Microsoft

SaaS Lab

Welcome to the

SaaS Lab Program

Session 8

Integration

This event will be recorded. Your name or other information may end up in the recording. If you do not wish to be recorded, please drop out of this session.

The event will start shortly

Hello, meet your session presenters

Miguel Arcilla

Cloud Solutions Architect

Adopt API-First principles to integrate your apps with the world

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Gogo Muljawan

Partner Technology Architect

Empower customers to build on your innovation with Power Apps

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Aswin Chanthraksuwan

Partner Technology Architect

Integrate your solution and customer workflow on Microsoft Teams

aswinc@microsoft.com
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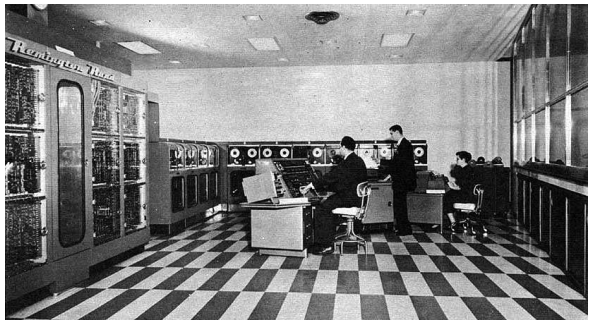
Digital transformation

1950 1960 1970 1980 1990 2000 2010 2020



Mainframes and minis

Silos of data processing

Ad hoc connectivity

Analog work and life

Personal computers

LANs

Internet

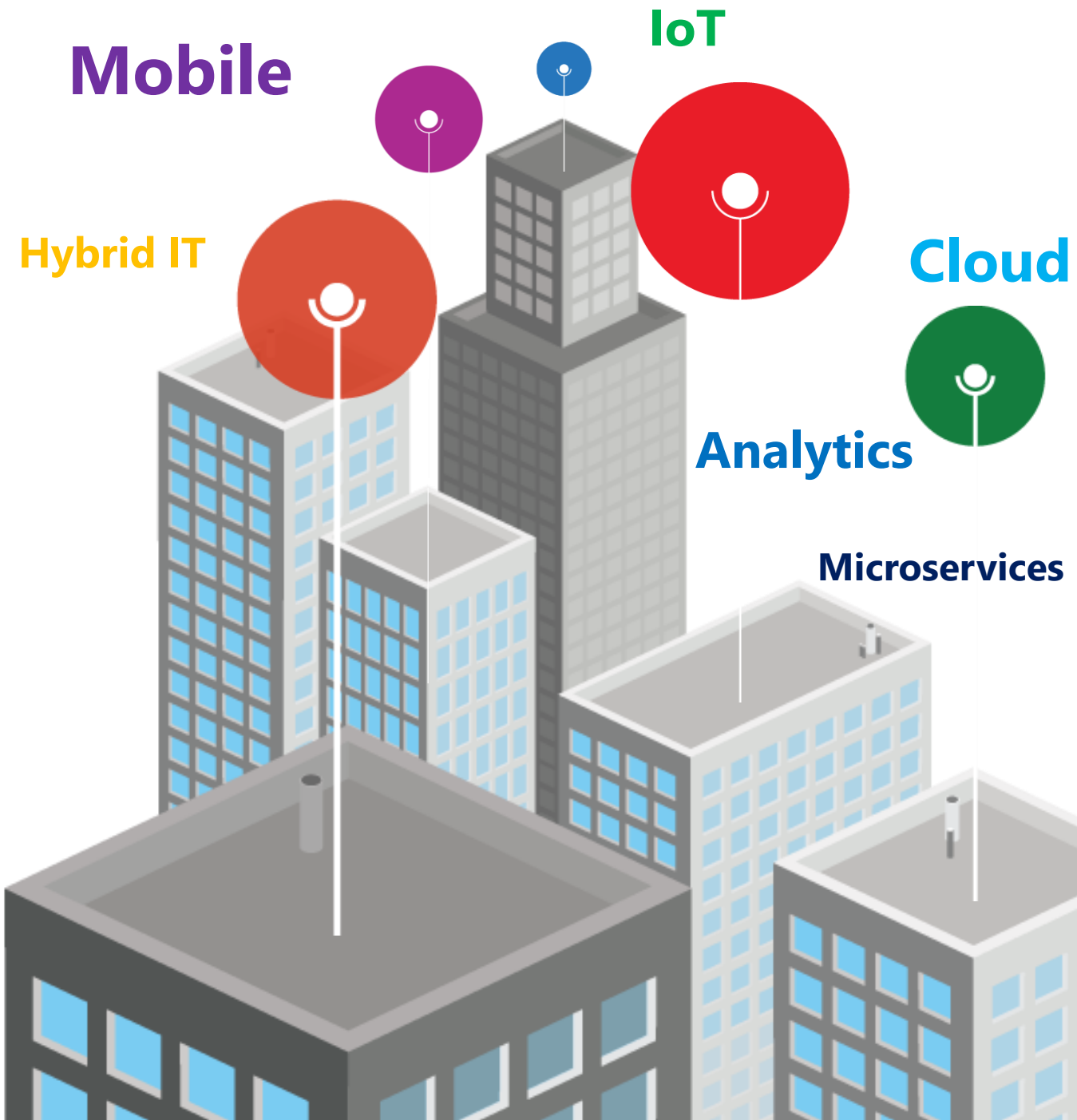
Digital work, analog life

Mobile and wearable computing

Smart devices

Pervasive connectivity

Digital work and life



APIs and API economy

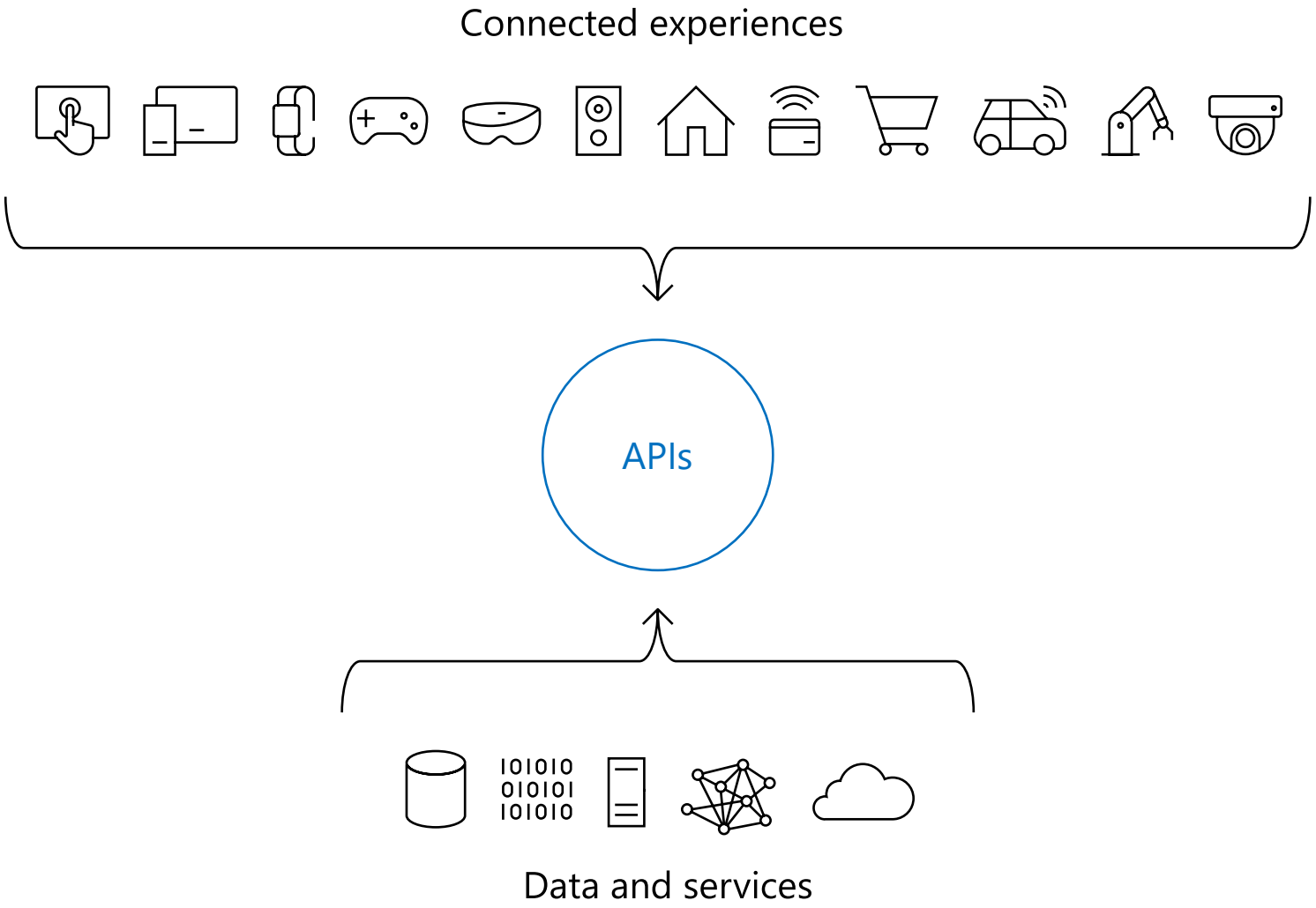
"Application programming interfaces (APIs) have been elevated from a development technique to a business model driver and boardroom consideration.

An organization's core assets can be reused, shared, and monetized through APIs that can extend the reach of existing services or provide new revenue streams.

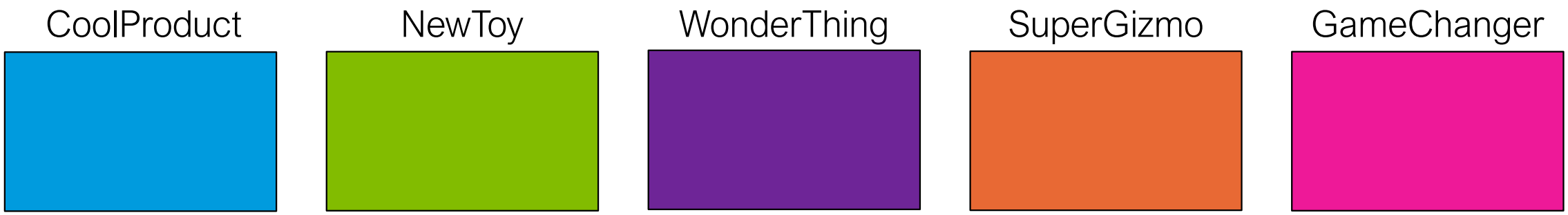
APIs should be managed like a product - one built on top of a potentially complex technical footprint that includes legacy and third-party systems and data.

From the "API Economy"
by George Collins and David Sisk
Deloitte Consulting LLP, 2015

Digital transformation is built on APIs



Traditional solutions are siloed



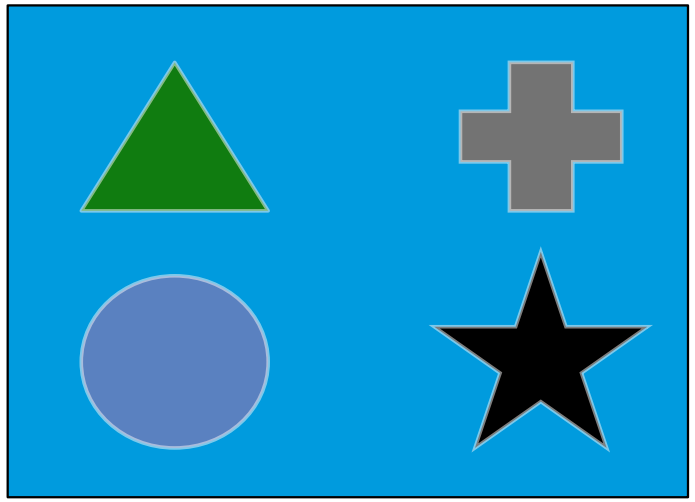
Common functionality exists, but is repeated per app

Developers define and follow their app's standards and conventions

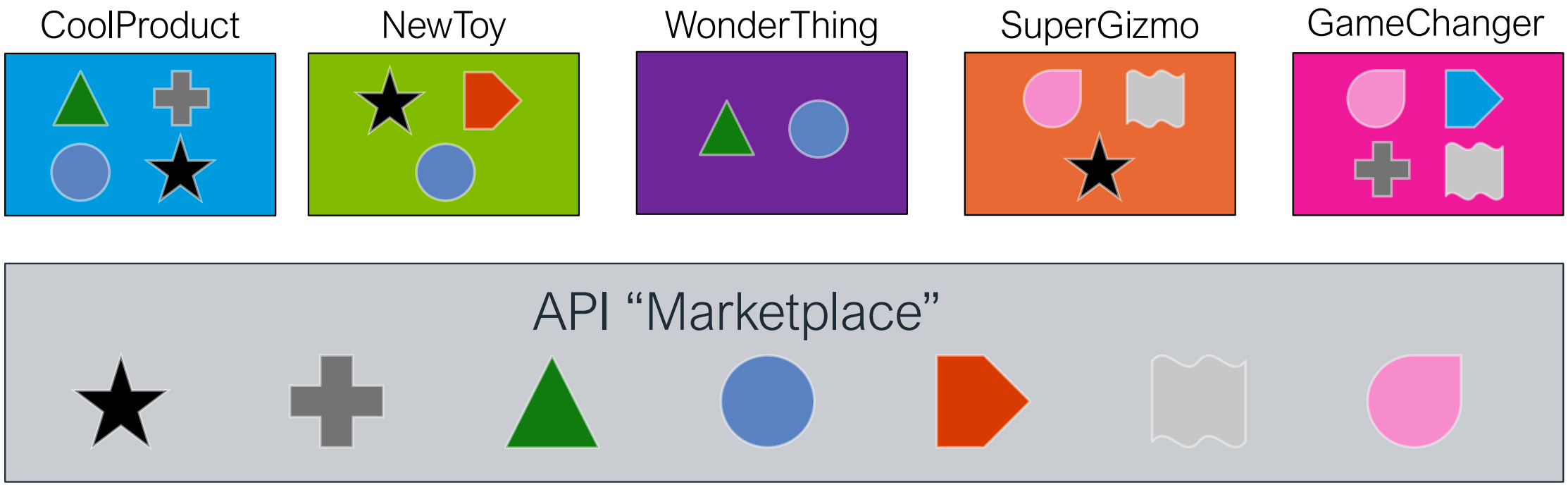
Frontend and backend teams are dependent on each other for success

APIs can transform products into ecosystems

CoolProduct



A Modern Portfolio



Common functionality can be reused, allowing each app to focus on core values

Developers collaborate to build a common API standard for easy consumption

Frontend and backend teams can scale independently with a defined API

Principles of AI First Design

[Three Principles of API First Design | by Lars Trieloff | Adobe Tech Blog | Medium]

…if functionality in your product is not covered by an API, it can't be covered by a GUI, CLI, or voice interface, effectively making the functionality invisible.

…Just as you spend time to design your graphical user interface, invest time to design your API.

…Your implementation will change frequently, your API should not.

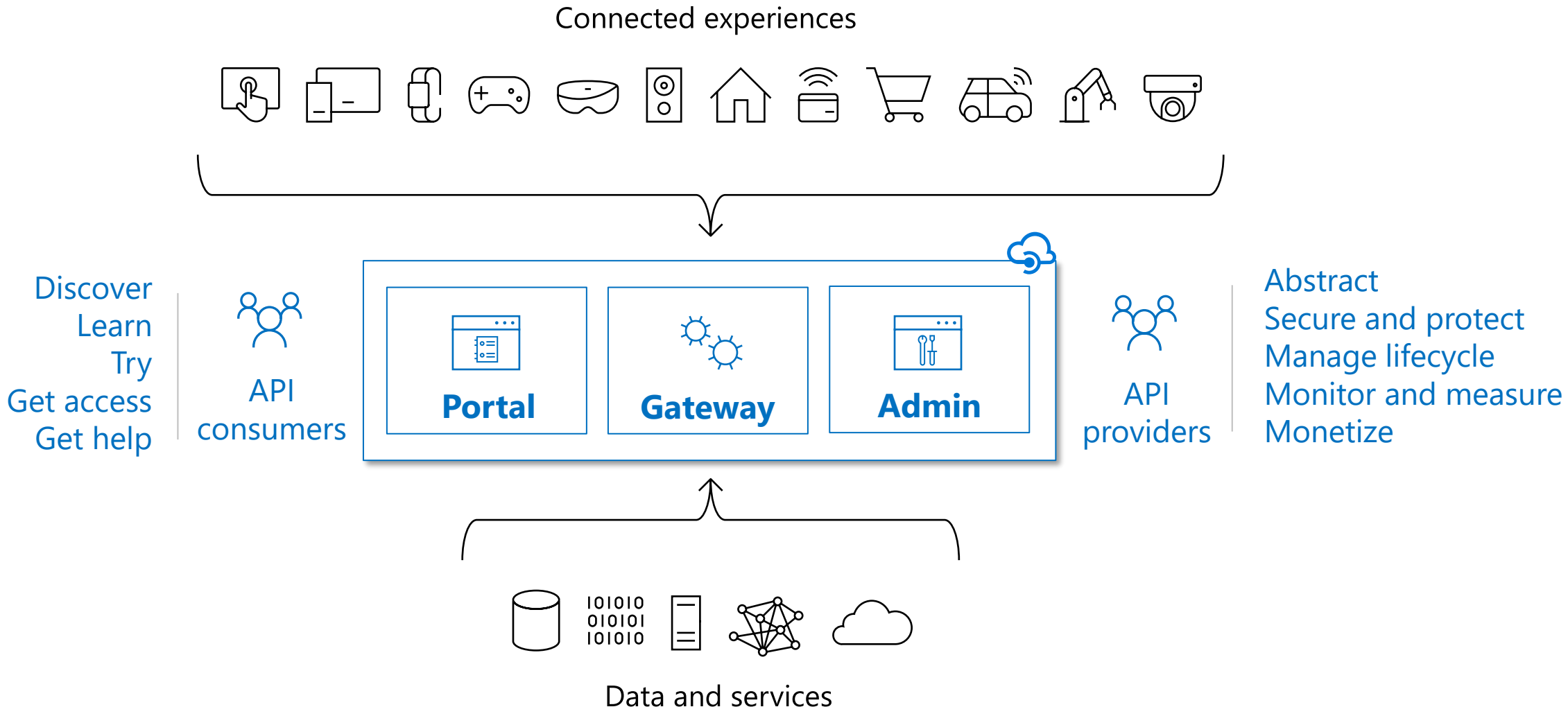
…Graceful API evolution is additive in terms of functionality, and subtractive in terms of requirements.

