

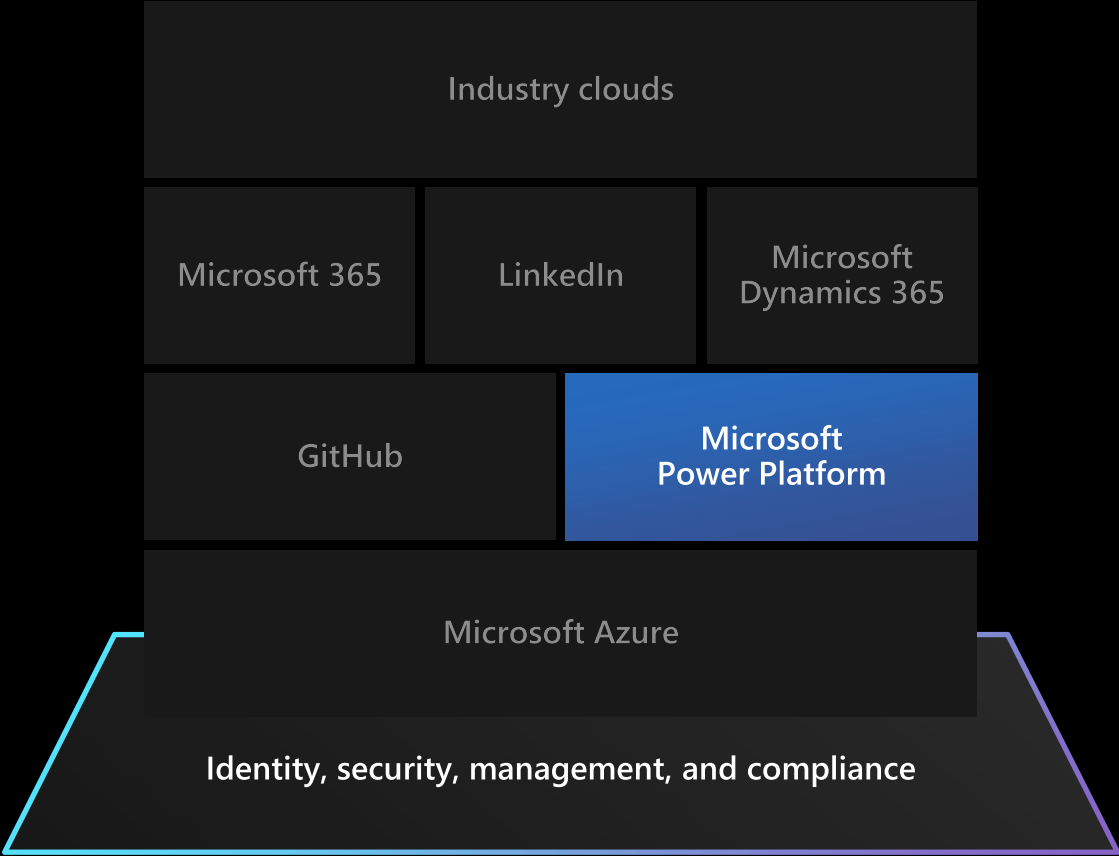


Lunch & Learn: Intro to Power Apps

Skylar Shonblom
Sr. Cloud Solution Architect



Microsoft cloud



Microsoft Power Platform

No code, low code, and code first—all are welcome



Power BI

Business analytics



Power Apps

Application development



Power Automate

Workflow automation

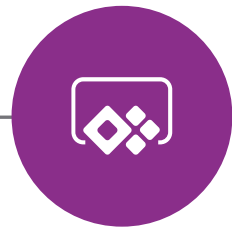
Microsoft Power Platform

The low-code platform that spans Office 365, Azure, Dynamics 365, and standalone applications
Innovation anywhere. Unlocks value everywhere



Power BI

Business analytics



Power Apps

Application development



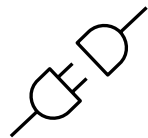
Power Automate

Process automation



Power Virtual Agents

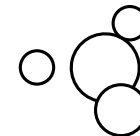
Intelligent virtual agents



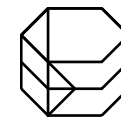
Data
connectors



Portals



AI Builder



Common
Data Service

Microsoft Power Platform

The low-code platform that spans Office 365, Azure, Dynamics 365, and standalone applications
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Power BI

Business analytics



Power Apps

Application development



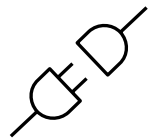
Power Automate

Process automation



Power Virtual Agents

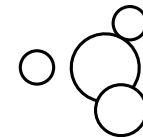
Intelligent virtual agents



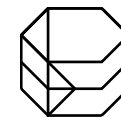
**Data
connectors**



Portals



AI Builder



**Common
Data Service**

Power Apps: a low-code approach to building apps



Build standalone web and mobile apps, or customize existing apps in Office 365 and Dynamics 365



Connect to all your data with 275+ pre-built connectors and custom connectors



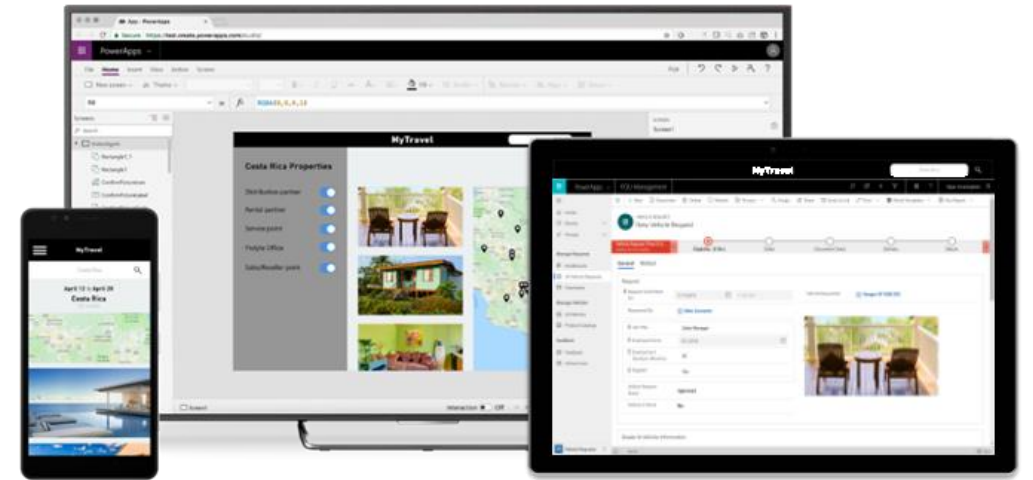
Add AI and intelligence with ease through built-in cognitive services



Provide IT guardrails with enterprise-grade governance and security controls



Pro-developer extensibility enables a “no limits” platform that spans business users to professional developers



A platform for all makers

Citizen Developer, IT Administrator, Professional Developer, App Wizard. We've got you



Intuitive to use & easy to learn for Citizen Developers

Build apps fast with a point-and-click approach to app design. Choose from a large selection of templates or start from a blank canvas

Easily connect your app to data and use Excel-like expressions to easily add logic

One admin center to rule them all for IT Administrators

No compromises on governance and security. One centralized view and management of all your 1 & 3rd party apps, eliminating shadow IT

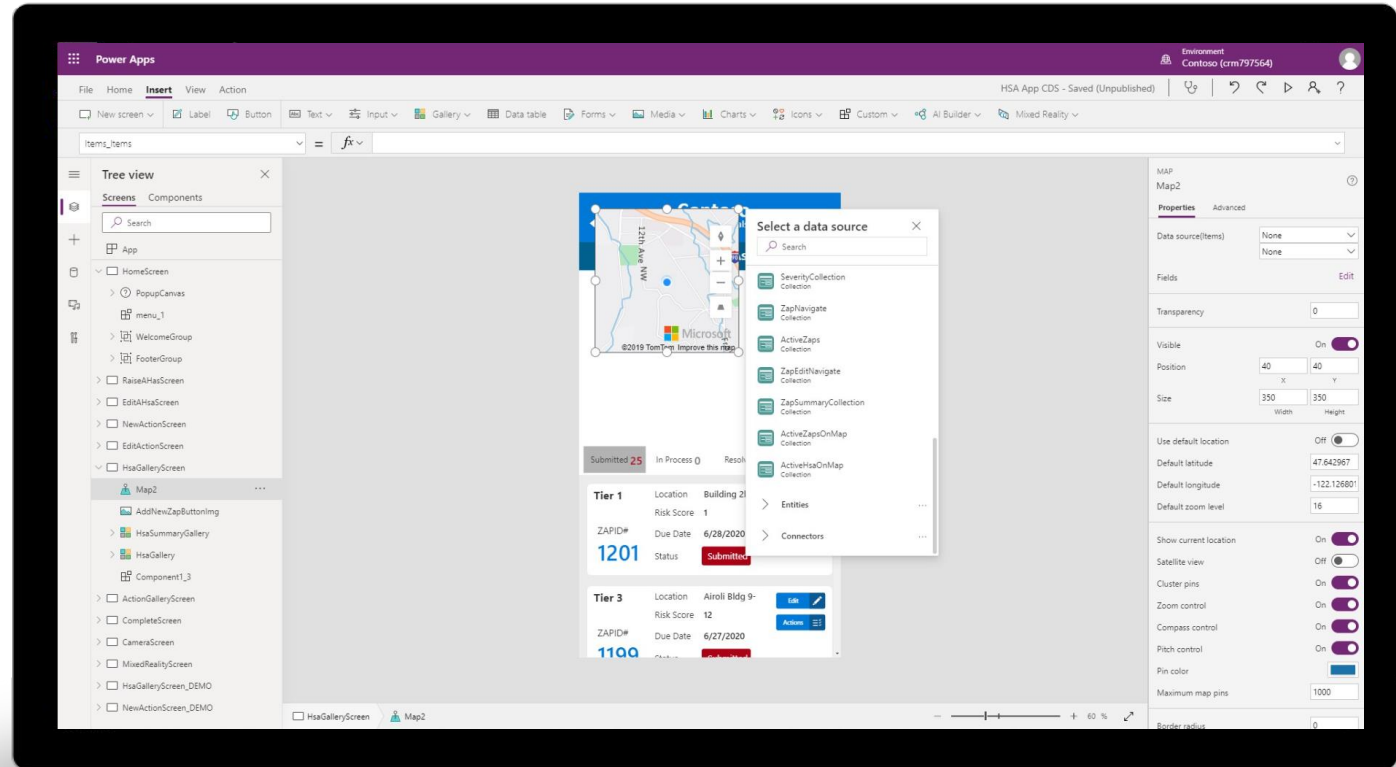
GDPR compliance, and enterprise grade security, consistent with the experience across O365 & D365


World class Pro Developer support and ALM

Experience the full range of development and ALM functionality with rich pro developer tools like Visual Studio and DevOps

Reuse your current IP and skills – Power Apps component framework, CLI and VS Code create instant value for the business

Demo

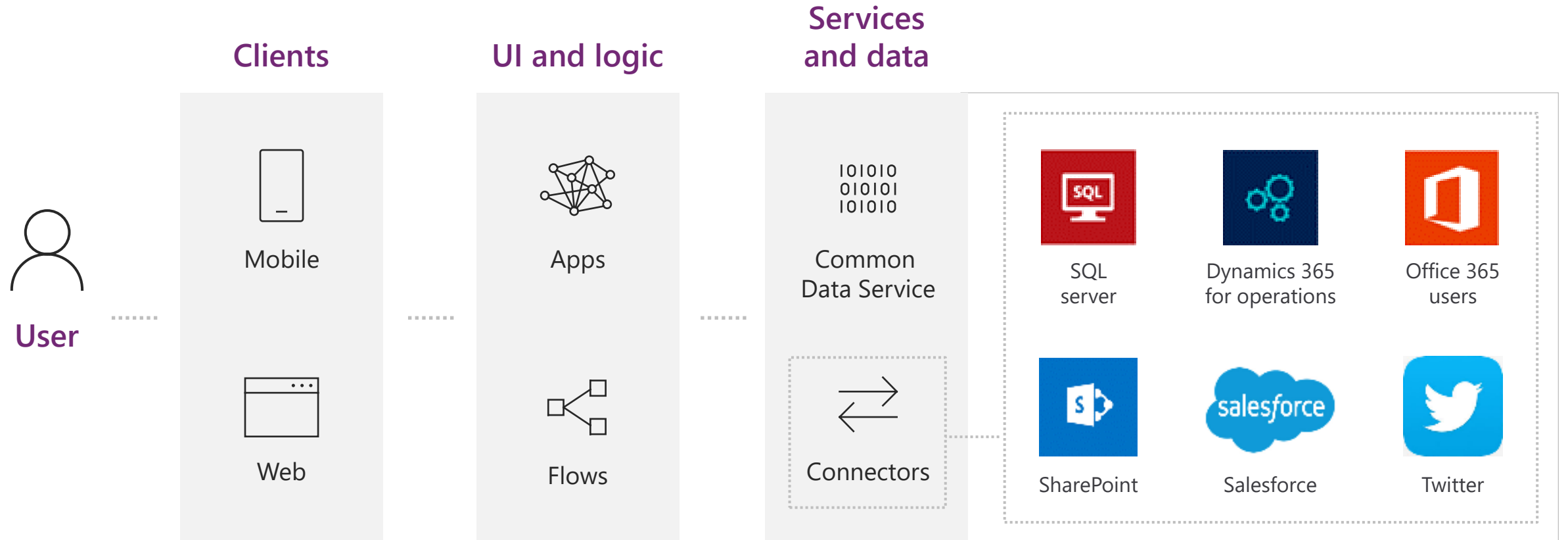




Rapid app development

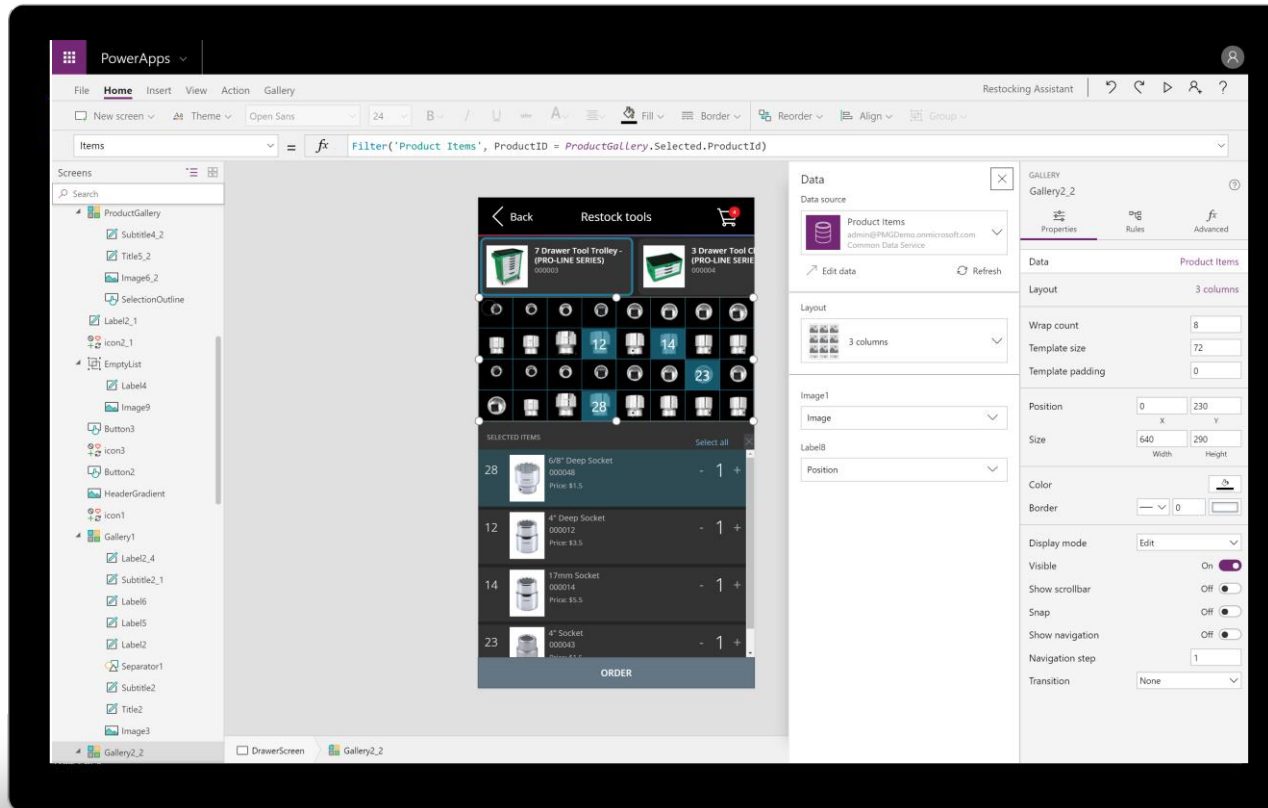
Empowering everyone
to build apps

Power Apps enables low-code development



Power Apps Studio

Authoring experience for creating Power Apps



Always updated with the latest builds and allows you to work in your browser whether you are at work or home on a Mac or PC

Ensure enterprise quality with built-in app and solution checkers



Find and resolve errors (programmatic errors) and performance issues faster



Continued investment to provide guided experience to make debugging easier



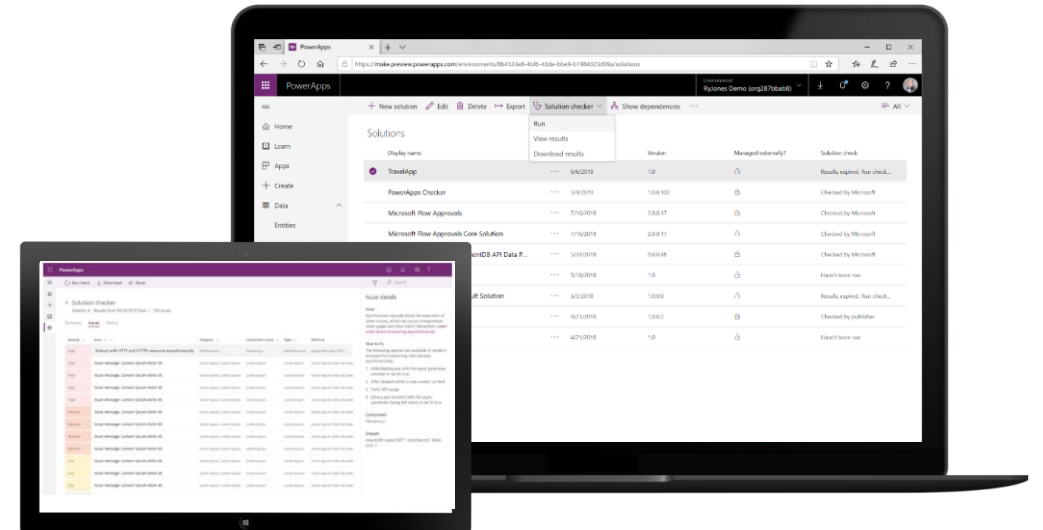
Discover accessibility issues and recommendations inline



Performance and stability risks called out by severity and location (component/line)



Identified risks supported by best practice recommendations on docs.microsoft.com



Cloud and on-premises connectivity



Built-in connectivity to 275+ cloud services, content services, databases, APIs, etc.



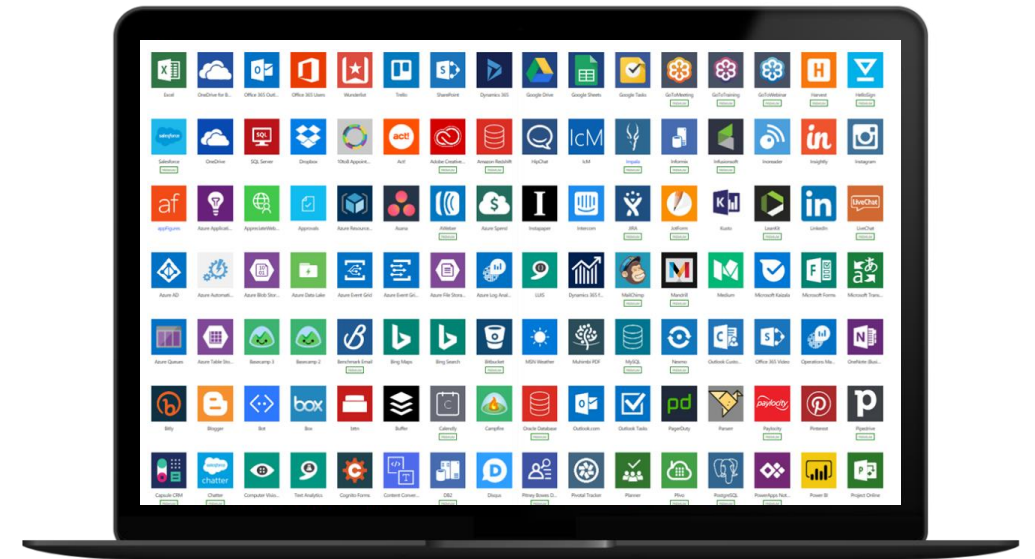
Seamless hybrid connectivity to on-premises systems via the on-premises data gateway



Develop and register custom connectors as a building block for citizen developers



Break down data silos by using multiple data sources in a single application



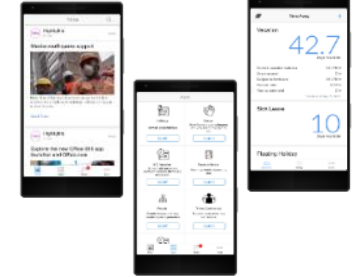
Enabling digital transformation across the organization



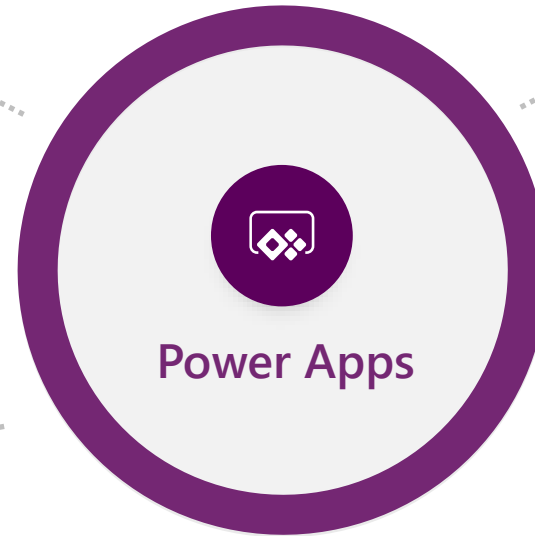
Extending Office 365
and Dynamics 365



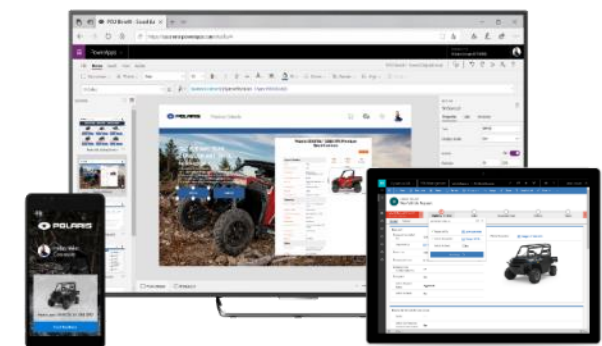
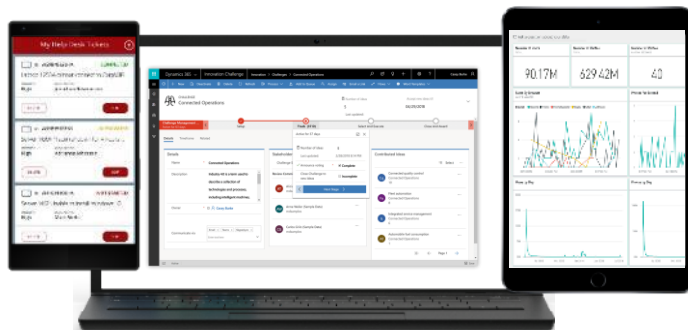
Extending legacy
applications



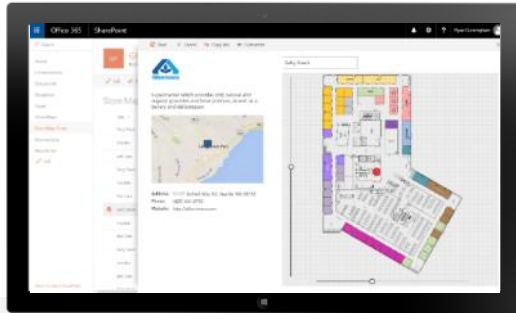
Building mission-critical
end-to-end solutions



