

Power Platform Center of Excellence

A Center of Excellence (CoE) refers to an entity that is responsible for nurturing the growth of Power Apps and Power Automate in their organization



- # Motivation and Purpose
- # Overview of the CoE Starter Kit
- # Deep Dive
- # Demo
- # Q&A

Take advantage of the opportunities together

65%

App Development Backlog

65% of organizations report an app development backlog.

37%

Paper processes

37% of organizations are still using paper to manage critical business processes

69%

Accelerate digital innovation and transformation

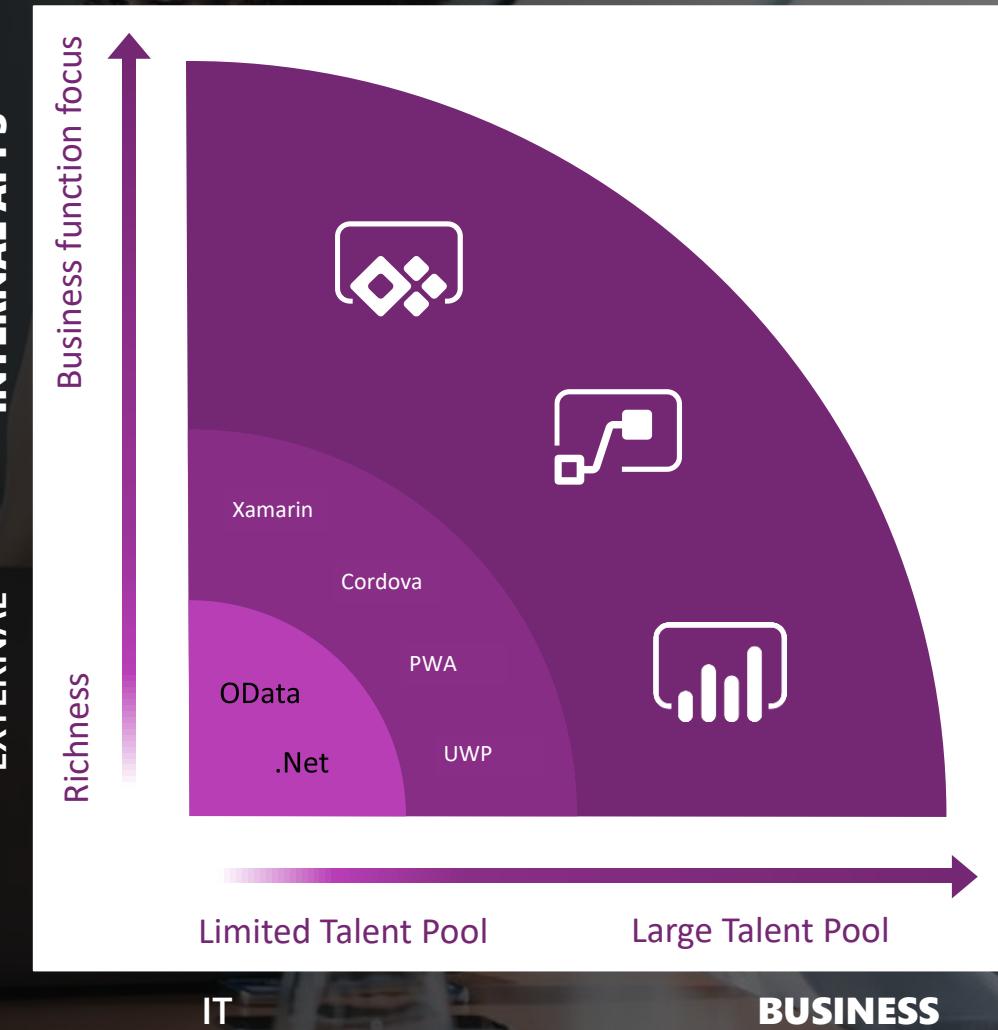
69% of organizations say that accelerating digital innovation & transformation is the number 1 reason they embraced low code application development

Take advantage of the opportunities together

The platform that enables everyone

Empower your business experts to create the apps they need to solve workflow and process challenges themselves.

Enable IT to securely maintain/control data and govern business apps, while reducing application development backlog.



Business and IT status quo

Business Perspective

Closest to the issue, best understanding of process improvement opportunities

Want the ability to solve business problems and challenges ourselves

Agility is key to increasing productivity

Can't get access to siloed data in operational technology and IT systems

Data safety and security are important issues, but so are flexibility and timeliness



IT Perspective

Looking for opportunities to partner with operations but workload is a limiting factor

Shortage of app developers to build and integrate custom business solutions

Fast pace of business requires greater flexibility

Integrating disparate systems and data sources is challenging

Security and compliance are critical issues – a single incident can shut us down

Democratizing business application creation

Business Perspective

Empower your **business experts** to create the apps they need to solve workflow and process challenges themselves



IT Perspective

Enable **IT** to securely maintain/control data and govern business apps, while reducing application development backlog

Typical asks we receive

Do any of these challenges sound familiar to you?



Business data security
concerns regarding connectors



Environment health
regarding trial setup



Maintenance challenges
regarding app and
flow distribution



Security risks regarding
“shadow IT”



Compliancy issues
regarding GDPR



ALM support regarding
apps being
created/deployed



Staff turnover challenges
regarding app or
flow ownership



Information risk
management

Center of Excellence

A coordinating function which ensures that change initiatives are delivered consistently and well, through standard processes and competent staff

- Stephen Jenner and Craig Kilford, in *Management of Portfolios* ([link](#))



The need for nurturing adoption

Invest in nurturing organic growth while maintaining governance and control

Drive innovation and improvement

Break down geographic and organizational silos

Needs a deliberate and thoughtful approach



Who is building solutions with Power Apps?

Less code. More Power. Faster Innovation.



Business driven

Lower barrier of entry for app development

Power users in business units close to the problem building solutions for their teams

Often with IT oversight or in an approved sandbox

- Some organizations start with a centralized IT apps and then grow into organic development
- Far more start with organic solutions in business units and grow into a centralized IT CoE



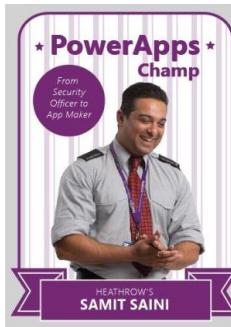
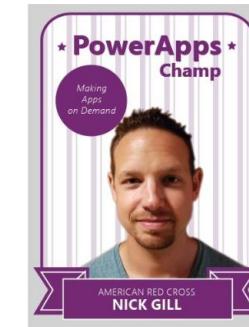
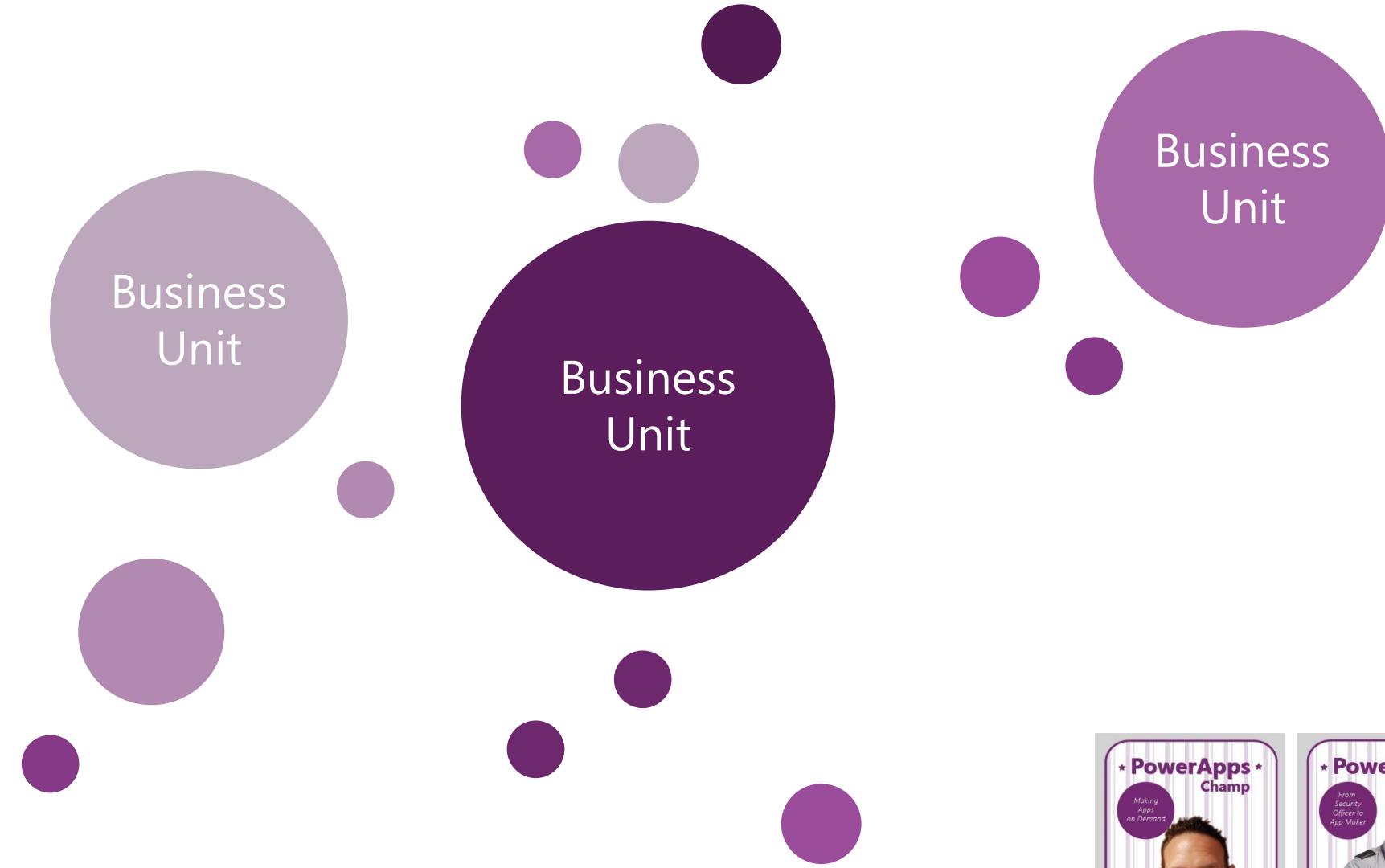
IT driven