…Treating your API as independent from the implementation allows you to decouple development of API and implementation.

…In order to be used, your API needs to be easily understood by people that have not been involved in its creation. That means documentation.

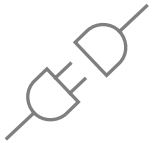
… try to minimize surprises and follow established standards and best practices wherever possible. When it's impossible to do so, document the deviation…

API management solves API-related challenges



Azure API Management

Cloud hosted, turnkey, fully managed



Works with APIs running in the cloud or on premises

Abstracts, protects and optimizes APIs

Promotes and supports app developer engagement

Provides API governance, insights, and analytics

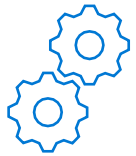
New API Management Developer Portal

Built-into API Management	Open the portal within seconds; updates are on us.
Fast to go-to-market with	Rely on default styling and content to minimize customizations.
Easily customizable	Author content and brand the portal with a drag-and-drop visual editor.
Open-source	Browse the codebase and engage with the community on GitHub.
Extensible	Extend the codebase with custom logic and self-host the resulting portal.
Automatable	Automate deployments via APIs.

Budget for scale with new Consumption Tier

Generally available

North Central US, West US, West Europe, North Europe, Southeast Asia, and Australia East. Additional regions coming soon.



Serverless API Management

On-demand activation, auto-scale out and back to zero, consumption-based micro billing

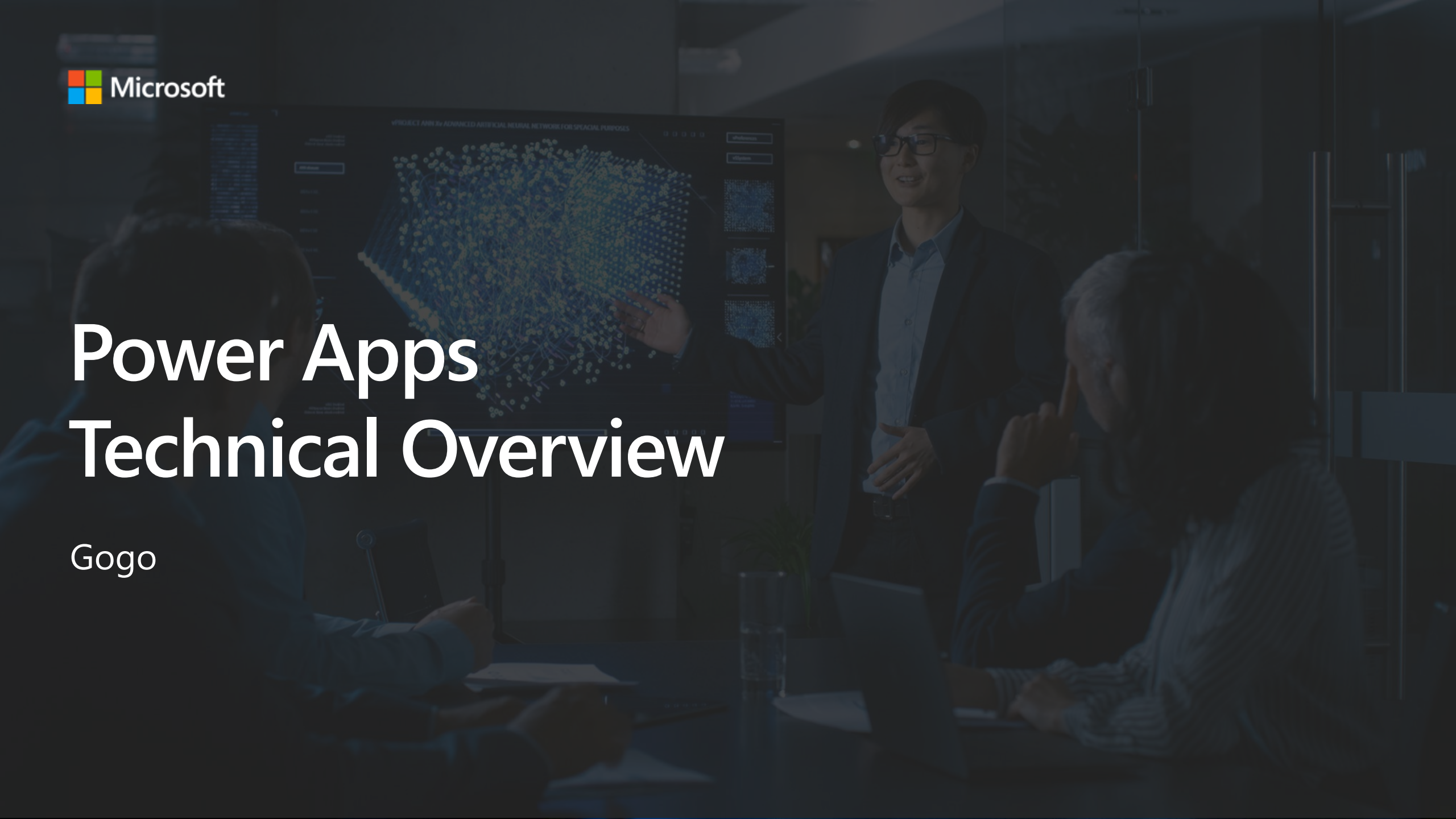
Façade for serverless endpoints and container-based microservices

Functions, Logic Apps, Kubernetes, Service Bus, Event Hubs, Storage, etc.

Curated set of features and usage limits

E.g. no developer portal or built in cache


Microsoft 365
Azure API Management
Demo
URBAN GARDEN



Microsoft

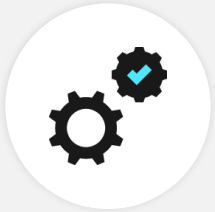
Power Apps Technical Overview

Gogo

Businesses face various challenges today

Budget constraints

Time & resource constraints



Surging digital demand

Software development takes time

Tech skills gap

Legacy system maintenance

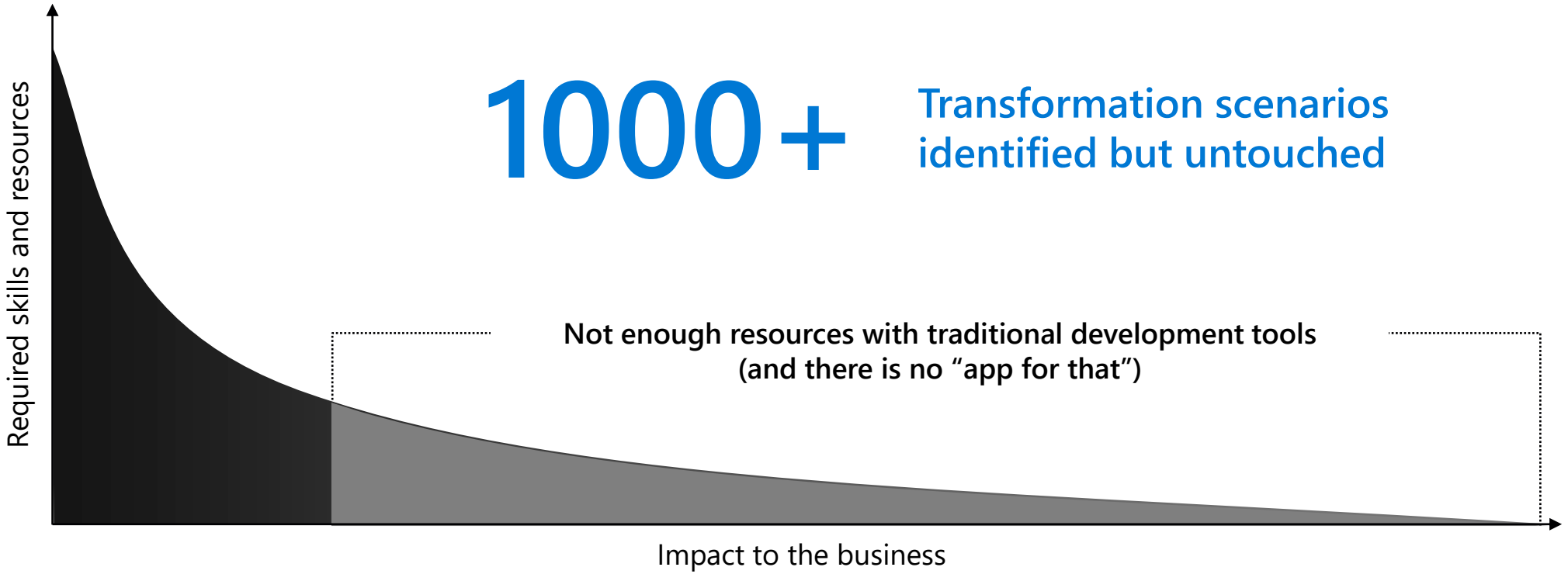
Evolving workforce expectations

Security & compliance

Economic downturn

Shift to remote work

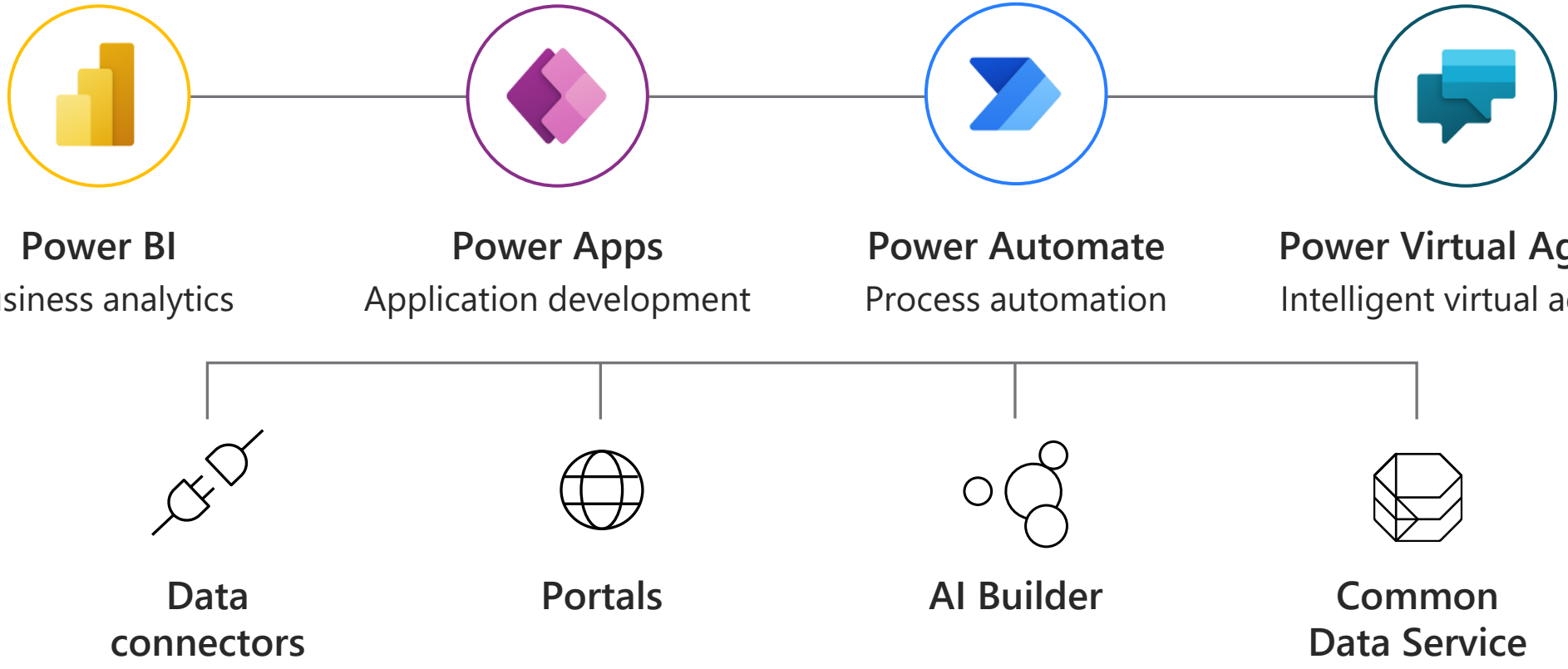
Low code development can address these challenges



Microsoft Power Platform

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

Innovation anywhere. Unlocks value everywhere



Power Apps: a low-code approach to building apps

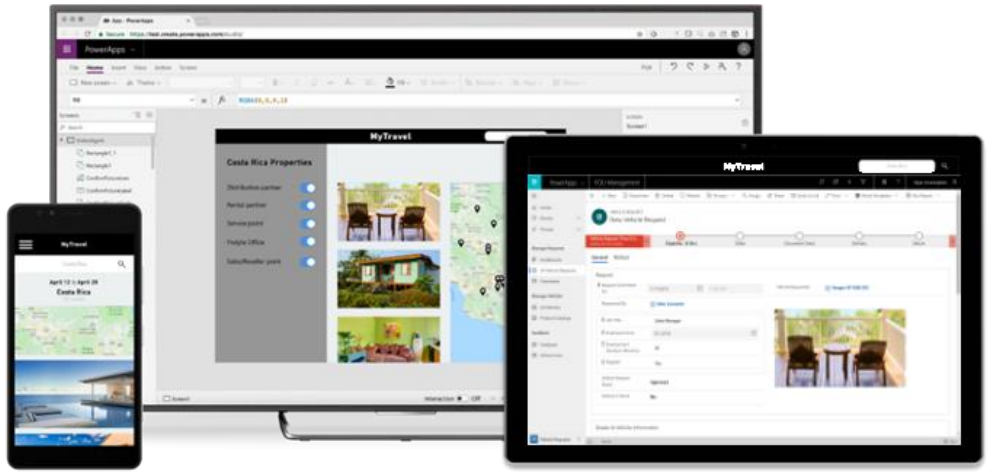
Build standalone web and mobile apps, or customize existing apps in Office 365 and Dynamics 365

Connect to all your data with 350+ 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

Low-code transformation with Microsoft Power Platform

>500K

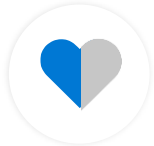
organizations using Power Platform every month

90%

of Fortune 500 companies use Power Platform

50%

YoY growth for SMB customers using Power Platform



Healthcare

Finance/Banking

Manufacturing

Energy

Public Sector

Technology Service

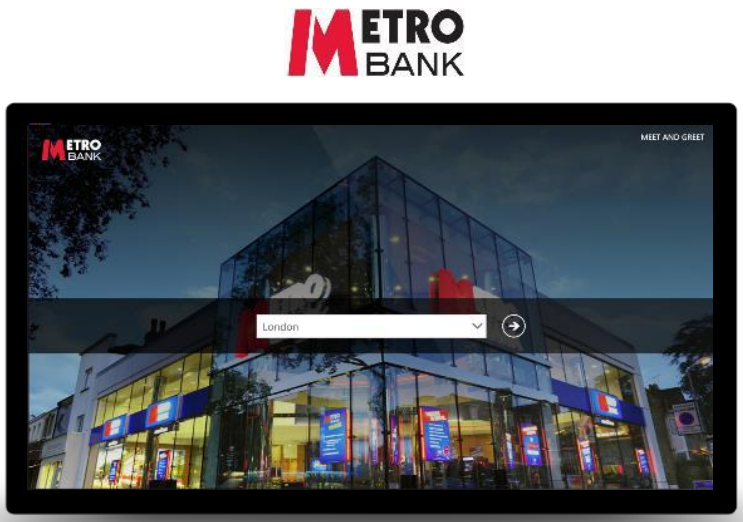
Consumer Goods

Humana

TOYOTA

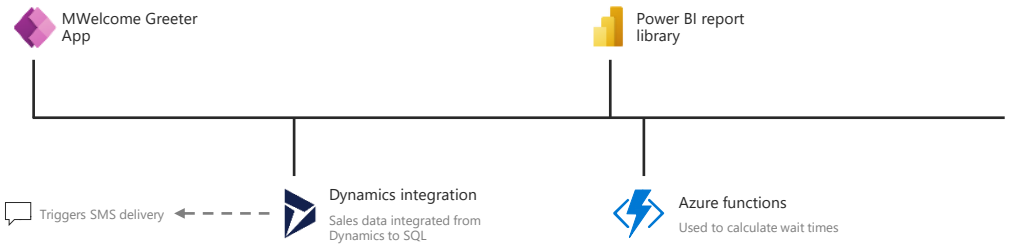
Metro Bank transforming their customer journey through quality in store experiences

Differentiated themselves in financial services with Power Apps and increased customer loyalty scores