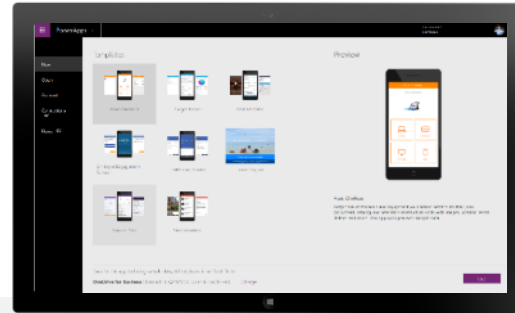
Building departmental
solutions



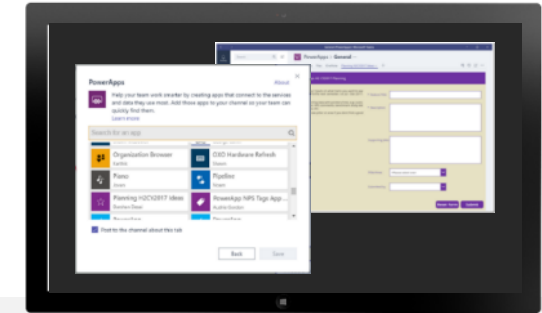
Integrated with Office 365



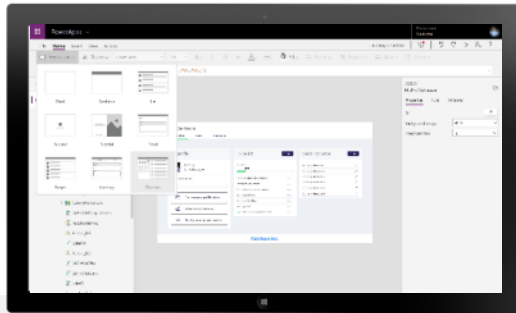
Publish Power Apps as a SharePoint web part or create a custom SharePoint list experience



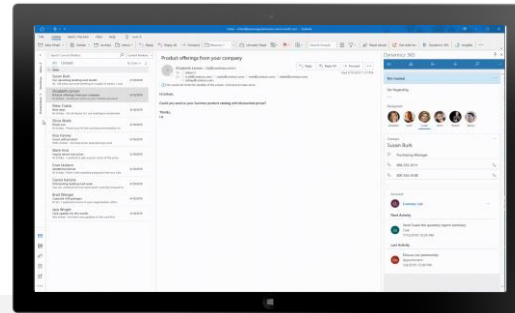
Build a Power Apps app from an Excel sheet on OneDrive



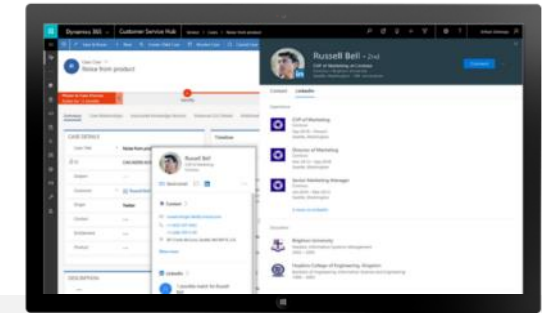
Customize a Microsoft Teams tab with Power Apps



Use Office 365 data through built-in connectors and Office 365 screen templates

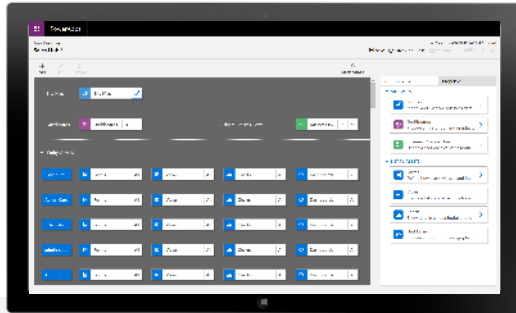


Bring data from CDS and Power Apps UX to Outlook with the mail app (Win32, OWA and mobile)

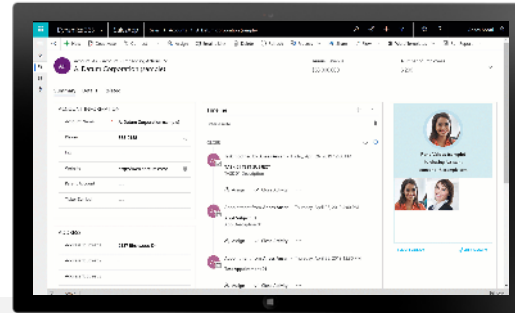


Office 365 people card in Power Apps (incl. LinkedIn info)

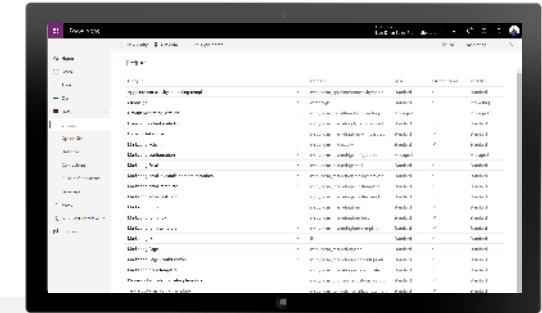
Integrated with Office 365



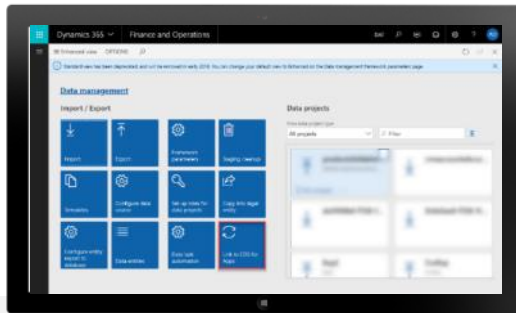
Power Apps provides the tools to customize Dynamics 365 for customer engagement



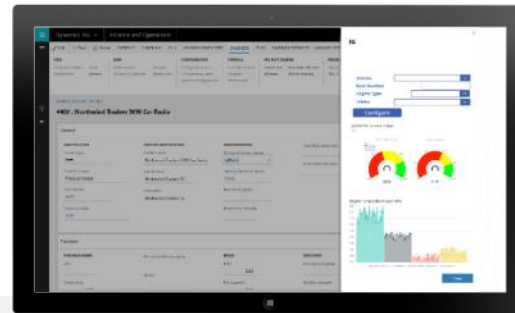
Embed apps in Dynamics 365 for customer engagement



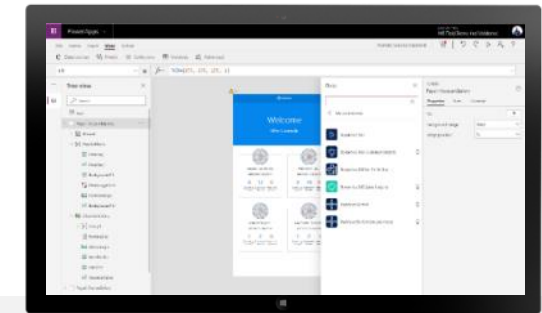
Dynamics 365 for customer engagement runs on Common Data Service



Common Data Service enables dual-write integration with Dynamics 365 for finance and operations



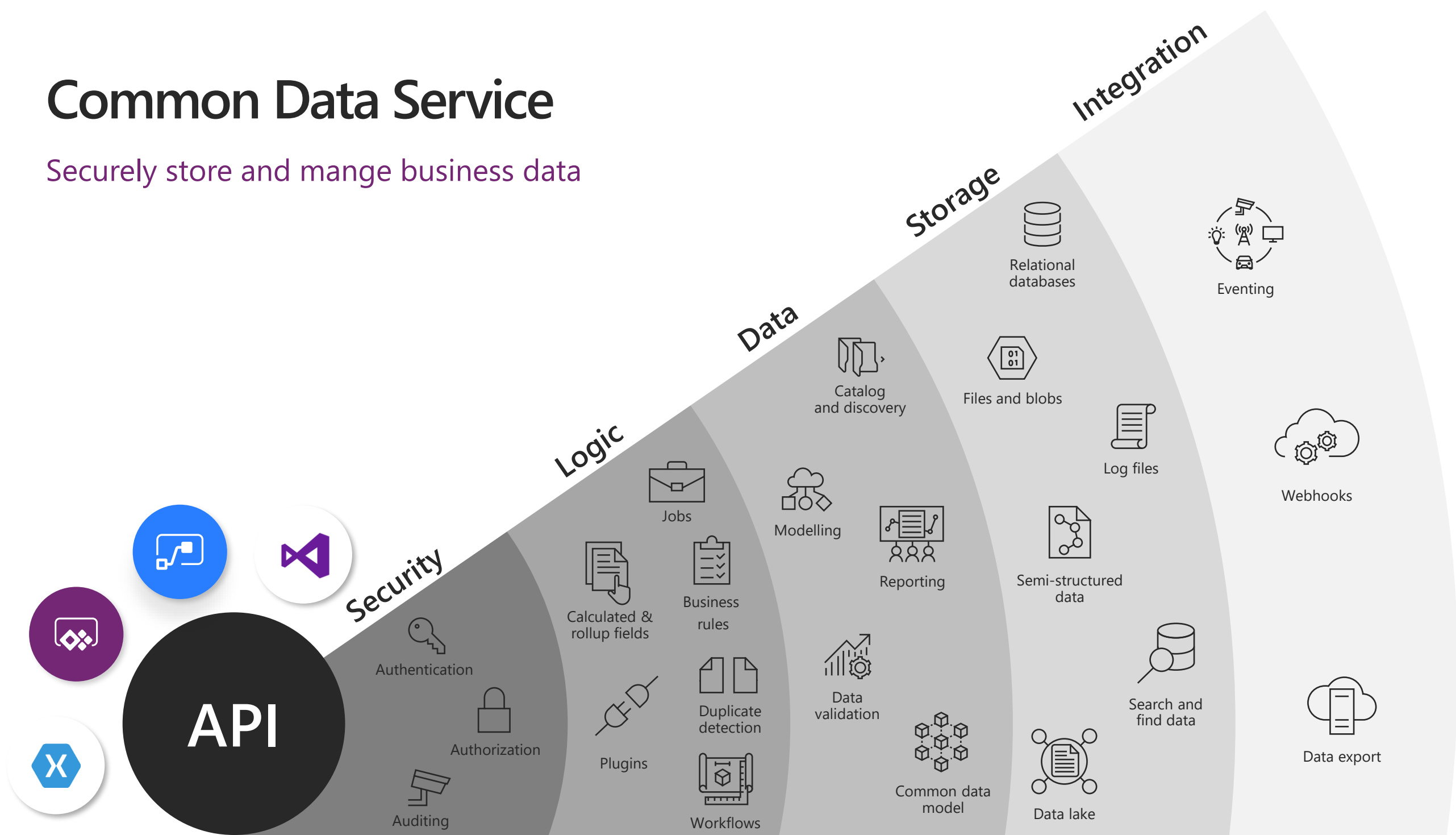
Embed apps in Dynamics 365 for finance and operations



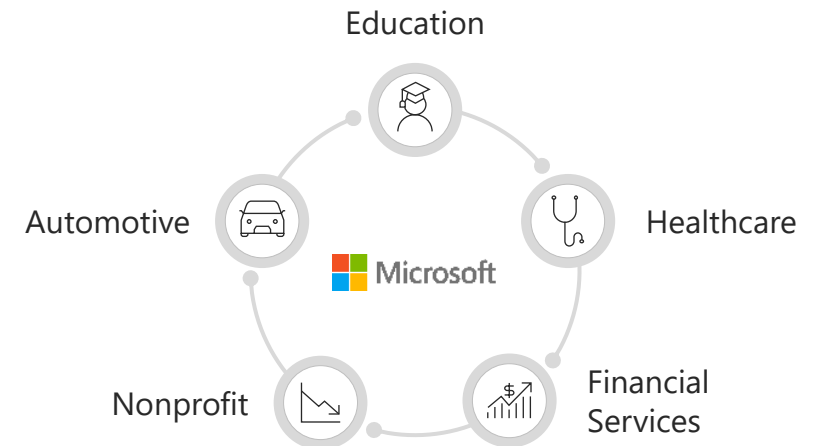
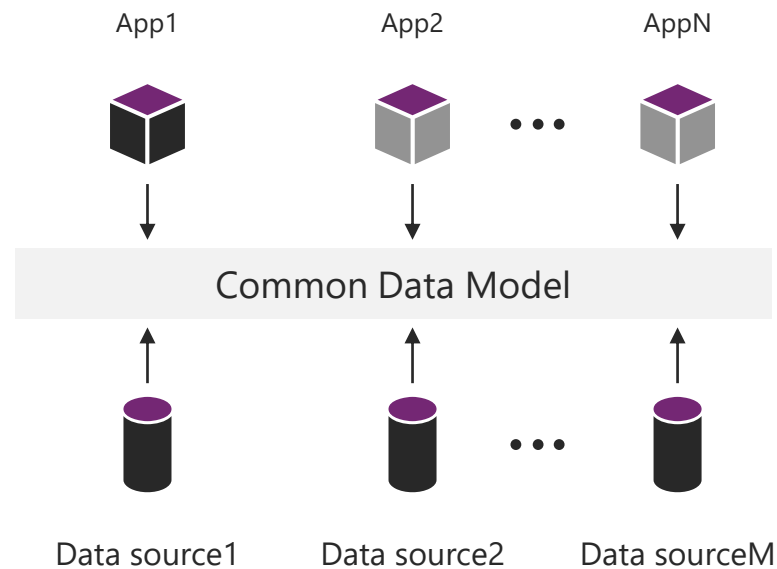
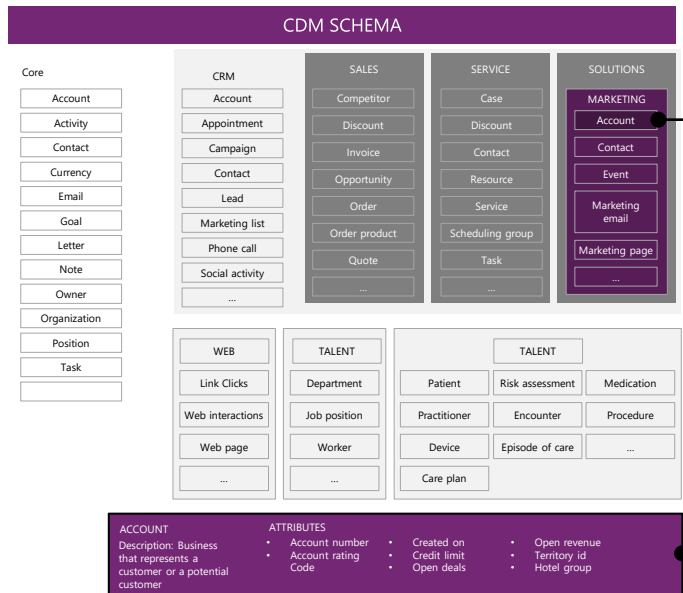
Extend Dynamics 365 with mobile Power Apps solutions

Common Data Service

Securely store and manage business data



Common Data Service implements the Common Data Model (CDM)



Open source and shared data model that provides semantic consistency for data

Allows makers to more quickly develop applications and integrators to more easily interoperate across multiple systems

A growing set of solutions and partners that contribute to the effort by implementing CDM or extending with industry-specific domains



Extending Office 365 and Dynamics 365

Extending legacy applications

Building departmental solutions

Building mission-critical end-to-end solutions



Power Apps

App designer

Form designer

View designer

Dashboard designer

Canvas studio

Solution explorer
(advanced)

Power Automate (workflow and business process)

Sharing+
security

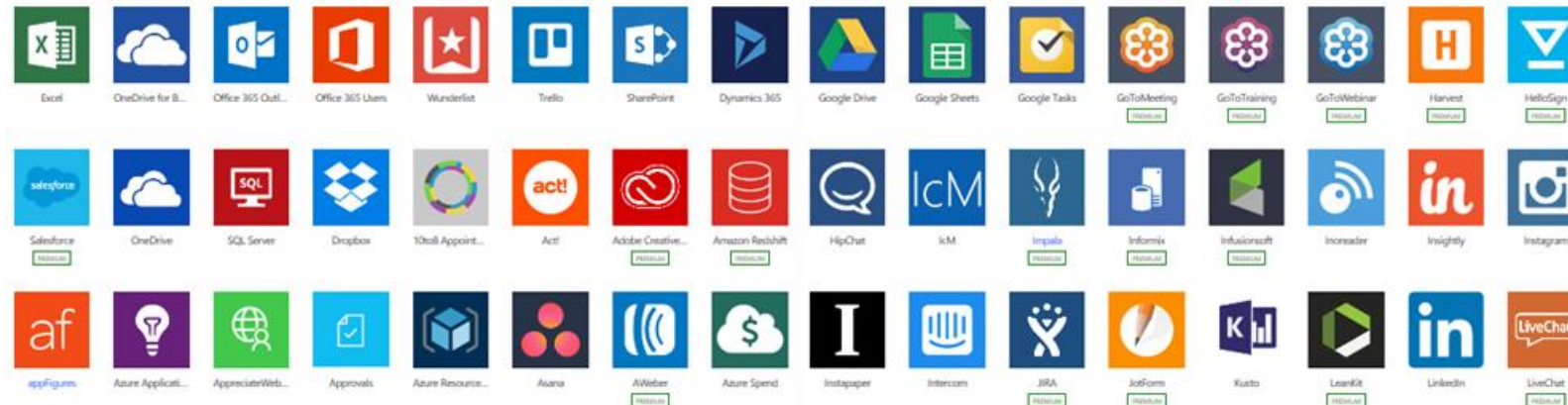
Common Data Service

Dynamics 365 data natively on the platform—no integration required

Enterprise-grade application lifecycle management

Server-side business logic for validation, defaulting, calculated fields and more

275+ connectors



Low-code backend with Common Data Service



Jumpstart apps using an extensible data model with business logic, security and integration built in



Enable AI through built-in cognitive services powered by AI Builder and Azure



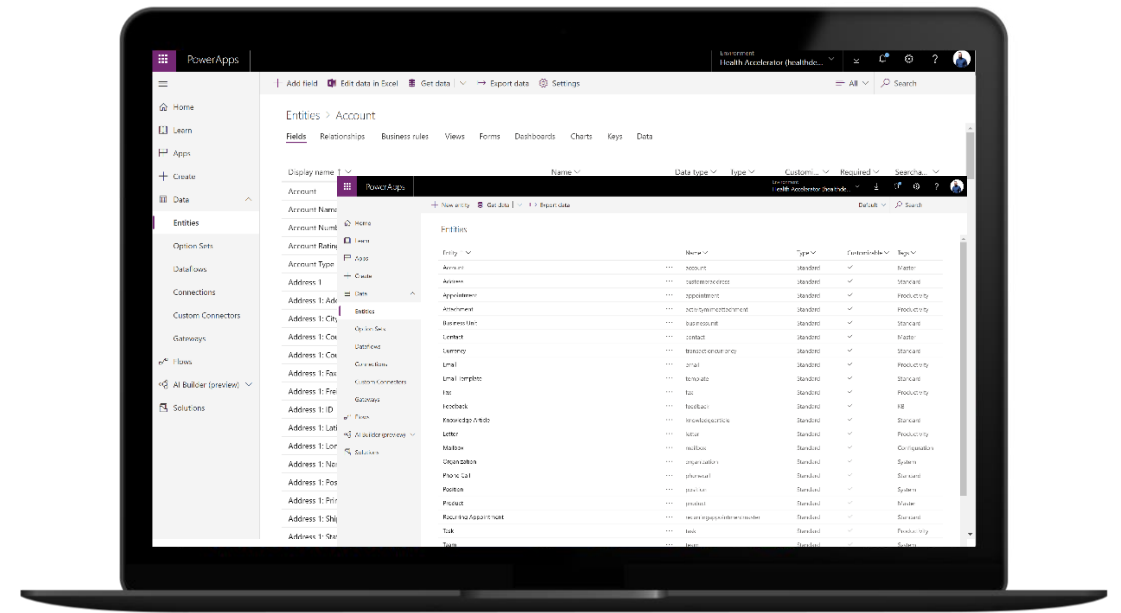
Extend data and processes to external and anonymous users with Power Apps portals



Support all your data: relational data, file and blob storage, logs and search indexing



Effortless Dynamics 365, Office 365 and Azure integration as well as powerful integration capabilities



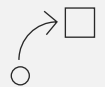
Data integration capabilities built-in to the Common Data Service



Integrate directly with CDS using the Excel Power Query features relied on by millions of users each month



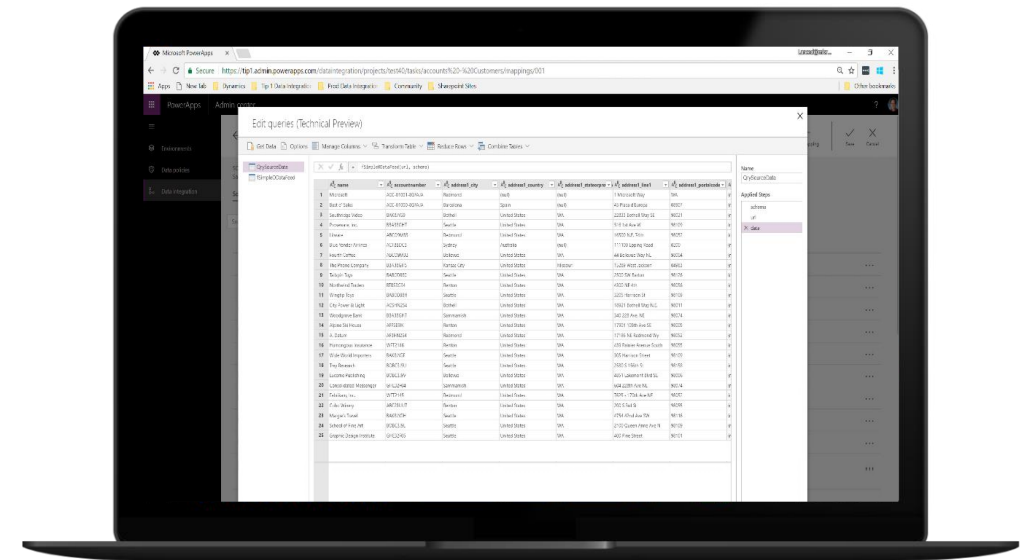
Built-in management features like CDM entity mapping UX, environments and scheduled refresh



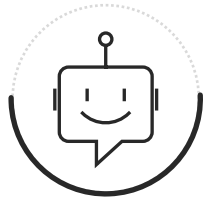
300+ transformations to clean and reshape data



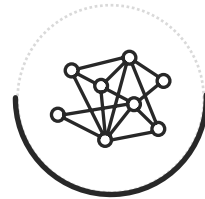
A growing set of connectors to integrate with your cloud and on-premises data sources



Low-code AI for apps and processes with AI Builder



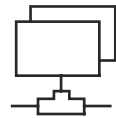
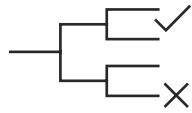
Low code AI solutions for Power Platform leveraging the power of Azure AI



Native integration with Common Data Service enables data from CDS, Azure Data Lakes



Leverage predictions directly from Common Data Service across your Power Platform solutions, Dynamics 365 or Microsoft 365



Prediction



Vision



Vision



Language

Binary classification

Predict and classify fields in CDS

Forms processing

Extract structured data from digital paper, PDFs, and forms

Object detection

Detect any object (via custom training) through camera or image control

Text classification

Classify, group and categorize any text in CDS

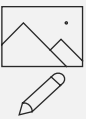
Low-code solution for responsive websites with portals



Create multilingual, responsive websites to engage with internal and external customers, partners and employees



Use anonymous access or any of the commercial or enterprise login providers like Microsoft Account, LinkedIn, Azure AD B2C and more