Enables high productivity app development

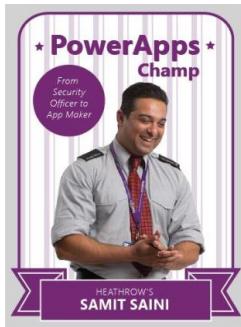
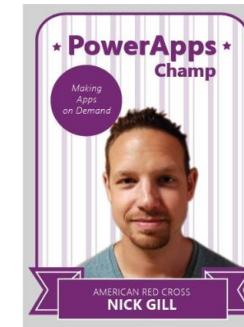
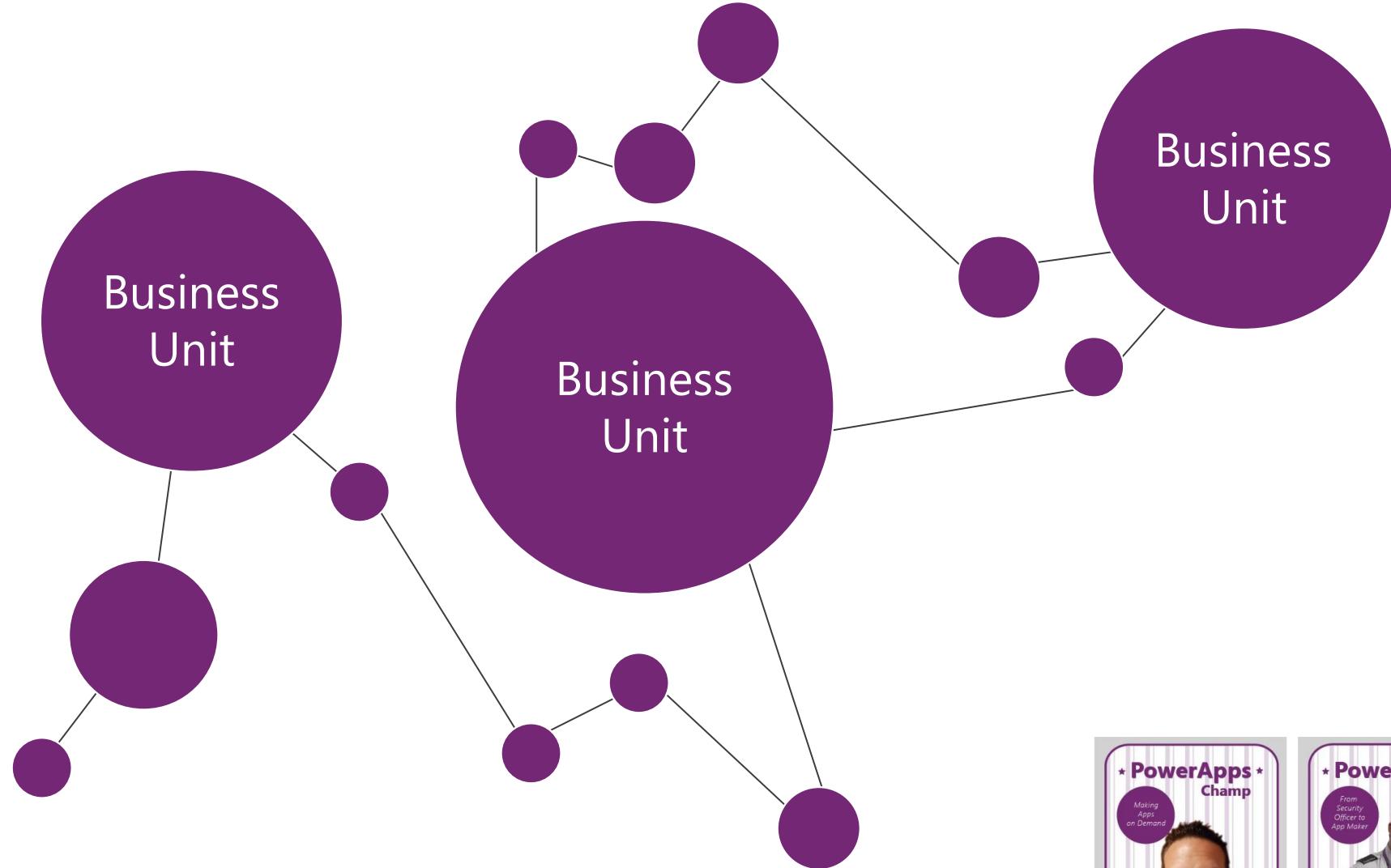
Reduces time to develop and deploy

Centrally managed and rolled out

Why?



Why?



Responsibilities of a Center of Excellence



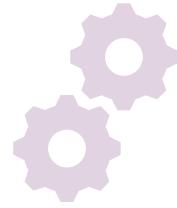
Administration & Governance

- Secure
- Monitor
- Alert and Act



Nurture

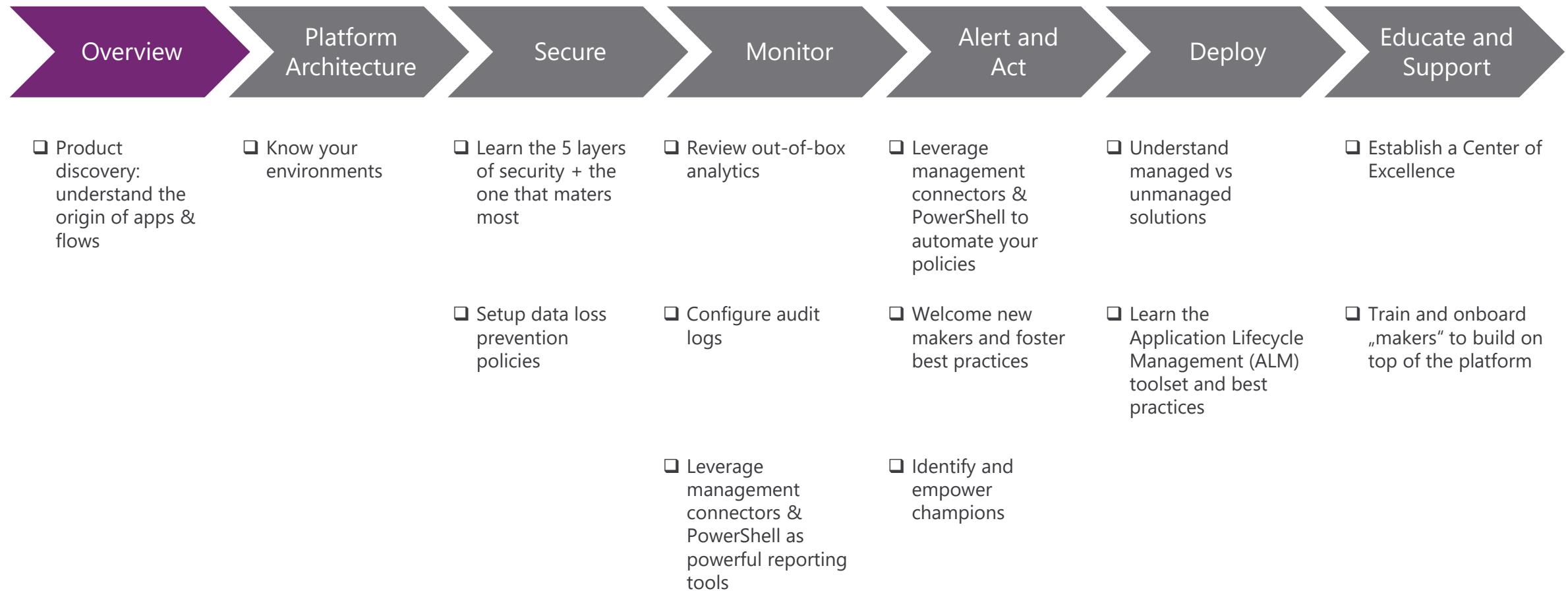
- Evangelism and training
- Technical guidance
- Standards and components



Support & Operations

- Level 2/3 Support
- Helpdesk awareness
- ALM

Govern



Center of Excellence Starter Kit

Collection of components and tools designed to help you get started with developing a strategy for adopting and supporting the Power Platform, with a focus on PowerApps and Flow

Template which can be customized to your organizations needs



Center of Excellence Starter Kit - Solutions

Admin Components

These components provide the core to get started with setting up a CoE – they sync all your resources into entities and build admin apps on top of that to help you get more visibility of what apps, flows and makers are in your environment. Additionally, apps like the DLP Editor and Set New App Owner help with daily admin tasks.

The Core Components solution only contains assets relevant to admins.

Governance (Audit and Report) Components

Once you are familiar with your environments and resources, you might start thinking about audit and compliance processes for your apps. You might want to gather additional information about your apps from your makers, you might want to audit specific connectors or app usage - the apps and flows part of this solution help you get started.