- R/W data from Dynamics 365 & Azure functions
- Runs on tablet devices

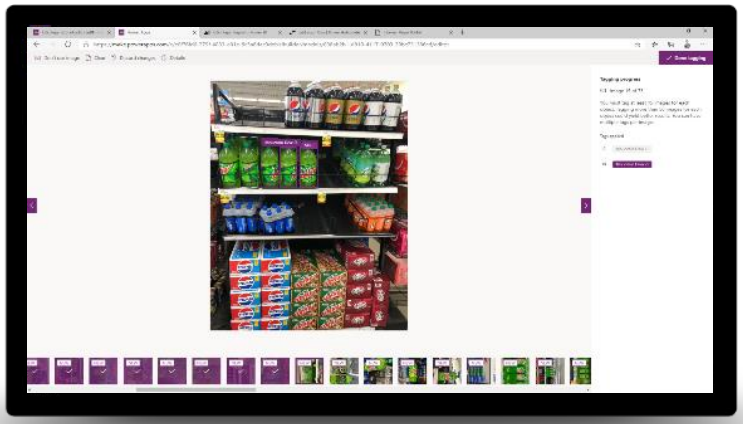
- Several reports for analysis on wait times and

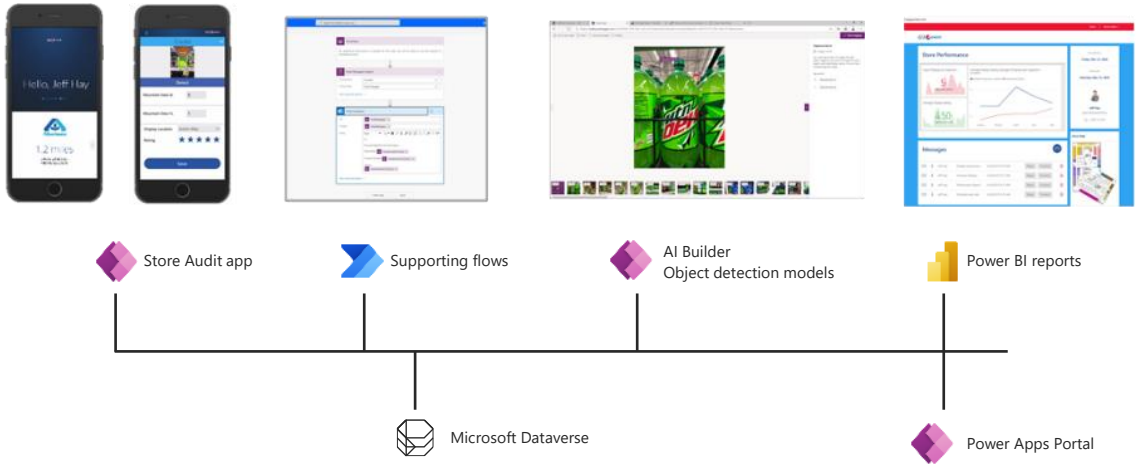


Solution architecture. The app uses Dynamics 365 Customer Engagement for storing information about queued customers (linked to Contact entity), employee shift patterns (linked to System Users). An Azure Function is used to read this information every minute and simulate the customer handling according to preset rules. The output is the estimated current wait time as well as a per-customer forecast on when each person waiting will be served. A PowerApps Canvas app maintains the queue and service representative availability data, enabling actions such as matching customer with a service representative, and presenting the wait time forecast for any new customer walking into the store

G&J Pepsi's digital transformation with Power Apps

Improved the execution of their bottling operation and store audit process





Solution architecture. Using Microsoft Power Apps to build mobile apps that speed up in-store audits including AI Build for object detection; Microsoft Power BI to visualize aggregate data generated from the apps and generate rich insights on their competition; and Microsoft Flow to automate several backend processes, including managing approvals and sending important notifications and alerts

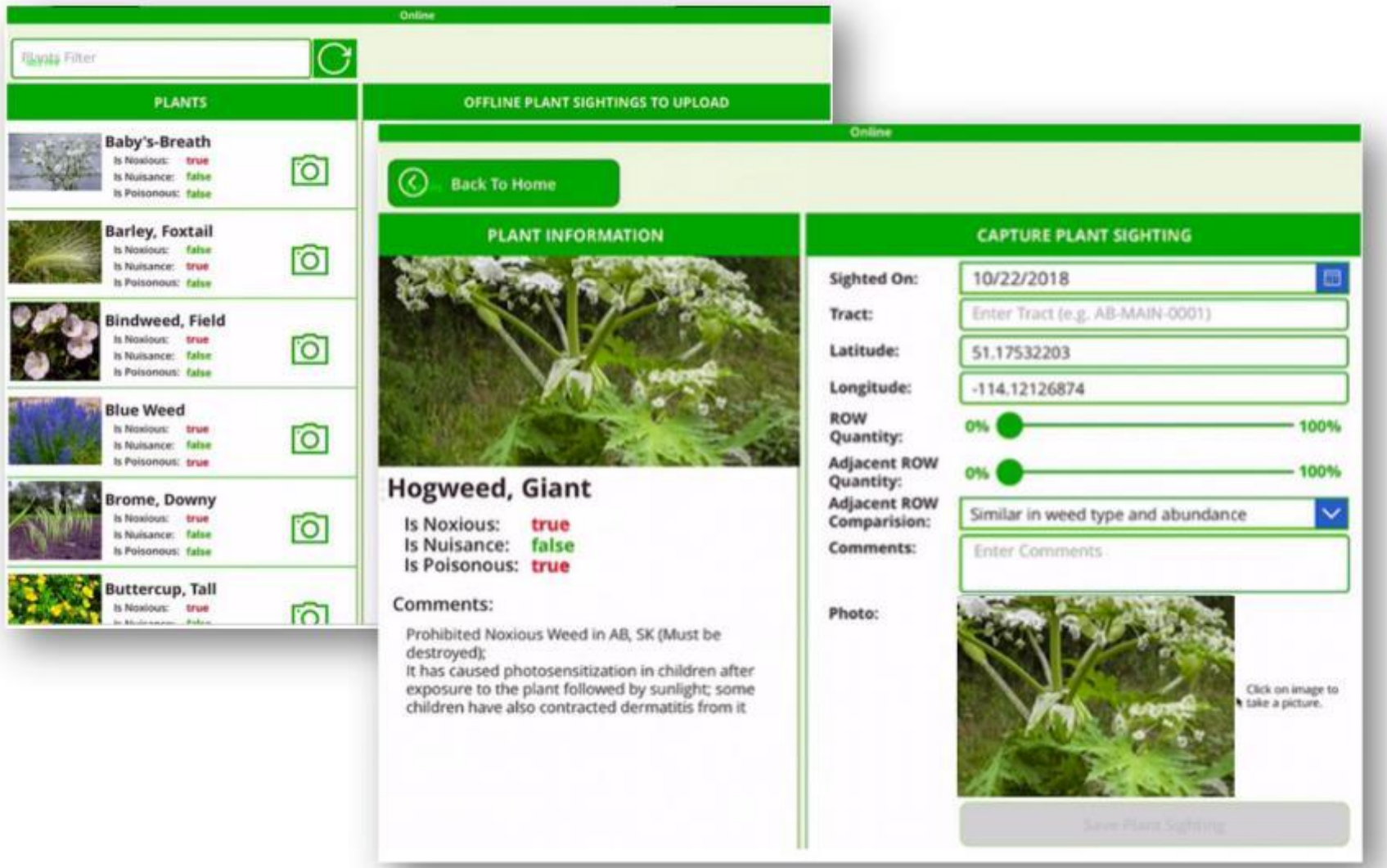
AN OIL PIPELINE COMPANY IN CANADA

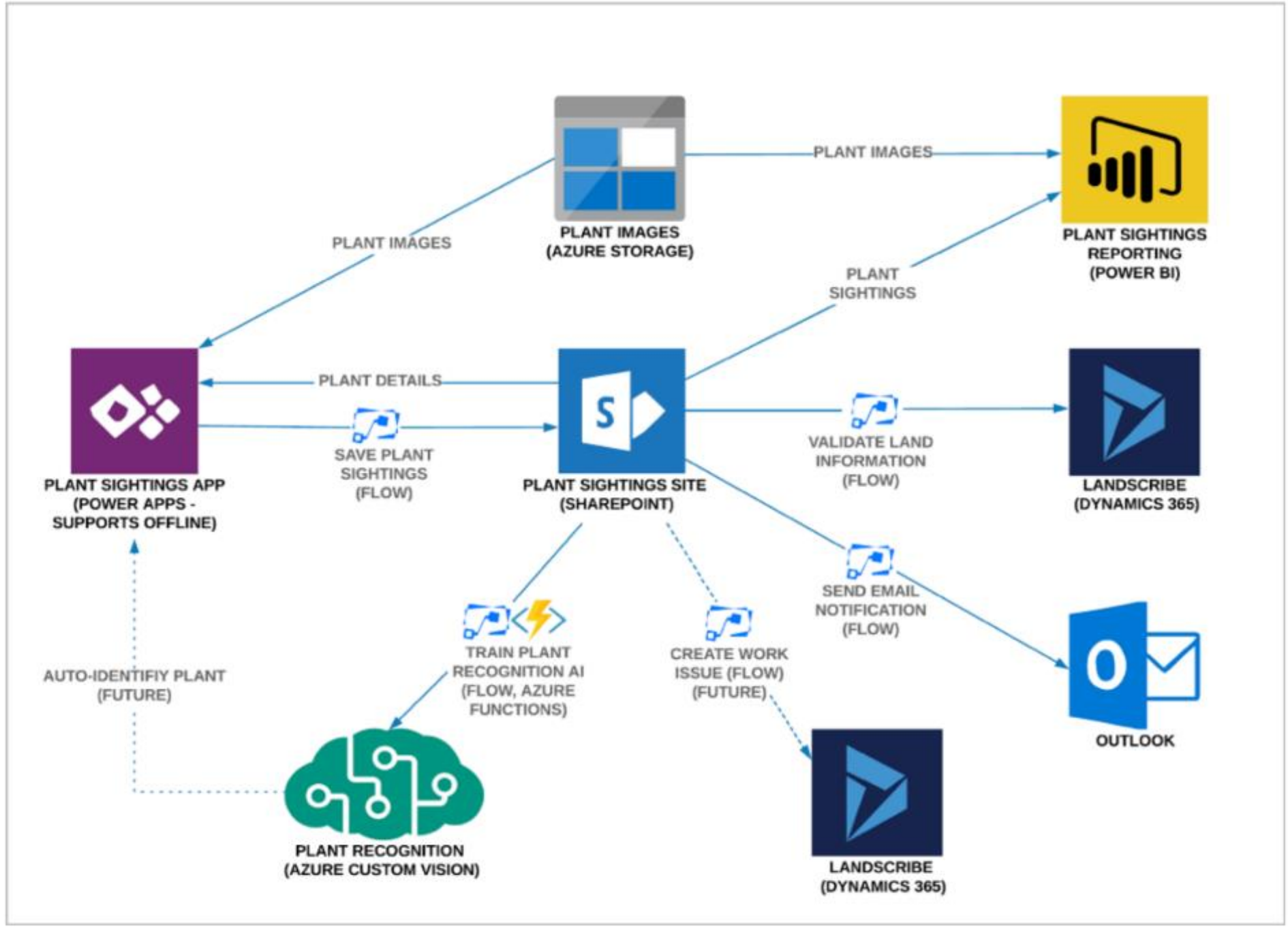
Image Upload

Meta data upload

Dynamics 365
(Land System)

Custom Vision


Online
Filter
PLANTS
Baby's-Breath
Is Noxious: true
Is Nuisance: false
Is Poisonous: false
Barley, Foxtail
Is Noxious: false
Is Nuisance: true
Is Poisonous: false
Bindweed, Field
Is Noxious: true
Is Nuisance: false
Is Poisonous: false
Blue Weed
Is Noxious: true
Is Nuisance: false
Is Poisonous: true
Brome, Downy
Is Noxious: true
Is Nuisance: false
Is Poisonous: false
Buttercup, Tall
Is Noxious: true
OFFLINE PLANT SIGHTINGS TO UPLOAD
Online
Back To Home
PLANT INFORMATION
Hogweed, Giant
Is Noxious: true
Is Nuisance: false
Is Poisonous: true
Comments:
Prohibited Noxious Weed in AB, SK (Must be destroyed);
It has caused photosensitization in children after exposure to the plant followed by sunlight; some children have also contracted dermatitis from it
CAPTURE PLANT SIGHTING
Sighted On: 10/22/2018
Tract: Enter Tract (e.g. AB-MAIN-0001)
Latitude: 51.17532203
Longitude: -114.12126874
ROW Quantity: 0% 100%
Adjacent ROW Quantity: 0% 100%
Adjacent ROW Comparision: Similar in weed type and abundance
Comments: Enter Comments
Photo:
Click on image to take a picture.


PLANT IMAGES
PLANT IMAGES
PLANT IMAGES
(AZURE STORAGE)
PLANT SIGHTINGS
REPORTING
(POWER BI)
PLANT
SIGHTINGS
PLANT DETAILS
SAVE PLANT
SIGHTINGS
(FLOW)
PLANT SIGHTINGS APP
(POWER APPS -
SUPPORTS OFFLINE)
PLANT SIGHTINGS SITE
(SHAREPOINT)
VALIDATE LAND
INFORMATION
(FLOW)
LANDSCRIBE
(DYNAMICS 365)
SEND EMAIL
NOTIFICATION
(FLOW)
OUTLOOK
TRAIN PLANT
RECOGNITION AI
(FLOW, AZURE
FUNCTIONS)
CREATE WORK
ISSUE (FLOW)
(FUTURE)
AUTO-IDENTIFIY PLANT
(FUTURE)
PLANT RECOGNITION
(AZURE CUSTOM VISION)
LANDSCRIBE
(DYNAMICS 365)