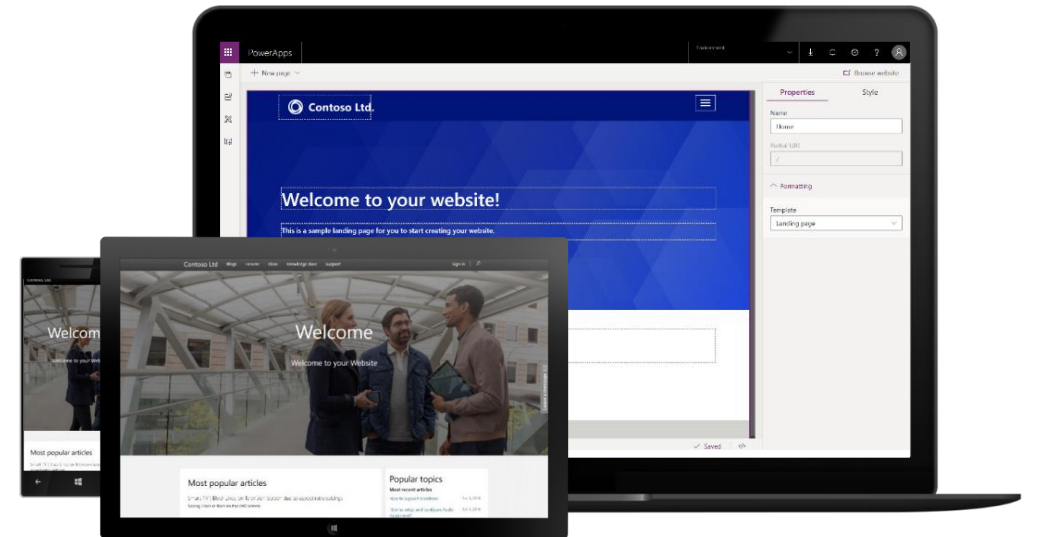
Use WYSIWYG designer to create website content and enrich with CDS/Dynamics data using familiar constructs like forms, views, charts, dashboards



Pro-dev extensibility and templating capabilities to design complex business processes



Dynamics 365 provides integrated starter templates like customer self service, partner management, event management and community self service



Low-code creation of reusable components



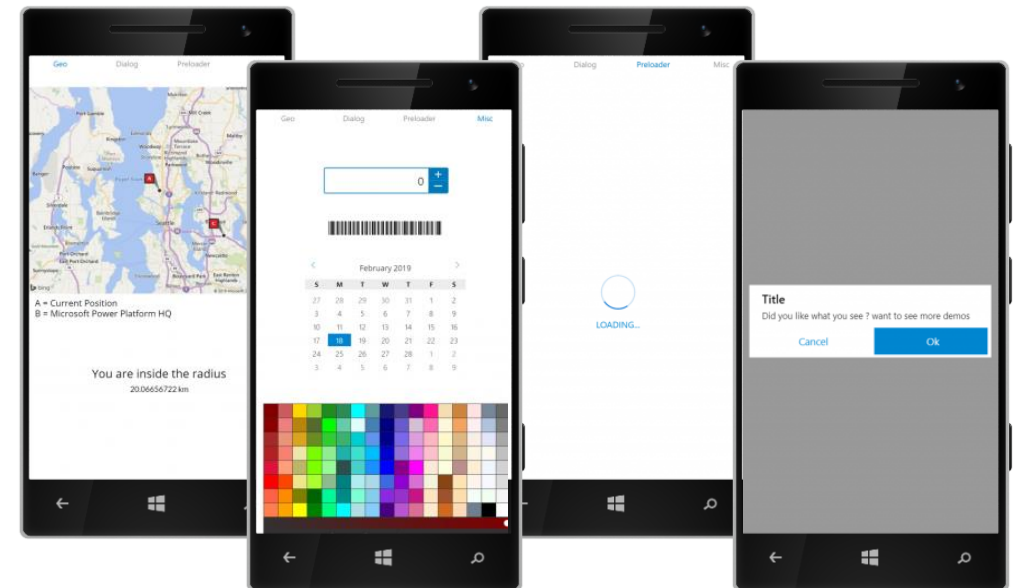
Quickly develop reusable, embeddable components with the low-code canvas



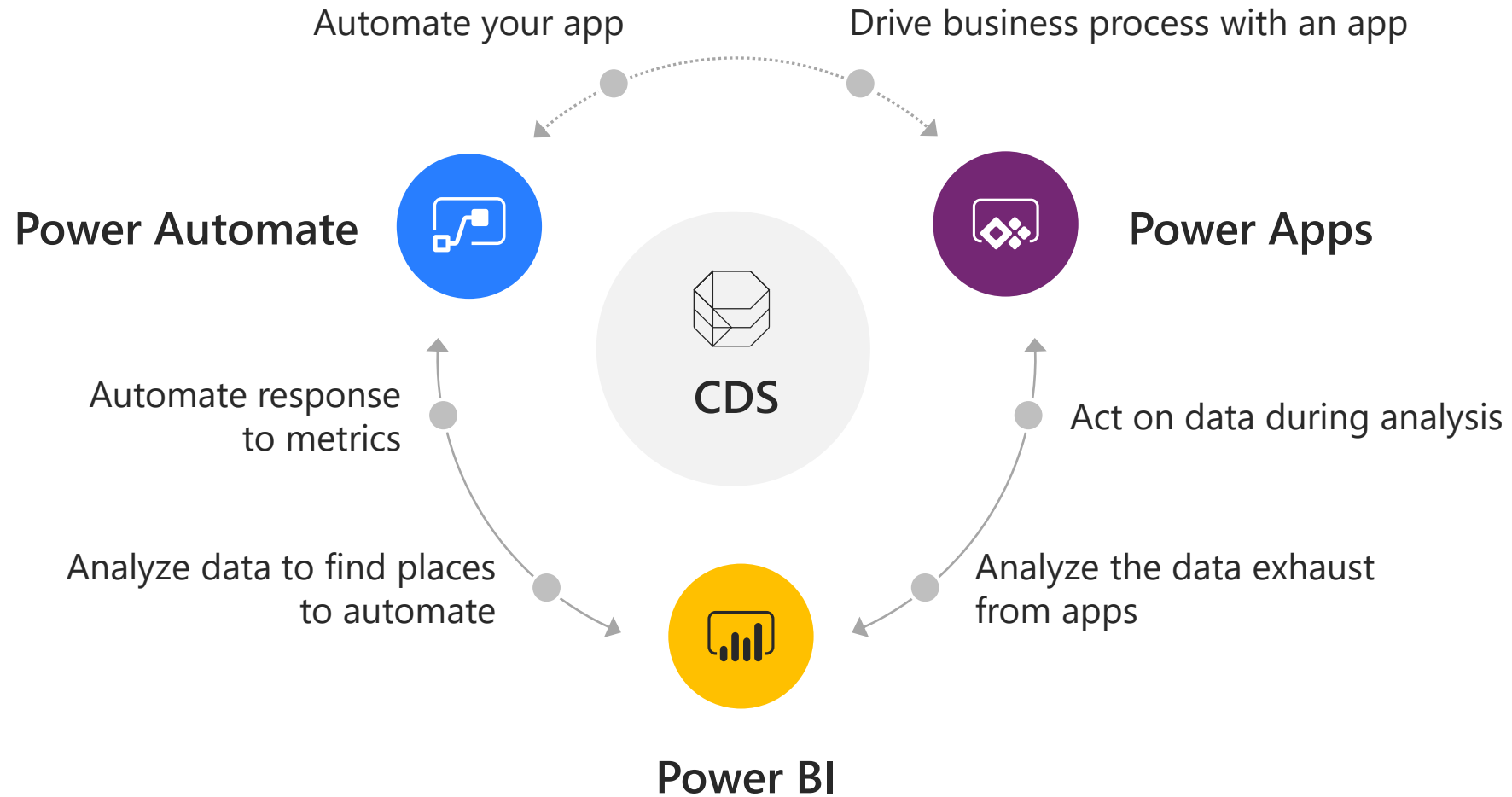
Reuse within and across apps; compose with pro-dev components



Enable faster and more consistent development when many makers are using the same components



Integrated low-code platform



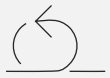
World-class application lifecycle management



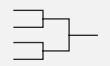
Great support for moving assets across environments using solutions



Full developer isolation with access to authoritative source management in GitHub



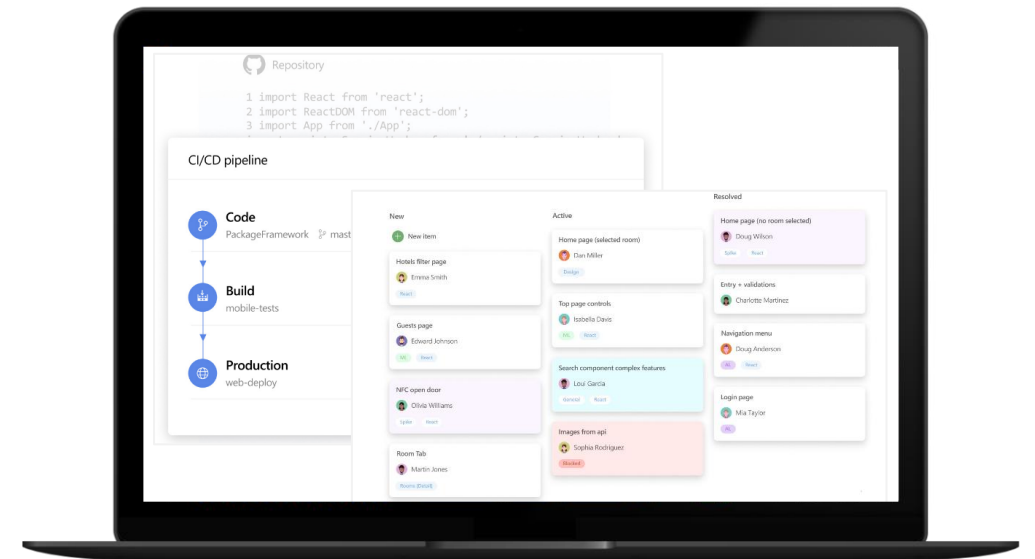
Agile process governance and team collaboration through integration with Azure DevOps



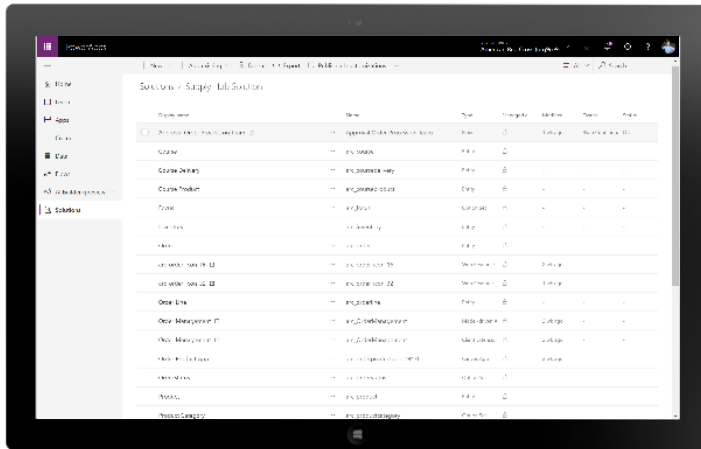
Rich environment to view and manage Kanban boards, backlogs and sprints



Full automation of repeatable processes for tests and pipeline supporting any continuous integration/continuous deployment framework

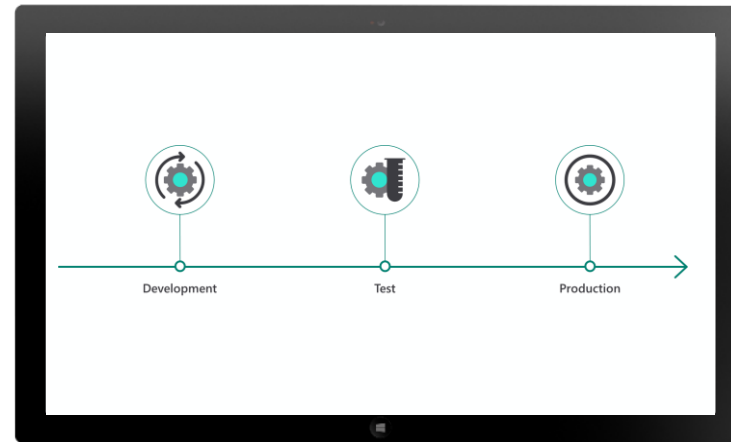


Solutions enable lifecycle management



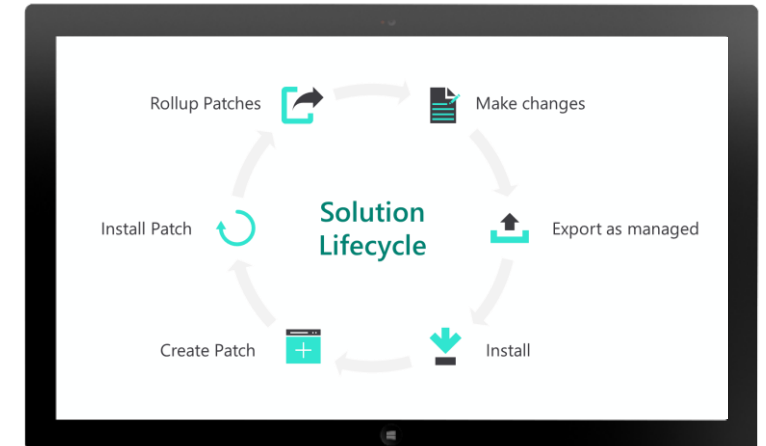
Author solutions

Solutions are containers to track the changes and customizations you make



Deploy solutions

Solutions are how you transport and install changes to target environments



Manage solution lifecycle

Solutions enable lifecycle management for your customizations and can be fully integrated into your DevOps processes

ALM powered by Azure DevOps



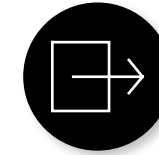
Initiate

Getting started, faster



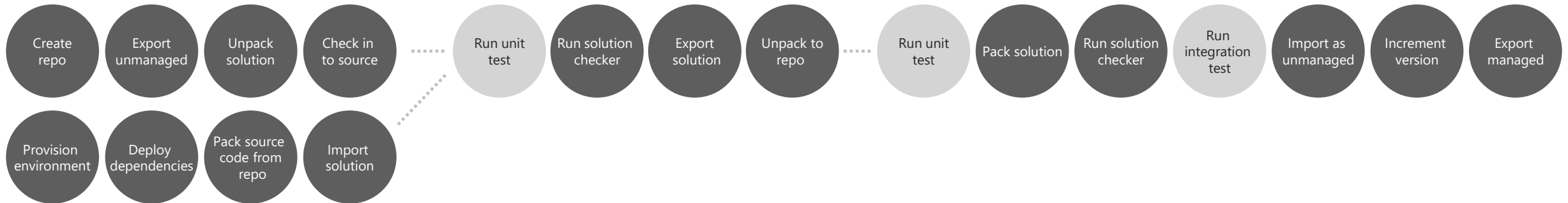
Build

Build and walk away



Release

Automated, predictive, repeatable



Initial build pipeline instantiates pristine development environment daily

Build pipeline automates manual steps. No more upload to solution checker and manually export solution, unpack and push to repo

Automated release pipeline removes manual steps. Weekly, daily or hourly releases becomes the new standard

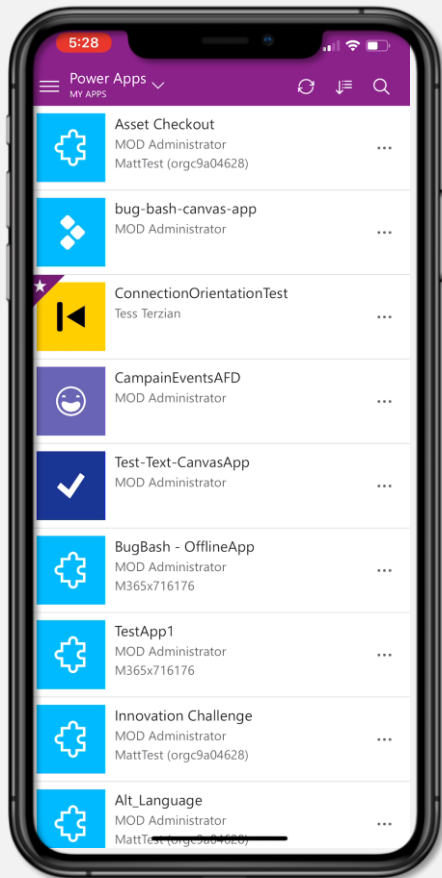
A photograph of two men in business suits. The man on the left is leaning forward, looking at a tablet held by the man on the right. The tablet displays a bar chart with four bars in yellow, blue, green, and orange. The background is a blurred office setting with a window on the right.

What's New

2020 Wave 1

Power Apps mobile app

Coverage to run both canvas and model-driven apps

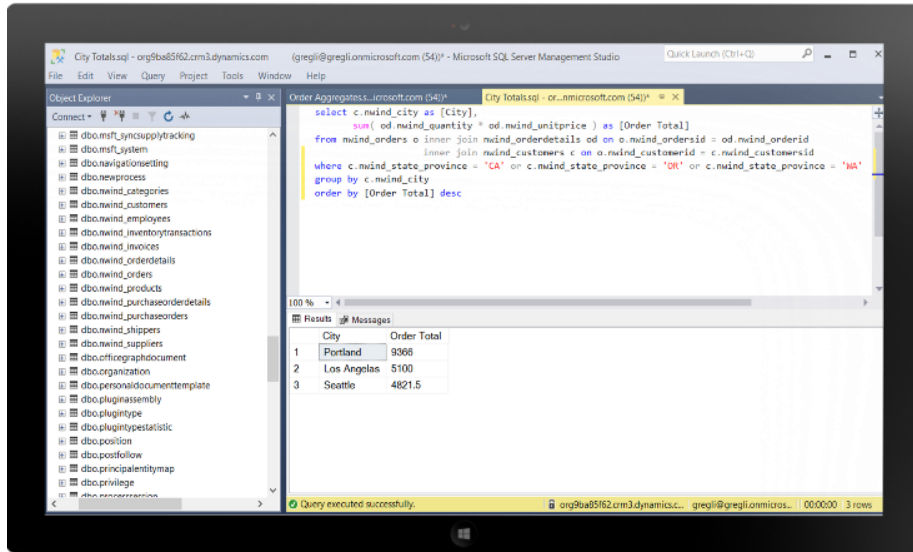


Supports iOS or android



Pin apps to home screen for native apps like experience

More powerful data tools for the Common Data Service (CDS)

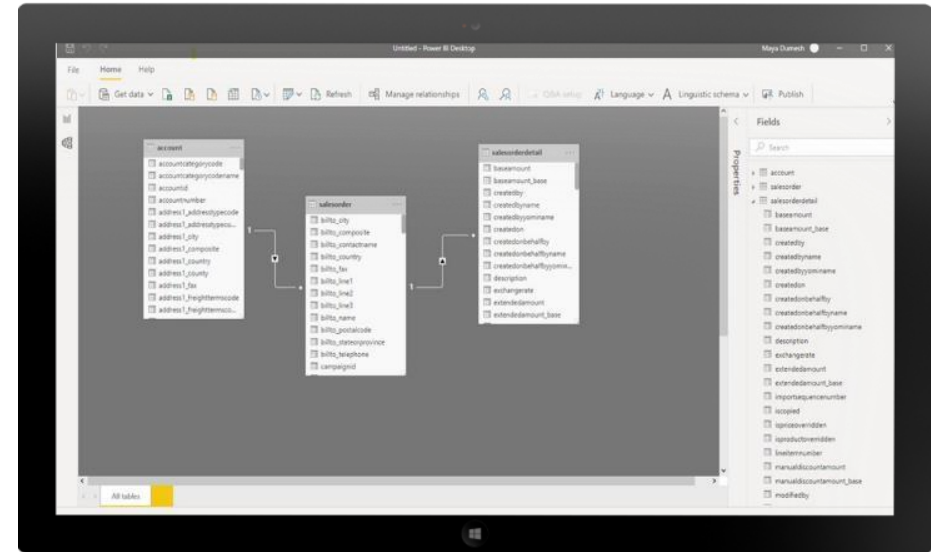


T-SQL endpoint for CDS

SQL Server Management Studio WORKS!



AAD auth means all security WORKS! (e.g. RLS trimming)



CDS Direct Query for Power BI

The full stack runs – e.g. plugins and rules

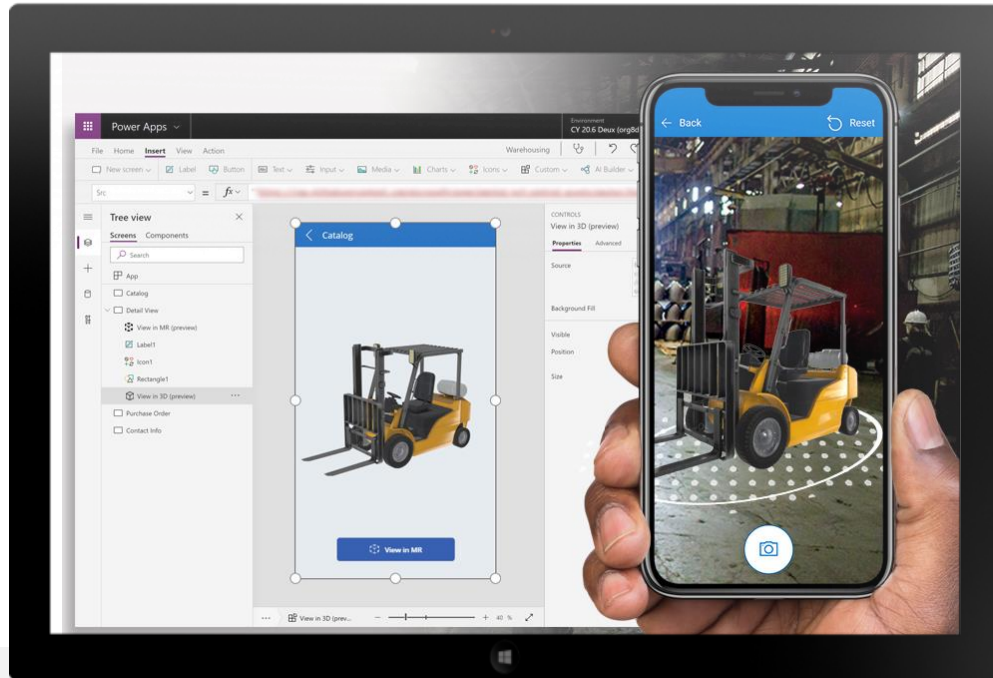


Entity Framework WORKS!