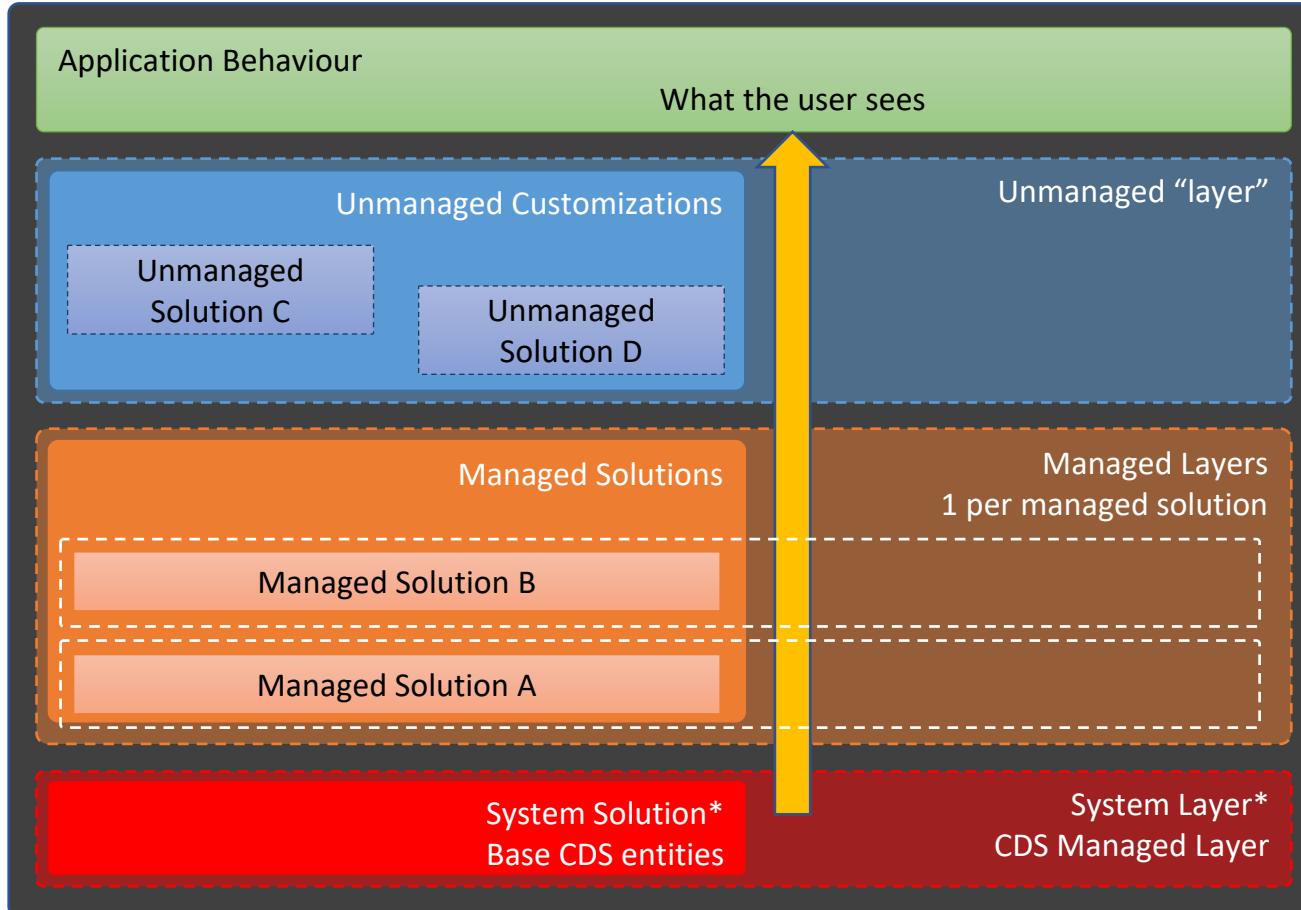
The Audit and Report Components solution contains assets relevant to admins and makers.

Nurture Components

An essential part of establishing a CoE is nurturing your makers and an internal community. You will want to share best practices and templates and onboard new makers – the assets part of this solution can help develop a strategy for this motion.

The Nurture Components solution contains assets relevant to everyone in the organization, admins, makers as well as end users of apps and flows.

Fundamentals: Solution Layering



Layering occurs on import of solutions

Layers describe the dependency chain of component from the root solution introducing it, through each solution that extends or changes the component's behavior

Layers are created through extension of an existing component (taking a dependency on it) or through creation of a new component or version of a solution.

CoE Starter Kit: Solution Layering

My CoE Implementation	...	MyCoEImplementation	1/8/2020	1.0	
Center of Excellence - Nurture Components	...	CenterofExcellenceN...	1/3/2020	1.4	
Center of Excellence - Audit Components	...	CenterofExcellenceA...	1/3/2020	1.3	
Center of Excellence - Core Components	...	CenterofExcellenceC...	1/3/2020	1.16	

CoE Solutions are shipped as managed
Nurture and Compliance (Audit) are layered on top of Core

Best Practise:

Create your own unmanaged solution and add components you want to use
Extend entities and model driven apps from your unmanaged solution

CoE Starter Kit: Environment Variables

The screenshot shows the Microsoft Power Platform environment variables configuration page. At the top, there are navigation links: New solution, Import, Open AppSource, Publish all customizations, and Switch to classic. A warning message indicates that 10 environment variables need to be updated, with a link to see environment variables.

The main area displays a table of solutions:

Display name	Name	Created	Version
.	PowerPlatformCham...	1/23/2020	1.0.0
Center of Excellence - Nurture Components	CenterofExcellenceN...	12/20/2019	1.5
Center of Excellence - Compliance and Report ...	CenterofExcellenceA...	12/20/2019	1.5
Center of Excellence - Core Components	CenterofExcellenceC...	12/20/2019	1.16
	CDSStarterPortal	11/27/2019	9.2.10.10
	BaseHtmlEditor_portal	11/27/2019	1.1.11

To the right, a sidebar titled "Imported environment variables" contains fields for "Power Automate Environment Variable" and "Admin alias". Both fields have placeholder text "Enter text".

Solutions

Display name	Name	Created	Version
.	PowerPlatformCham...	1/23/2020	1.0.0
Center of Excellence - Nurture Components	CenterofExcellenceN...	12/20/2019	1.5
Center of Excellence - Compliance and Report ...	CenterofExcellenceA...	12/20/2019	1.5
Center of Excellence - Core Components	CenterofExcellenceC...	12/20/2019	1.16
	CDSStarterPortal	11/27/2019	9.2.10.10
	BaseHtmlEditor_portal	11/27/2019	1.1.11

Imported environment variables

Enter information for each field, so your app works properly.

10 updates needed

Environment, including geographic location, for Power Automate

Power Automate Environment Variable *

Enter text

Email (or comma separated emails) of admins to contact in the flows

Admin alias *

Enter text

Center of Excellence Starter Kit – Core Components

Solution	Scenario	Toolkit component
Core Components	Catalog tenant resources	<ol style="list-style-type: none">1. CDS Entities: Environments, Apps, Flows2. Admin Sync Template v2 (Flows) – all, Apps, Flows, Custom Connectors, Connectors, Model Driven Apps3. Admin Sync Audit Log (Flow)4. Power BI Dashboard5. Custom Connector for Office 365 Audit Logs6. Power Platform Admin View (Model Driven App)
	DLP Strategy + Visibility	<ol style="list-style-type: none">7. DLP Editor (Canvas App)8. DLP Customizer (Canvas App)
	Change App Ownership	<ol style="list-style-type: none">9. Set New App Owner (Canvas App)

CDS entities (monitor)

Resources are stored in CDS Entities
and updated daily through the Sync Flow

Entities stored are:

- Apps
- Flows
- Environments
- Custom Connectors
- Connectors
- Makers

Information stored per entity

- Created / Modified / Deleted On and By
- Display Name and ID
- Description
- Environment

PowerApps App	... admin_app	Entity
Audit Log	... admin_auditlog	Entity
COE Settings	... admin_coesettings	Entity
Connection Reference	... admin_connectionreference	Entity
PowerApps Connector	... admin_connector	Entity
Environment	... admin_environment	Entity
Flow	... admin_flow	Entity
InADayAttendees	... admin_inadayattendees	Entity
InADayEvent	... admin_inadayevent	Entity
Maker	... admin_maker	Entity
PowerApps App Approval BPF	... new_bpfffa183a676d64ec9aee6a558129651a2	Entity

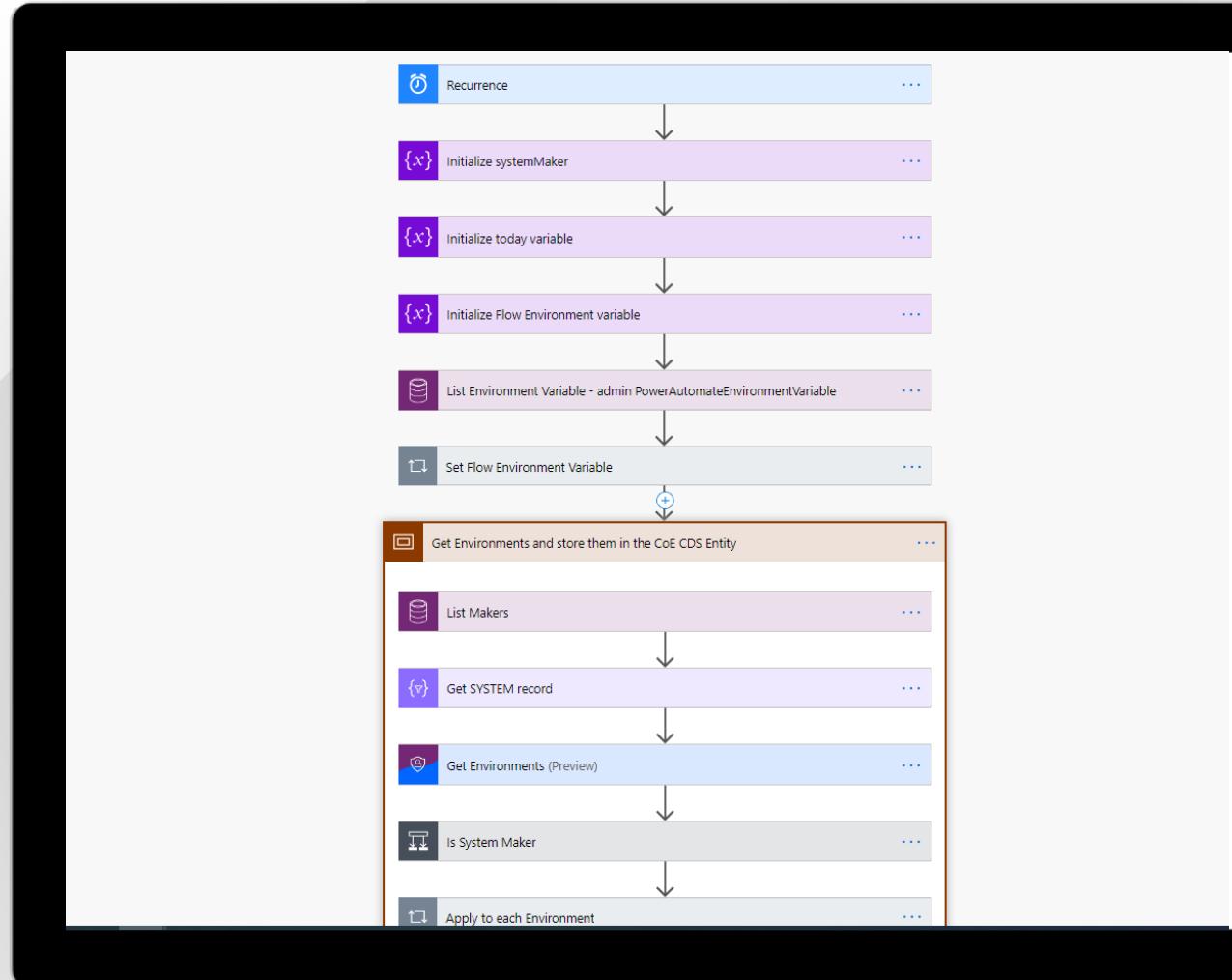
Sync Template (monitor)