Microsoft Power Platform

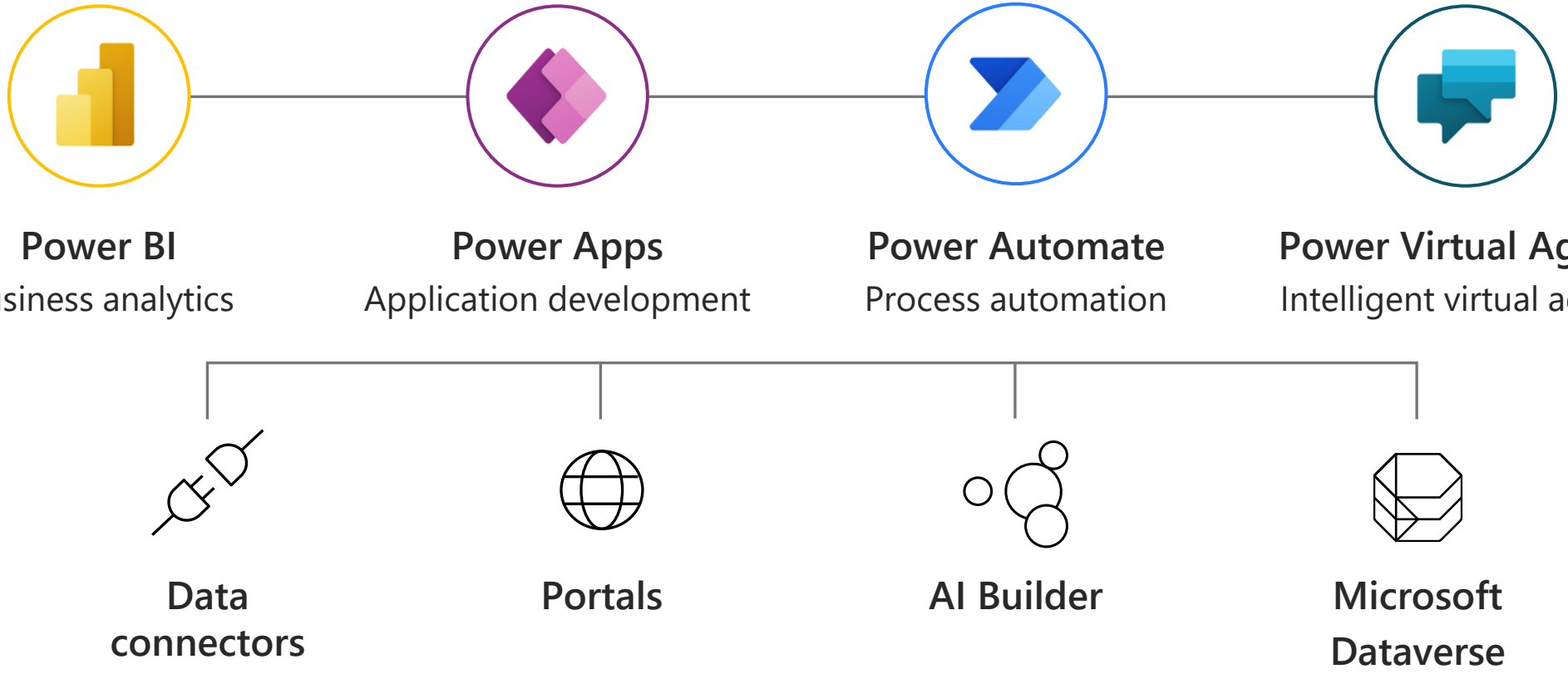
Microsoft Dataverse

Enabling low-code innovation in your organization

Microsoft Power Platform

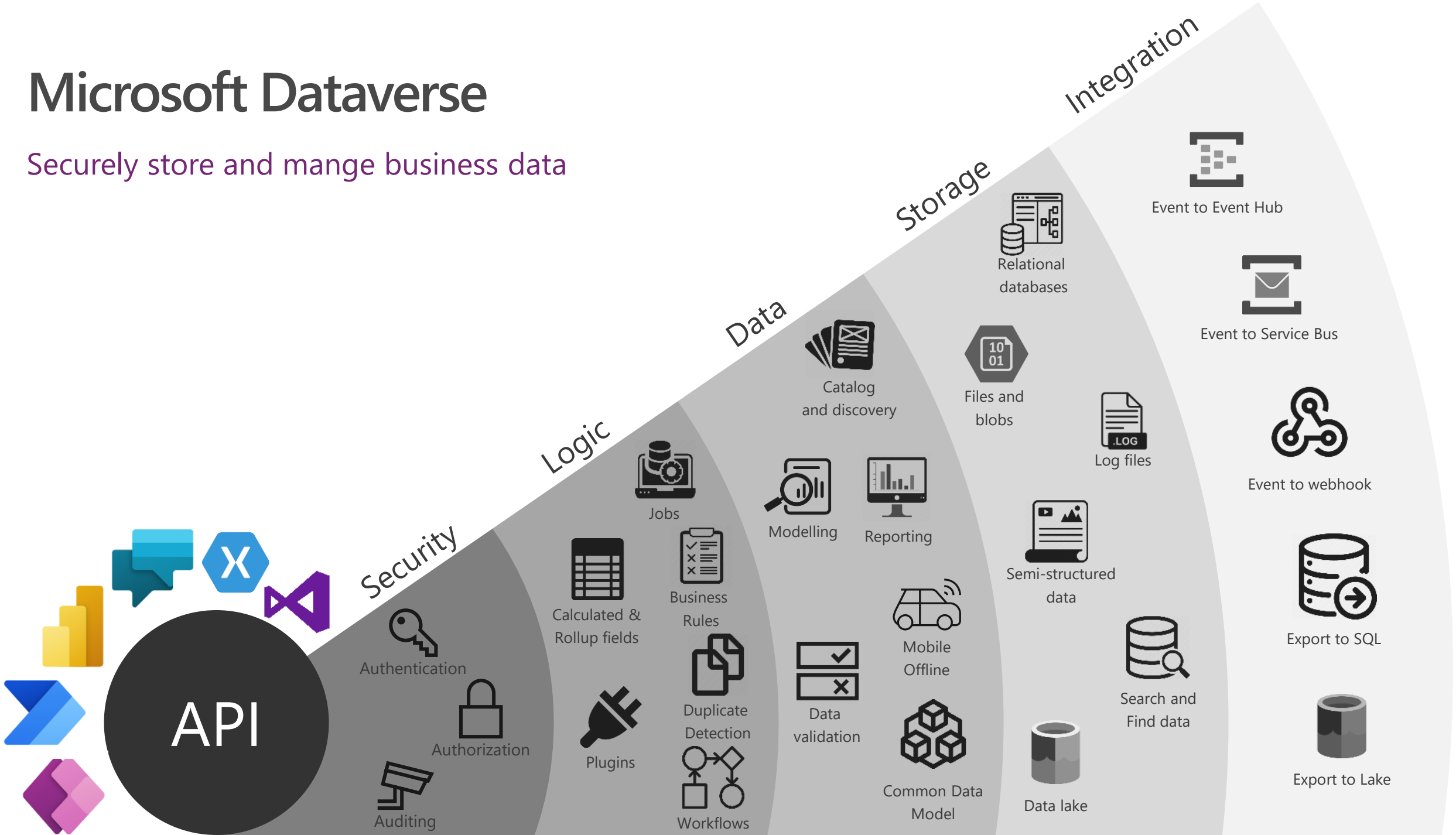
The low-code platform that spans Office 365, Azure, Dynamics 365, and standalone applications

Innovation anywhere. Unlocks value everywhere



Microsoft Dataverse

Securely store and mange business data



Extending Office 365 and Dynamics 365

Extending legacy applications

Building departmental solutions

Building mission-critical end-to-end solutions

Power Apps

Solution explorer *(advanced)*

App designer | Form designer | View designer | Dashboard designer | Canvas studio

Power Automate (workflow and business process)

Microsoft Dataverse

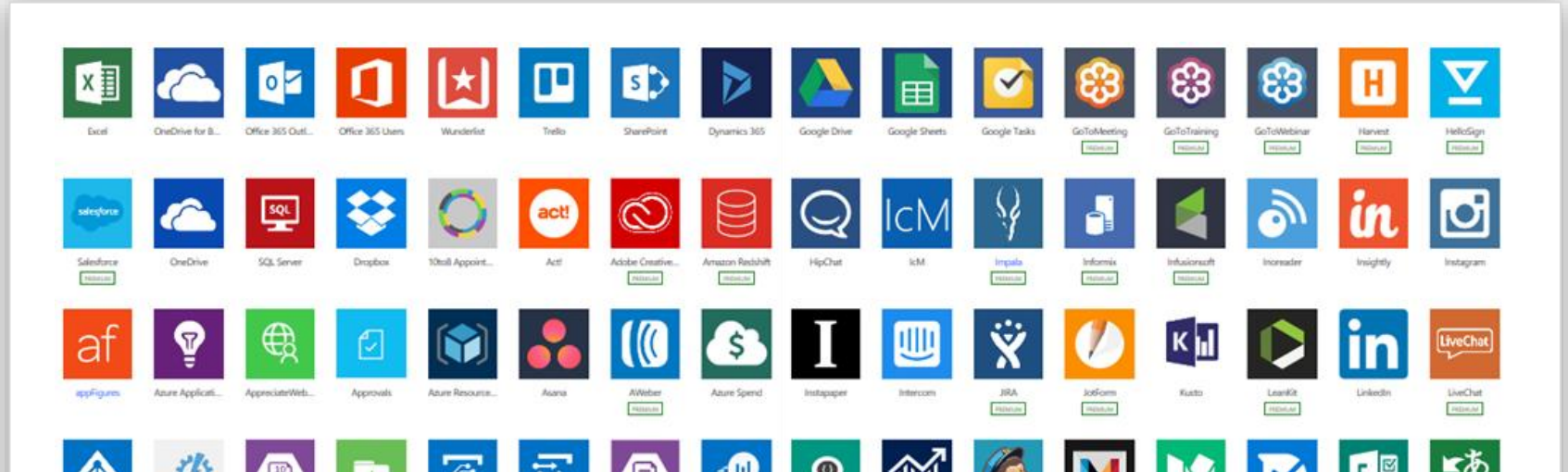
Sharing+ security

Dynamics 365 data natively on the platform–no integration required

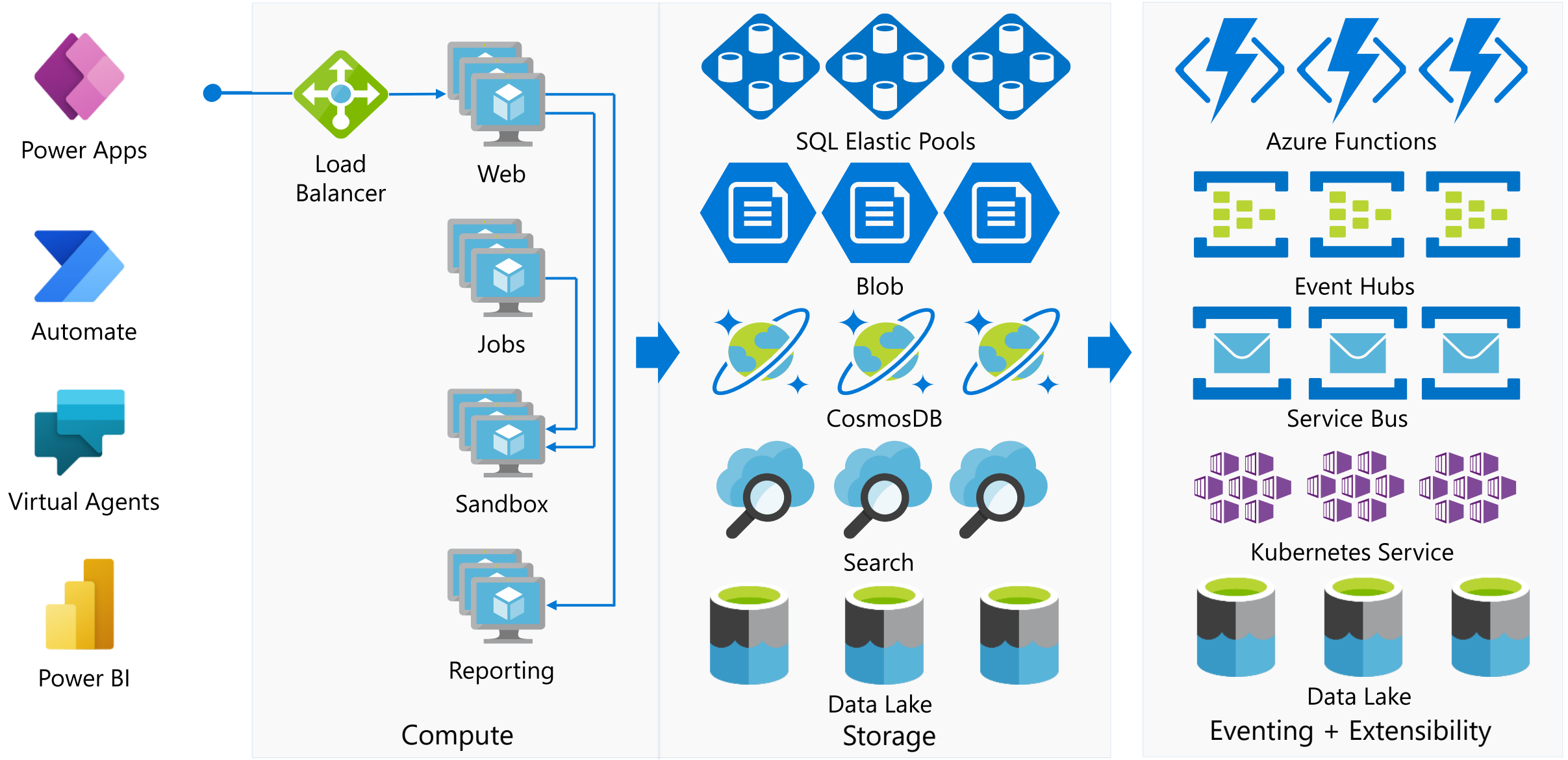
Enterprise-grade application lifecycle management

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

350+ connectors



Microsoft Dataverse...Runs on Azure and Extends with Azure



Microsoft Power Platform

AI Builder

Enabling low-code innovation in your organization

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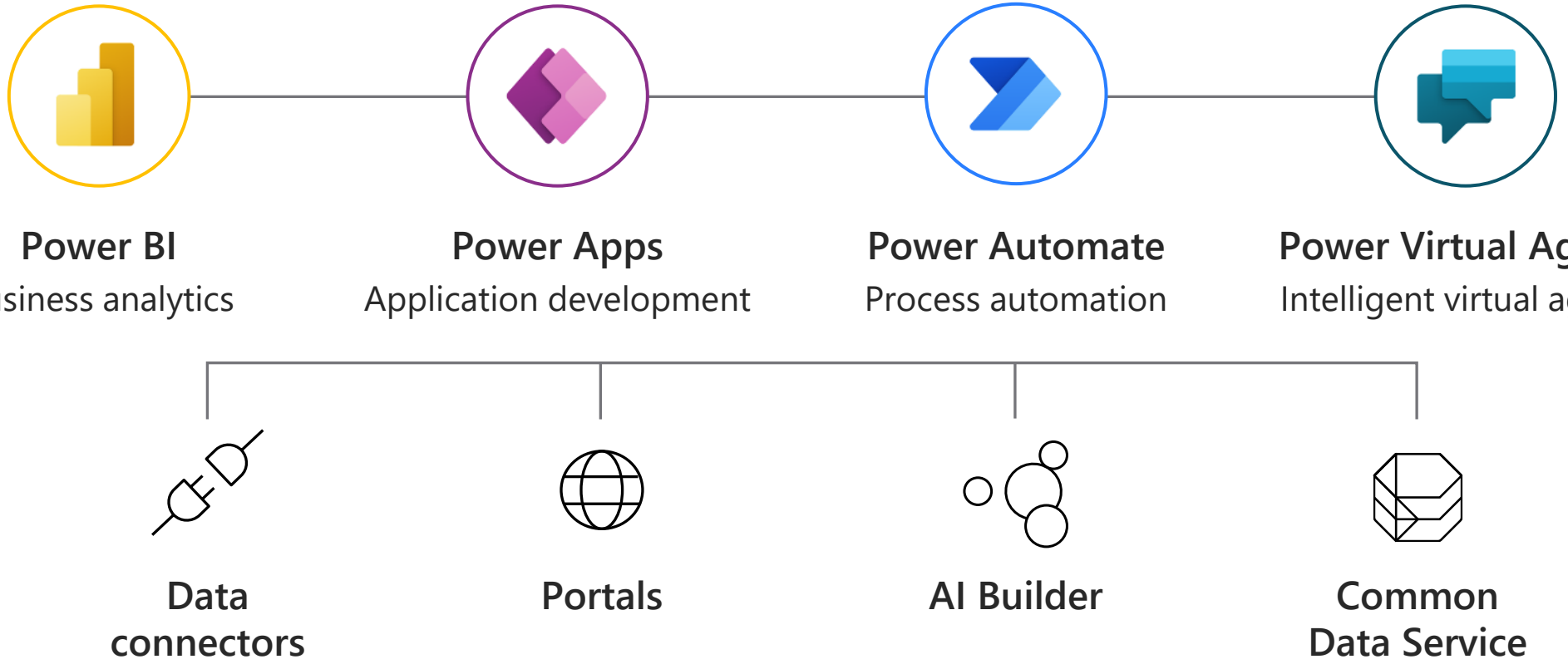
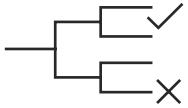


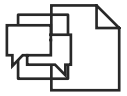
Low-code AI for apps and processes with AI Builder

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

Native integration with Microsoft Dataverse enables data from Azure Data Lakes

Leverage predictions directly from Microsoft Dataverse across your Power Platform solutions, Dynamics 365 or Microsoft 365





Prediction

Binary classification

Predict and classify fields in Microsoft Dataverse

Vision

Forms processing

Extract structured data from digital paper, PDFs, and forms

Vision

Object detection

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

Language

Text classification

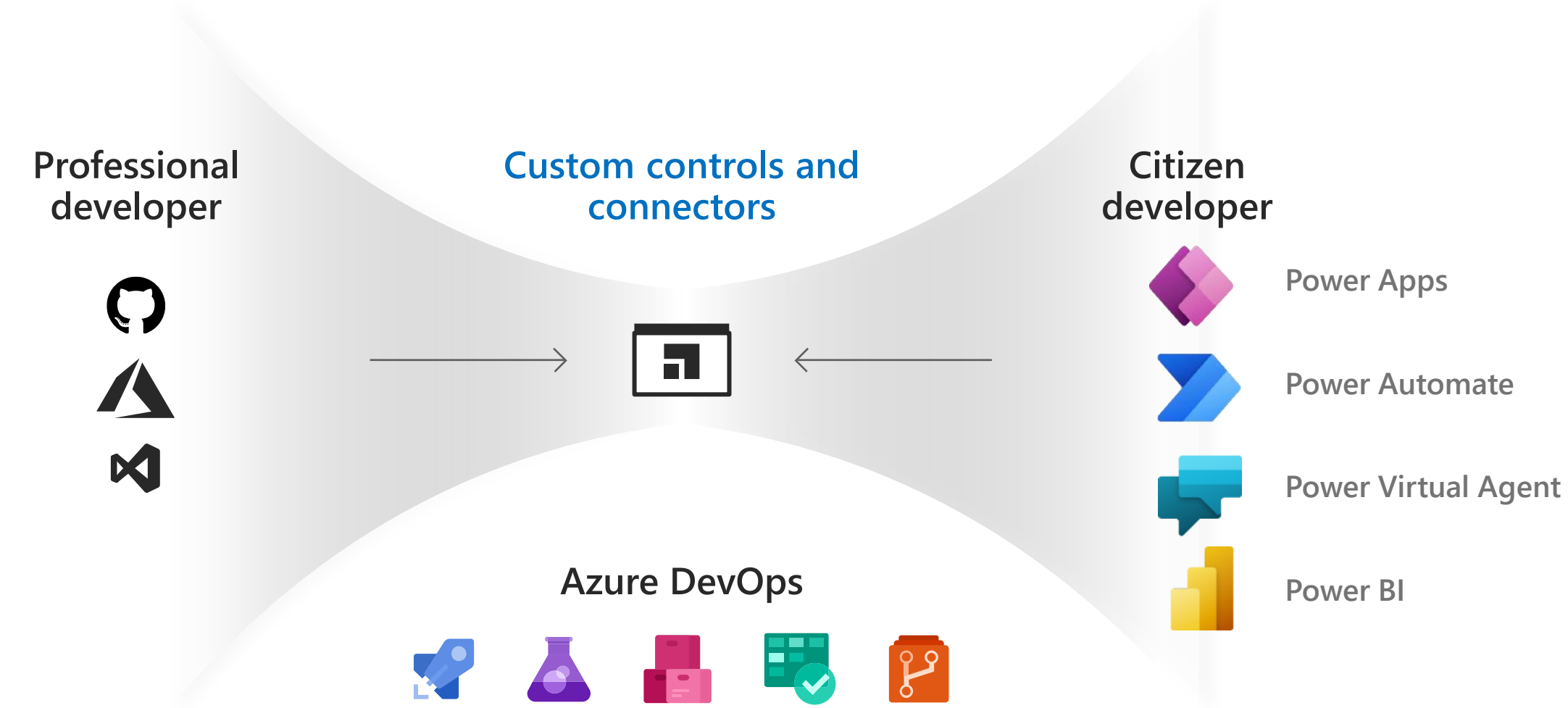
Classify, group and categorize any text in Microsoft Dataverse

