, Azure takes care of that**
- **Very cost effective**
 - 500 minutes of runtime included free per month
 - \$.002/minute USD after that

<https://azure.microsoft.com/en-ca/services/automation>

Microsoft Azure Search resources, services, and docs (G+)

Home > **EUMSites** Resource group

Search (Ctrl+/) << + Add Edit columns Delete resource group Refresh Export to CSV Open query Assign tags Move Delete Export template

Overview Activity log Access control (IAM) Tags Events Settings Deployments Security Policies Properties Locks Cost Management Cost analysis Cost alerts (preview) Budgets Advisor recommendations Monitoring Insights (preview) Alerts Metrics

Essentials [JSON View](#)

Subscription (change) : Envision IT Dev Pay-As-You-Go Deployments : 9 Succeeded
 Subscription ID : b906693c-5167-4a56-bbf3-b56142ee7219 Location : Canada Central
 Tags (change) : [Click here to add tags](#)

Filter for any field... Type == all Location == all Add filter

Showing 1 to 9 of 9 records. Show hidden types No grouping List view

<input type="checkbox"/> Name ↑↓	Type ↑↓	Location ↑↓	
<input type="checkbox"/> azureautomation	API Connection	Canada Central	...
<input type="checkbox"/> office365	API Connection	Canada Central	...
<input type="checkbox"/> sharepointonline	API Connection	Canada Central	...
<input type="checkbox"/> eitdev-siteprovisioning	Automation Account	Canada Central	...
<input type="checkbox"/> CreateSite	Logic app	Canada Central	...
<input type="checkbox"/> CreateSite (eitdev-siteprovisioning/CreateSite)	Runbook	Canada Central	...
<input type="checkbox"/> CreateSite-Customizations (eitdev-siteprovisioning/CreateSite-Customizations)	Runbook	Canada Central	...
<input type="checkbox"/> EUMSites_Helper (eitdev-siteprovisioning/EUMSites_Helper)	Runbook	Canada Central	...
<input type="checkbox"/> UpdateSitesList (eitdev-siteprovisioning/UpdateSitesList)	Runbook	Canada Central	...

< Previous Page 1 of 1 Next >

Project Documentation

- **Source code is available on GitHub at**
<https://github.com/petercarson/eum-sites/tree/V3>
- **Full consolidated whitepaper with step by step instructions**
<https://www.extranetusermanager.com/resources/articles/teams-and-channels-governance-and-automation-whitepaper>

Technical Deep Dive

Teams/Sites SPFx Request Web Part

- A SharePoint Framework (SPFx) form web part to allow self-service requests for Teams and SharePoint sites
- Submission of the form submits to a SharePoint list
- List entry triggers the Logic App workflow
- Future plans to update SPFx Web Part to submit directly to the Logic App secured by Azure AD
- Can easily add New Fields to the Form through adding Content Types

The image displays two overlapping screenshots of a SharePoint web part. The background screenshot shows the 'Team / Site Request' form with the following fields and controls:

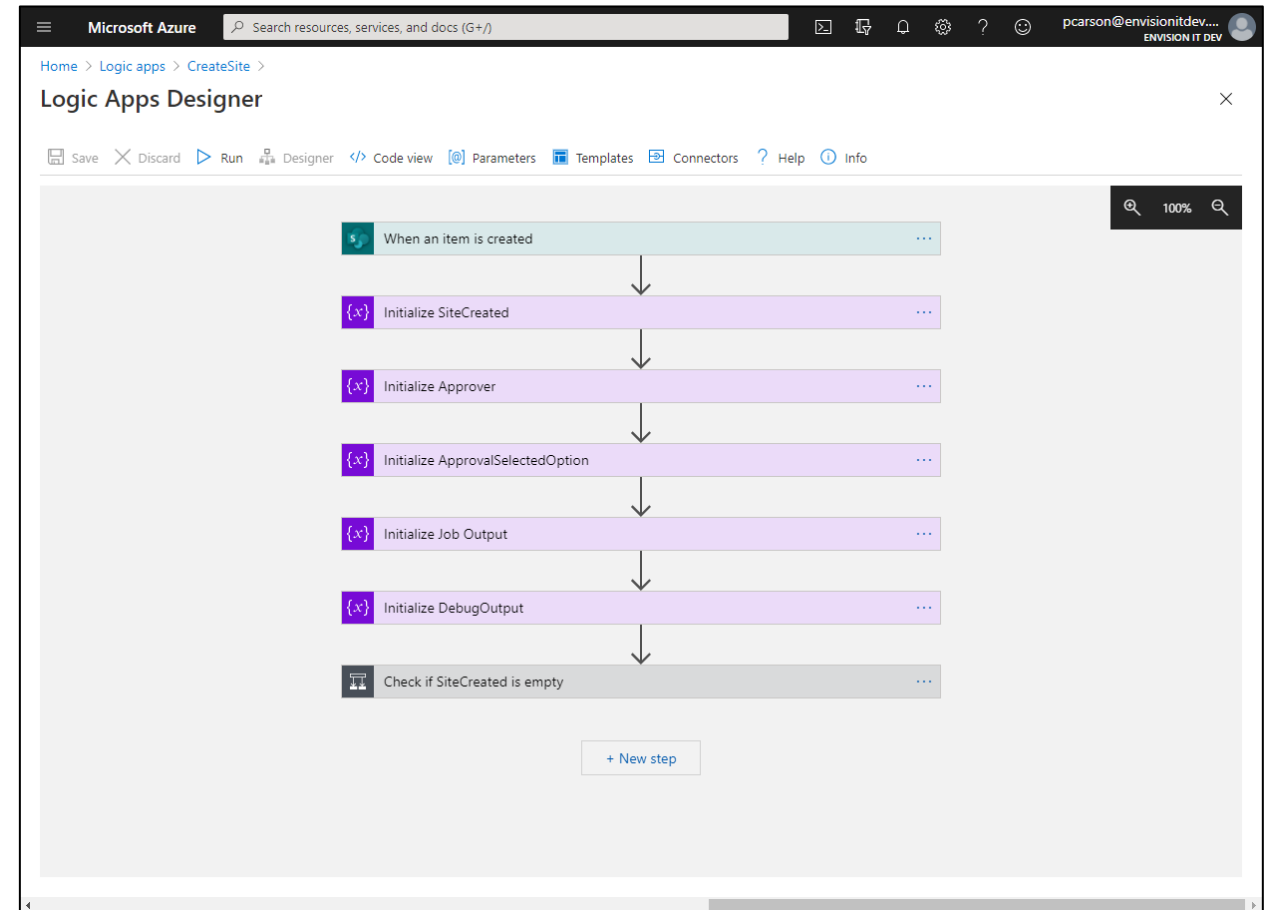
- Division ***: A dropdown menu with 'Demo' selected.
- Site Template ***: A dropdown menu with 'Modern Team Site' selected.
- Title ***: An empty text input field.
- Purpose**: An empty text input field.
- Alias**: An empty text input field.
- Public Group**: A toggle switch set to 'Yes'.
- Create Team**: A toggle switch set to 'Yes'.
- Submit** and **Cancel** buttons.

The foreground screenshot shows the 'Site Request Form' configuration settings panel, which includes the following fields:

- Web Part Title**: 'Team Request'
- Description**: An empty text area.
- Master Site URL**: '/sites/landing'
- Site List Name**: 'Sites'
- Divisions List Name**: 'Divisions'
- Site Templates List Name**: 'Site Templates'
- Blacklisted Words List Name**: 'Blacklisted Words'
- New Item Form URL**: '/sites/Landing/Lists/Sites/NewForm.aspx...'
- Division Field Label**: An empty text input field with a note: 'Enter a value here to change the label of the Division field on the form.'
- Site Template Field Label**: An empty text input field with a note: 'Enter a value here to change the label of the SiteTemplate field on the form.'