Sync Template (Resources) runs daily overnight

- Gets Apps / Flows / Connectors per Environment
- Updates CDS Entities

Sync Template (Audit Log)

- Custom connector: Office 365 Logs
- Syncs audit log events to Audit Log CDS Entity for custom reporting



Power BI dashboard (monitor)

Gain insight into your tenant

All up view of what's being created

Discover your champions

Incorporate telemetry

The screenshot shows a Power BI dashboard titled "Contoso CoE Toolkit Tenant Adoption" with a subtitle "Power Apps and Power Automate Usage Reports". The dashboard has a "Refresh Frequency" setting of "Daily". It features a "Tenant Overview" section with six cards:

Category	Value	Description
Total Environments	46	
Environment Created This Month	10	
Total Environment Makers	10	
Total Custom Connectors	19	
Total App Makers	10	Total # of 355 Total # of 69 Created th

Below the overview is a table titled "Top 20 Environments by App Count":

Environment	Apps	Flows
Contoso (Development) (contosodev)	99	42
Playground	29	3
Contoso CoE (contosoCoE)	28	72
PowerApps CAT Demos (orgcebea810)	25	16
Test Environment (orgc7b9acef)	21	4
COE - TEST (coetest)	20	1
CoE Doc Testing Jen (org4f519d40)	18	25
CoE Toolkit Install (orge419c4d0)	15	18
Lee Gu's Environment (orgd7554cf0)	15	4
Build Tools - Prod (contosoprod)	13	3
Test Asia (testasia)	13	3
Contoso (default) (default)	11	6
Test COE (org1acc665c)	8	2
Sandbox (orgd4e4f7b5)	6	0
Build Tools - DEV (orgd15b48d3)	5	0
DEV2 (org6b08f973)	4	1

On the right side, there are two tables: "Top App Maker" and "Top App Maker Cities". The "Top App Maker" table lists app makers and their counts:

App Maker	Apps
Megan Bowen	182
Debra Berger	44
Emily Braun	40
Lee Gu	36
Adele Vance	33
SYSTEM	14
Ben Walters	4
Alex Wilber	1
MOD Administrator	1
Total	355

The "Top App Maker Cities" section includes a map of the world with purple dots indicating locations.

Power Platform Admin View (monitor)

Overview of all resources in Tenant

- Apps
- Flows
- Environments incl Number of Apps / Flows per Environment
- Makers
- Identify champions
- Monitor resource creation
- Drive governance policies through Compliance Business Process Flow

The screenshot displays the Power Platform Admin View interface, specifically the 'Monitor' section. On the left, a navigation sidebar includes Home, Recent, Pinned, Monitor (selected), Overview Dashboard, Apps, Flows, Environments, Connectors, People, Makers, Settings, and Configure.

The main area shows two dashboards:

- Active Makers:** A bar chart titled "Active Makers" showing the sum of number of apps for various makers. The data is as follows:

Display Name	Sum (Number Of Apps)
Megan Bowen	139
Emily Braun	34
SYSTEM	5
Ben Walters	3
Debra Berger	2
Lee Gu	2
MOD Administrator	1
Alex Wilber	1
Adele Vance	1

- Active Environments:** A grouped bar chart titled "Active Environments" comparing the sum of number of apps and flows across environments. The data is as follows:

Display Name	Sum (Number Of Apps)	Sum (Number Of Flows)
Contoso (Development)	57	27
Playground	26	3
PowerApps CAT Demos (orgbe8910)	19	13
CDF - TEST (testest)	17	0
Contoso G&E (contosoCat)	14	36
Build Tools - Prod (contosoProd)	13	3
Test Asia (testasia)	13	3
Contoso (default) (Sandbox)	10	2

DLP policy editor (secure)

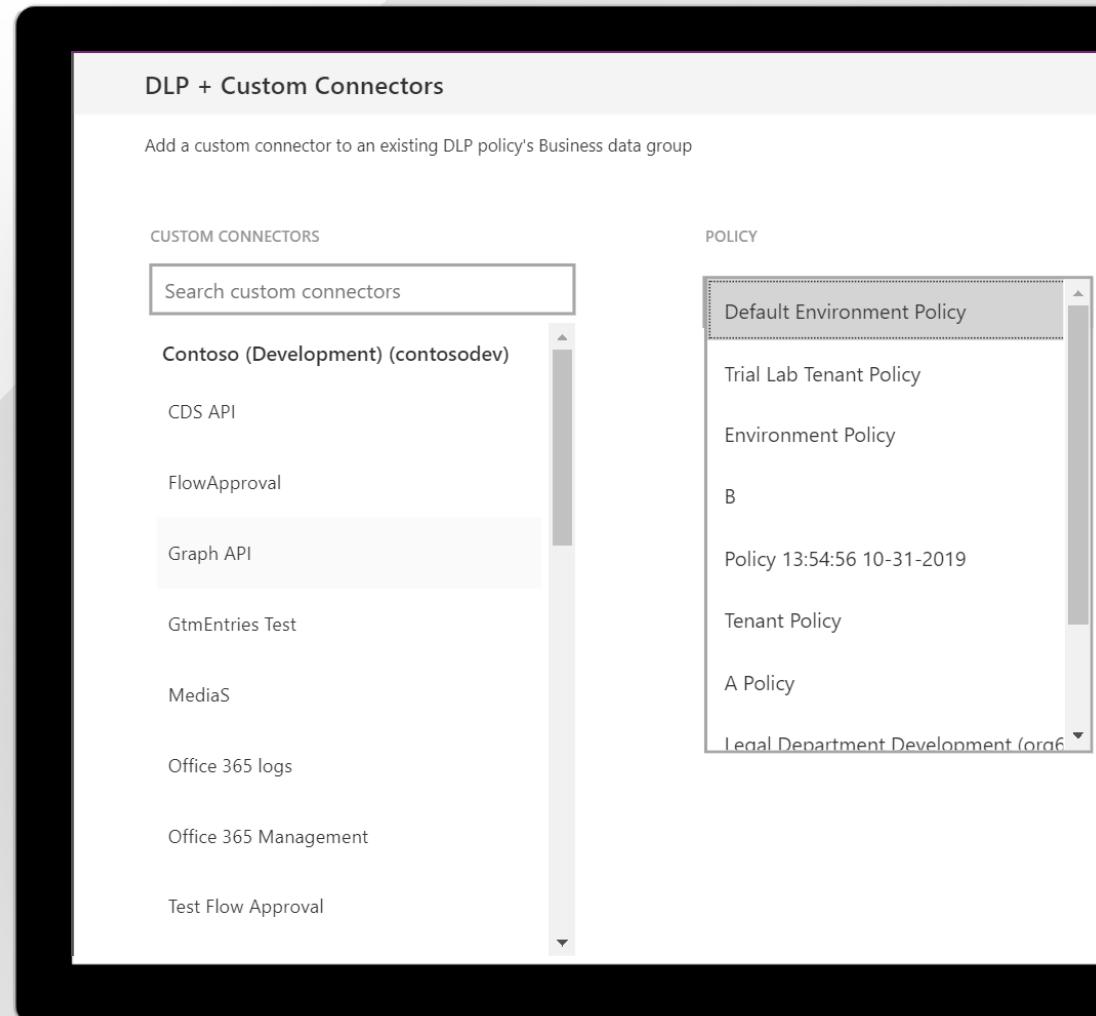
See the impact of a DLP policy and mitigate
vs. breaking the workflow
Update the policy in the app

The screenshot shows the DLP Editor interface with a policy named "Playground Policy". The policy is set to "Non Default" and is applied to "Affected PowerApps (1 of 24)". The policy itself contains four items: "Common Data", "Office 365 O...", "Power platfo...", and "Flow manag...". Below this, there are two sections: "BUSINESS DATA ONLY (11)" and "NON-BUSINESS DATA (250)". The "NON-BUSINESS DATA" section includes icons for SharePoint, Salesforce, OneDrive, Dropbox, 10to8 App..., Azure Con..., Act!, Acumatica, Adobe Cre..., Adobe Sign, Ahead, Ally, Amazon R..., Appfigures, Azure Appl..., and Approvals.