Microsoft Power Platform

Develop faster than ever before

Extensibility

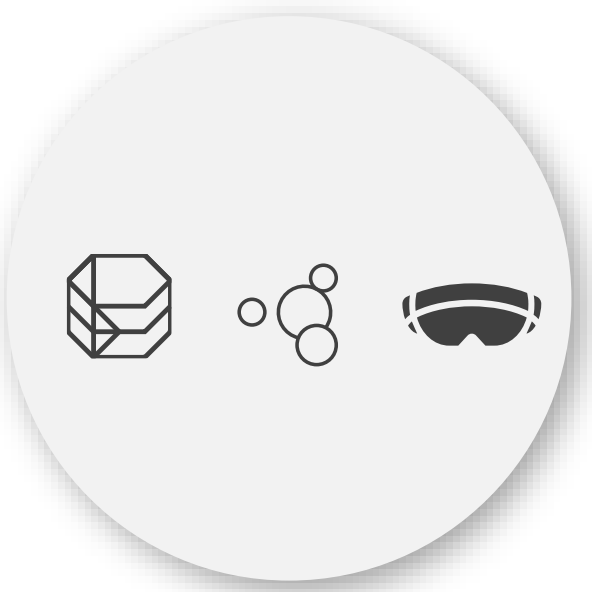
Azure + Power Apps = Rapid Application Development



Low-code and Pro Dev Use Cases

Custom UX components to extend user experiences

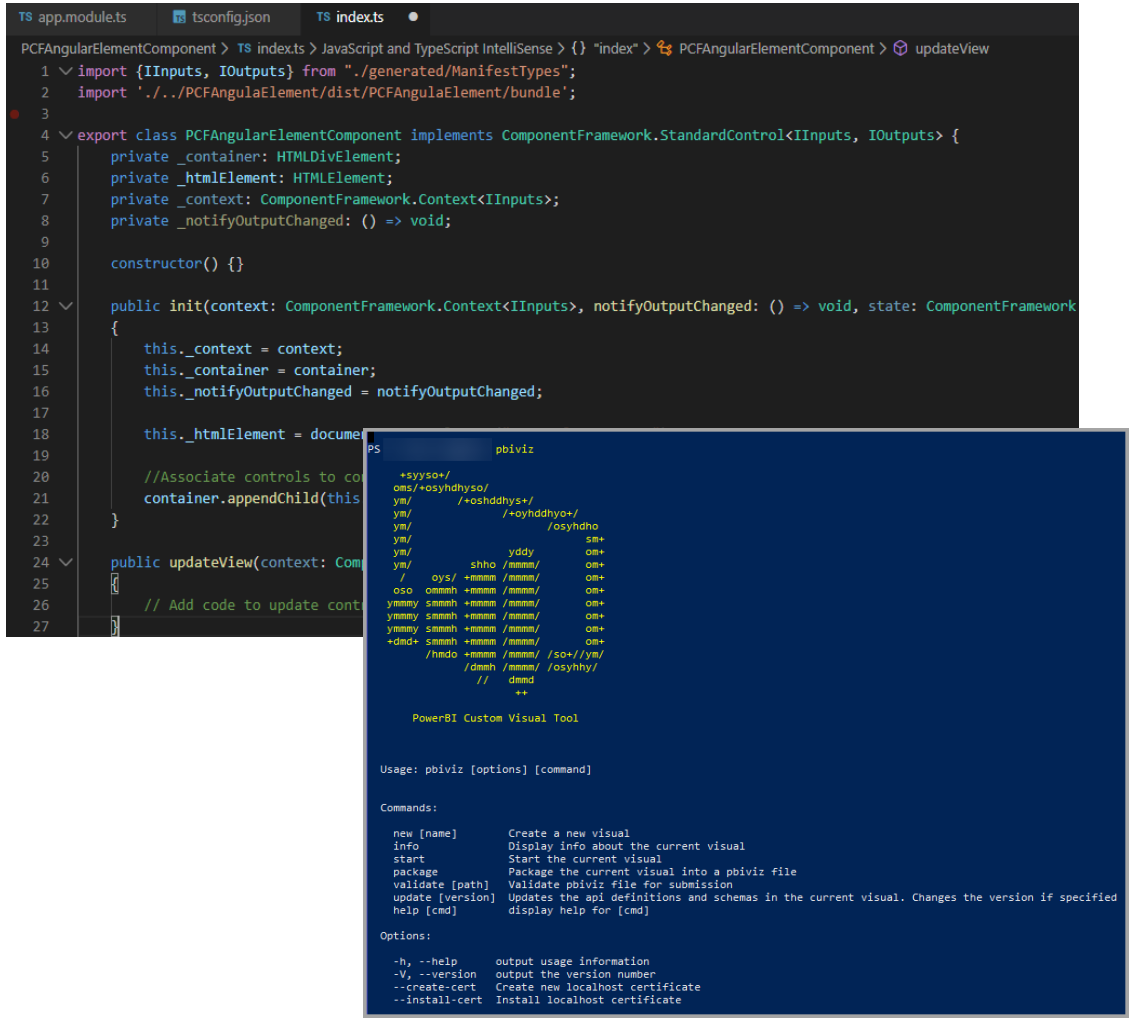
Custom code for logic in Azure



Innovate and unlock new scenarios via low-code

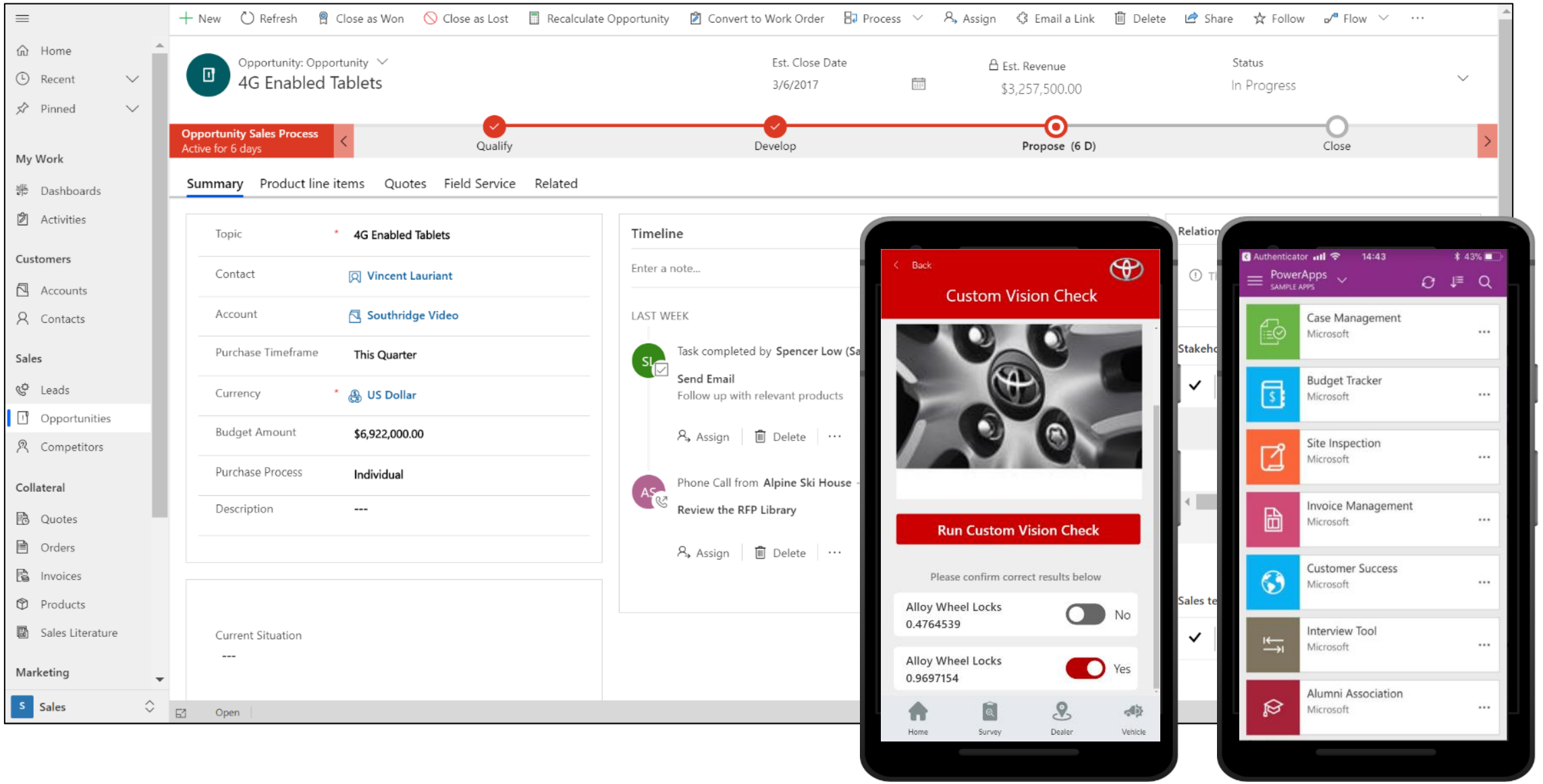
Leverage existing skills and code investments

Use the tools you are familiar with

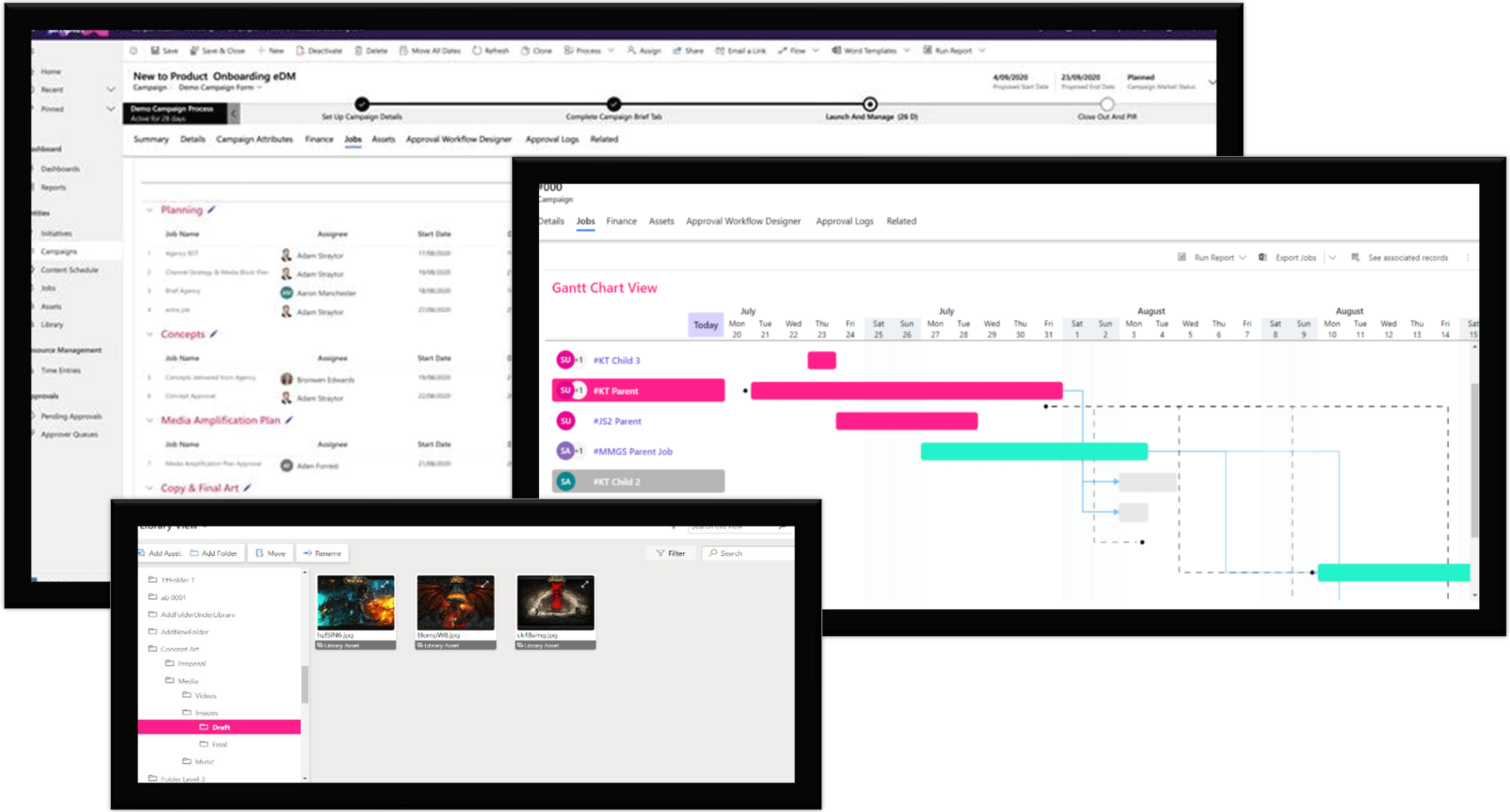


- Extension for visuals in the Power Platform is based on **TypeScript**
- Developers can use **Visual Studio** or **Visual Studio Code**
- APIs with many helper functions
- Use common frameworks like **React**
- Command-line tools for building and testing

Out-of-the-Box Components



Custom Components



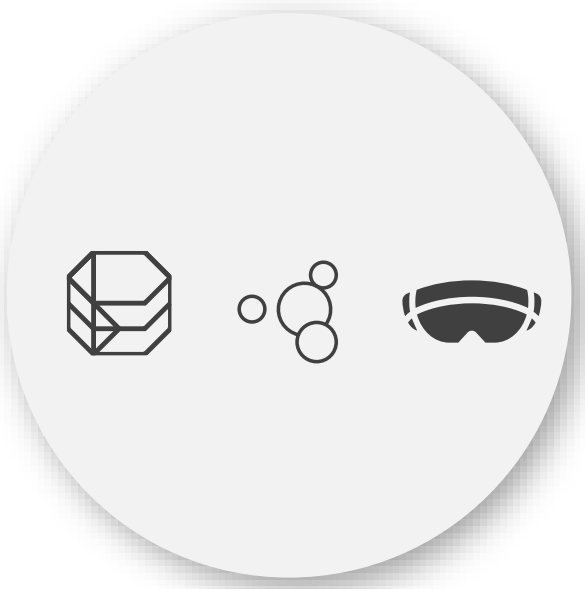
Support for the whole development lifecycle

1. Build using Visual Studio or VS Code
2. Test and Validate using the Command-line tool – including *live debugging*
3. Check in to source control (Git) and support automated, continuous deployment
4. Deploy inside an organization or distribute across

Low-code and Pro Dev Use Cases

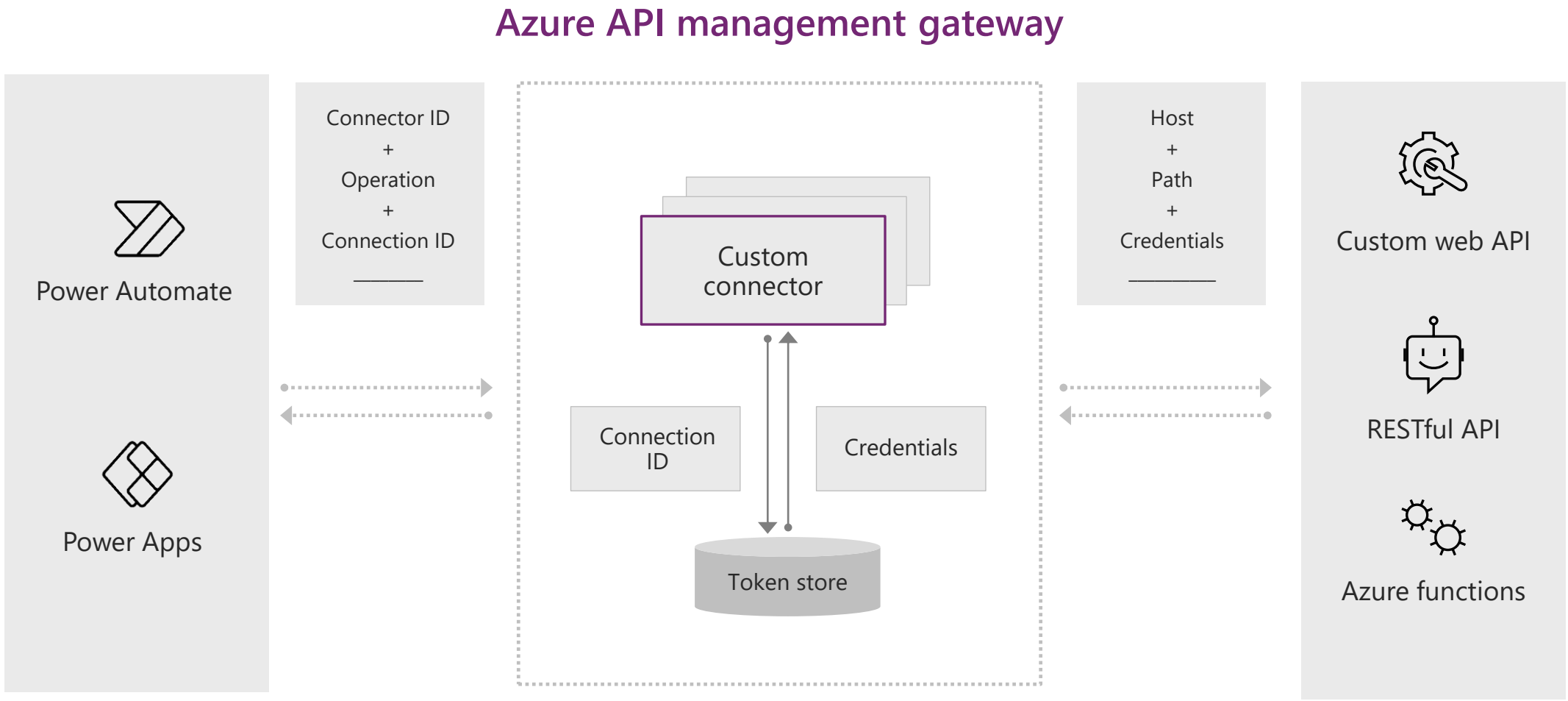
Custom UX components to extend user experiences