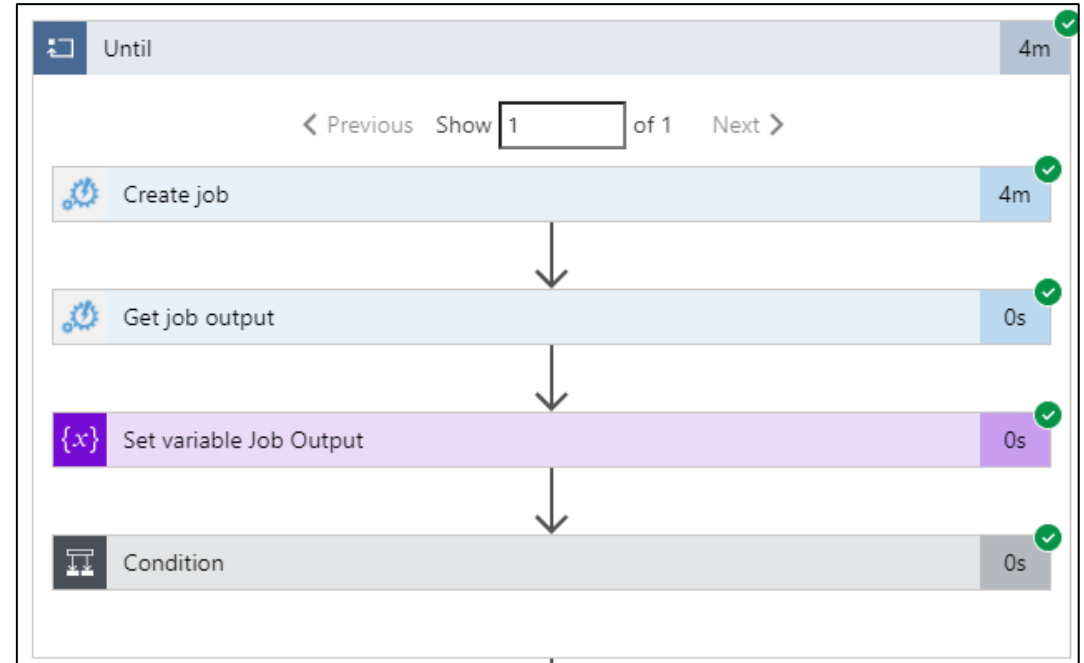
Logic Apps Workflow

- **Proper structuring of a Logic App workflow to make deployment to different environments easy and manageable**
- **CreateSite Logic App is triggered when an item is added to SharePoint List**
- **Initializes a series of variables**
- **Checks to see if List Entry already exists as a Team or a Site**
- **Determines if there is an Approver defined on the SharePoint List**
 - If Rejected, email is sent letting requestor know reason for rejection
- **Once Approved, Logic App calls Azure Automation and Runbook which provisions the Team/Site**
- **After creation, email is sent notifying user their Team/Site has been created**