DLP Customizer (secure)

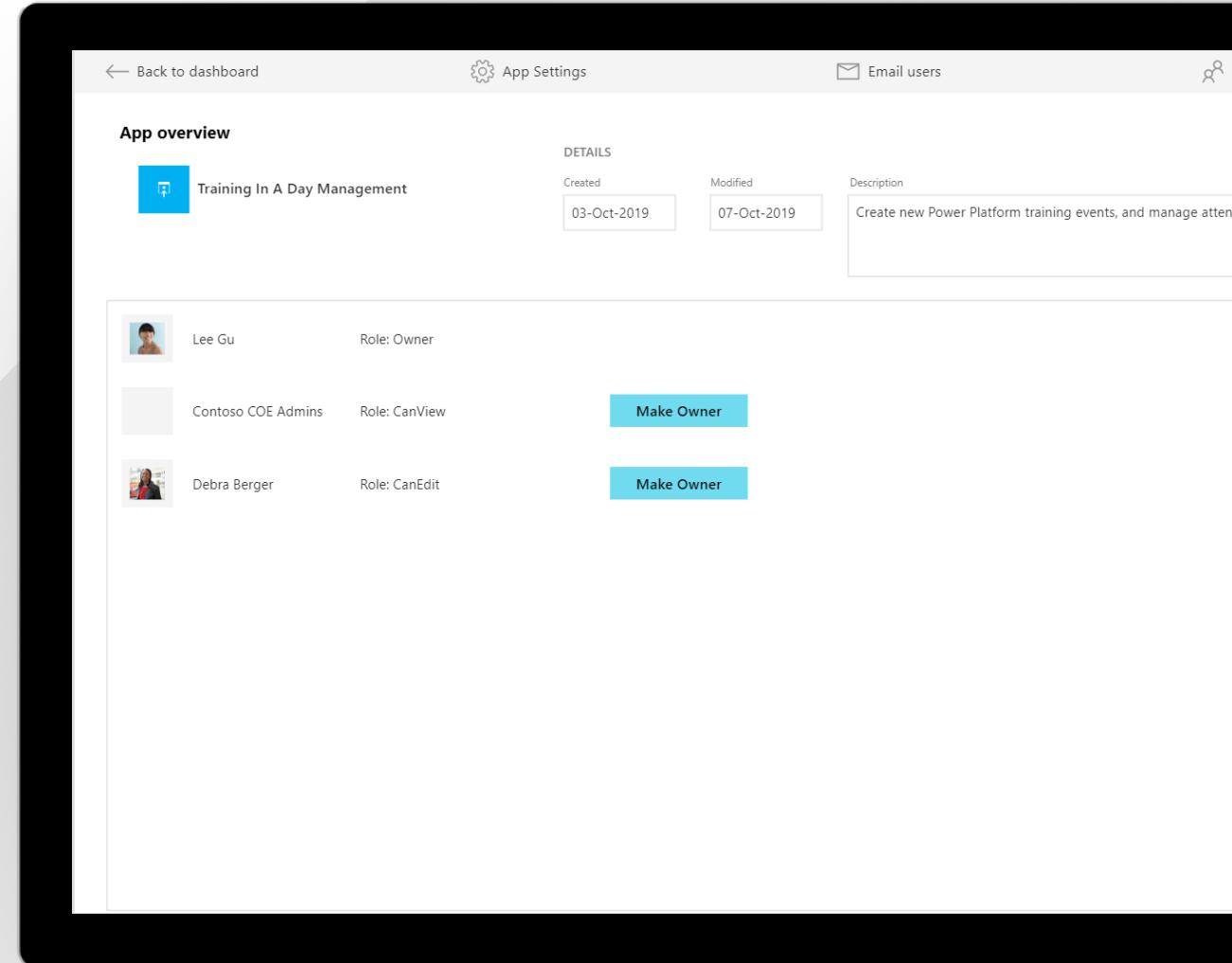
Add Custom Connectors to Business Data
Currently available via PowerShell script
only

Select Custom Connector
Select existing DLP Policy
Add to Business Data



Set New App Owner (alert & action)

Search by app or maker name
Make existing users owners
Add new users as owners



Center of Excellence Starter Kit – Compliance Components

Solution	Scenario	Toolkit component
Compliance Components (Audit & Report)	Sample Audit Process	<ol style="list-style-type: none">1. Developer Compliance Center (Canvas App)2. Flow – Compliance detail request3. Business Process Flow for Auditing resources
	Archive unused apps	<ol style="list-style-type: none">4. App Archive and Clean Up – Start Approval and Check Approval (Flows)5. App Archive and Clean Up Admin View (Model Driven App)
	Act based on certain connector usage	<ol style="list-style-type: none">6. Find and add admins as owners for apps that leverage certain connectors (Flow)7. Find and disable flows that leverage certain connectors (Flow)

Developer Compliance Centre (alert & action)

Used in App Auditing Process

A tool for app makers to

- Check the compliance status of their app (traffic light system)
- Submit business justification and support information to stay in compliance

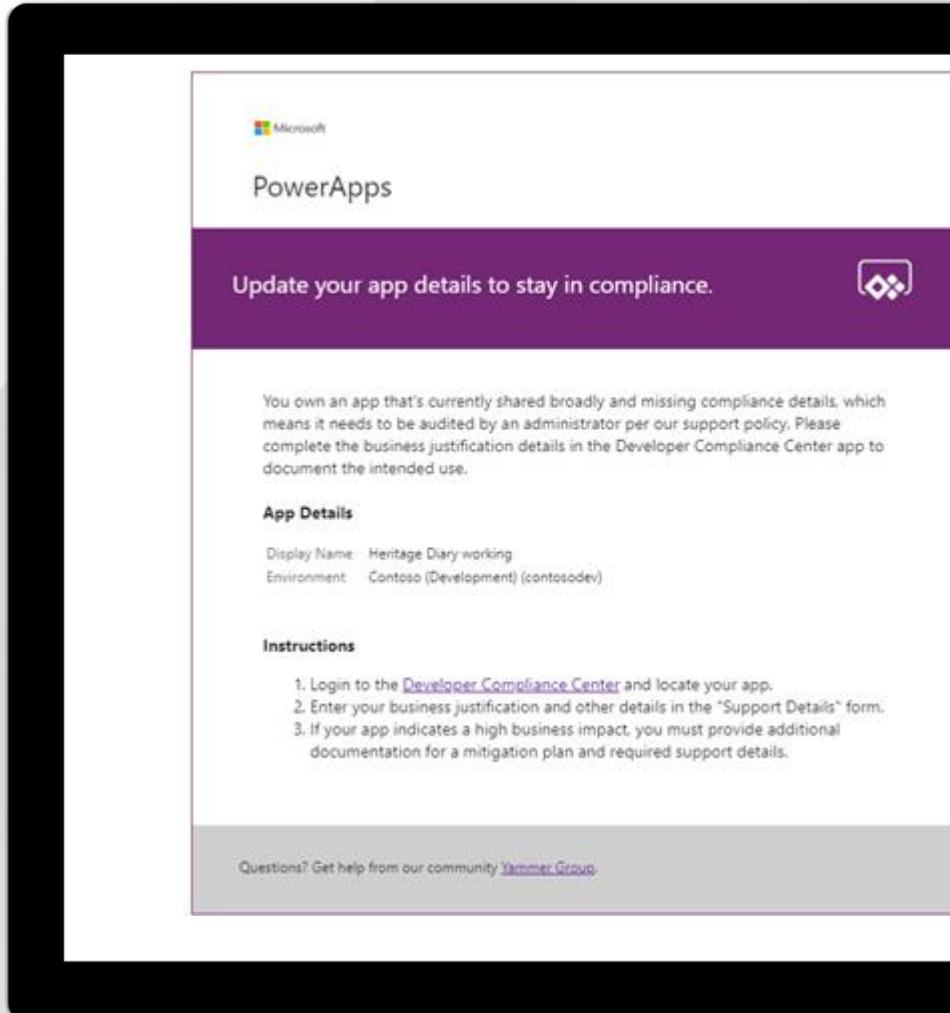
The screenshot shows the Microsoft Developer Compliance Center interface. At the top, there's a navigation bar with the Microsoft logo, a search bar labeled 'Community Chanc...', and filter options 'Only Shared Apps' and 'Search apps ...'. Below the header, the title 'Developer Compliance Center' is displayed above a section titled 'Canvas Apps'. The main area contains a grid of app cards, each with a small colored circle indicating its status (green, yellow, or red). The cards include:

- ORBIT - Details**: Status: Yellow (●). Description: Contoso (Development) (contosodev). No Description. Buttons: 'Details'.
- DLP Editor**: Status: Yellow (●). Description: No Description. Buttons: 'Details'.
- Thrive Feed**: Status: Yellow (●). Description: Sandbox (orgd4e4f7b5). No Description. Buttons: 'Details'.
- Thrive People Browser**: Status: Yellow (●). Description: COE - TEST (coetest). Find colleagues from your organization. Buttons: 'Details'.
- ConferenceSQL_UnOptimized_Champions**: Status: Yellow (●). Description: Playground. No Description. Buttons: 'Details'.
- Test**: Status: Red (●). Description: Playground. No Description. Buttons: 'Details'.