Custom code for logic in Azure



Innovate and unlock new scenarios via low-code

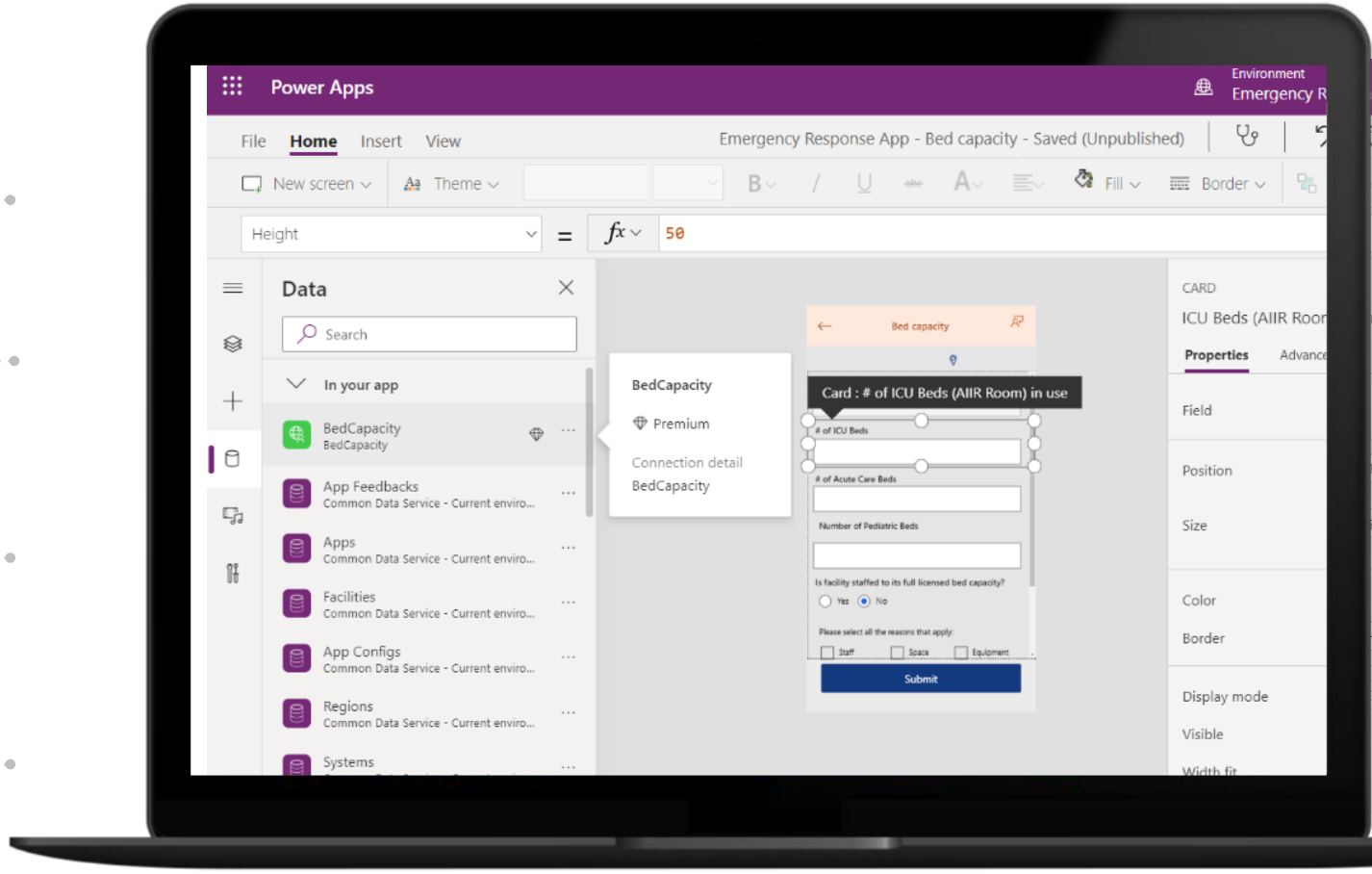
Custom connectors



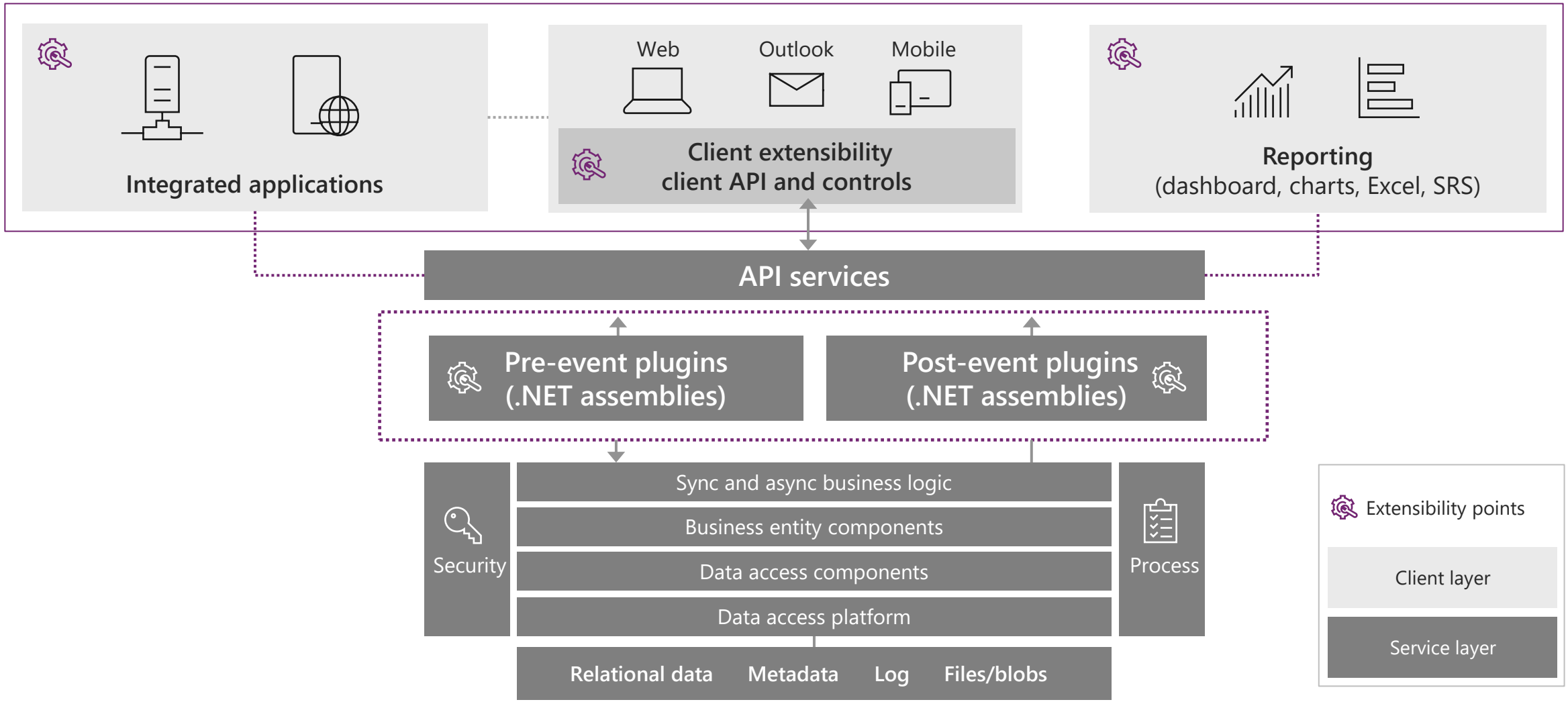
Lean more

Developer Lifecycle for code first custom logic

1. Developer publishes API as either ASP.NET Core Web App or Azure Function
2. Developer imports API into Azure API Management
3. Developer exports API to Power Platform
4. User creates custom connector in Power Automate
5. User creates a Power App

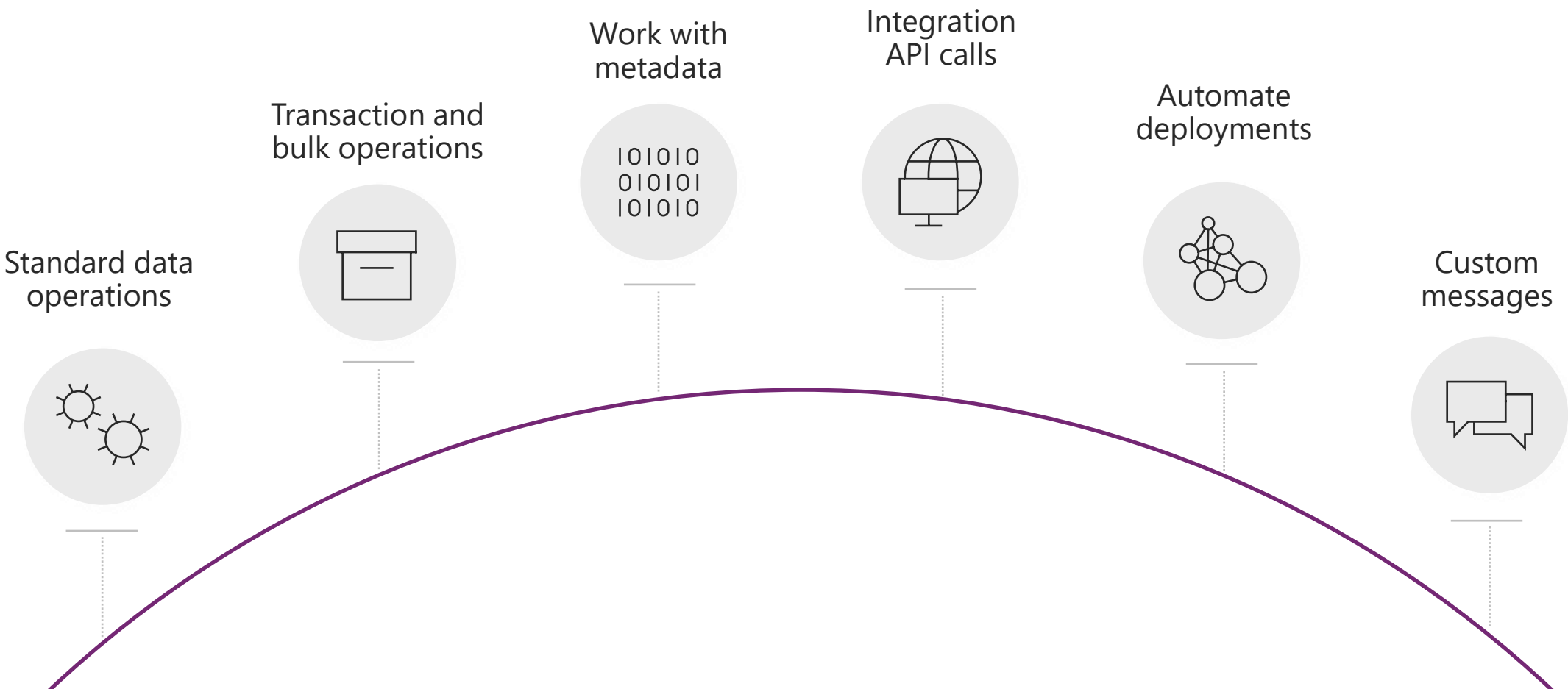


Microsoft Dataverse extensibility points



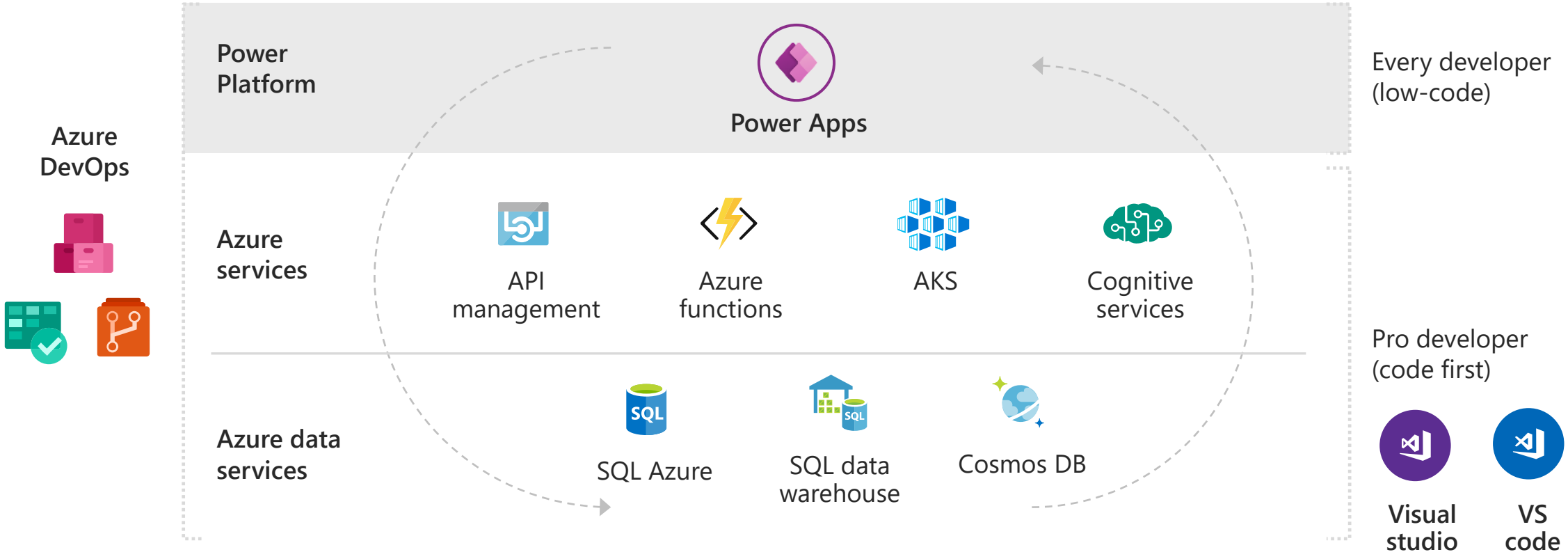
Integrate and build custom apps on Microsoft Dataverse