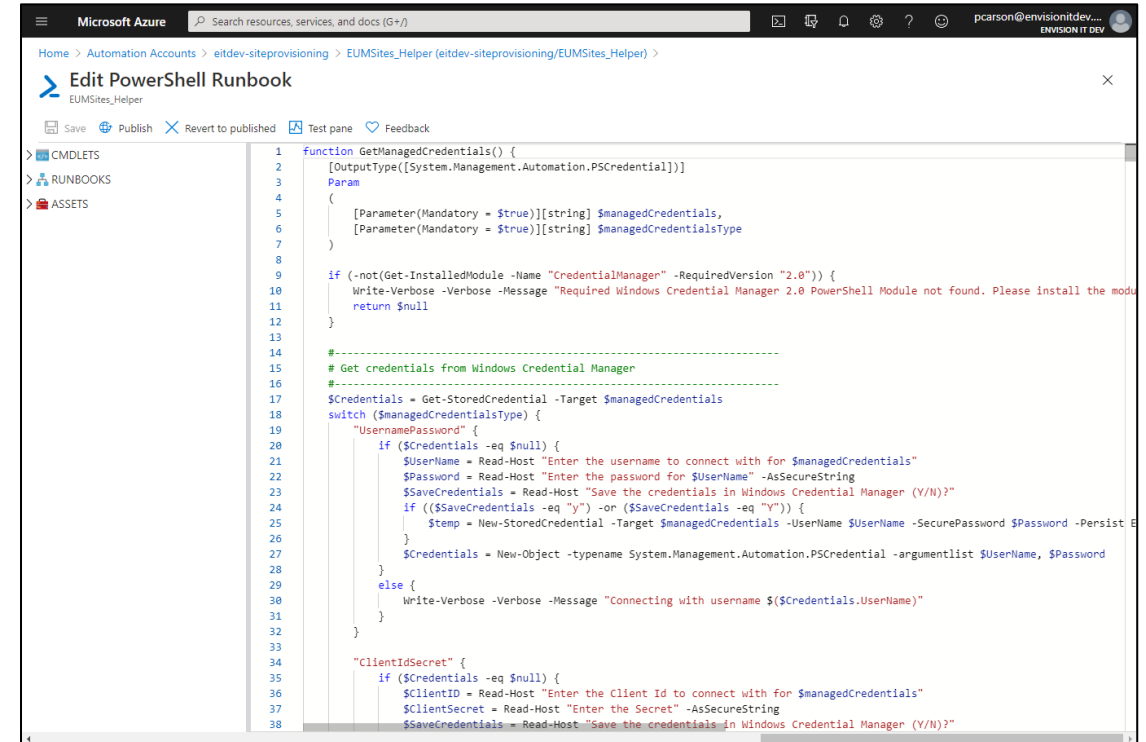
Azure Automation

- **Using PowerShell and the latest Patterns and Practices (PnP) open source in Azure Automation**
- **Logic App calls the CreateSite Runbook within Azure Automation**
- **PowerShell can be edited directly in the Portal or on local machine**
- **Runbook manages the overall process**
- **EUMSites_Helper Function**
 - Grief with Multi-Factor Authentication can be resolved by using Azure Run As Account



PowerShell and Patterns and Practices (PnP)