Compliance Request Flow (alert & action)

Sends an email to users who have PowerApps apps in the tenant who are not compliant with specific thresholds:

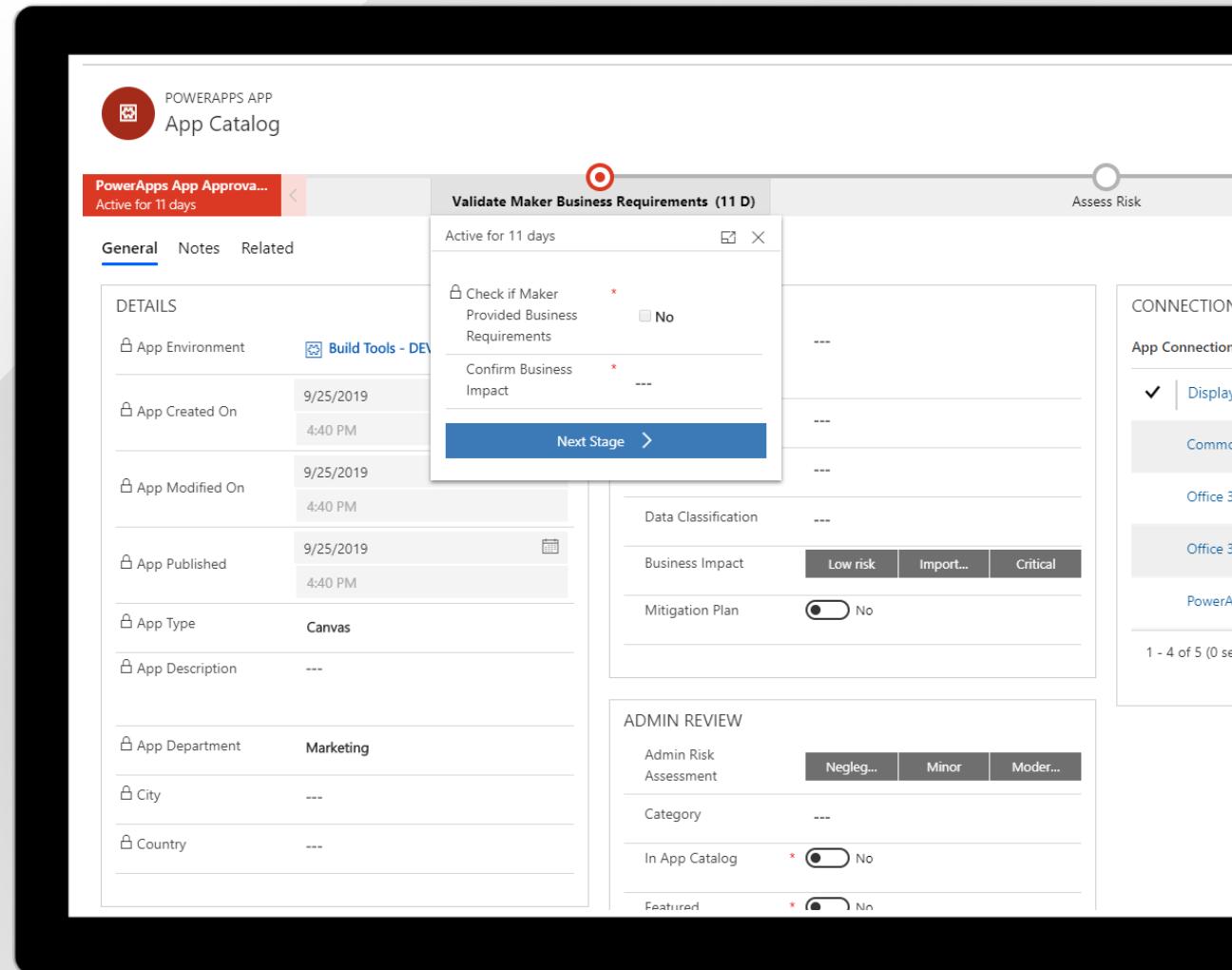
- The app is shared with > 20 Users or at least 1 group and the business justification details have not been provided.
- The app has business justification details provided but has not been published in 60 days or is missing a description.
- The app has business justification details provided and has indicated high business impact, and has not submitted a mitigation plan to the attachments field.
- The Flow has a template you can customize in the email



Business Process Flow for Auditing Process (alert&action)

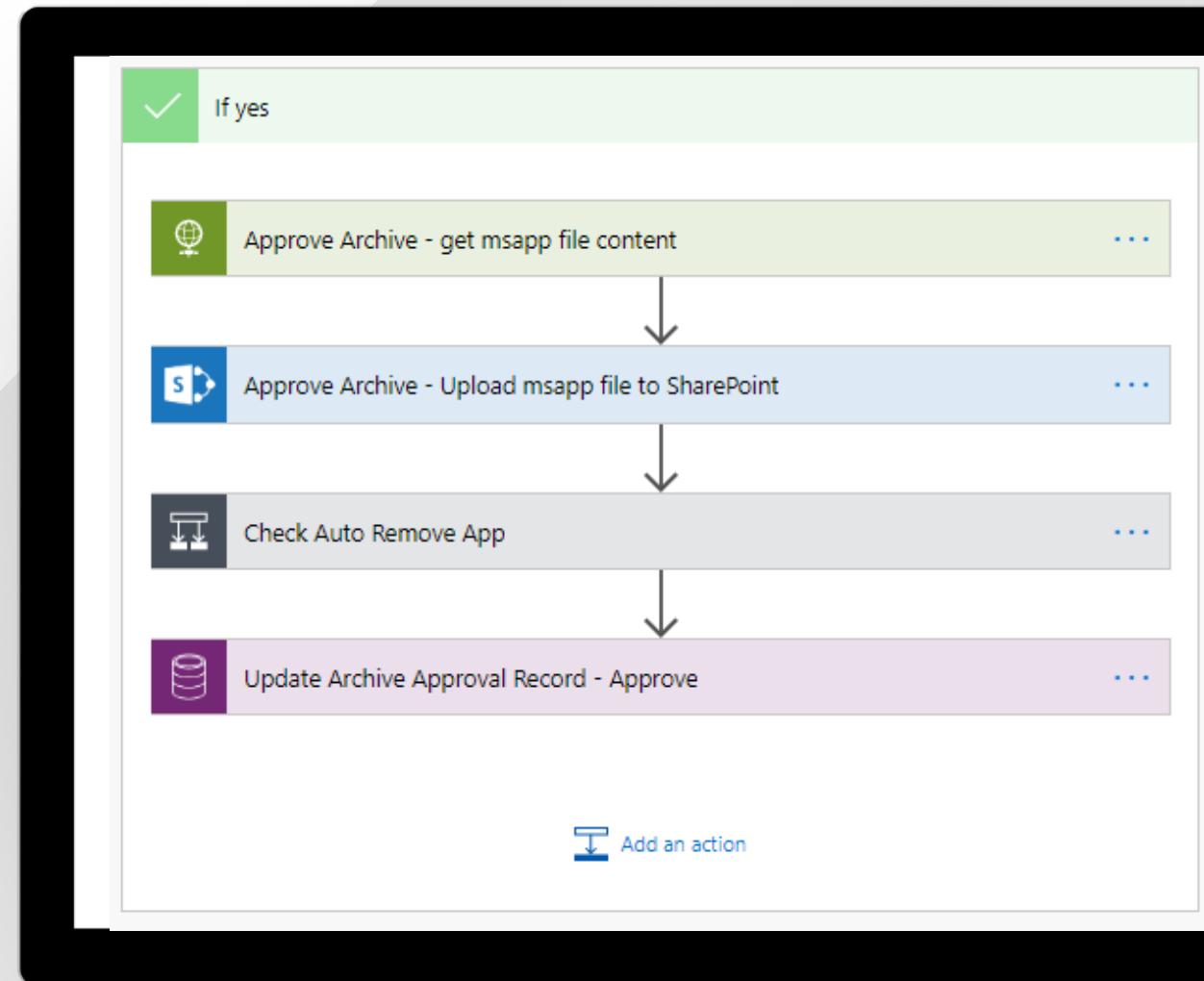
Audit Process to

- Validate maker business requirements
- Assess risk
- Publish the App to the App Catalog



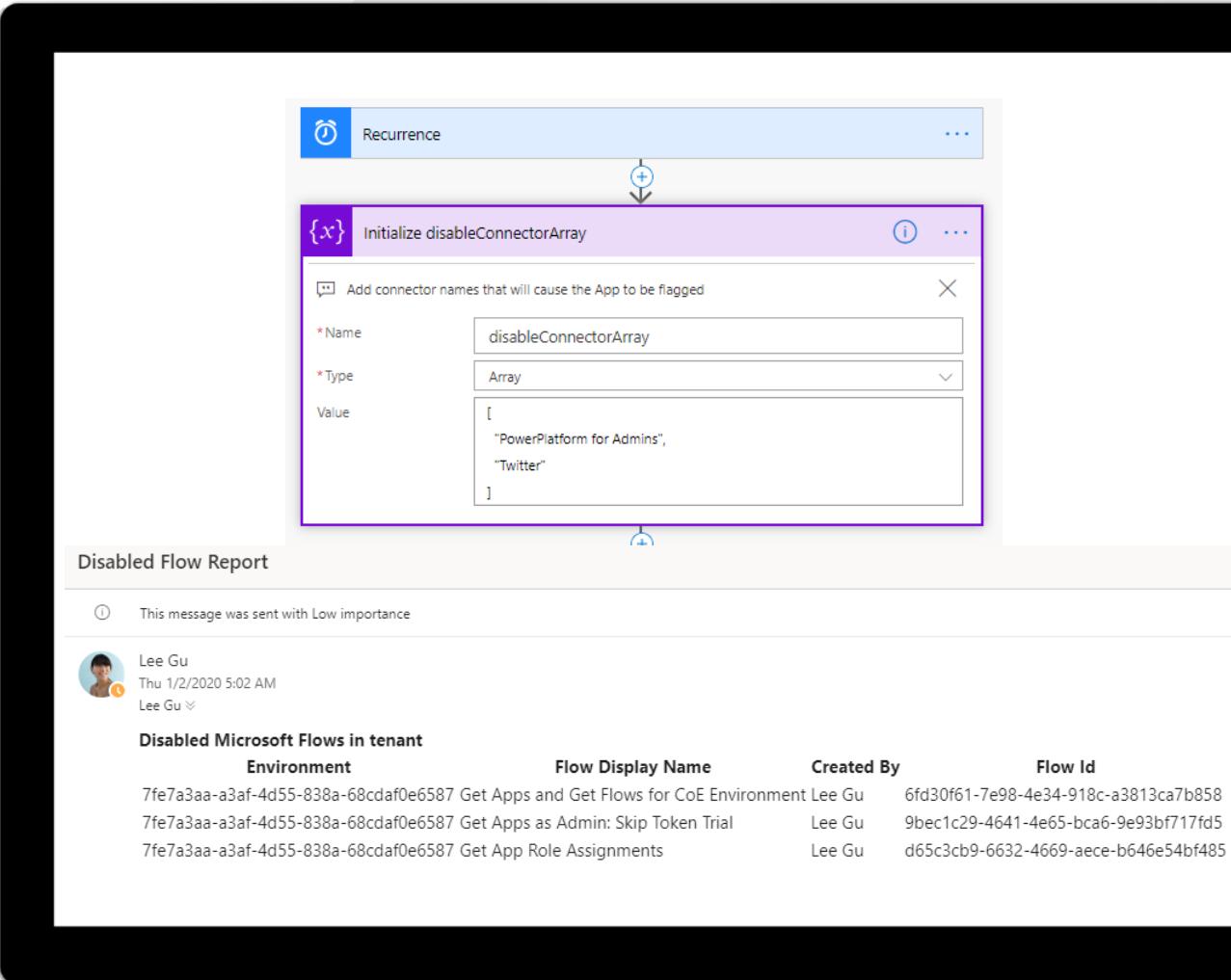
Archive and Clean Up (alert & action)