Working with Microsoft Dataverse APIs



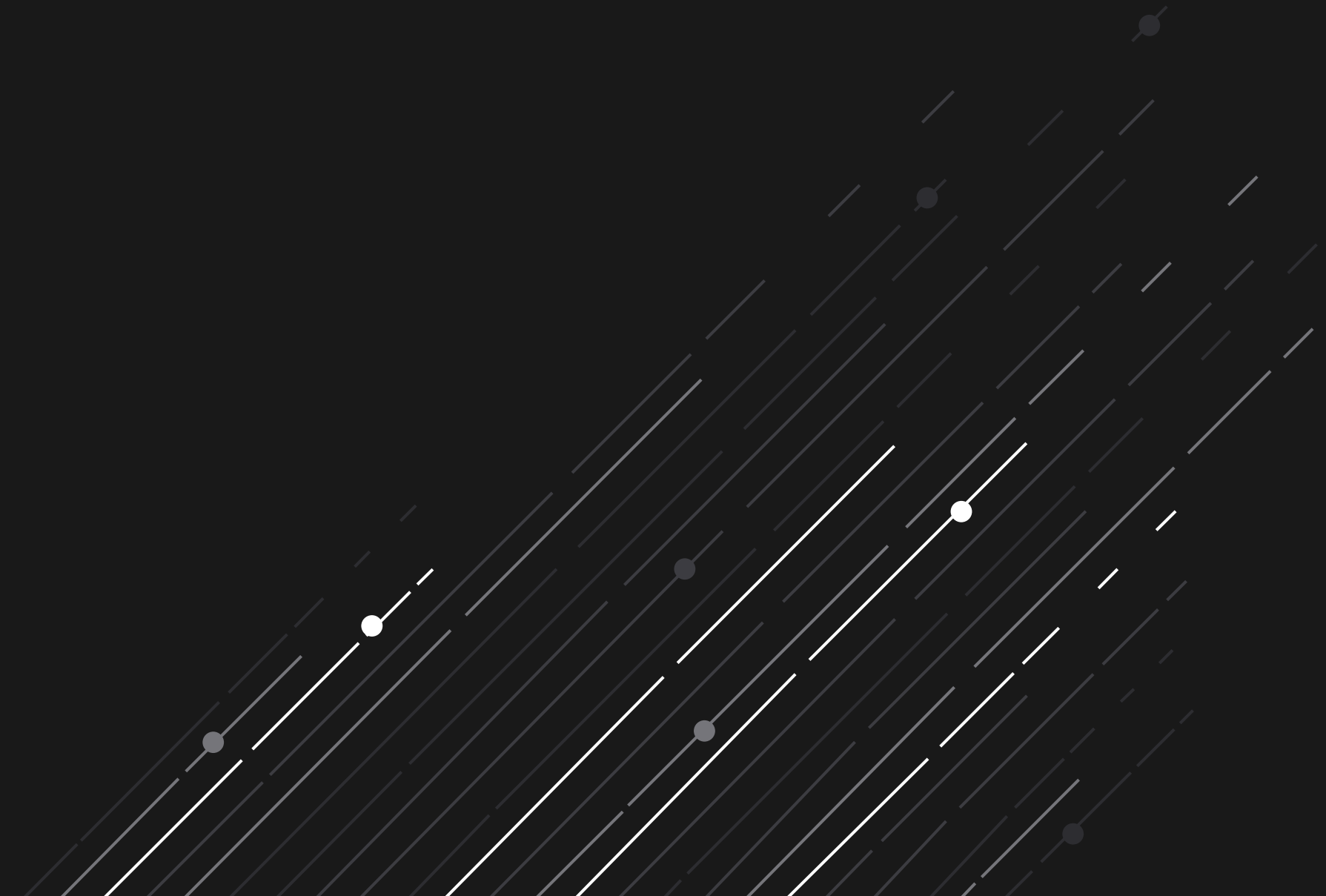
Develop faster than ever before

Pro developers + Power Apps = No limits



Microsoft Power Platform

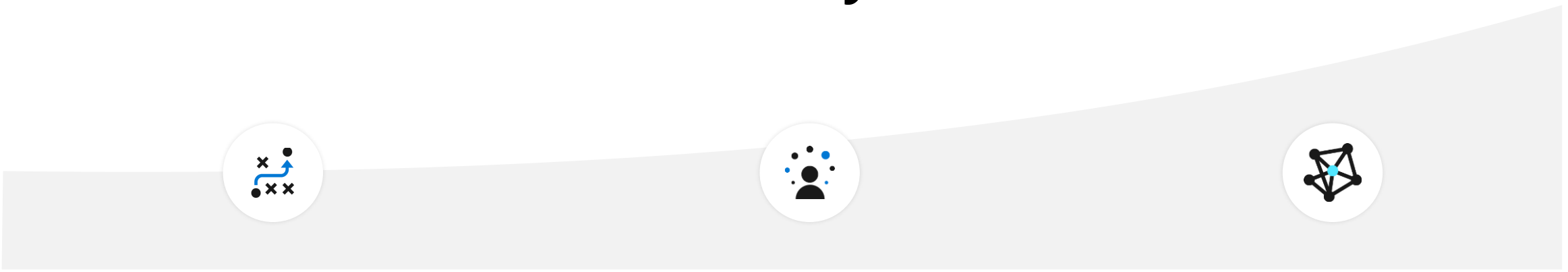
DEMO



Microsoft Power Platform

Power Platform is everyone's platform for low-code transformation

Low-code transformation for your business

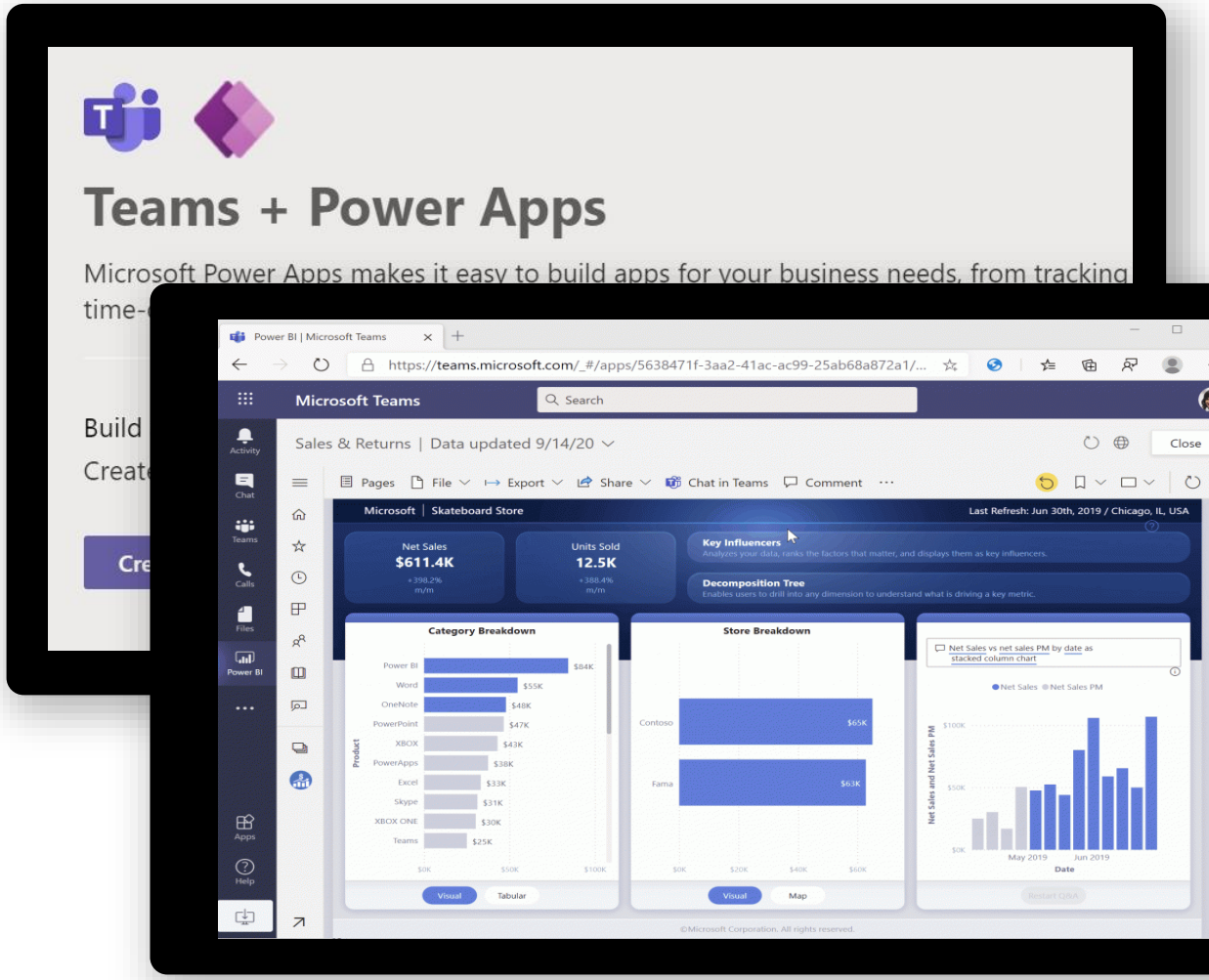


Start with the technology systems and data you have	Empower every developer	Create agile solutions for business challenges
Cloud Services	Citizen developer	Personal productivity solutions
Web APIs	Professional developers	Integrated LOB applications
Legacy Systems + Processes	IT developers	Data insights where decisions are made
CRM, ERP		Seamless extensibility
Enterprise Software		Low-code AI and chatbots
Structured or Unstructured data		Streamlined workflow automation

Power Platform integration with Microsoft Teams

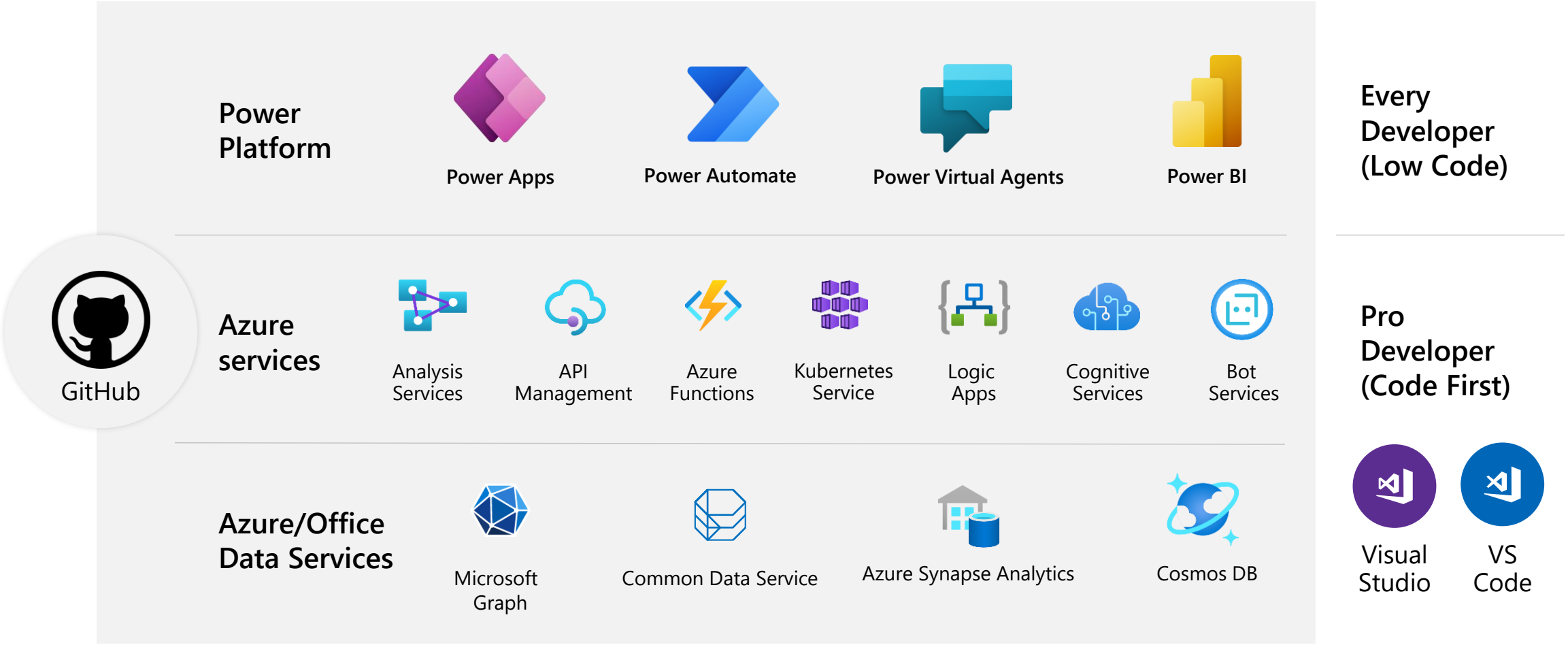
Leverage the rich Teams environment to accelerate growth

- Leverage the dedicated Power BI add-in application for Microsoft Teams to **browse reports, dashboards, and workspaces**
- **Directly embed links to Power BI applications** in Teams channel chats and browse Power BI datasets for analyzing data and generating reports
- Utilize the Power Apps app in Teams to create canvas apps within Teams backed by Project Oakdale to **build custom apps, bots, and workflows**
- **Integrate business data from a wide variety of sources**, including CDS, embedding a canvas app as a tab app in Teams via PowerApps tab for Teams



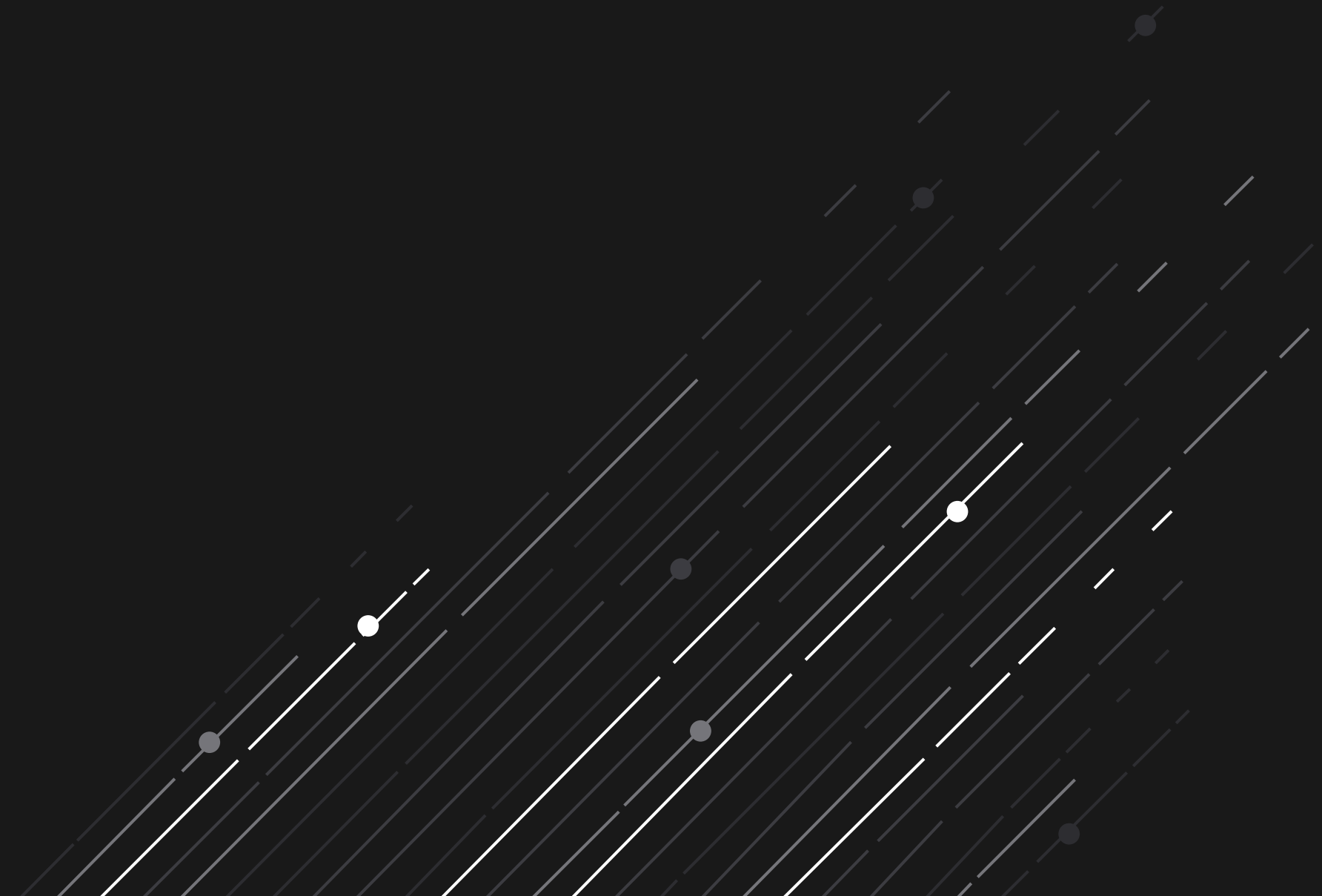
Develop faster than ever before with a composable cloud

Pro Developers + Power Platform = No Limits



Microsoft Power Platform

Get started



Get started with Power Platform

Introduction to Power Platform

Overview: Power Platform Overview

Training Labs: Apps in a Day | Flow in a Day | Power Virtual Agents in a Day | More Power Platform labs

Power Platform Guidance: Documentation | Architecture video series

YouTube channels: Power Platform | Power Apps | Power Automate | Power BI | Power Virtual Agents

Community: Power Apps community | Power Automate community | Power Virtual Agents community | AI Builder community

Expert help from partners: https://powerapps.microsoft.com/partners/

Understanding Power Platform licensing

Product Demos at cdx.transform.Microsoft.com

Power Platform sessions from Ignite 2020

The Return to the Workplace Solution, built on Power Platform

Teams and Power Platform – Project Oakdale

Information for advanced users

Latest updates: October 2020 Virtual Launch event | Demo by Charles Lamanna

Power Platform Release Waves: Wave 1 (Apr 202 – Sep 2020) | Wave 2 (Oct 2020 – Apr 2021)

Latest shipped features: Weekly release notes | Power Apps – Apr 2020 summary | Power Automate – RPA General Availability

Conference sessions: Power Platform Online Conference 2020 | Ignite 2020 | Microsoft Business Applications Summit 2020

Power Automate how-to videos: webinars and videos gallery

Additional labs: Power Platform labs and challenges | Power Platform labs

Power Platform technical documentation

MS Learn Resources

Power Platform and Azure

Admin, Governance, & IT

Administration, governance, and ALM: Documentation | Blog posts | MBAS 2019 sessions | Managing and supporting Power Apps and Power Automate at Scale (Ignite 2019) | New Data Loss Prevention capabilities

Establishing a Center of Excellence: Center of Excellence Starter Kit

Admin and governance best practices: Establishing an Environment Strategy

Administering a Power Apps enterprise environment: Blog | Download whitepaper

Build a customized Admin experience using the Power Apps admin connectors: blog post with sample admin dashboard | admin connector documentation

Security and certifications: Microsoft Trust Center

Pricing and licensing: Summary | Licensing documentation

Visit Power Platform for additional information

Powerful alone.
Better together.

Thank you.