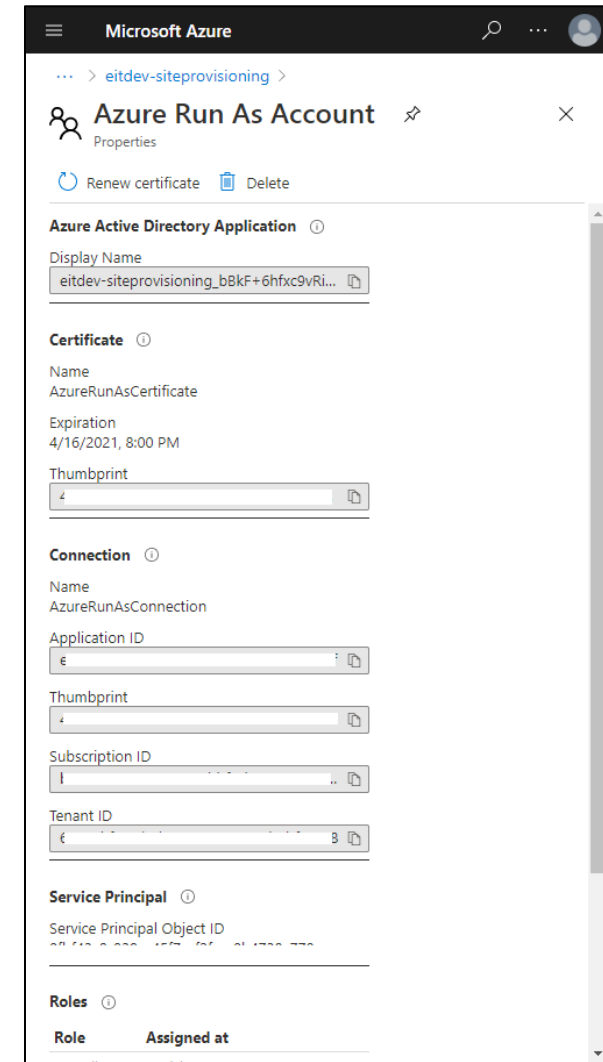
- Make sure to always run the latest Patterns and Practices (PnP) open source in Azure Automation
- Current PowerShell script has queuing logic that checks to see if there is an earlier automation running, pauses then tries again



```
1 function GetManagedCredentials() {
2     [OutputType([System.Management.Automation.PSCredential])]
3     Param
4     (
5         [Parameter(Mandatory = $true)][string] $ManagedCredentials,
6         [Parameter(Mandatory = $true)][string] $ManagedCredentialsType
7     )
8
9
10    if (-not(Get-InstalledModule -Name "CredentialManager" -RequiredVersion "2.0")) {
11        Write-Verbose -Verbose -Message "Required Windows Credential Manager 2.0 PowerShell Module not found. Please install the modu
12        return $null
13    }
14
15    #-----
16    # Get credentials from Windows Credential Manager
17    #-----
18    $Credentials = Get-StoredCredential -Target $ManagedCredentials
19    switch ($ManagedCredentialsType) {
20        "UsernamePassword" {
21            if ($Credentials -eq $null) {
22                $UserName = Read-Host "Enter the username to connect with for $ManagedCredentials"
23                $Password = Read-Host "Enter the password for $UserName" -AsSecureString
24                $SaveCredentials = Read-Host "Save the credentials in Windows Credential Manager (Y/N)?"
25                if (($SaveCredentials -eq "y") -or ($SaveCredentials -eq "Y")) {
26                    $Temp = New-StoredCredential -Target $ManagedCredentials -UserName $UserName -SecurePassword $Password -Persist E
27                }
28                $Credentials = New-Object -typename System.Management.Automation.PSCredential -argumentlist $UserName, $Password
29            }
30            else {
31                Write-Verbose -Verbose -Message "Connecting with username $($Credentials.UserName)"
32            }
33        }
34        "ClientIdSecret" {
35            if ($Credentials -eq $null) {
36                $ClientId = Read-Host "Enter the Client Id to connect with for $ManagedCredentials"
37                $ClientSecret = Read-Host "Enter the Secret" -AsSecureString
38                $SaveCredentials = Read-Host "Save the credentials in Windows Credential Manager (Y/N)?"
```