Mixed reality in Power Apps

Now it's possible for everyone to build mixed reality apps



Mixed Reality

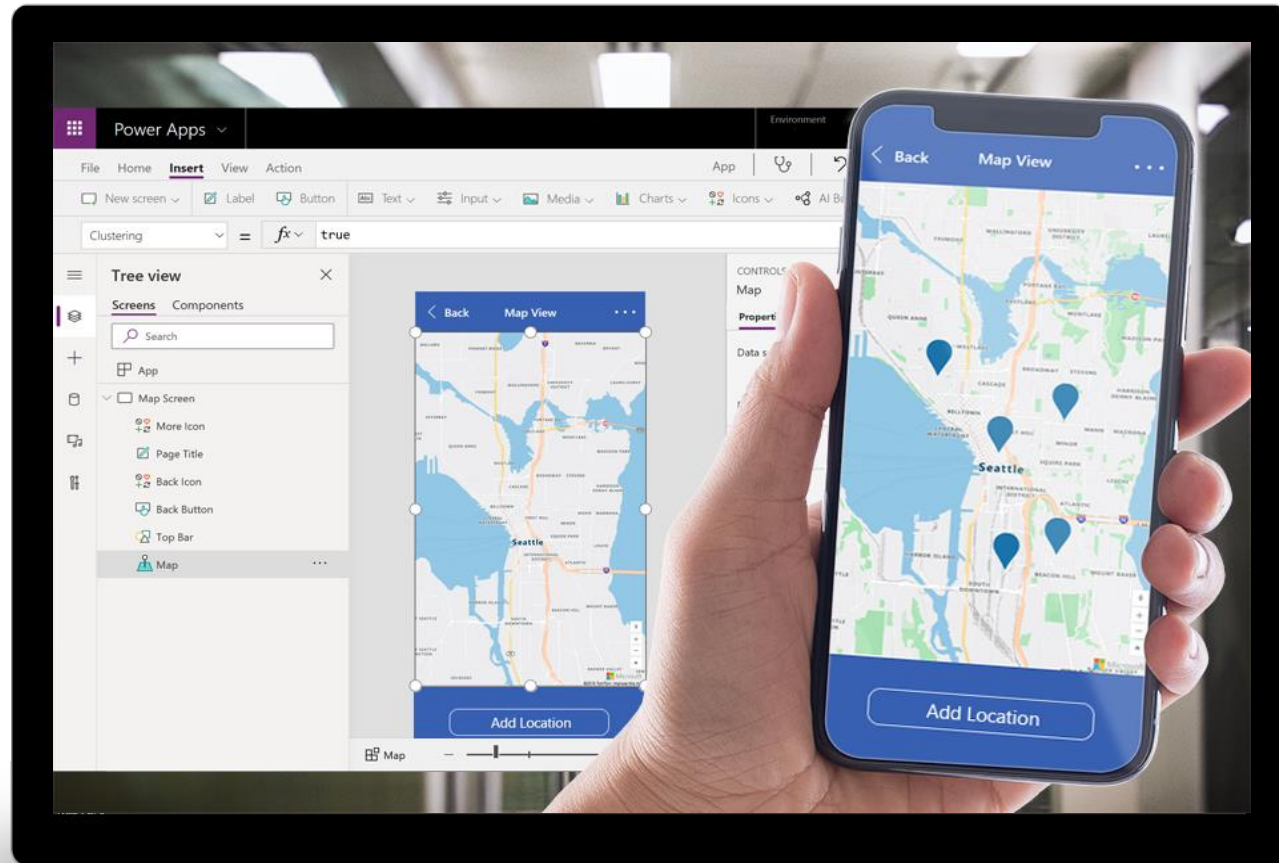
Visualize object in augmented reality



Virtual volumetric representations

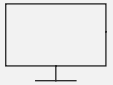
Understand and validates physical spaces before you start work

Interactive maps and geospatial services

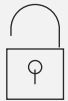


Easily add location-based services to your app

Enhanced Data Loss Prevention and connector control



Connector blocking supported for both tenant and environment-level DLP policies



Three-way grouping support – Blocked, Business, Non-Business – using a single DLP policy



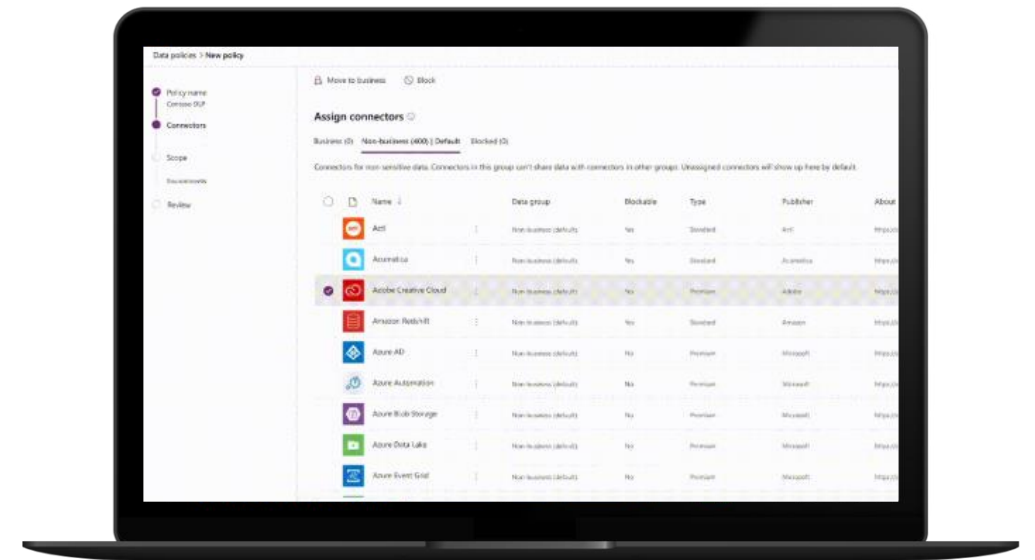
All third-party connectors can be blocked. Microsoft Premium connectors can be blocked



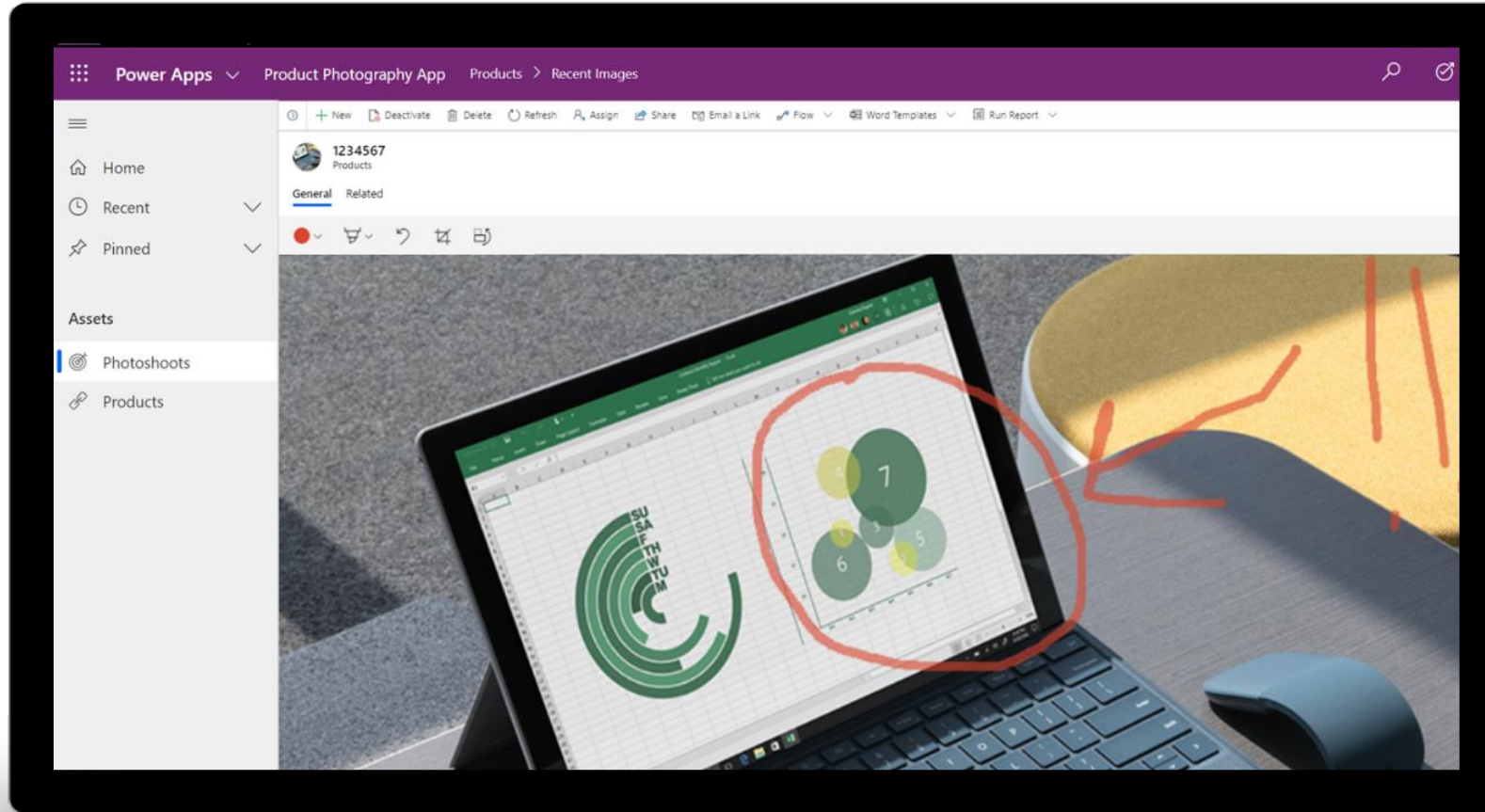
Microsoft owned Standard connectors and Common Data Service are exempt from blocking



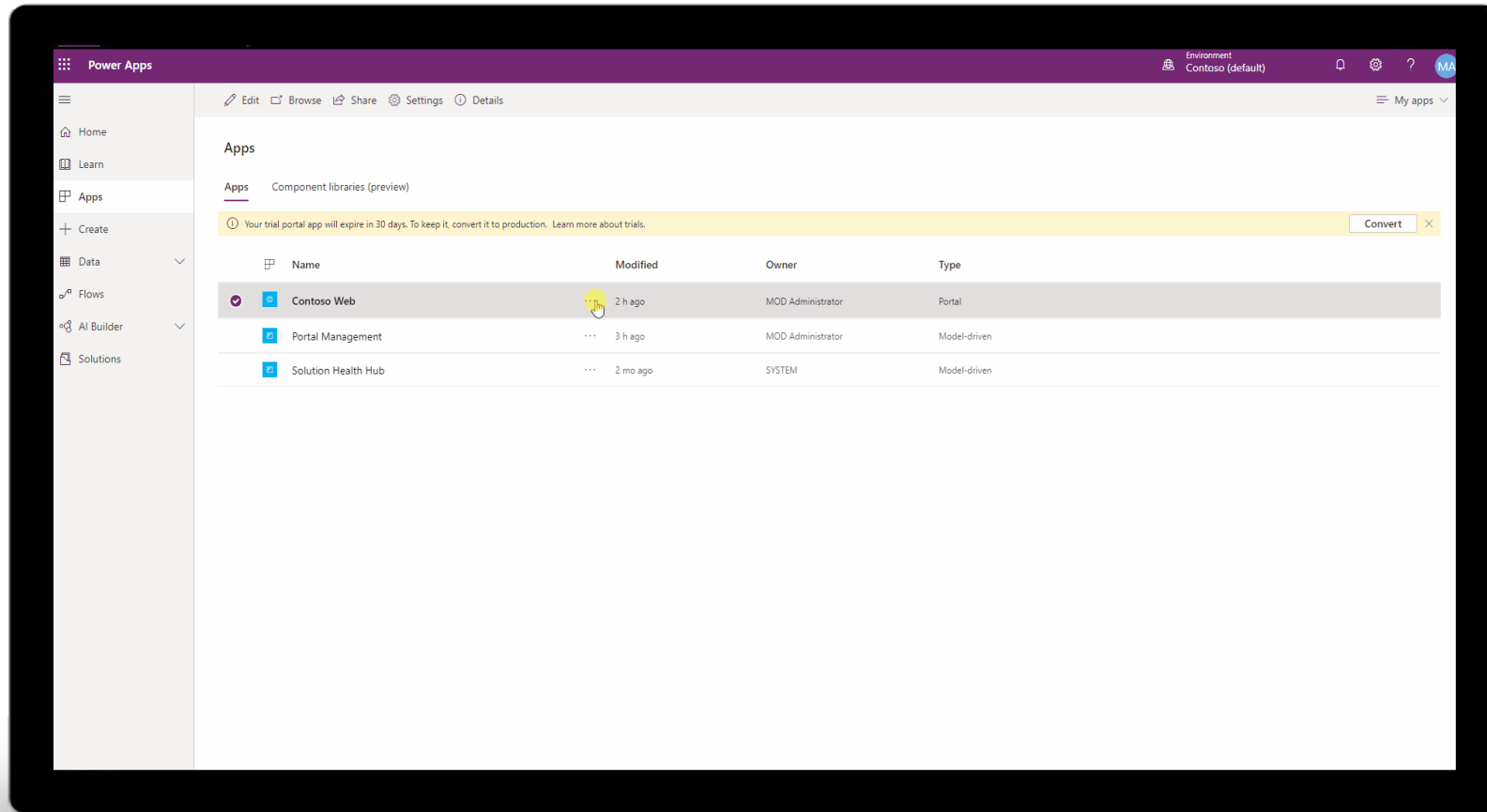
User interface support through Power Platform admin center and PowerShell support



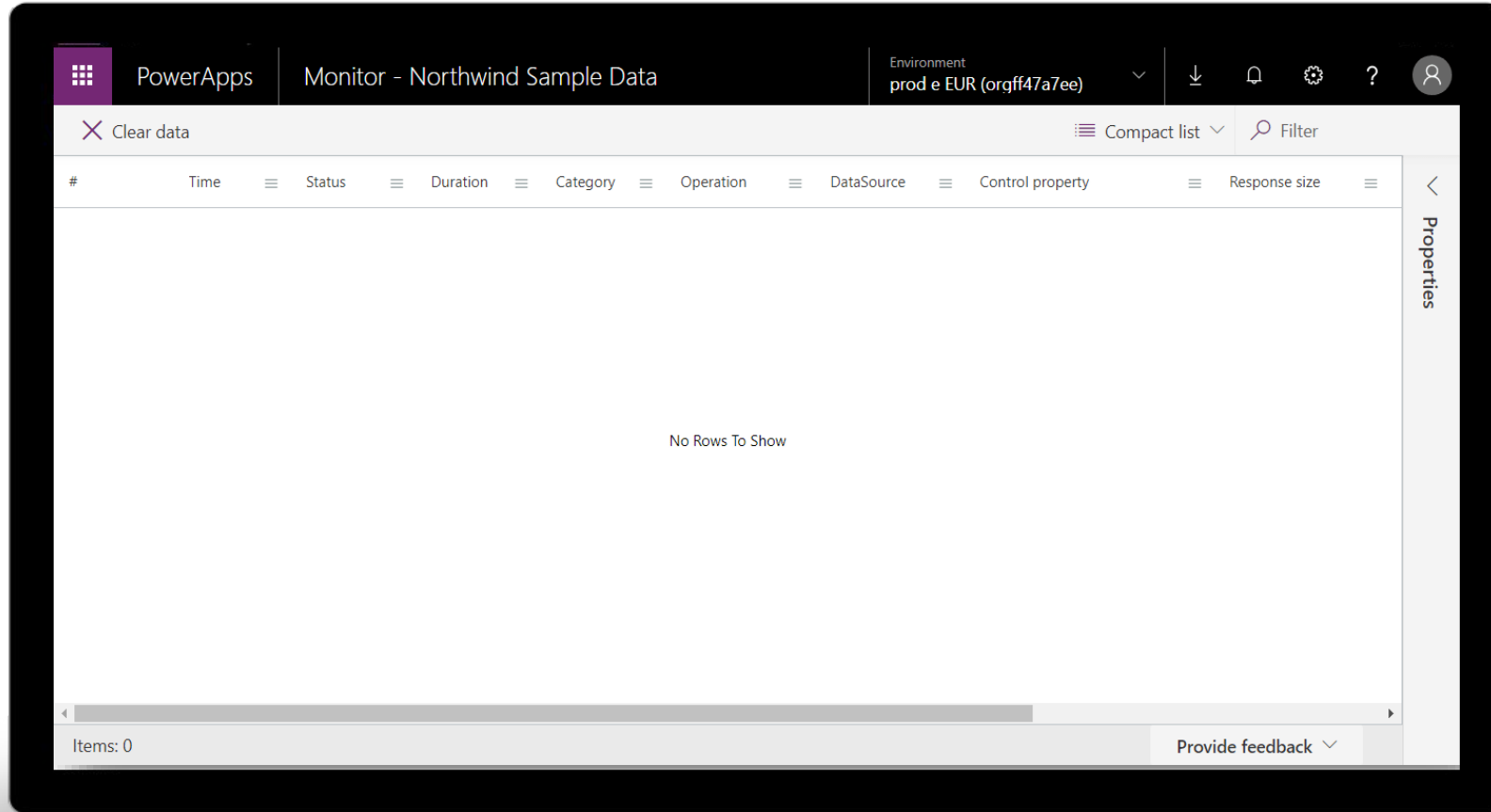
Rich images and files for CDS, including annotation



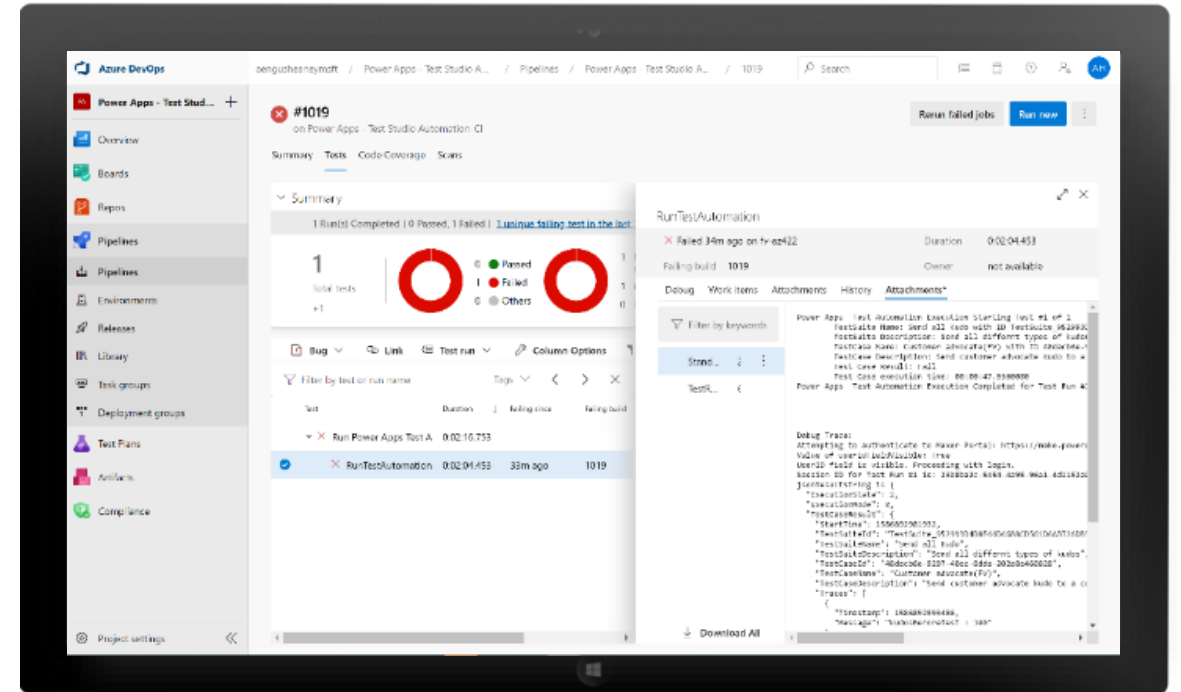
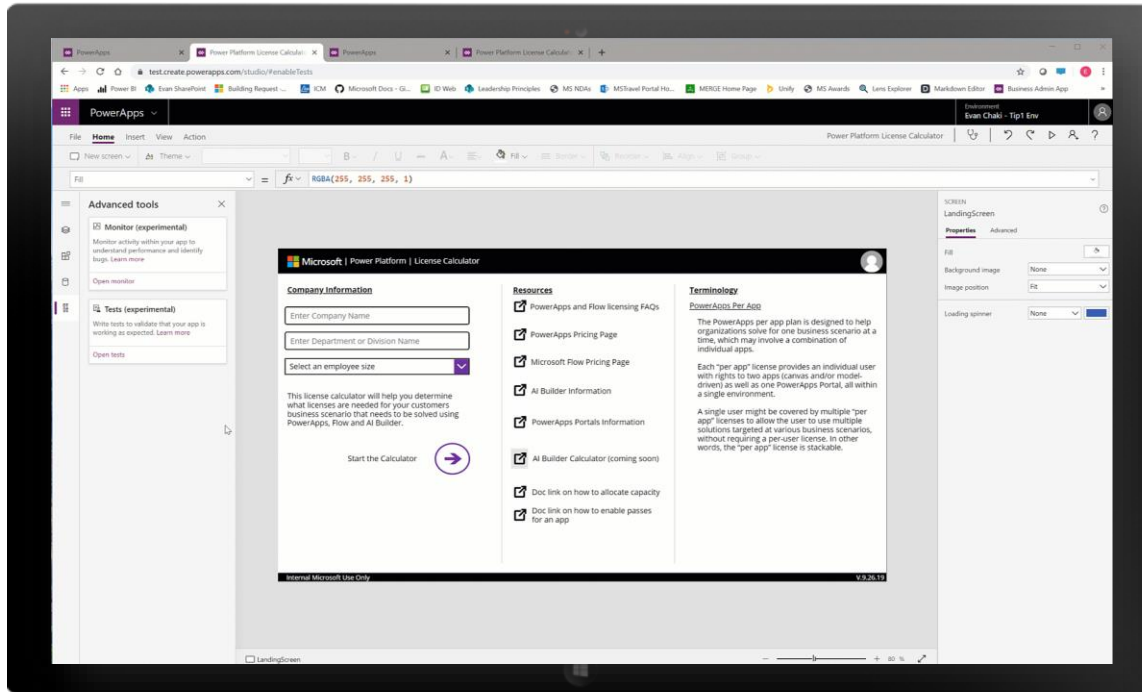
Easily configure Portals to let users log in with LinkedIn, Twitter, Facebook and more



Debug and optimize with Power Apps Monitor



End to end test in low code, now automated in DevOps



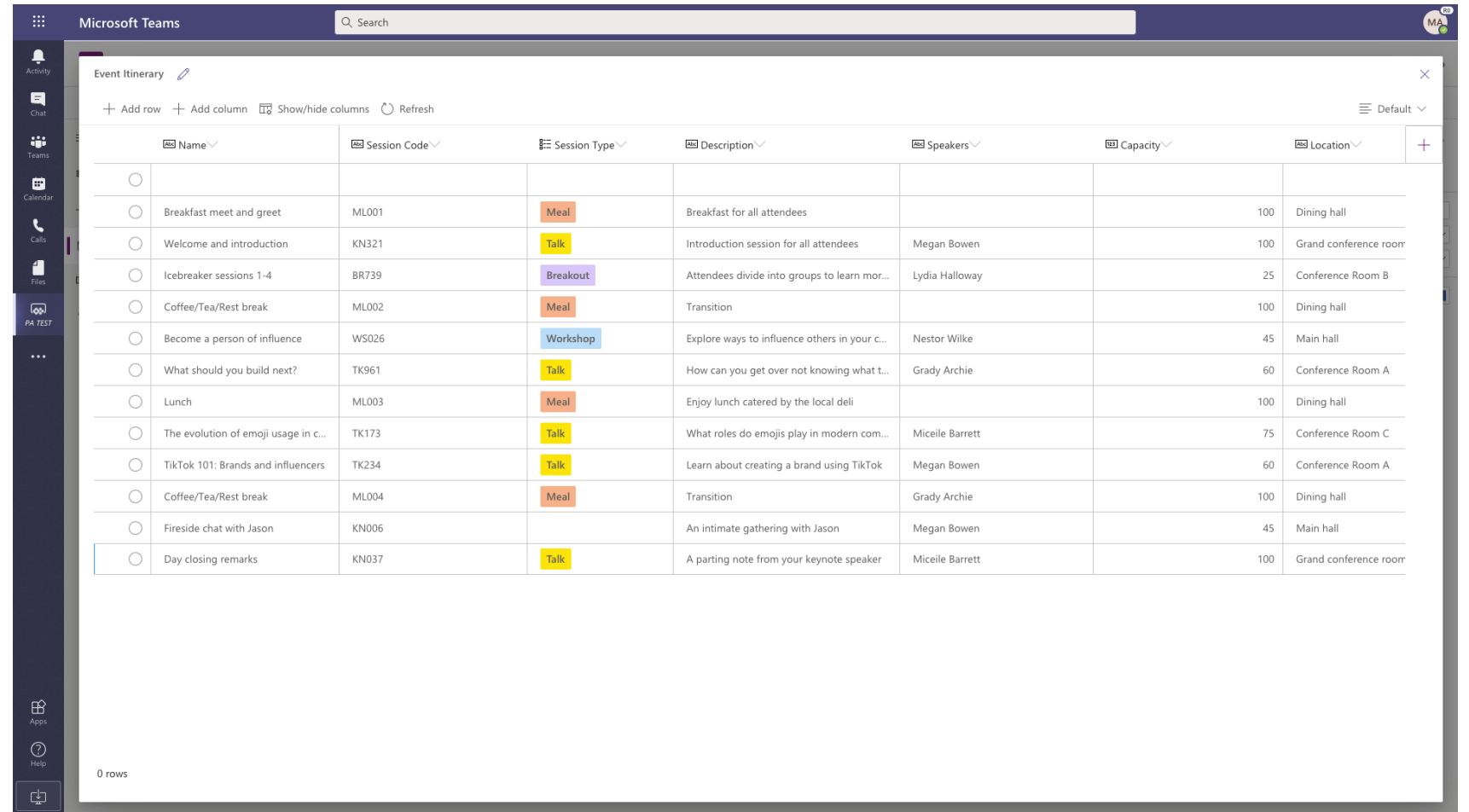
Introducing Microsoft Dataflex for Teams

A built-in low code data platform for Microsoft Teams

A subset of the capabilities of the data platform behind Dynamics 365 and Power Platform.