SaaS Lab – Teams Integration

Aswin C. | Partner Technical Architect | Microsoft

Microsoft Teams

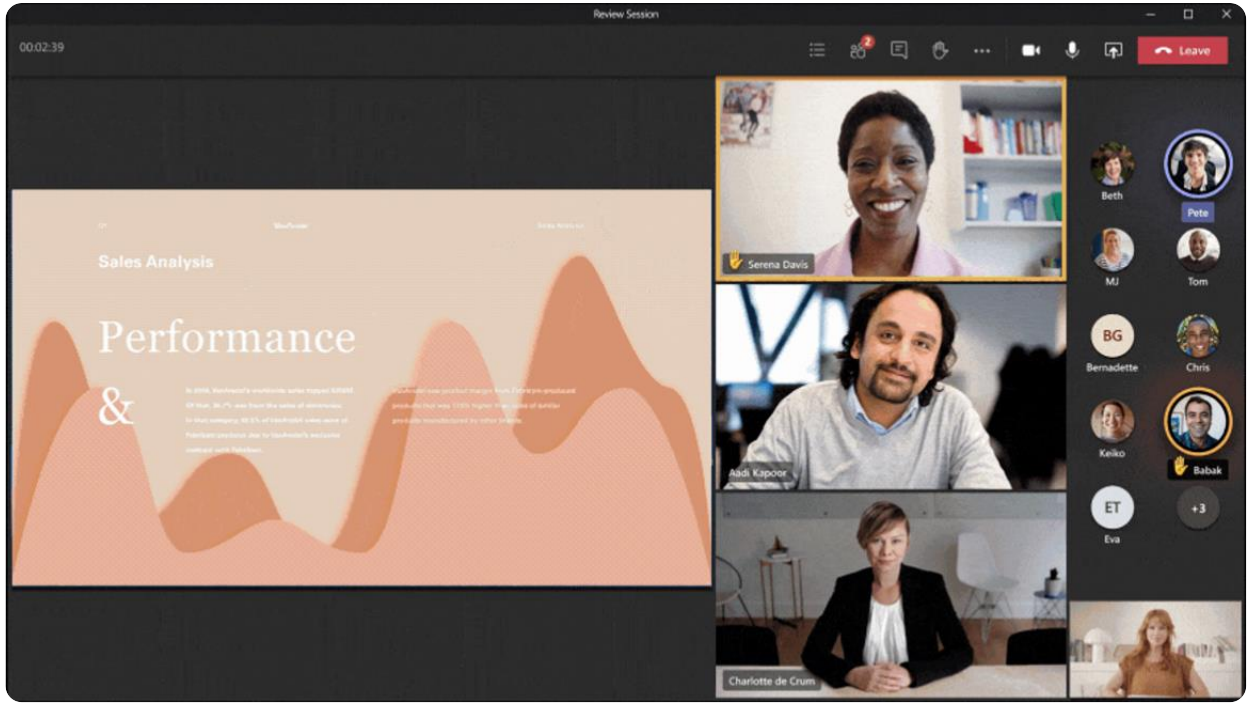
Come together to get work done

Stay connected

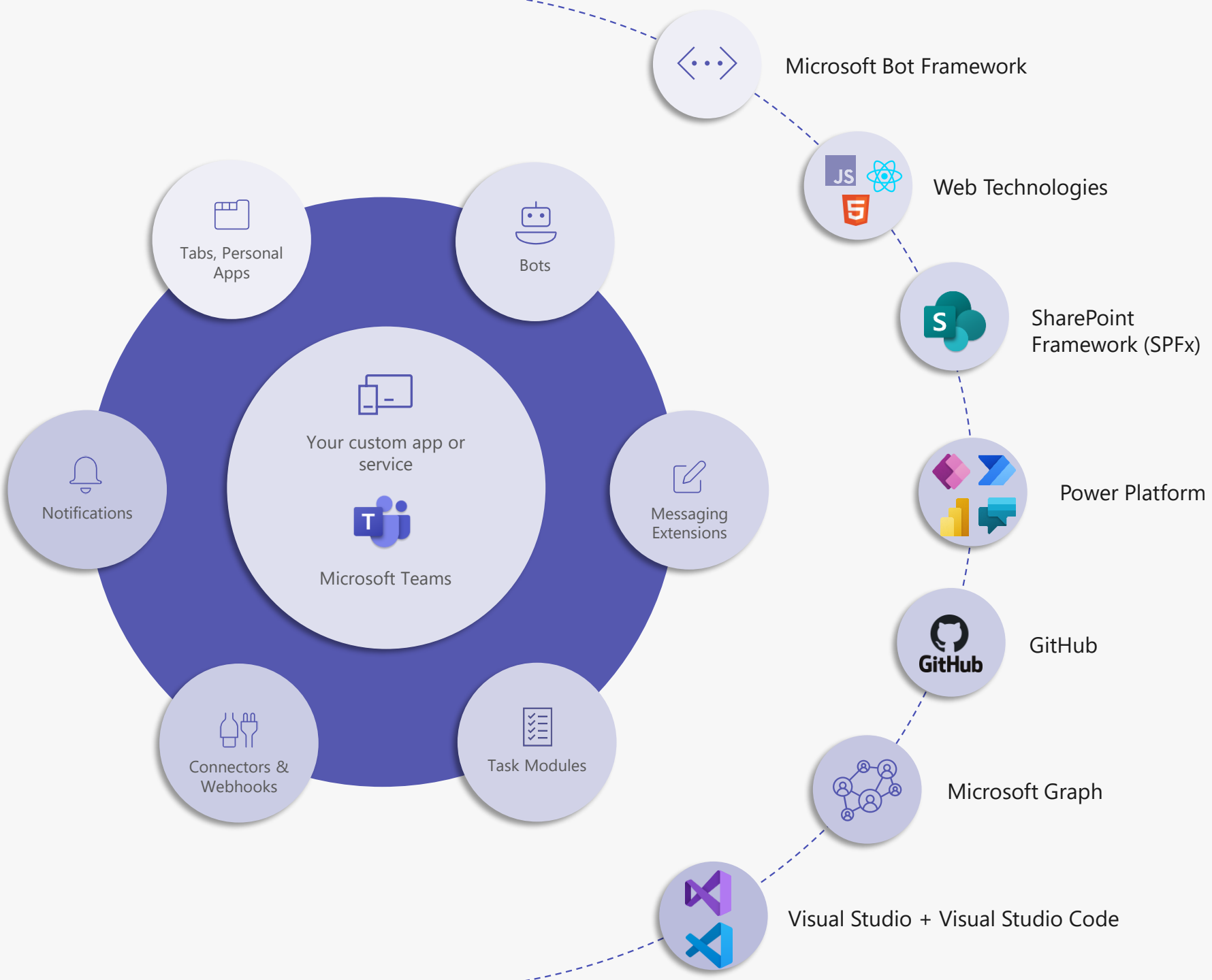
Collaborate seamlessly

Integrate business scenarios

Secure and compliant



Build custom apps on Microsoft Teams to meet your unique needs



Create custom communication experiences outside of Teams

Within the canvas of Teams

Outside Teams or your organization

Azure Communication Services

Microsoft Graph

Azure Communication Services

Build engaging communication experiences at scale

Azure Communication Services brings rich communication APIs to all your applications across any device, on any platform, using the same reliable and secure infrastructure that powers Microsoft Teams.

Reach customers anywhere with a fully managed communication platform

Deliver video, voice, chat, and text messaging experiences anywhere your users are - across your applications, websites, and mobile platforms.

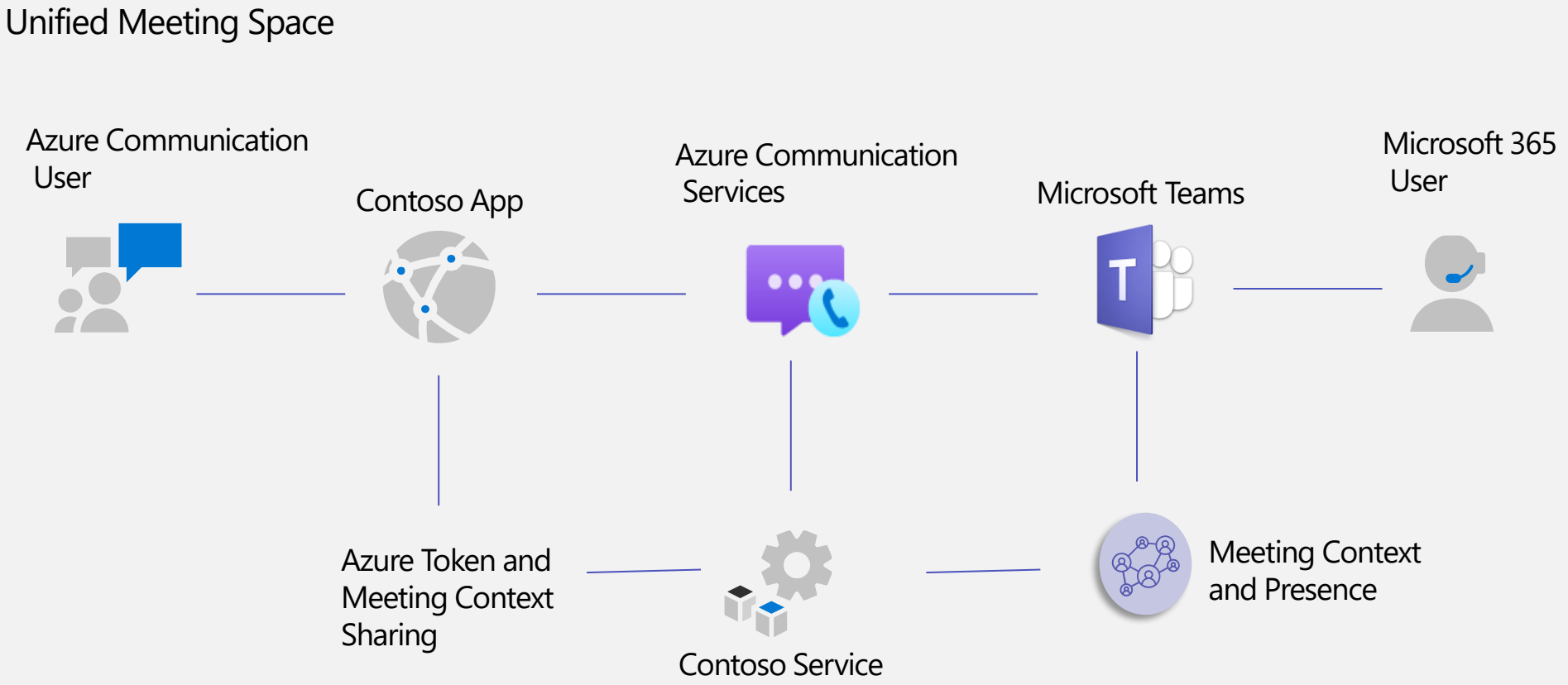
Scale with a global platform used by Microsoft Teams

Use a reliable global platform trusted by millions of users daily.

Build on a secure and compliant cloud

Reach more users without compromising security, using the most secure and compliant cloud.

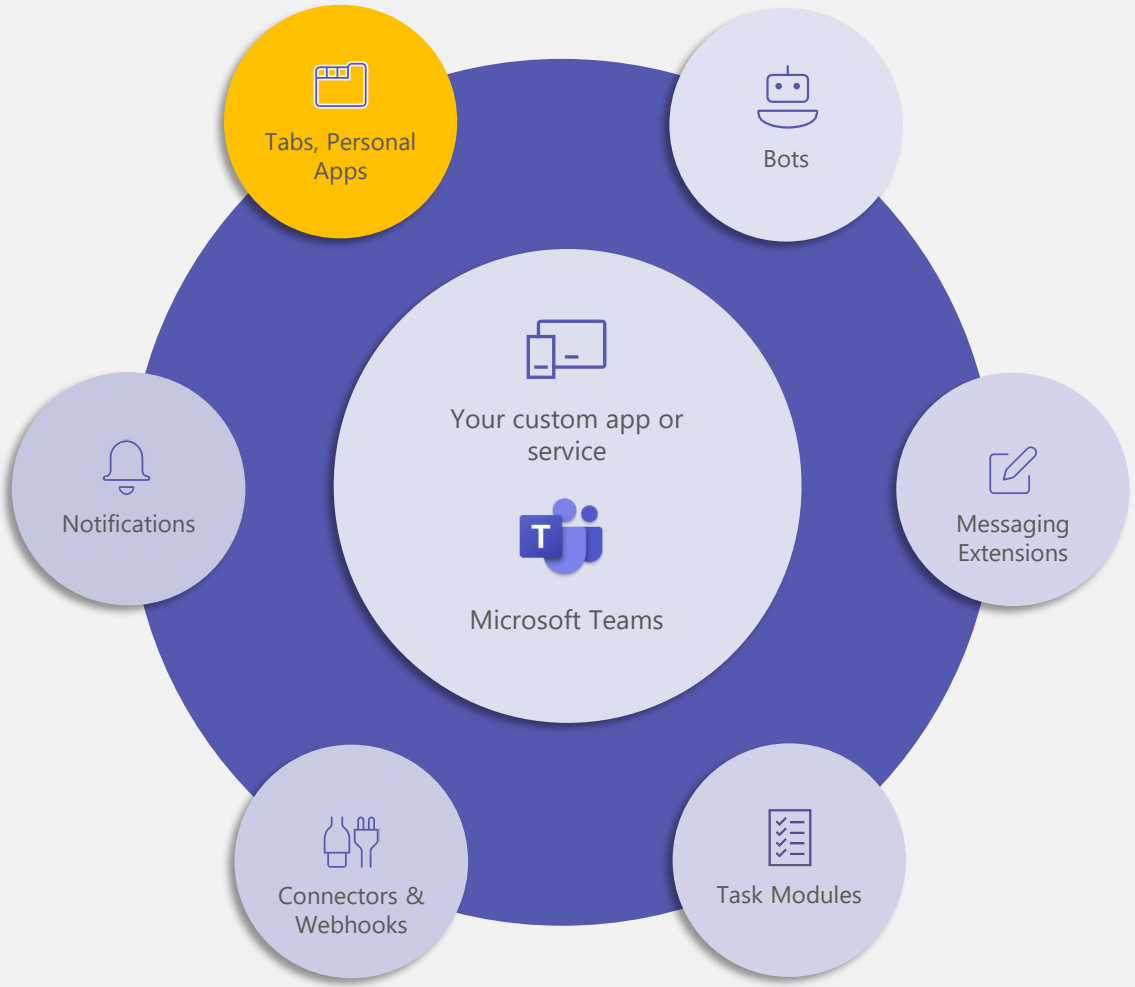
High-level architecture



Demo – ACS + Teams

Bring your existing apps to Teams

Within the canvas of Teams

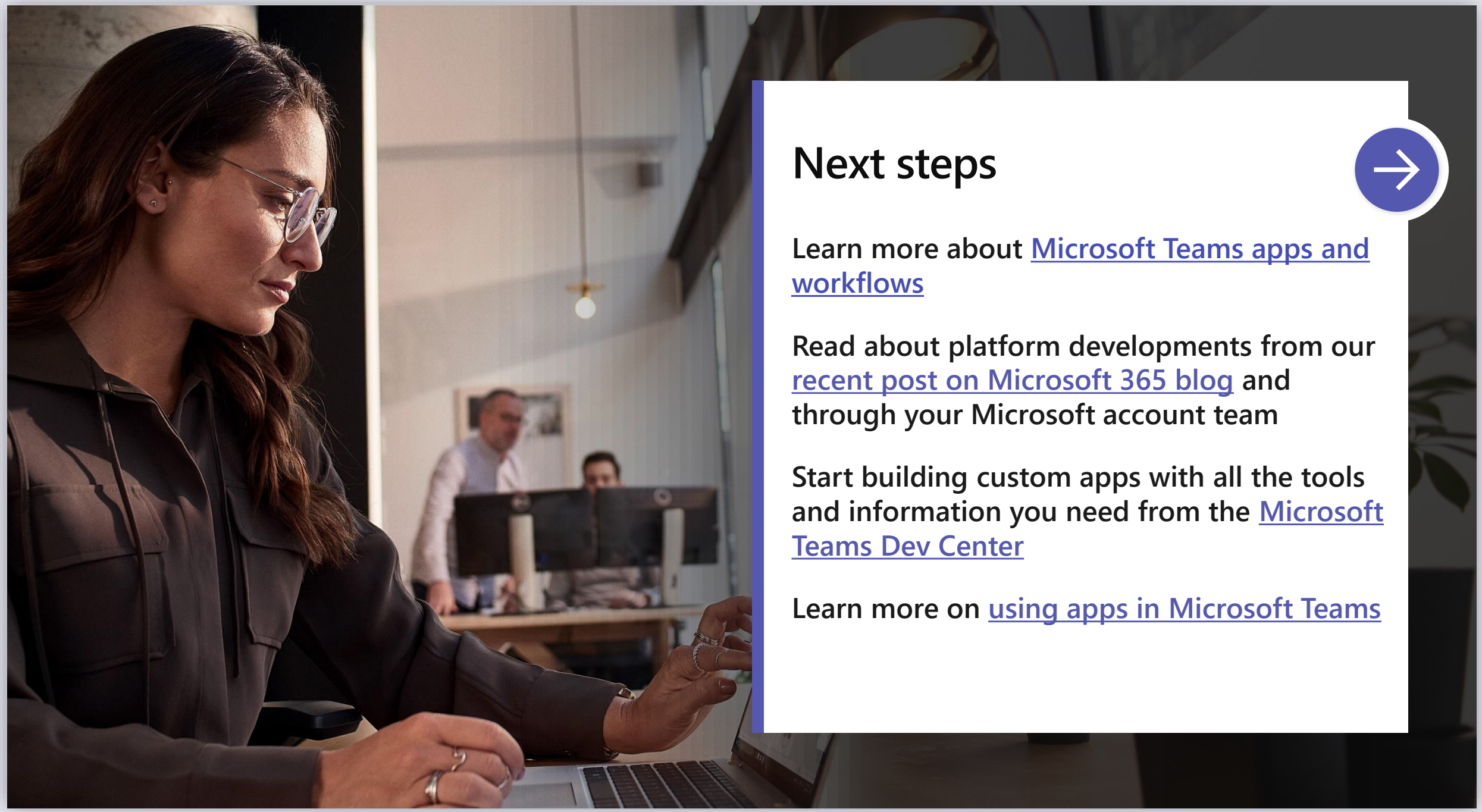


Outside Teams or your organization

Azure Communication Services

Microsoft Graph

Demo – Teams Platform Integration



Next steps

Learn more about Microsoft Teams apps and workflows

Read about platform developments from our recent post on Microsoft 365 blog and through your Microsoft account team

Start building custom apps with all the tools and information you need from the Microsoft Teams Dev Center

Learn more on using apps in Microsoft Teams

Your feedback is important

Please help us improve this program by completing this short feedback form.

https://aka.ms/saaslabfeedback8


Microsoft
If you'd like more help on your Azure modernization journey, please e-mail the SaaS Lab team
saaslab@microsoft.com
Thank you for being part of the SaaS Lab Program