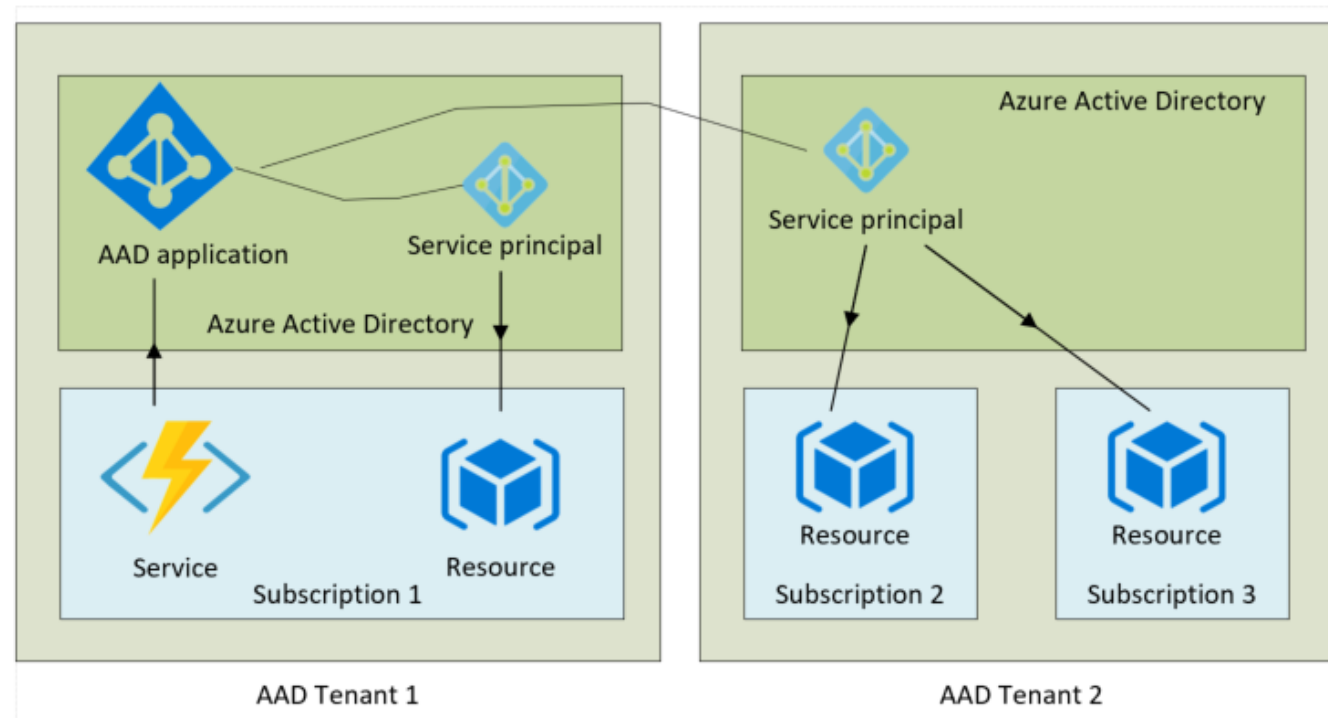
Security Best Practices

- **Setup Web Part to authenticate to logic app securely through bearer token**
- **Azure automation authenticates to SharePoint and Microsoft Graph**
- **Azure Run As Accounts**
 - Can be created as part of Automation Account
 - Creates an identity in Azure AD for the Automation Account
 - Uses certificates to authenticate
 - Azure Automation takes care of certificate management
- **Avoid using JavaScript based Logic**



Azure AD Apps and Service Principals

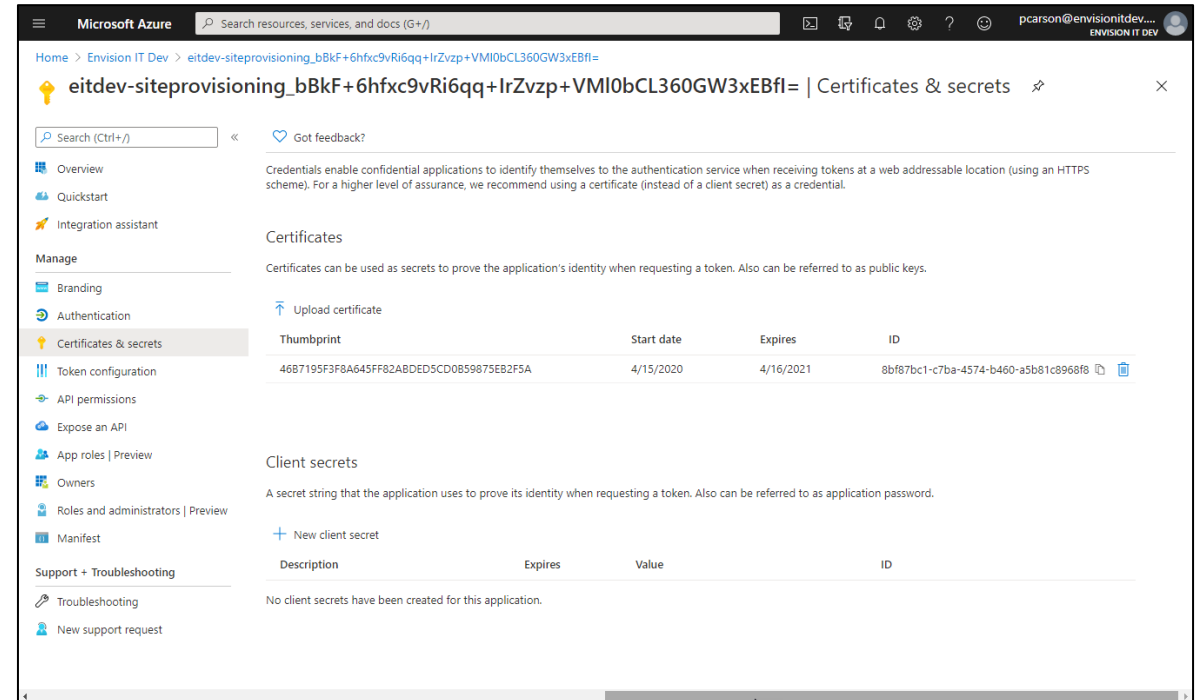
[Apps & service principals in Azure AD - Microsoft identity platform | Microsoft Docs](#)