Provides storage, rich data types with enterprise capabilities, and one-click solution deployment.

Included for every Teams customer, governable by IT.



The screenshot shows the Microsoft Teams interface with an 'Event Itinerary' table. The table has columns for Name, Session Code, Session Type, Description, Speakers, Capacity, and Location. The data is as follows:

Name	Session Code	Session Type	Description	Speakers	Capacity	Location
Breakfast meet and greet	ML001	Meal	Breakfast for all attendees		100	Dining hall
Welcome and introduction	KN321	Talk	Introduction session for all attendees	Megan Bowen	100	Grand conference room
Icebreaker sessions 1-4	BR739	Breakout	Attendees divide into groups to learn mor...	Lydia Halloway	25	Conference Room B
Coffee/Tea/Rest break	ML002	Meal	Transition		100	Dining hall
Become a person of influence	WS026	Workshop	Explore ways to influence others in your c...	Nestor Wilke	45	Main hall
What should you build next?	TK961	Talk	How can you get over not knowing what t...	Grady Archie	60	Conference Room A
Lunch	ML003	Meal	Enjoy lunch catered by the local deli		100	Dining hall
The evolution of emoji usage in c...	TK173	Talk	What roles do emojis play in modern com...	Micele Barrett	75	Conference Room C
TikTok 101: Brands and influencers	TK234	Talk	Learn about creating a brand using TikTok	Megan Bowen	60	Conference Room A
Coffee/Tea/Rest break	ML004	Meal	Transition	Grady Archie	100	Dining hall
Fireside chat with Jason	KN006		An intimate gathering with Jason	Megan Bowen	45	Main hall
Day closing remarks	KN037	Talk	A parting note from your keynote speaker	Micele Barrett	100	Grand conference room

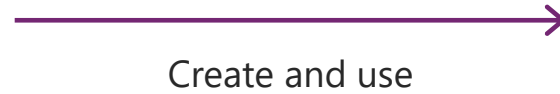
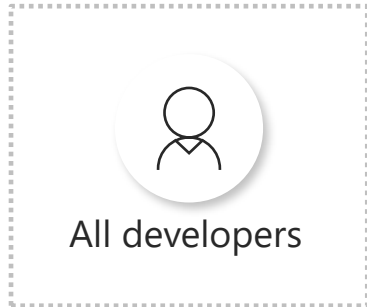


Admin and governance

Enabling low-code innovation
in your organization

IT must provide guardrails for all Power Apps developers

Business



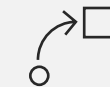
Cloud



Apps



Common
Data Service



Flows



Connectors

IT



IT retains control over low-code apps.

Enterprise-grade governance



Identity management and multi-factor authentication for enhanced identity protection and secure guest access



Built-in information protection and usage analytics with full audit logs, data loss prevention policies and more



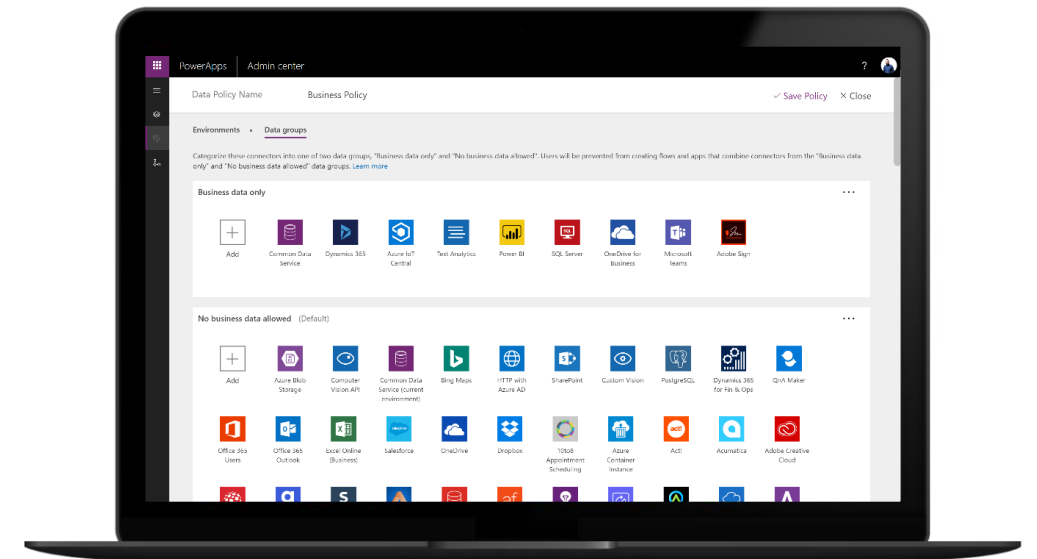
Secure and control data on mobile devices with Intune mobile application management



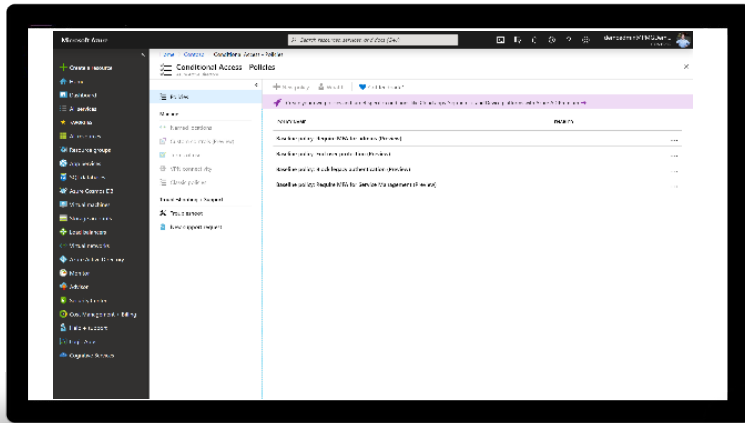
Compliance leadership with 13+ standards including FedRAMP high, HIPAA, EU model clauses, SOC and GDPR



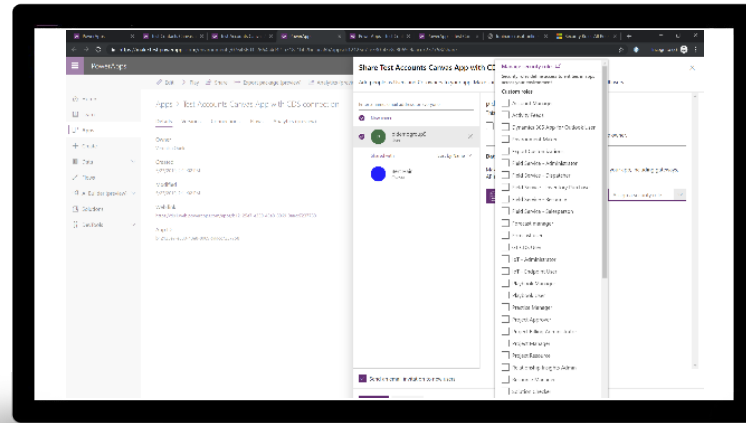
Manage all aspects – users, apps, usage and settings – in a single admin experience



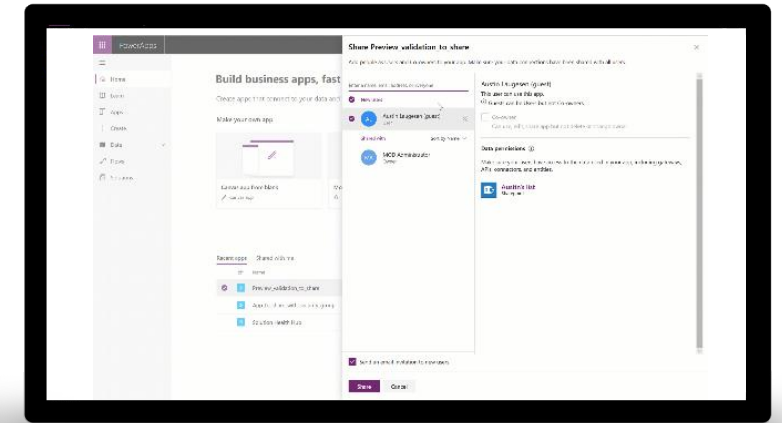
Identity management with Azure active directory



Using Azure active directory session and conditional access policies to manage timeout and access requirements.

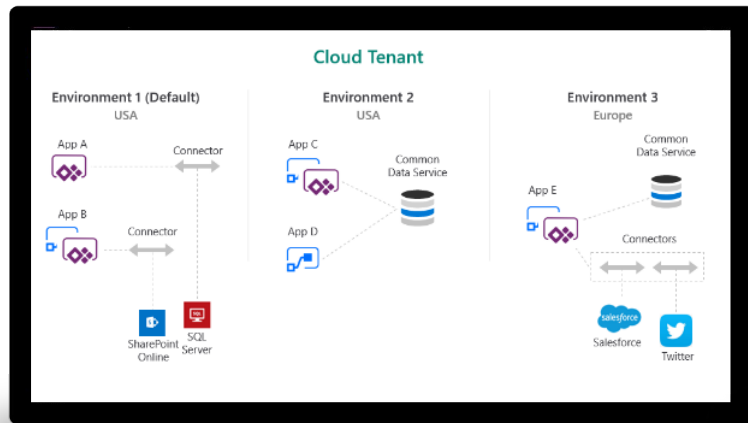


Use Azure active directory groups to manage/share apps and data access.



Share apps with external users with Azure active directory B2B collaboration.

Manage your environments in the Power Platform admin center

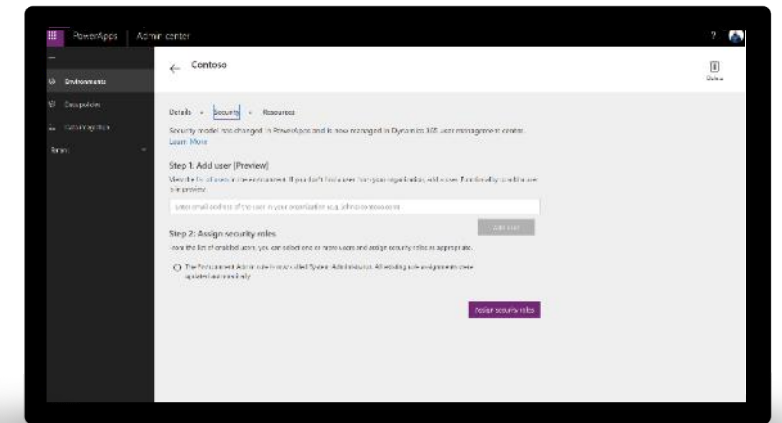


Each app/flow runs in an environment

The screenshot shows the Power Platform Admin Center interface. A table lists various environments, categorized into 'With database' and 'Without database'. The table includes columns for Name, Type, Region, Status, Version, Created by, and Created On.

Name	Type	Region	Status	Version	Created by	Created On
CDS 1.0 Env	Production	North America	Active	02	Jill Conroy	11/26/2018
CDS 1.0 Production Env	Production	Europe	Active	06	Heidi Vaerra	11/26/2018
CDS 1.0 Sandbox Env	Sandbox	Asia	Active	06	Alan Suman	11/26/2018
Trial Env	Trial	North America	Active	02	Heidi Vaerra	11/26/2018
Developer Env	Developer	North America	Inactive	06	Heidi Vaerra	11/26/2018
Default Env	Default	Europe	Preparing	06	Heidi Vaerra	11/26/2018
Sandbox1	Sandbox	Europe	Active	06	Heidi Vaerra	11/26/2018

Centrally manage production, sandbox and trial environments from the admin center

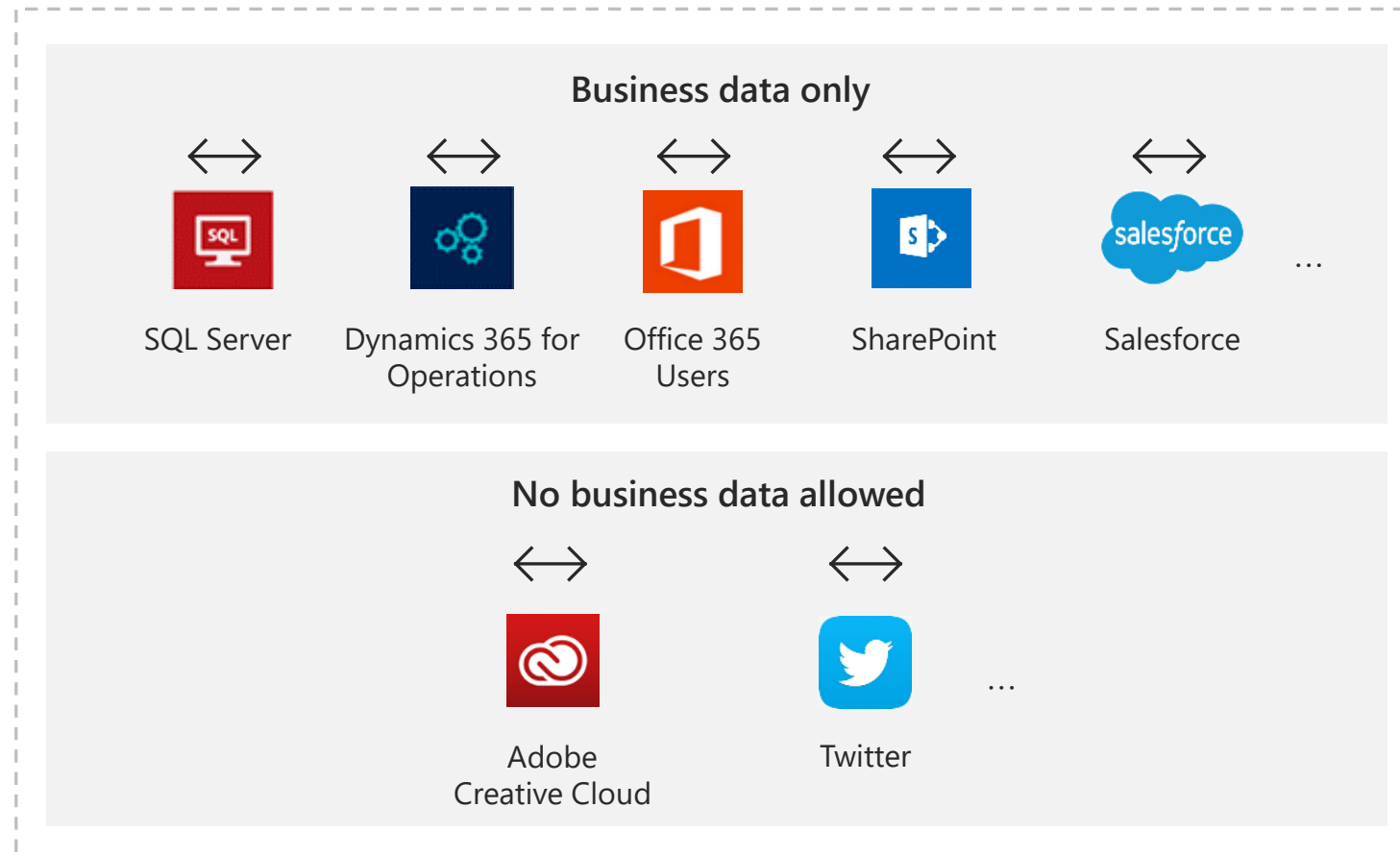


Secure and control your resources per environment

Data loss prevention (DLP) policies control which connectors can be used in the same app/flow

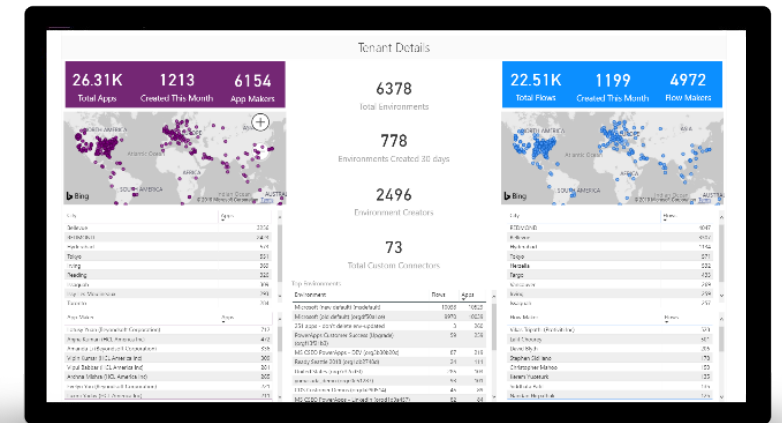
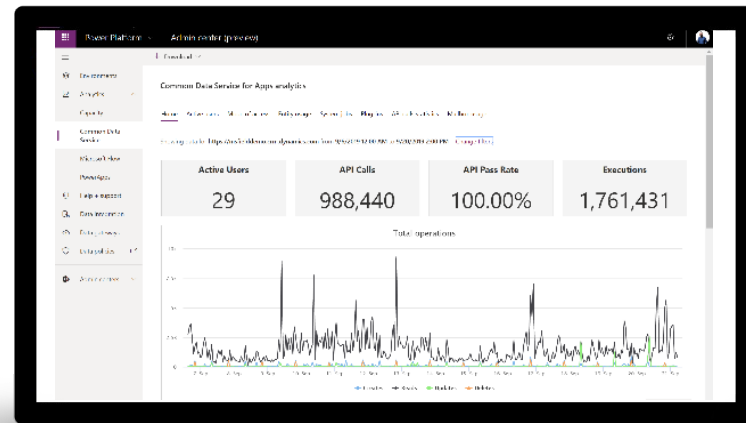
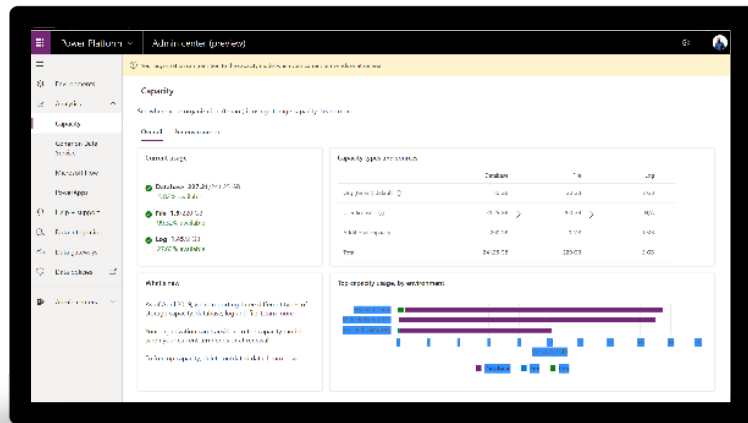
DLP policy

This example policy would prevent creating an app that exposes salesforce data through Twitter



Using Power Apps and Power Automate doesn't elevate a user's permissions in any way

Admin reporting and analytics in the Power Platform admin center



Admin insights provide deep visibility into usage and performance of applications

- Users
- Locations
- Capacity

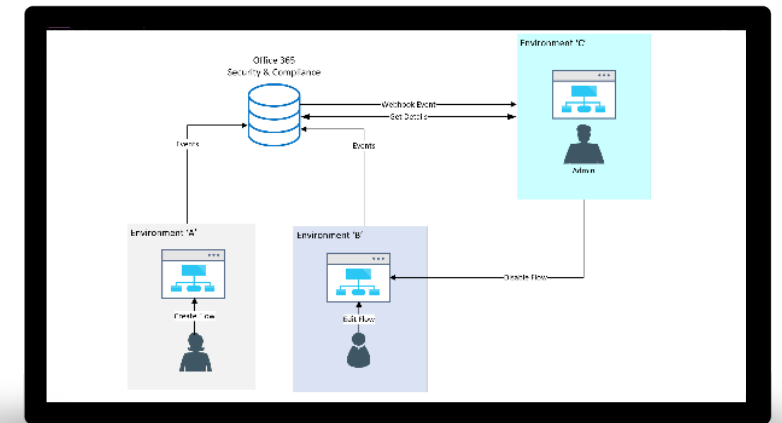
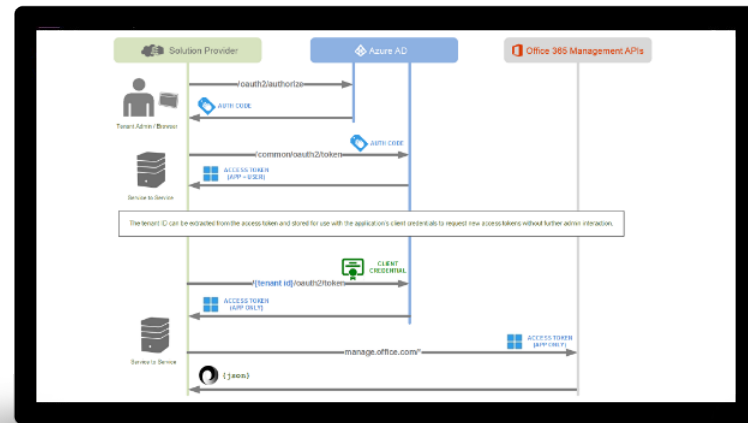
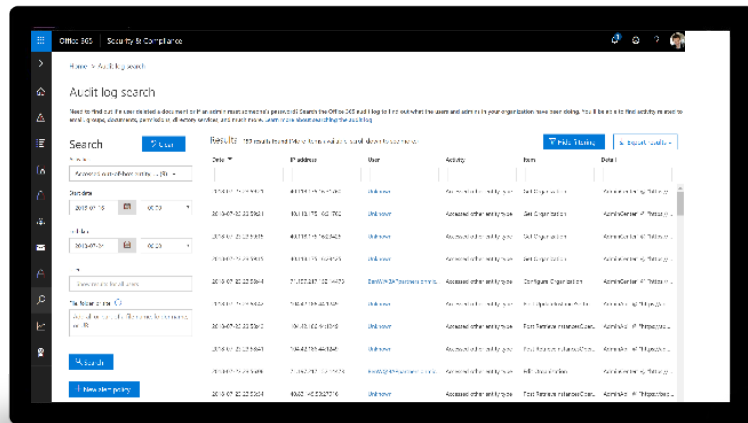
Analytics track health and implementation metrics and help keep users on track

- Service performance
- Error reporting
- App usage

Personalize insights and drive action with custom Power BI reports and Power Automate

- All up view of what's being created
- Discover your champions
- Trigger automated actions

Activity logging integrated with Office 365 security and compliance



Audit records are stored in Office 365 security and compliance center

Office 365 management activity API enables creation of custom monitoring solutions or integration with SIEM vendors

Automate actions and alerts by connecting Power Automate to audit events

Different organizations choose different approaches to supporting low-code development



Citizen development happens but is unsupported
Over time, providing no support is probably untenable

Champions in business units provide informal support

Specialists in the IT organization provide basic support

A center of excellence (CoE) provides broad support

Increasing investment and ROI



Global, hyper-scale, enterprise-grade infrastructure



Enterprise reliability via 100+ data centers and Microsoft's global network edge.



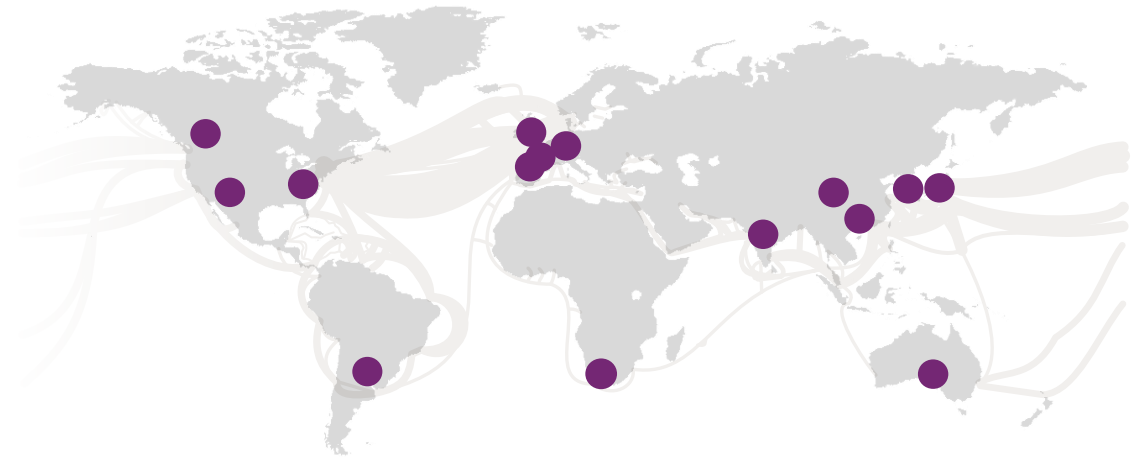
Compliance leadership with standards and commitments including ISO 27001, FedRamp and EU model clauses.