Archive unused apps with Approval process
.msapp file archived to SharePoint folder



Act based on certain connector usage (secure)

Need to initialize disableConnectorArray with names of connectors to audit on Apps – are shared with Admin Security Group and an email is send to owner Flows – are disabled and email is sent to owner Admin receives a report



The screenshot shows a Microsoft Flow editor with a step titled "Initialize disableConnectorArray". The "Value" field contains the following JSON array:

```
[{"Name": "PowerPlatform for Admins"}, {"Name": "Twitter"}]
```

Below the flow editor is a "Disabled Flow Report" card. It includes a message from Lee Gu, a table of disabled flows, and a "Disabled Microsoft Flows in tenant" section.

Environment	Flow Display Name	Created By	Flow Id
7fe7a3aa-a3af-4d55-838a-68cdaf0e6587	Get Apps and Get Flows for CoE Environment	Lee Gu	6fd30f61-7e98-4e34-918c-a3813ca7b858
7fe7a3aa-a3af-4d55-838a-68cdaf0e6587	Get Apps as Admin: Skip Token Trial	Lee Gu	9bec1c29-4641-4e65-bca6-9e93bf717fd5
7fe7a3aa-a3af-4d55-838a-68cdaf0e6587	Get App Role Assignments	Lee Gu	d65c3cb9-6632-4669-aece-b646e54bf485

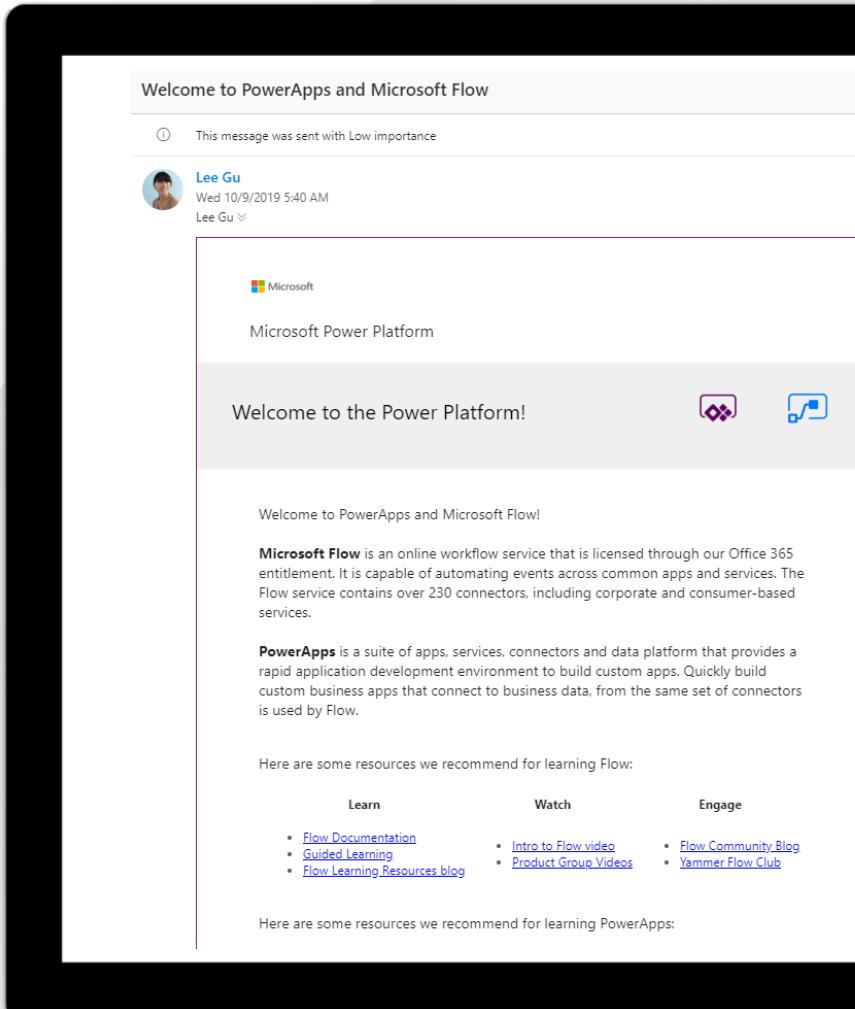
Center of Excellence Starter Kit – Nurture Components

Solution	Scenario	Toolkit component
Nurture Components	Onboard new makers, provide training and share best practices	<ol style="list-style-type: none">1. Admin Welcome Email (Flow)2. Template Catalog (Canvas App)3. Admin Newsletter with Product Updates (Flow)4. Training in a day Management and Registration (Canvas Apps)5. Training in a day Feedback Reminder, Registration Confirmation and Reminder (Flow)
	Encourage Adoption	<ol style="list-style-type: none"><li value="6">6. App Catalog (Canvas App)

Welcome email (nurture)

Sends an email to makers who create an app, flow or connector for the first time

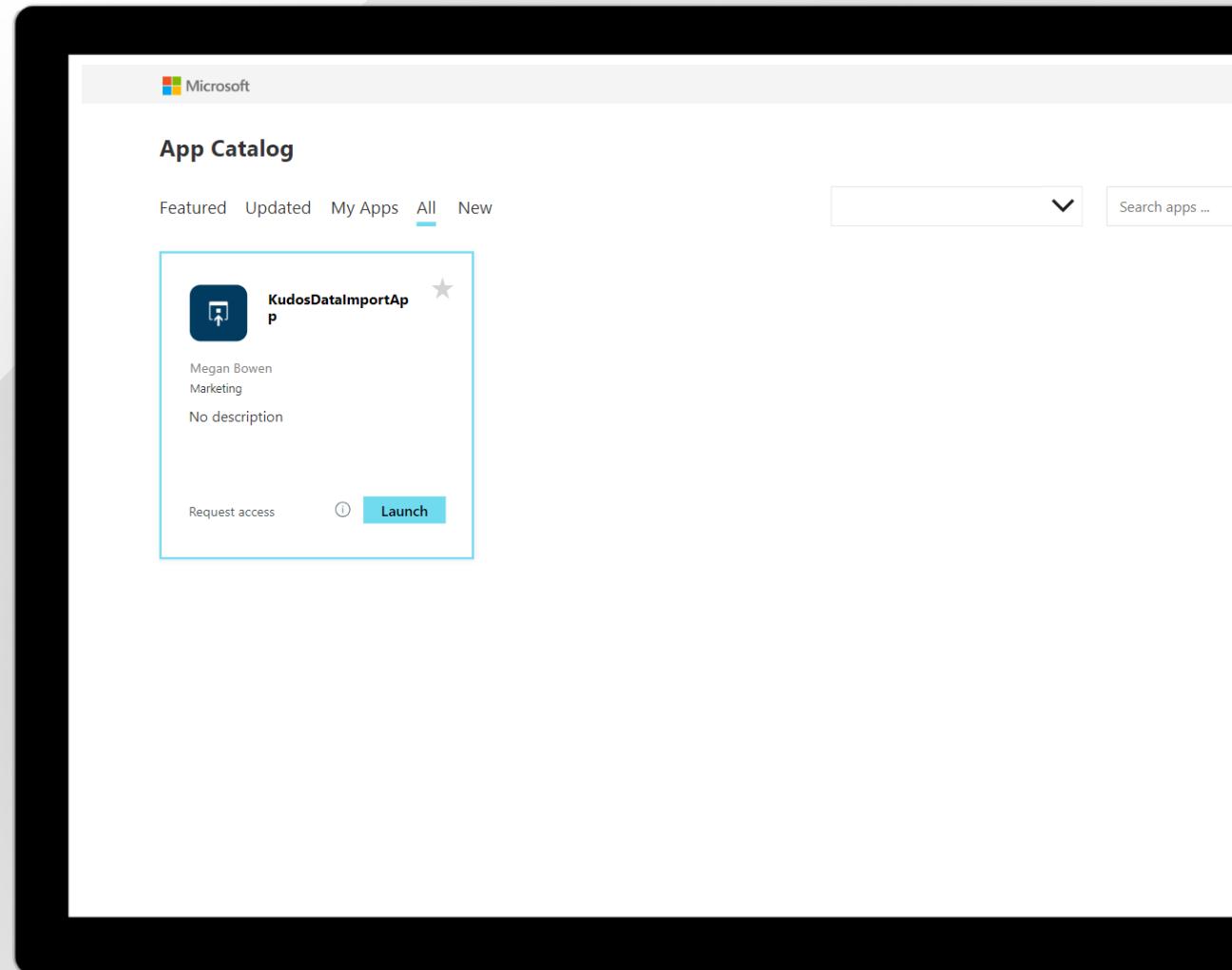
Adds new makers to an Office 365 Security Group