[Managing applications using Azure AD, service principals and managed identities: A permissions story | endjin](#)

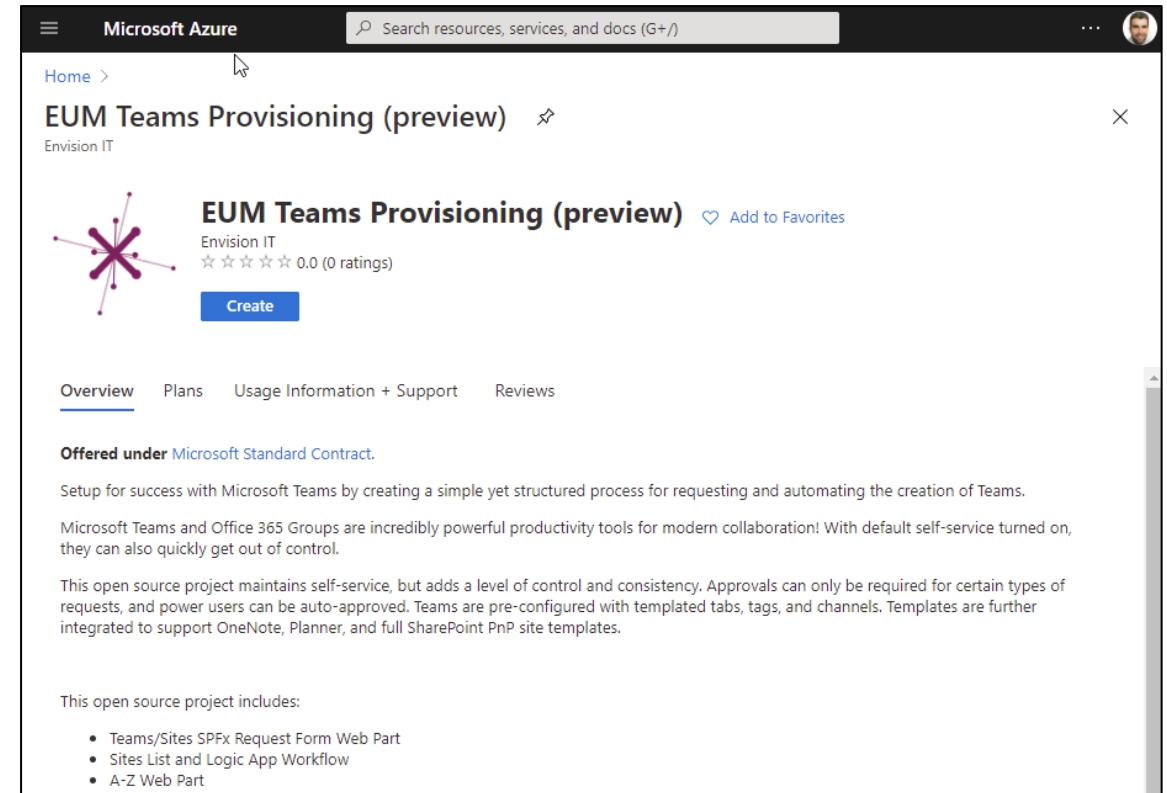
Automation Account RunAs App

- **Public key cert registered in Azure AD**
- **Private key cert stored in hidden key vault for the Automation Account**
- **API Permissions and Roles are assigned to the service principal**
- **Service Principal connection details retrieved by PowerShell running in Azure Automation**
- **Used to authenticate to new PnP, Azure AD, and Teams**