No standing access to data, transparent operational model and 99.9% financial-backed uptime guarantee.



Secure by design operationalized at the physical, logical and data layers.



To succeed with low-code development, IT infrastructure leaders must act



Set up monitoring of your environments
IT maintains control of your organization's low-code world.

Create appropriate DLP policies for your organization
IT maintains control of data access.

Determine the level of support you want to provide
More is probably better.

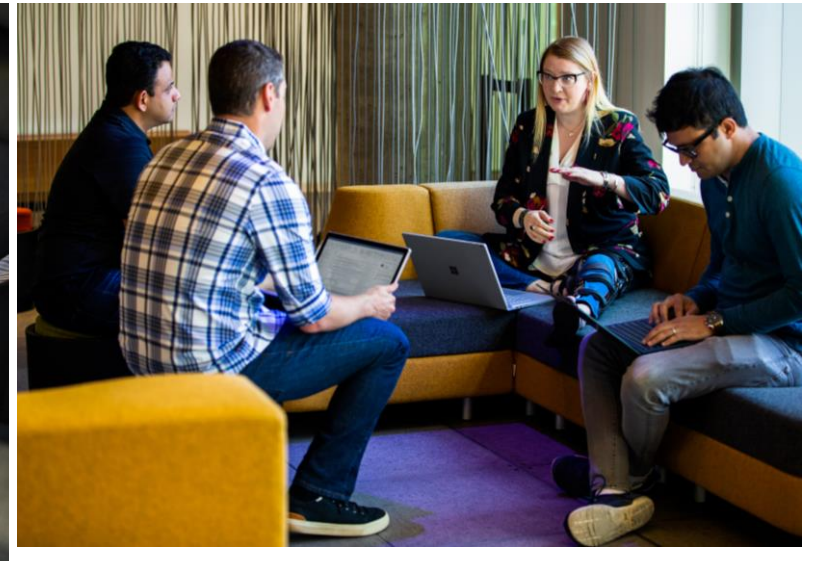
Establishing a Power Platform Center of Excellence



Strategy and Vision



Admin and Governance



Nurture and Support

Roles and Responsibilities



Low Code Strategy

- Align Power Platform strategy with Digital Transformation strategy
- Drive innovation
- Key Decision makers
- Business Value
- Adoption and Change management
- Empower new ways of working



Power Platform Admin Team

- Environment Strategy
- DLP Policies
- Data integration/migration guidelines
- Guardrails
- License management



Power Platform Nurture Team

- App-in-a-day/Hackathons
- Solution envisioning
- Community of Practice
- Evangelize Platform



Power Platform Re-Usable Assets & Automation ...

- Automation/Azure DevOps
- Application & Architecture review
- Library of common utilities, patterns and templates
- App Catalog



User Support Team

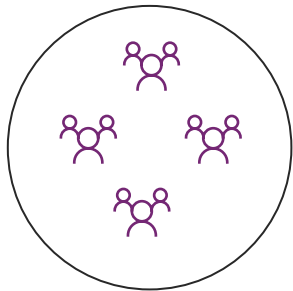
- Help Desk guidance/FAQ
- Ticketing process
- Support Process & Resources

Delivery Models

Centralized



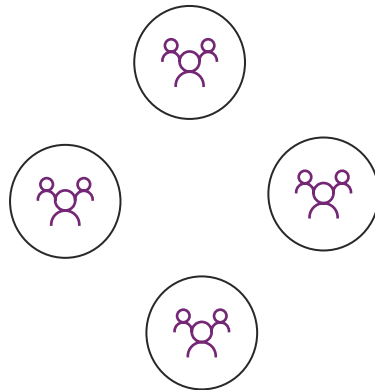
Governance DevOps
Change Management
Support



Decentralized



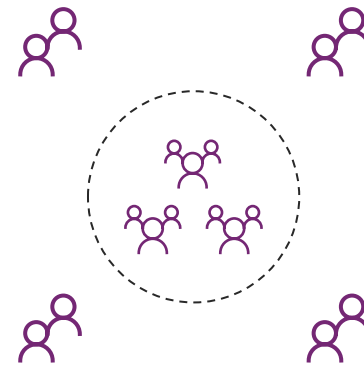
Governance
DevOps?



Matrix



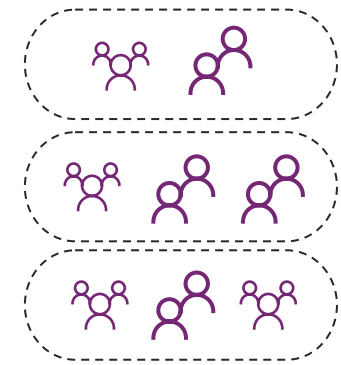
Governance
DevOps



BizDevOps



Governance



Environment key facts



Environments are tied to a geographic location that is configured at the time the environment is created



Environments can be used to target different audiences and/or for different purposes such as dev, test and production



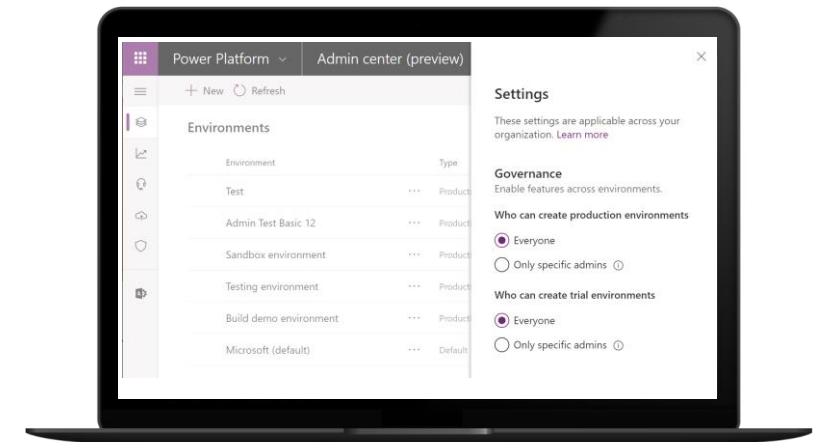
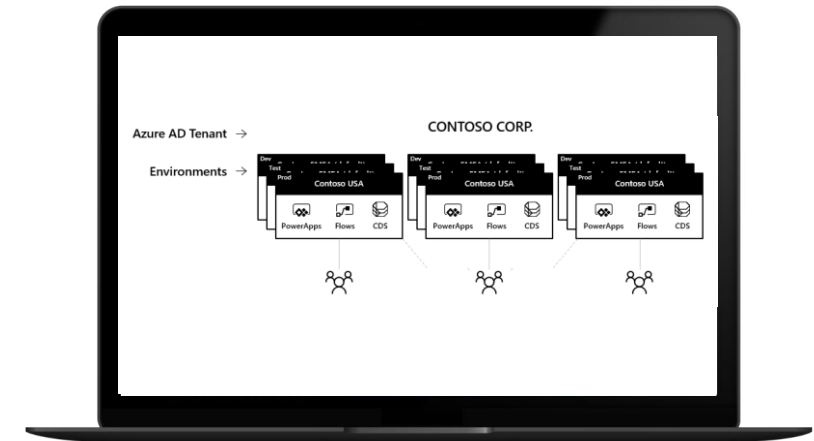
Every tenant has a default environment where all licensed Power Apps and Power Automate users can create apps and Power Automates



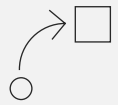
Non-default environments offer more control around permissions



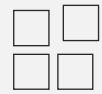
Non-default environment creation can be restricted to only global and service admins from the Power Platform admin center: <https://aka.ms/ppac>



Establish an environment strategy



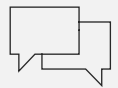
Assign your admins the Power Platform service admin role, which grants full access to Power Apps, Power Automate, and Power BI



Restrict the creation of net-new trial and production environments to admins



Treat the default environment as a 'Personal productivity' environment for your business groups (renaming the environment is recommended)



Establish a process for requesting access or creation of environments:

- Dev/Test/Production environments for specific business groups or applications
- Individual-use environments for POCs and trainings



Establish an environment strategy



Use a service account to deploy production solutions



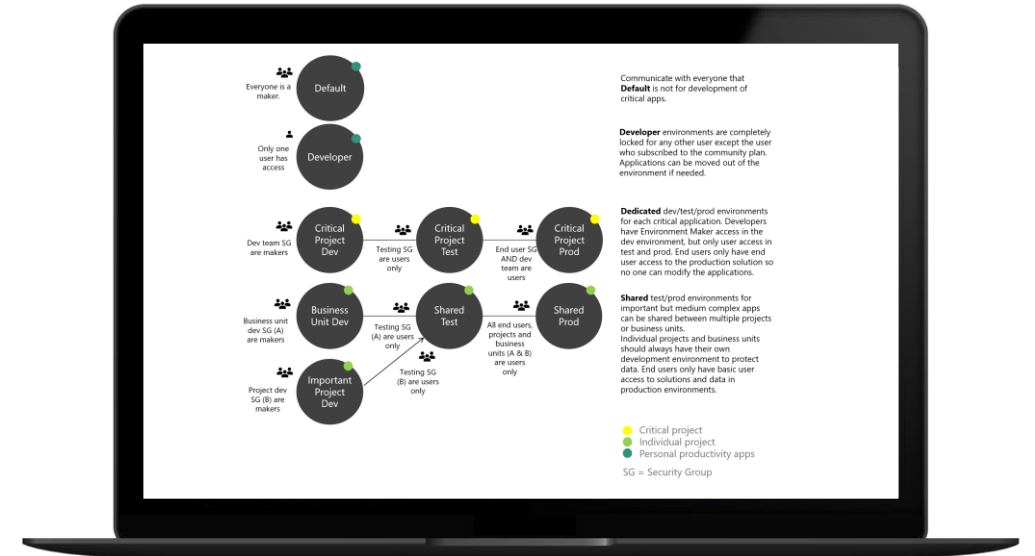
Share resources with Azure AD Security Groups



Create temporary development environments



Less is better – find balance between security and feasibility



Establish an environment strategy



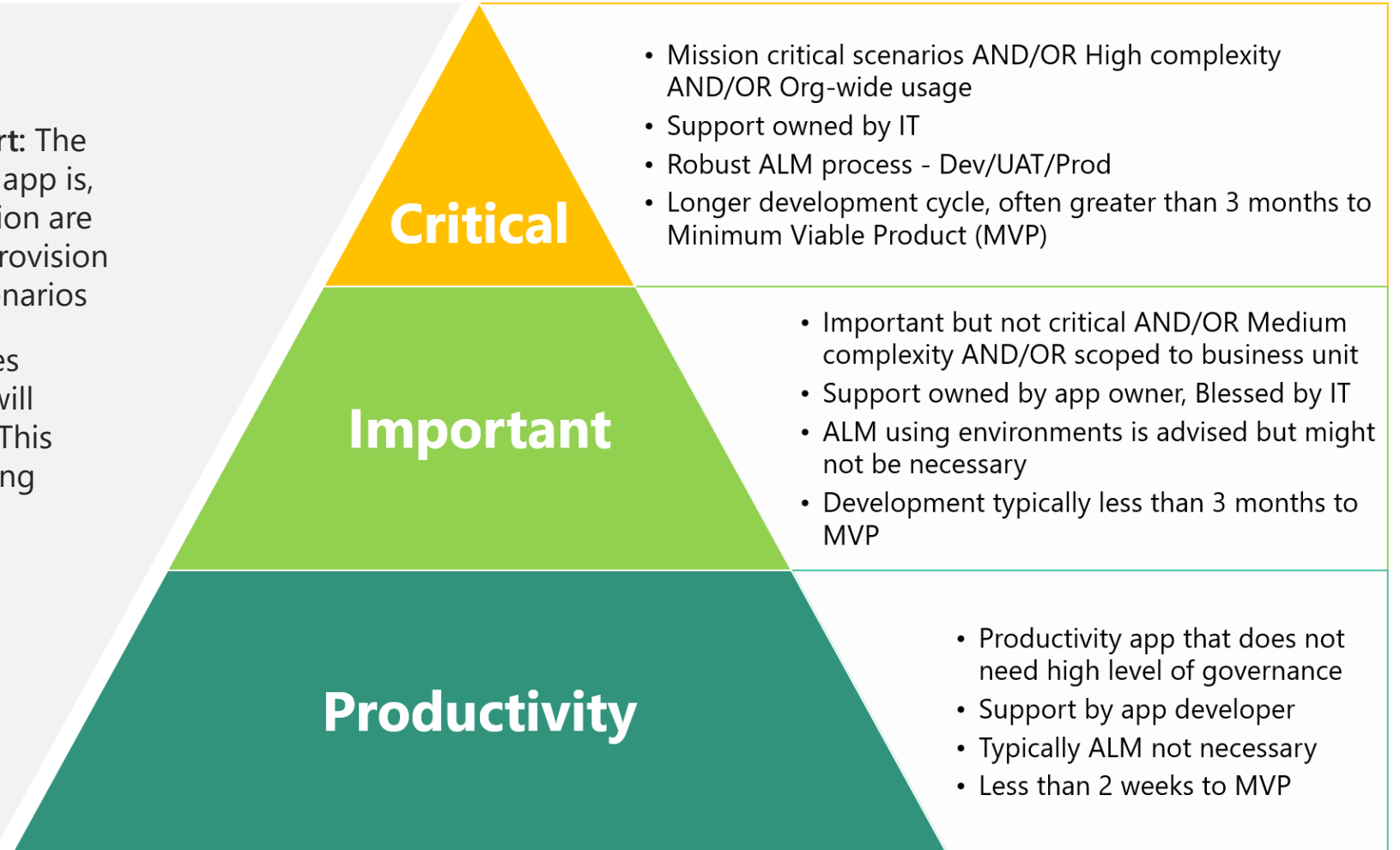
Defined tiers of application support: The level of complexity, how critical the app is, and users impacted by the application are all important measures of how to provision environments to support all the scenarios



Capacity: Each environment (besides trial and developer environments) will consume 1GB to initially provision. This might be a constraint for provisioning environments



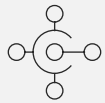
Admin involvement: Automating environment creation and clean-up



Secure your data with data loss prevention (DLP)



Data loss prevention policies (DLP) enforce rules for which connectors can be used together



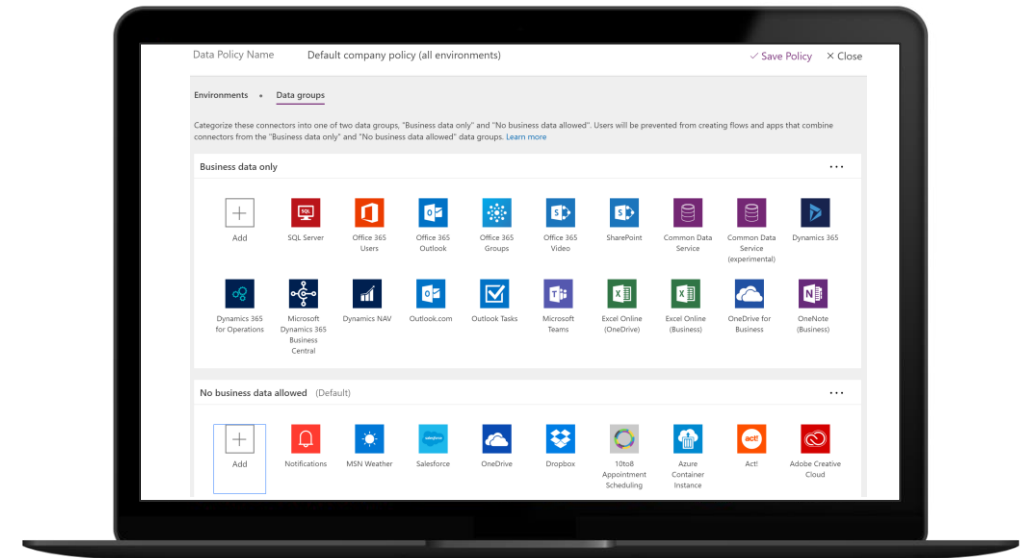
Connectors are classified as either business data only, no business data allowed or blocked



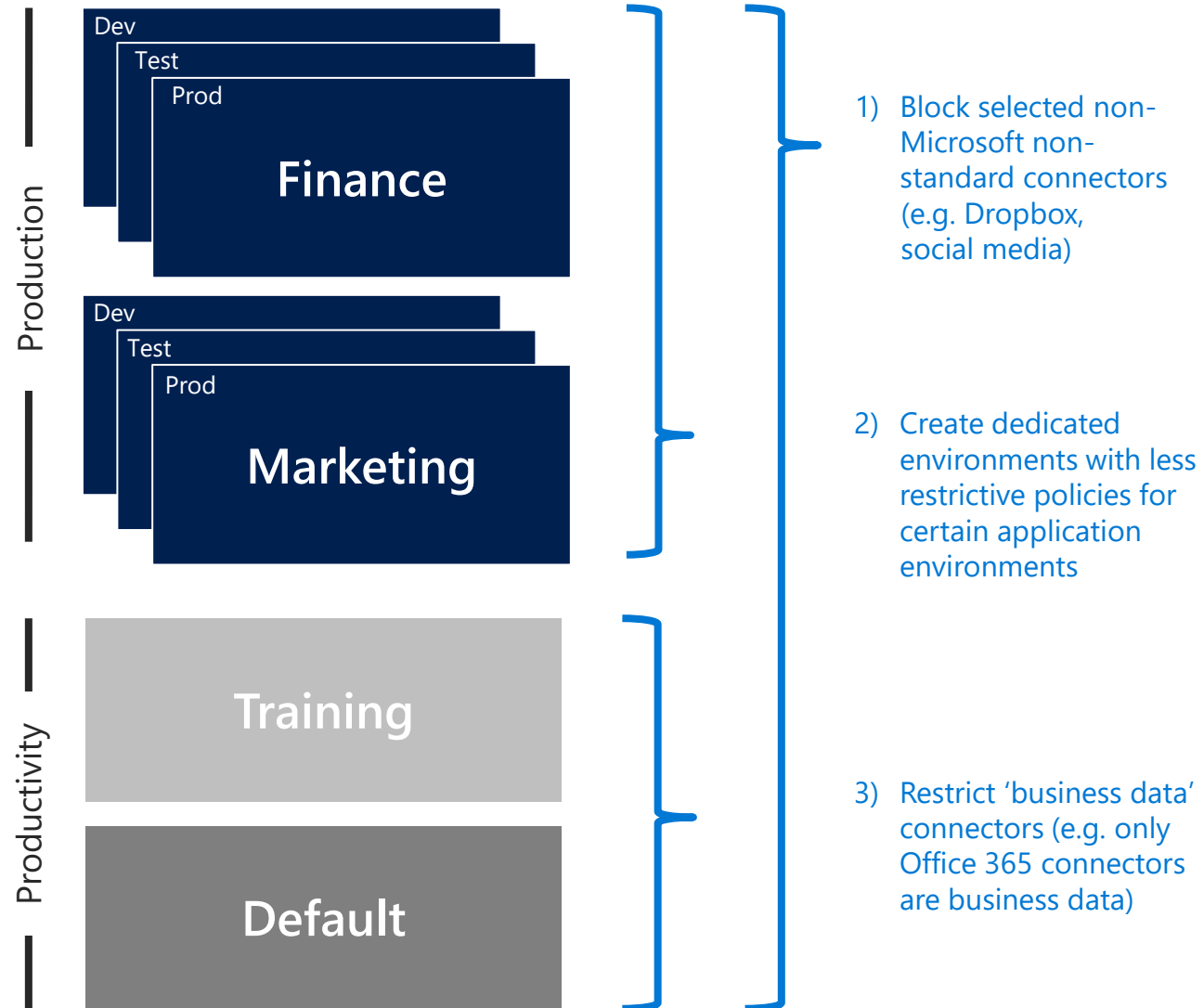
A connector in the business data only group can only be used with other connectors from that group in the same app or Power Automate



Tenant admins can define policies that apply to all environments



Setup data loss prevention (DLP) policies

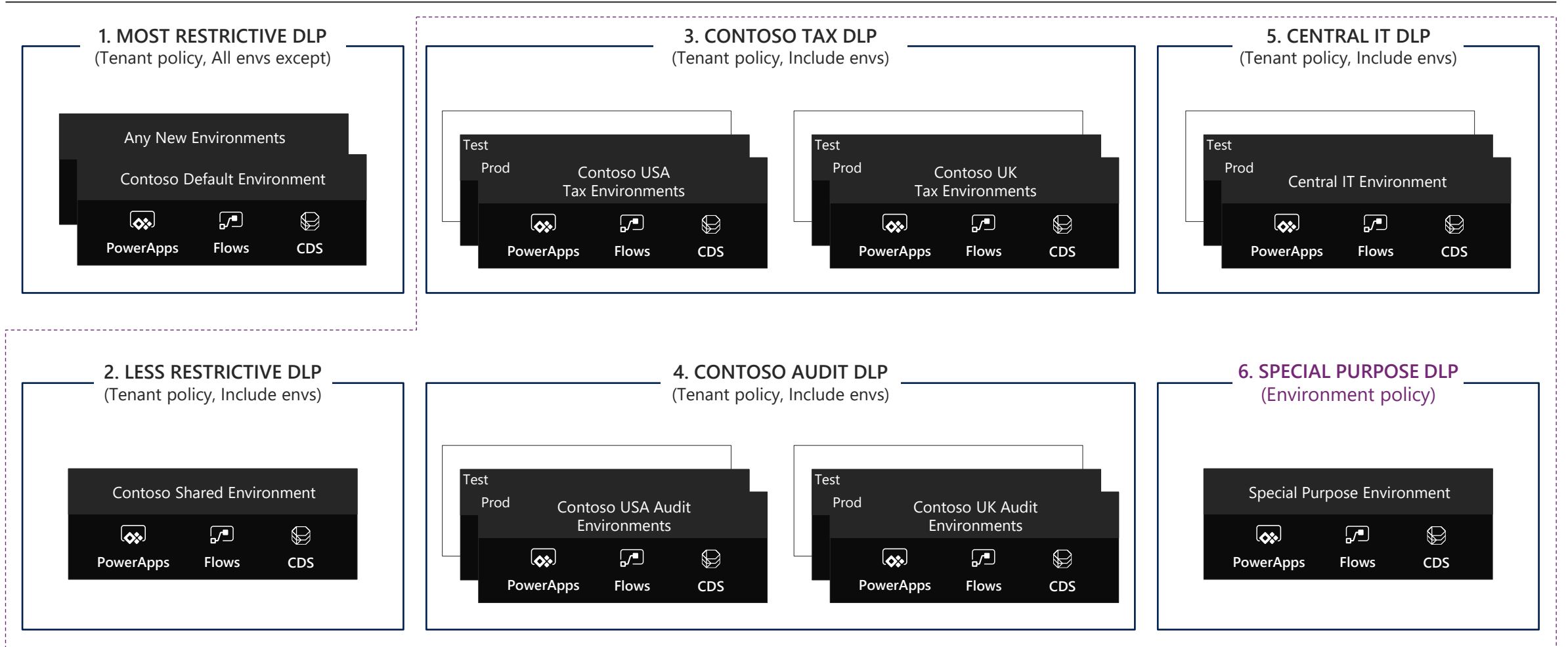


1. Create a policy spanning all environments that blocks all unsupported non-Microsoft connectors and classifies all Microsoft connectors as 'business data'

2. Create a policy for the default environment (and other training environments) that further restricts which Microsoft connectors are classified as 'business data'

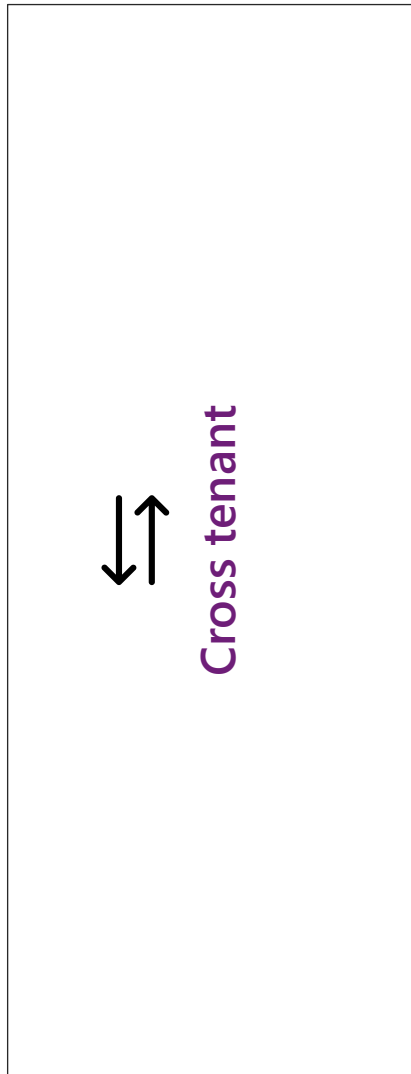
3. Create additional policies or exclude those environment from policies #1 and #2 above that permit certain connectors or connector combinations to be used for specific environments

CONTOSO CORP



Centralize DLP Policy management using tenant level policies. Use restrictive policies on shared environments like default environment. Create minimal number of policies per environment. There is no strict hierarchy between tenant and environment policies.