App Catalog (alert&action)

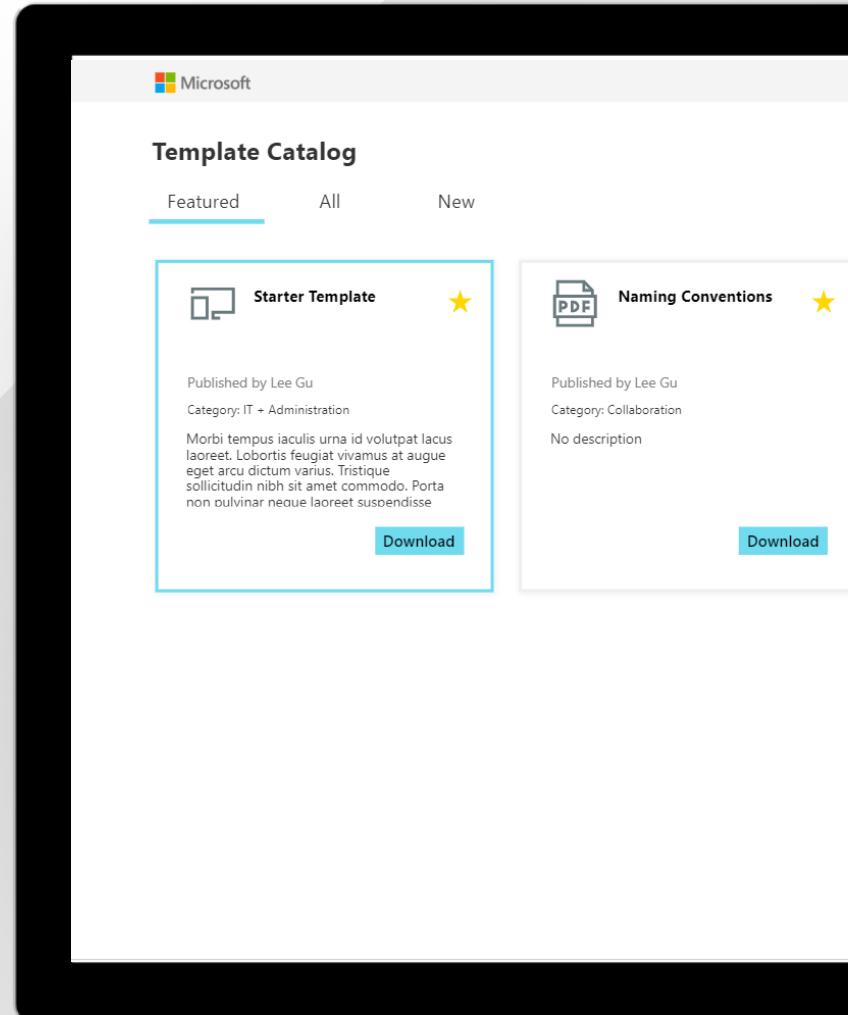
Make Apps more discoverable using the App Catalog

Admins audit and validate apps which are then graduated to the App Catalog



Template Catalog (nurture)

Share app and flow templates, as well as best practices (brand guidelines)



Training in a Day Management (nurture)

Organize Power Platform in a Day events
Add events & manage attendees

Attendee mobile app to access event details, register, and get additional learning resources

Flow sends reminder and feedback request

The image displays two screens illustrating the Microsoft Power Platform In A Day system. On the left, a smartphone shows the mobile application interface with a list of events: "App in a day" (10 Oct 2019), "Advanced Flow in a day" (17 Oct 2019), and "Flow in a day" (02 Nov 2019). At the bottom of the screen are navigation icons for "Events", "My Events", "About", and "Resources". On the right, a desktop browser window shows the "Manage Power Platform In A Day Events" page. It lists three events: "Advanced Flow in a day on 17/Oct/2019", "Flow in a day on 02/Nov/2019", and "App in a day on 10/Oct/2019". Below the events are three attendee profiles: Megan Bowen (Marketing), Lee Gu (Manufacturing), and Debra Berger (Executive Management), each with a small photo and a trash can icon. The desktop screen also includes a Microsoft logo and buttons for "Edit Event", "Delete Event", and "eMail Attendees". Below the desktop screen, a mobile email message titled "App in a day (10/10/2019): Your Upcoming Training" is shown, sent by Lee Gu on Fri 10/4/2019 at 6:54 AM. The message body reads: "Emily Braun, don't forget your App in a day course is coming up on 10/10/2019. The course starts If you can no longer make it, please cancel your attendance using the 'Training In A Day' Pre-Requisites: Please download the latest course material from <http://aka.ms/appinaday> for App in a Day." At the bottom, a section titled "What you can expect on the day:" is partially visible.

Newsletter with Product Updates

Weekly updates using PowerApps and Flow
RSS feeds, sent to makers

Combines updates from PowerApps, Flow,
Power BI and PowerApps Community Blogs

Internal Power Platform Newsletter



Lee Gu

Mon 10/7/2019 10:20 AM

Lee Gu; Contoso Power Platform Makers ▾

Power Platform Product updates, news and announcements since 2019-09-30

Title

Summary

[Kelly Roofing uses PowerApps to capture photos at work sites](#)

Kelly Roofing partnered with PowerObjects, an HCL Technologies crew members to capture photos and other quick information about work sites. They used Microsoft Power Automate to capture capabilities of Dynamics 365, with data being stored in the Microsoft Teams channel. The data was then processed with Microsoft Flow.

[Announcing the general availability of the PowerApps component framework for model-driven applications and PowerApps CLI](#)

The PowerApps component framework for model-driven applications has reached general availability.

[Introducing OnReset property of component](#)

Introducing the OnReset property of components. With OnReset, you can now reset a component's state when it loses focus. Read details and examples.

Nurture



Evangelism and Training

Evangelism

App in a Day workshops
Hackathons with real business scenarios
Tech talks / best practices
Show and Tell
Share success stories

Community development

Create internal community of champions
Yammer / Teams channel
Internal portal / SharePoint site
Monthly newsletters
Individual recognition
Career Path

Training & support

Internal training resources
Learning tracks – beginner, intermediate, advanced, administration
Regular office hours



<https://aka.ms/PowerUp>

Community Development

The Heathrow community has been a game changer! Every time I have needed help there is always someone to reach out too. **Literally the impossible has become possible** through the Power Platform, I've gained a whole new set of skills where I am now super determined to push the limits, I am not a geek I'm cool.

Naz Bashir (Heathrow Airport)



Community Development

An internal community like GSK (Power) Rangers allows organic networks and connections be made, independent of hierarchy or business unit, based on knowledge and passion rather than formalised networks,

breaking down geographic and organisational silos.

Simon Owen (GSK)



Demo

RESOURCES

Download a collection of components and tools to help you get started:
aka.ms/CoEStarterKit

Find training resources, including guided learning and step-by-step guides
aka.ms/PowerPlatformLabs

Read up on customer success stories and find resources relevant to your experience, technical background and skill level
aka.ms/PowerPlatformResources

Get started with the Microsoft Power Platform path on Microsoft Learn, a free online and interactive training platform
<https://aka.ms/PowerUp>

NURTURE POWER PLATFORM ADOPTION IN YOUR ORGANIZATION

- Establish an internal community to allow organic networks and connections be made, independent of hierarchy or business unit, based on knowledge and passion rather than formalised networks, breaking down geographic and organizational silos.
- Dedicate a resource for managing the Power Platform CoE, this resource will be responsible for working with IT, Ops and Business Units to establish digital guard rails that encourage confident use of the platform
- Empower all makers to achieve more by providing learnings paths, learning lunches, and office hour support sessions
- Start running internal App and Flow in a day events and then organize hackathons to solve real life business scenarios
- Quantify, measure and share your success
- Create opportunities for everyone to learn new skills

Call to action

Read the documentation

Install the CoE to gain more insights into your tenant

Think about how to customize the CoE

Further ideas? Let me know in the Admin & Governance channel

PREREQUISITES

The following are prerequisites for installing the [CoE](#) starter kit as it comes in the solution.

1. **Admin account**
 - a. [Power Platform Service Admin](#), Global tenant admin or Dynamics 365 service admin for access to all tenant resources through the PowerApps APIs.
 - b. This solution will still work for Environment admins, but the view will be restricted to only the environments an Environment admin has access to.
 - c. Dynamics 365 service admin is required for getting details on Model Driven Apps and Solution Aware Flows.
2. **PowerApps Premium License** (Per App, Per User or Dynamics 365 Online licenses)
This is for using the CDS solution.
3. **Environment with a CDS instance**, where the user installing the solution has System Administrator security role.
4. [Download of the Center of Excellence Solution](#) and Power BI dashboard files to your device.
5. Both the Audit and Report Components and Nurture components solution require the [Core Components solution to be installed](#)

These are the requirements for using the solution.

1. Power Apps Premium License (Per App, Per User or Dynamics 365 Online licenses)
2. For the [Core Components](#) solution, only the admins need a Premium License. For the Audit and Report Components, all makers require a Premium License. For the Nurture components, everyone will require Premium License.

WHERE THE DATA COMES FROM

The "Admin | Sync Template" Flows crawl through all the resources stored in the Power Platform and makes a copy of details in each resource (e.g., apps and flows) to the CDS (entity definitions are provided in this solution). All data displayed in most of the starter kit components are dependent on the data first being in CDS, which means that the sync template must be configured for everything else to work.

The Sync Flows run daily overnight. When you first set up the CoE Starter Kit, you can