ARM Template Deployment and Packaging

- ARM Templates provide an easy way to deploy resources through the Azure Portal
- Currently creating the open source Teams Provisioning as an Azure Marketplace listing



The screenshot shows the Microsoft Azure Marketplace interface. At the top, there is a search bar and a user profile icon. Below the search bar, the page title is "EUM Teams Provisioning (preview)" by "Envision IT". The listing includes a logo for Envision IT, a "Create" button, and a "0.0 (0 ratings)" star rating. Below the listing, there are tabs for "Overview", "Plans", "Usage Information + Support", and "Reviews". The "Overview" tab is selected, showing a description of the solution and a list of included components.


Microsoft Azure

Search resources, services, and docs (G+)

Home >

EUM Teams Provisioning (preview) ✨

Envision IT

 **EUM Teams Provisioning (preview)** [Add to Favorites](#)

Envision IT

☆☆☆☆ 0.0 (0 ratings)

[Create](#)

[Overview](#) [Plans](#) [Usage Information + Support](#) [Reviews](#)

Offered under [Microsoft Standard Contract](#).

Setup for success with Microsoft Teams by creating a simple yet structured process for requesting and automating the creation of Teams.

Microsoft Teams and Office 365 Groups are incredibly powerful productivity tools for modern collaboration! With default self-service turned on, they can also quickly get out of control.

This open source project maintains self-service, but adds a level of control and consistency. Approvals can only be required for certain types of requests, and power users can be auto-approved. Teams are pre-configured with templated tabs, tags, and channels. Templates are further integrated to support OneNote, Planner, and full SharePoint PnP site templates.

This open source project includes:

- Teams/Sites SPFx Request Form Web Part
- Sites List and Logic App Workflow
- A-Z Web Part

Azure DevOps and Continuous Integration

- Integrating the deployment into Azure DevOps and Continuous Integration deployment pipelines
- Extremely valuable when running projects with multiple sprints

Wrap-Up Points

- **Updated to use latest version of PnP PowerShell**
 - <https://github.com/pnp/powershell>
- **Uses Azure RunAs service principal for authentication**
 - Improved security
 - No need for user accounts with MFA disabled
- **Packaged in an ARM Template for easy deployment**
- **Simplified architecture**
 - No API to deploy
 - Request webpart POSTs directly to Logic App securely
 - Hidden sites managed through item level permissions against Microsoft 365 Group's Azure AD group

Upcoming Series – Forms and Workflows



Building Employee Self Service Forms with Microsoft 365 (Part 1 of 3)

March 9, 2021
12 pm – 1 pm EST



How to Build a Microsoft Forms Leave Request (Part 2 of 3)

March 23, 2021
12 pm – 1 pm EST



How to Build an HTML Self Service Expense Form (Part 3 of 3)

March 25, 2021
12 pm – 1 pm EST

Register for all upcoming events at <http://eum.co/resources/events>

Upcoming Series – Secure Development and SDLC



Strengthening Your Development Practices with Azure AD (Part 1 of 2)
April 20, 2021
12 pm – 1 pm EST



Microsoft 365 SDLC Best Practices (Part 2 of 2)
May 4, 2021
12 pm – 1 pm EST

Register for all upcoming events at <http://eum.co/resources/events>

Additional Webinars



Compliance and Document Collection with External Parties

April 8, 2021
12 pm – 1 pm EST



Integrating Multiple Planner Boards into a Power BI Dashboard

May 20, 2021
12 pm – 1 pm EST

Register for all upcoming events at <http://eum.co/resources/events>

Thank you!

Questions?