The layers of security



Tenant level



Environment level



Resource level



Microsoft Dataverse

Native integration to Azure Active Directory provides built-in support for conditional access to the Power Platform for all users in AAD

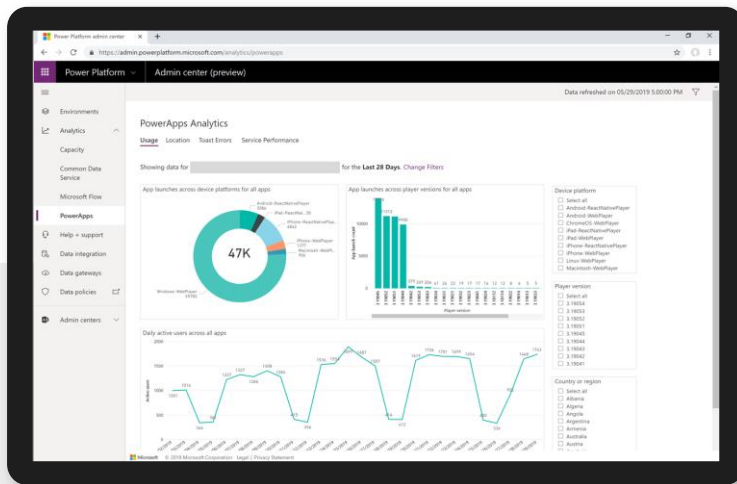
Environments—also known as management containers—have two built-in security roles that provide access to permissions within an environment

Resource level permissions allow for control of user privileges to create resources like apps, flows, custom connectors, etc.,

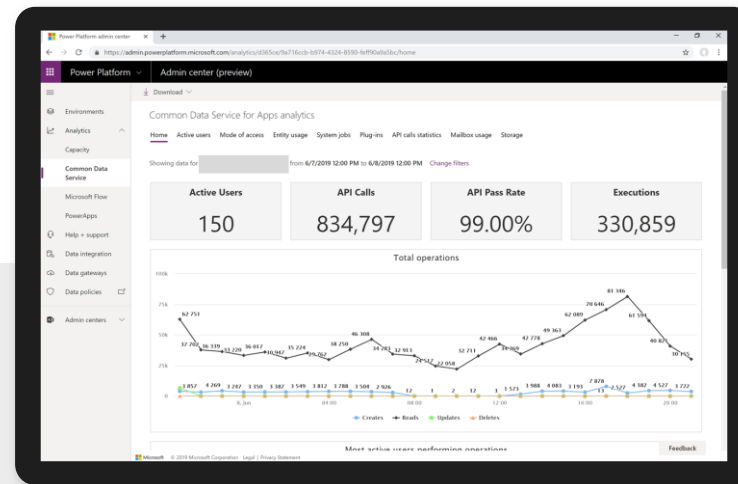
Common Data Service, offers a wealth of rich business logic including a powerful security model, where role-based security can group together a collection of privileges and allows for record and field level security

Gain insight in the Power Platform Admin Center

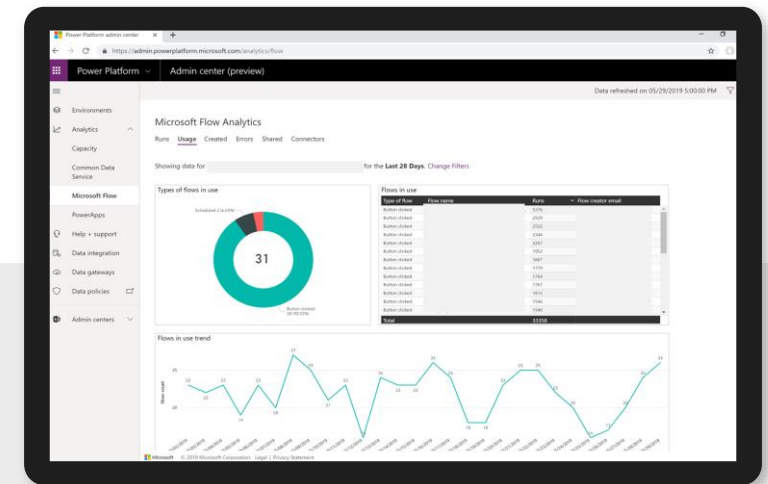
Power Apps analytics



CDS analytics



Power Automate analytics



Providing analytics of adoption, usage, and health across these services

Office activity logs

Power Apps and Flow logs available at <https://protection.office.com>

Activity logging integrated with Office Security and Compliance Center for comprehensive logging across Microsoft services

The audit records are stored in Office 365 Security and Compliance Center

- Must have an Office 365 E3 or greater license
- Must enabled at the organization level

Office provides an API to query this data, which is currently used by many SIEM vendors to use the activity logging data for reporting

Power Automate	Power Apps
Created flow	Created app
Edited flow	Edited/save app (draft)
Deleted flow	Published app
Edited permissions	Deleted app
Deleted permissions	Restored an app from app version
Started a paid trial	Launched app
Renewed a paid trial	Marking app as featured
	Marking app as hero
	Edited app permissions
	Deleted app permissions

Leverage management connectors and PowerShell

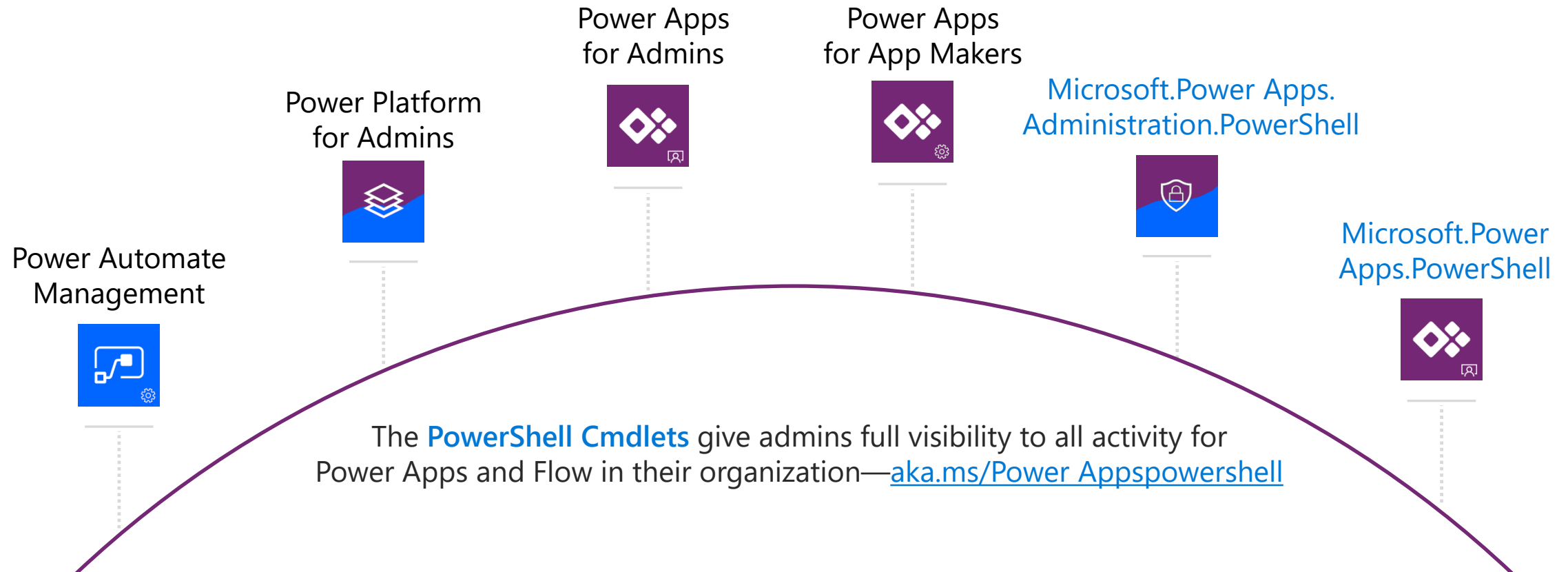
Powerful reporting tools and tools for action

Management connectors

Full visibility: Power Platform APIs in an accessible connector interface, provide admin access to resources

Customization : Pull the metadata you need to build the custom reports you want

Flexibility: Build the policies you need to implement administration and governance requirements



Enterprise Tooling – Center of Excellence Starter Kit

aka.ms/coestarterkit



Existing offering:

Admin Center capabilities
Extensibility via Connectors

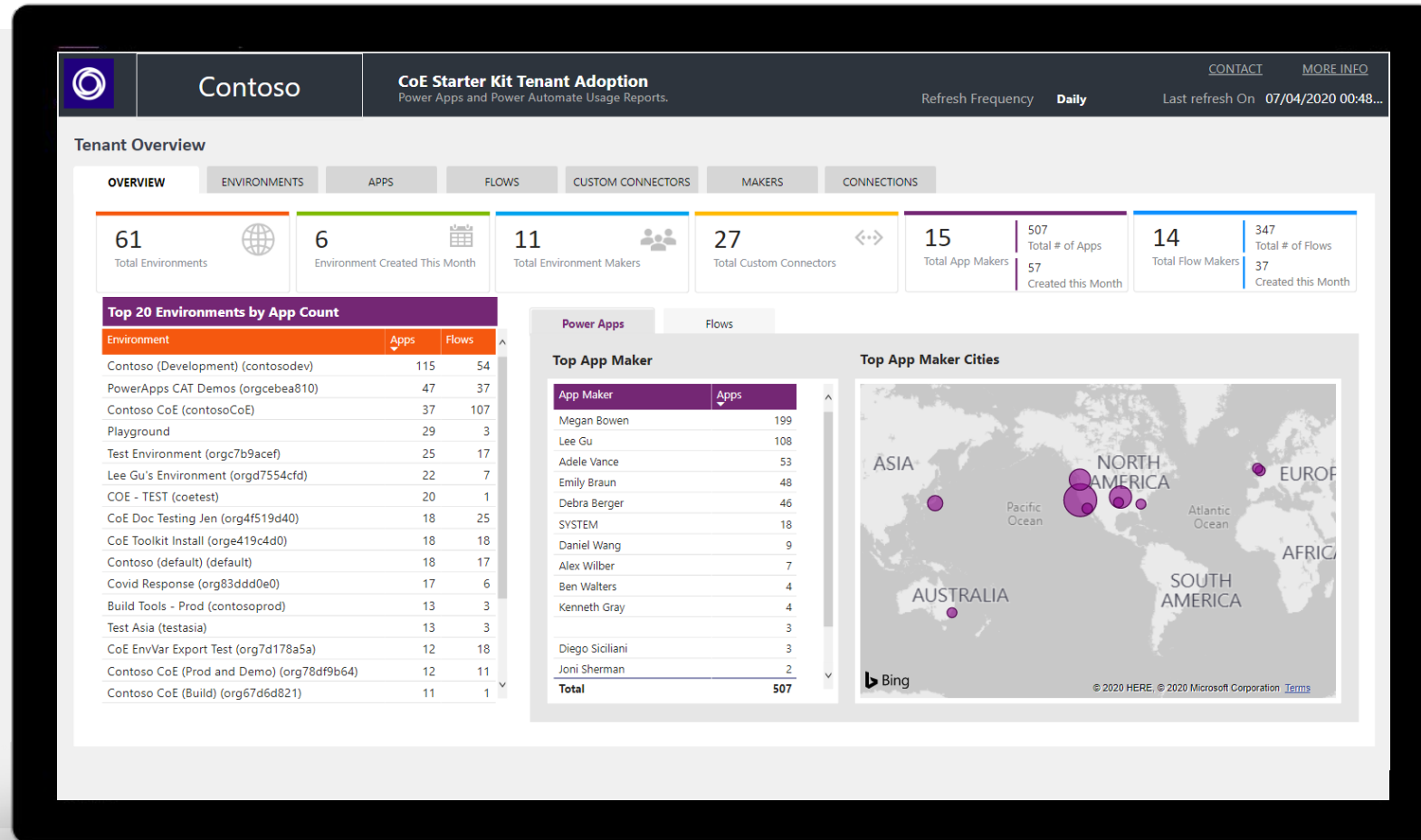


Templates:

A templated implementation of
best practices

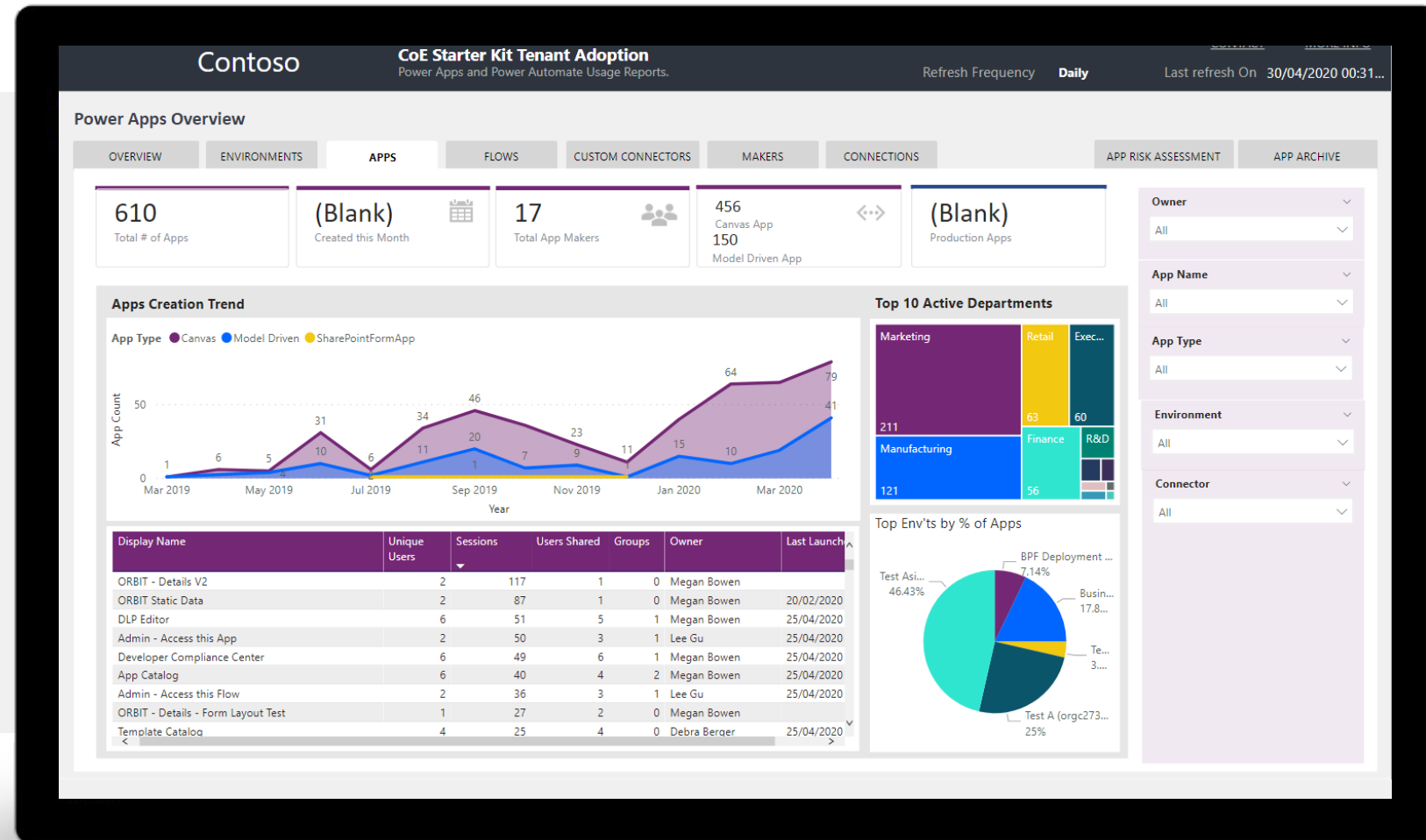


The CoE Starter Kit is a collection of components and tools designed to help you get started with developing a strategy for adopting and supporting the Power Platform.



Cross Tenant Dashboard

Build using the CoE Starter Kit backed by telemetry from the O365 Activity Logging capabilities



A woman with curly hair and a man are leaning over a large digital display in a modern office. The woman is pointing at the screen with a white marker. The man is looking at a tablet device. The display shows a complex interface with charts and text. The office environment includes a desk with a lamp, a keyboard, and a mouse.

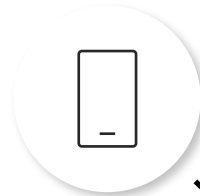
Extensibility

Develop faster than ever before

Pro-developer extensibility

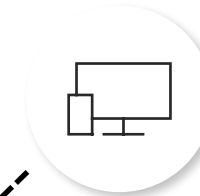
Extend canvas apps

- Build customer connectors
- Integrate into websites and other services
- Build offline-capable apps
- Test drive your app on AppSource



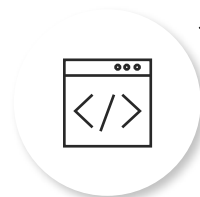
Extend model-driven apps

- Customize entity forms, views, visualization & dashboards
- Customize commands and ribbon
- Build custom components
- Apply business logic using scripting



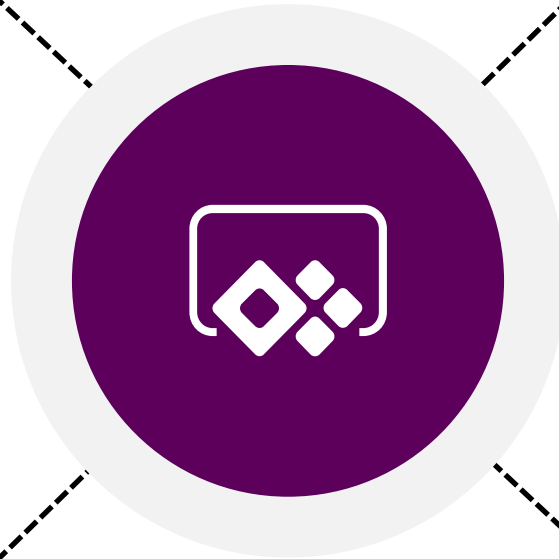
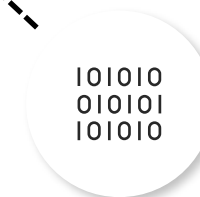
Create client apps for CDS

- Build client apps
- Authenticate with CDS web services

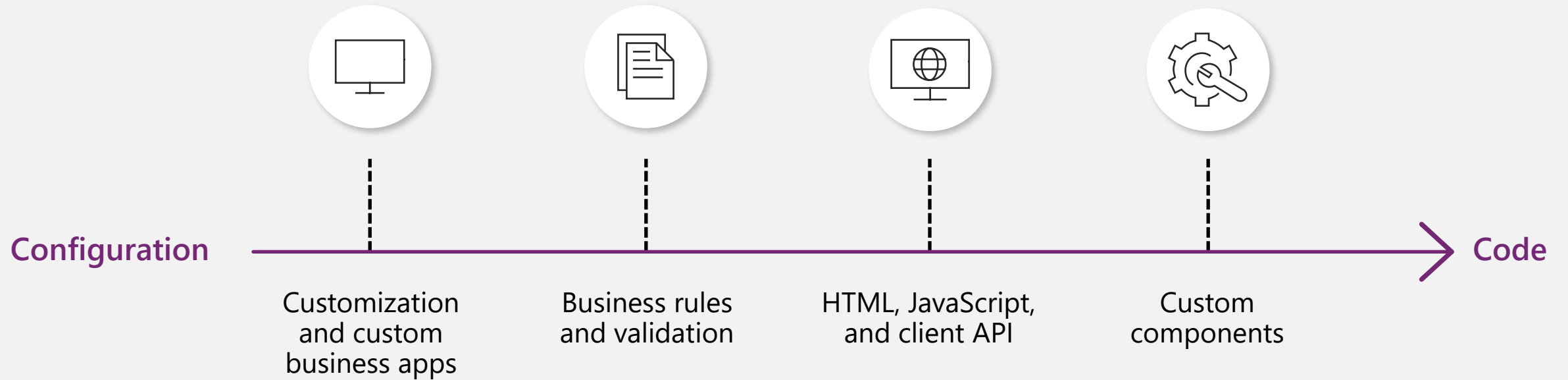


Work with CDS data

- Use Web API
- Use organization services
- Query data

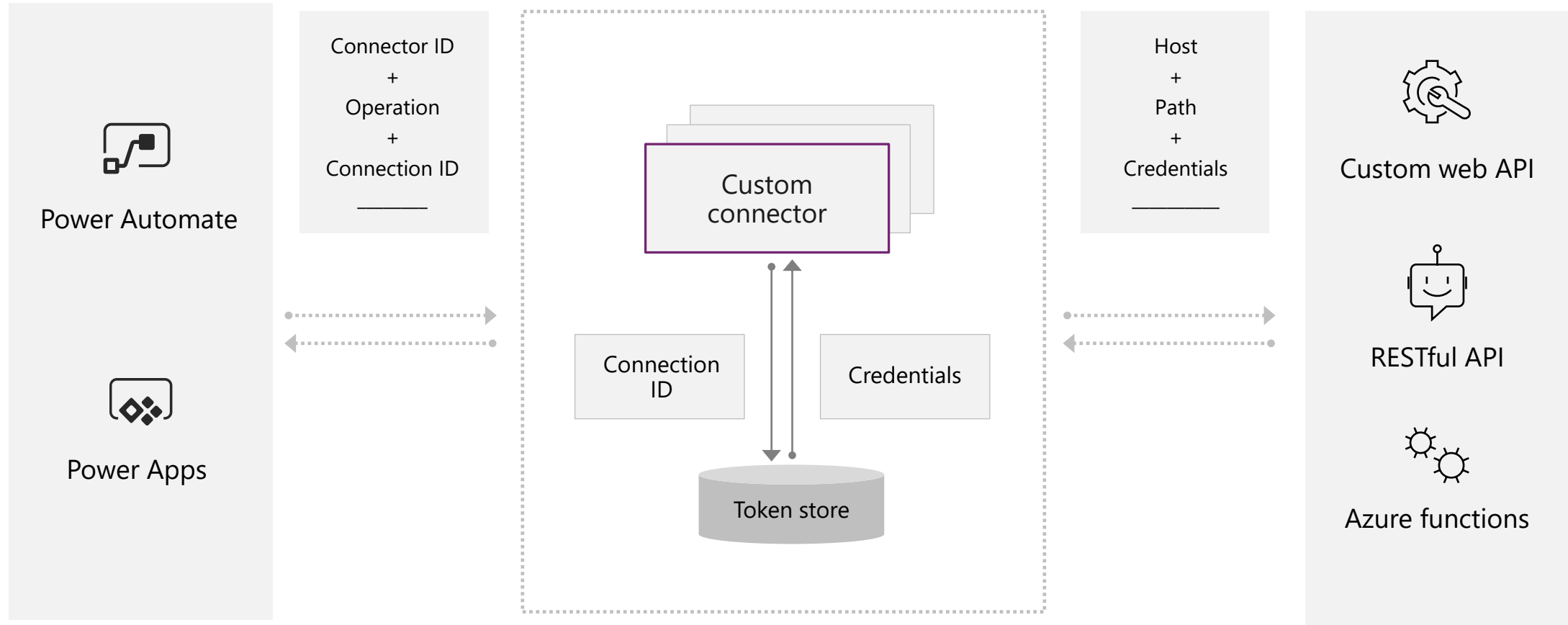


Client-side extensibility

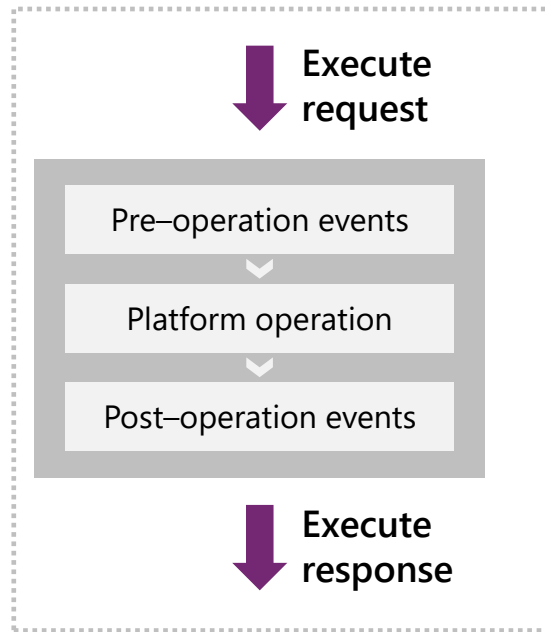


Custom connectors

Azure API management gateway

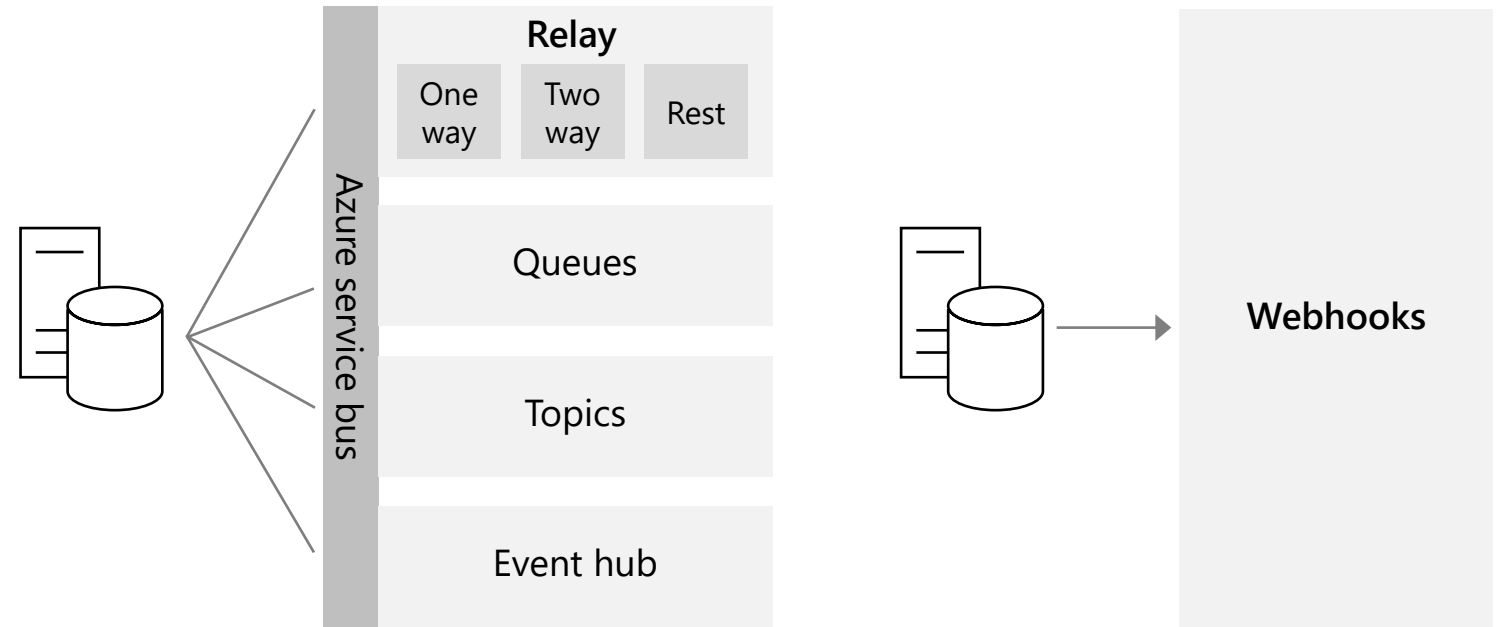


Service-side extensibility for the Common Data Service



Extend logic with custom code

Use plugins to add custom code before or after platform operations



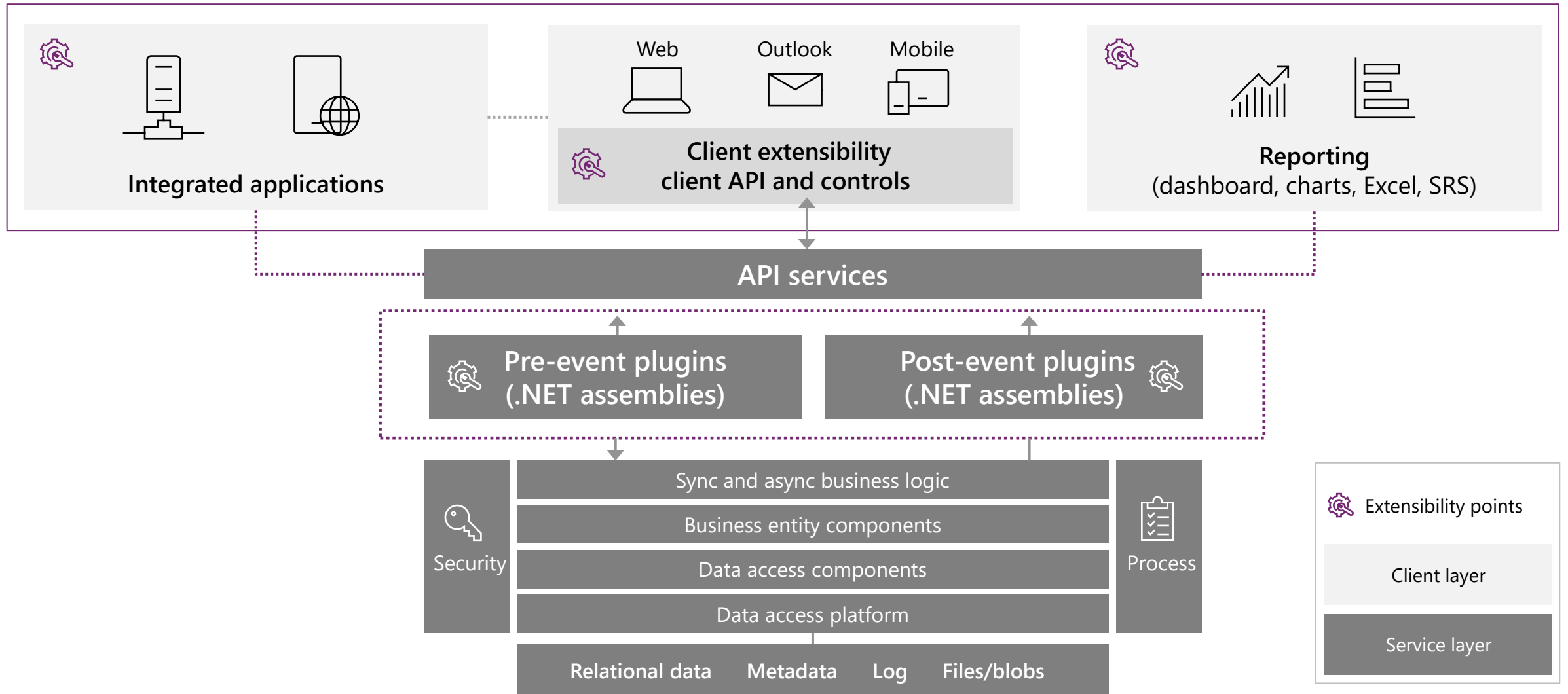
Integrate data with Azure service bus

Pass plugin execution context to one or more Azure solutions in the cloud

Integrate data with webhooks

Pass plugin execution context to web APIs and services using a lightweight HTTP pattern

Common Data Service extensibility points



World-class developer support



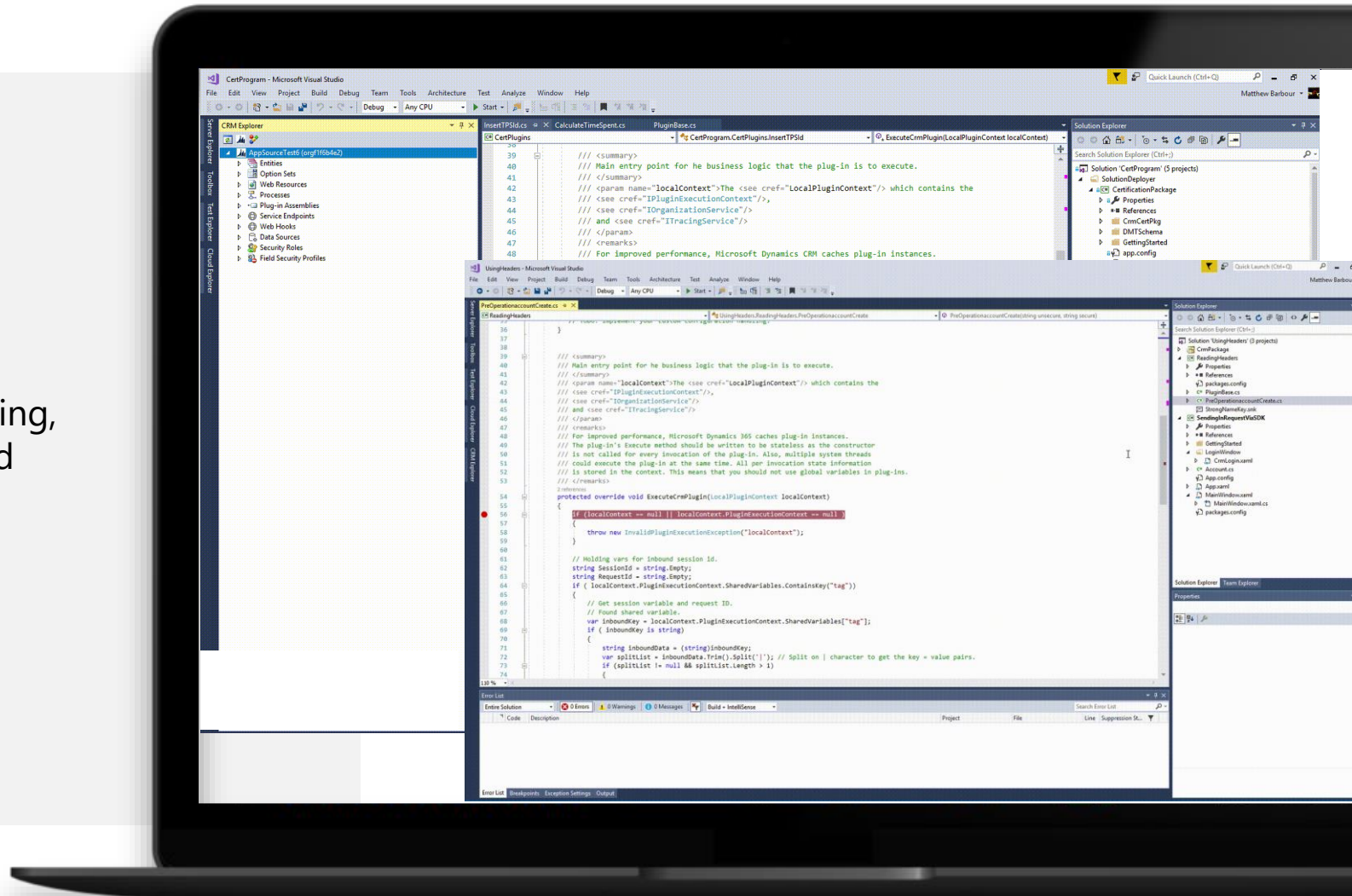
Full range of customization and development experiences with rich pro developer tools.



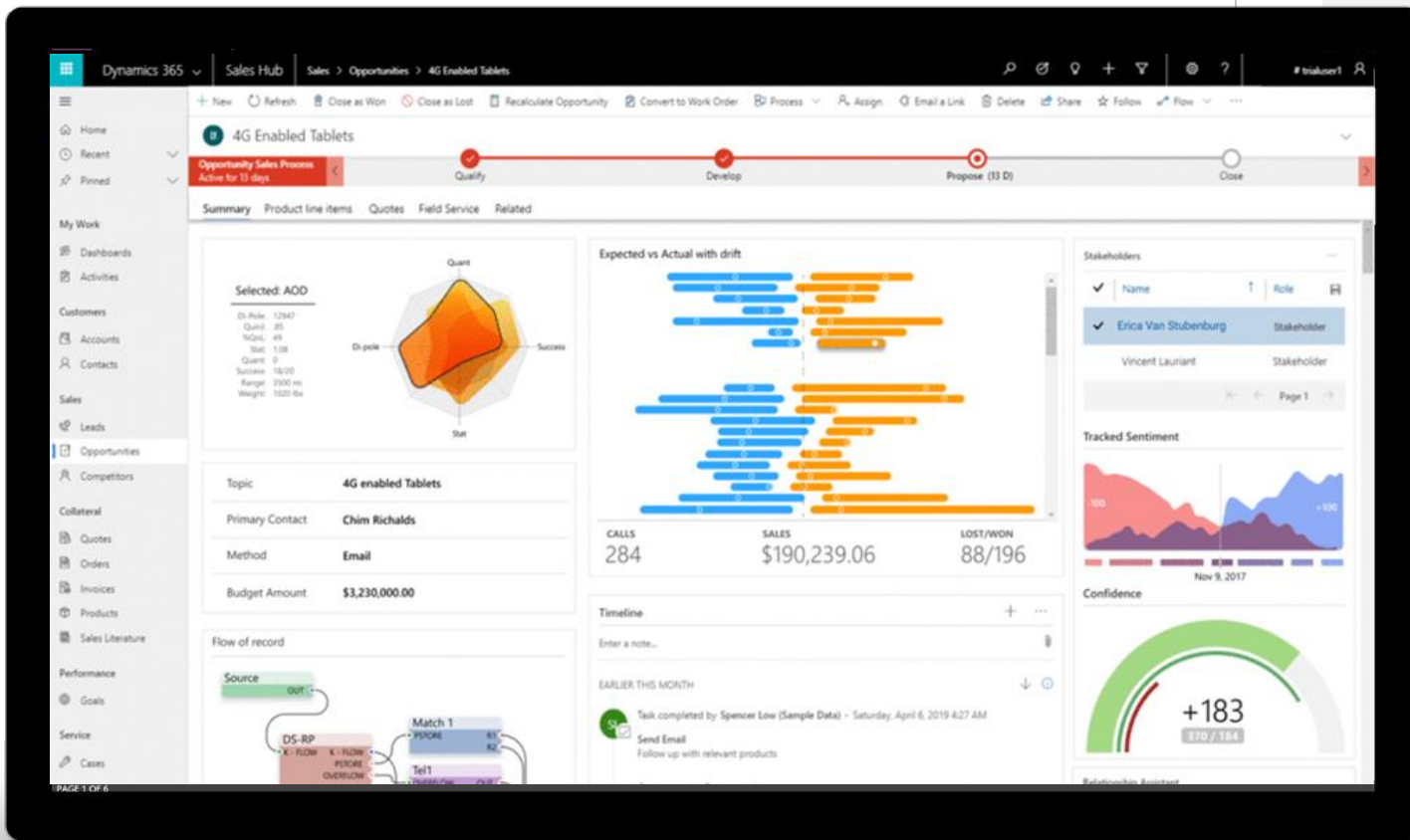
Visual studio based extension authoring, tools supporting both declarative and programmatic customizations.



Web API for use across a variety of programming languages, platforms, and devices (supporting OData).



Build custom components with the Power Apps component framework



Developers can build compelling visual components for Power Apps



Custom components are responsive, reusable and support multiple form factors



Reuse your current IP and skills—framework is based on standard web technologies TypeScript/JS, CSS and HTML5

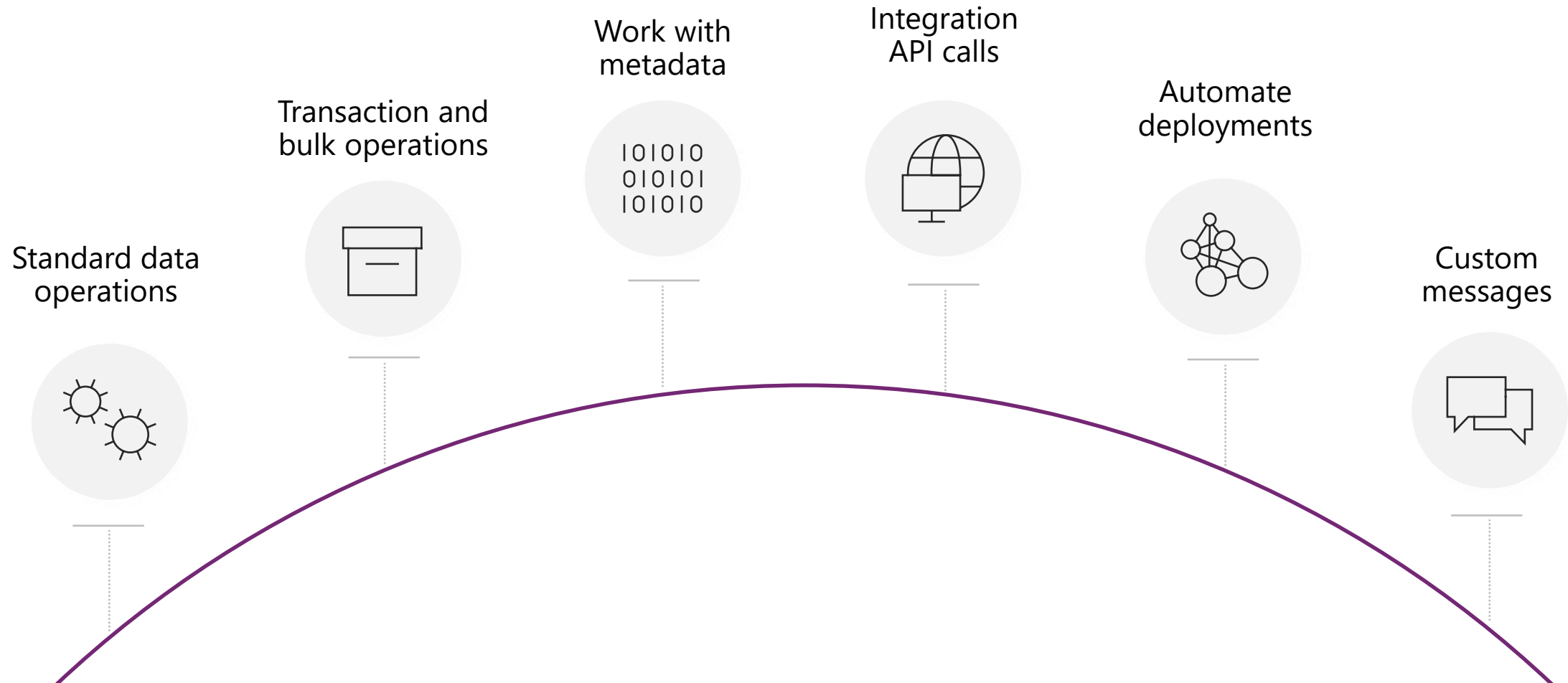


React and fabric support available in preview

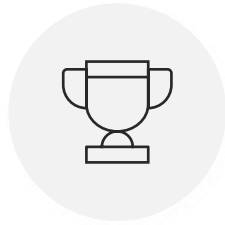


Integrate and build custom apps on the Common Data Service

Working with Common Data Service APIs

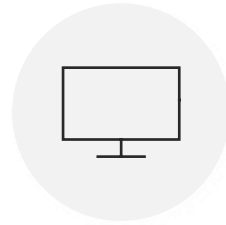


Building custom apps on the Common Data Service



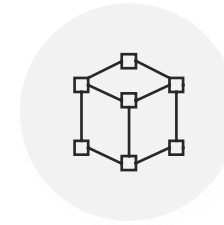
“We’re trying to create an API economy at Chevron. CDS makes it easy to define the shape of my data, and an API appears. It’s a huge win.”

– Warren @ Chevron



“I need full-stack devs, but I can’t find them. I hire front-end devs. CDS turns my [Xamarin] front-end devs into full stack devs by making backend development easy.”

– Ladd @ Schlumberger

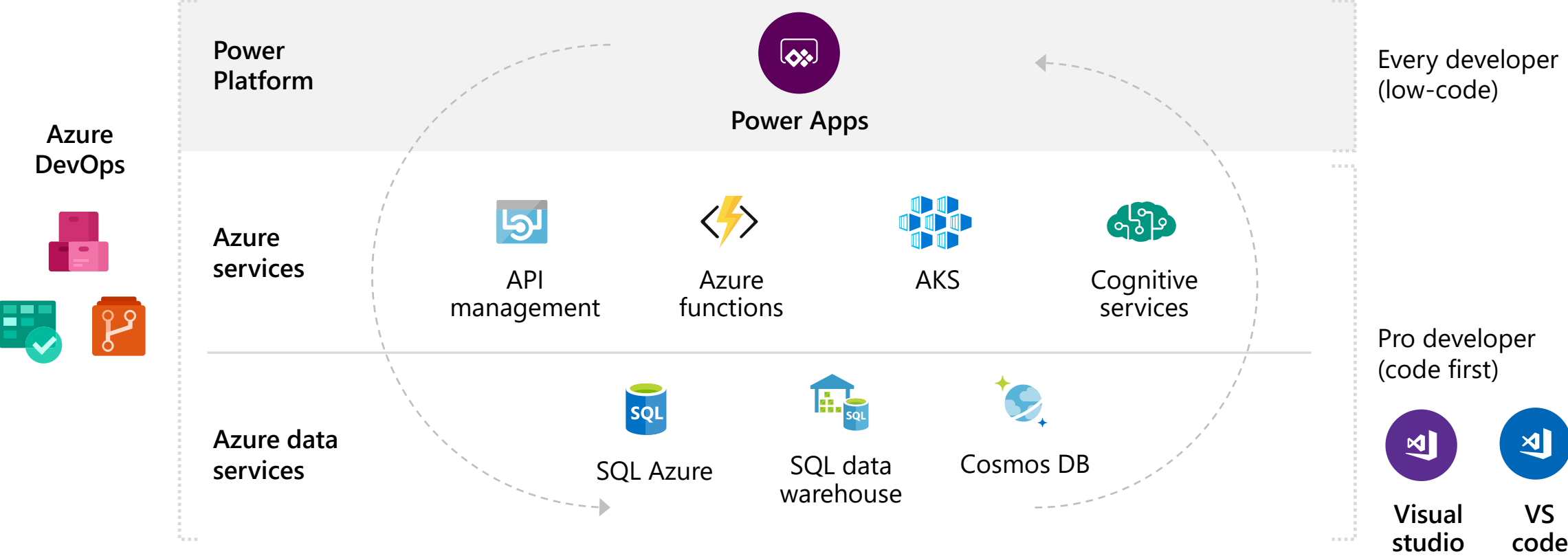


“Getting security and compliance right across many services is hard. CDS gives me one security and auditing model across all my data.”

– Keith @ Arriva

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Closing

A dimly lit office scene with people working at computers. In the foreground, a man with a beard and glasses sits at a desk, typing on a keyboard. A woman stands behind him, looking at the computer screen. In the background, two other women are standing and talking. The office has white desks, computers, and a potted plant.

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Start innovating



Leverage expertise

Start learning



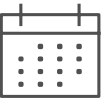
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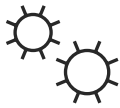


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Thank you