



Powering the Apps for Tomorrow

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Agenda

Challenging Landscape

Azure Serverless platform

Azure Cloud native option

Azure AI Platform overview

Demo

Changing landscape

Application innovation trends for 2021 and beyond...



Move to the public cloud

Accelerate and scale innovation



Democratize technology development

Allow non-technical users to build low-code apps



Shorten time to market

Innovate with speed to adapt to digital urgency



Harness rapidly growing data volumes

Make apps smarter with data insights



Reassess investments

Optimize for a new macro environment



Infuse intelligence

Create real-time personalization with AI and ML



Enable remote development

Collaborate globally and remotely



Prioritize reliability and security

Invest in business continuity and security



Azure serverless platform

Platform



Event Grid

Manage all events that can trigger code or logic



Logic Apps

Design workflows and orchestrate processes



Functions

Execute your code based on events you specify

Database



Storage



Security



IoT

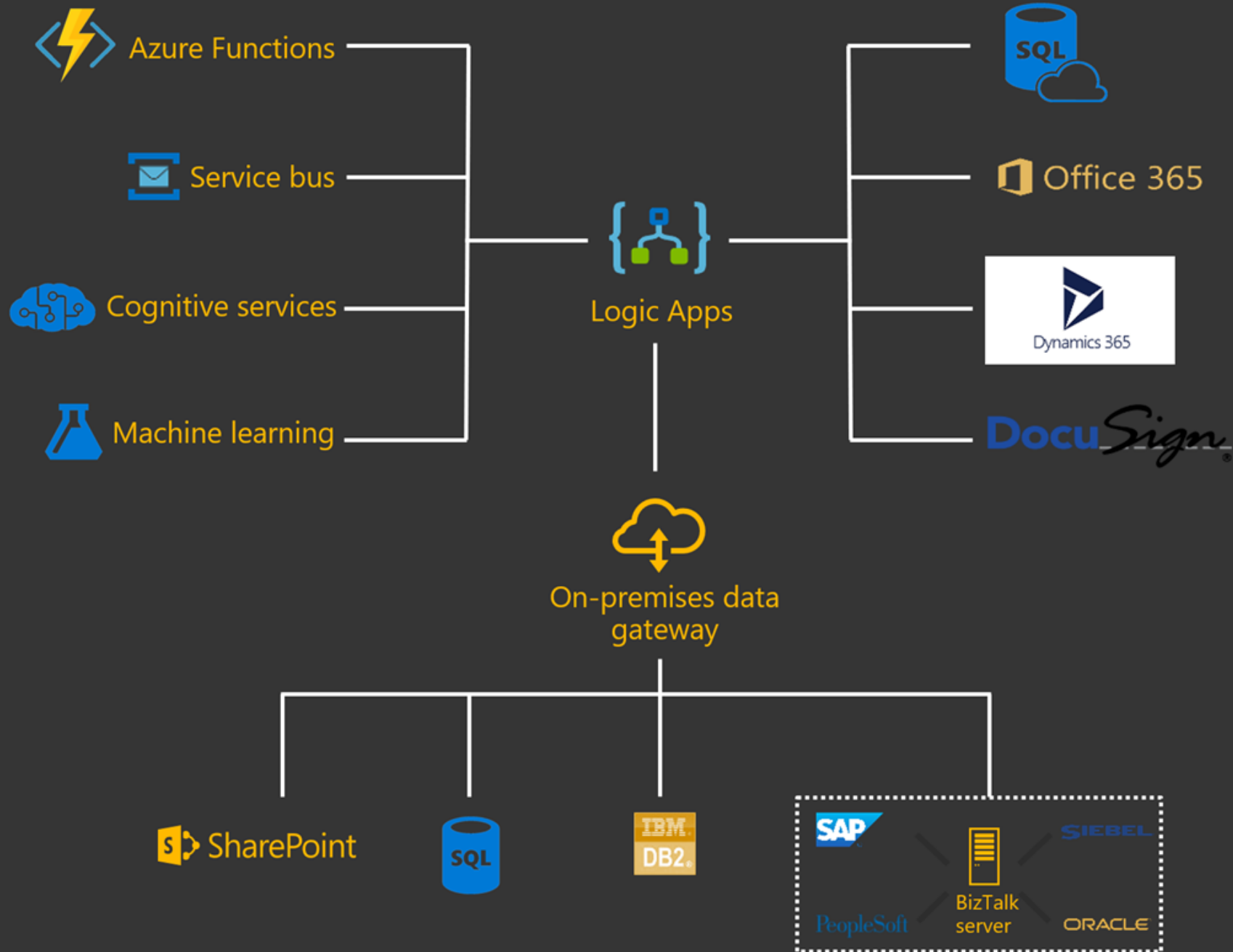


Analytics



Intelligence





Azure Functions & demo



Programming language support

The following languages are all supported in general availability (GA).

Language	Supported runtimes
C#	.NET Core 3.1
JavaScript	Node 10 & 12
F#	.NET Core 3.1
Java	Java 8
Python	Python 3.6, 3.7, & 3.8
TypeScript	Node 10 & 12 (via JavaScript)
PowerShell	PowerShell Core 6

The app of the future is cloud native



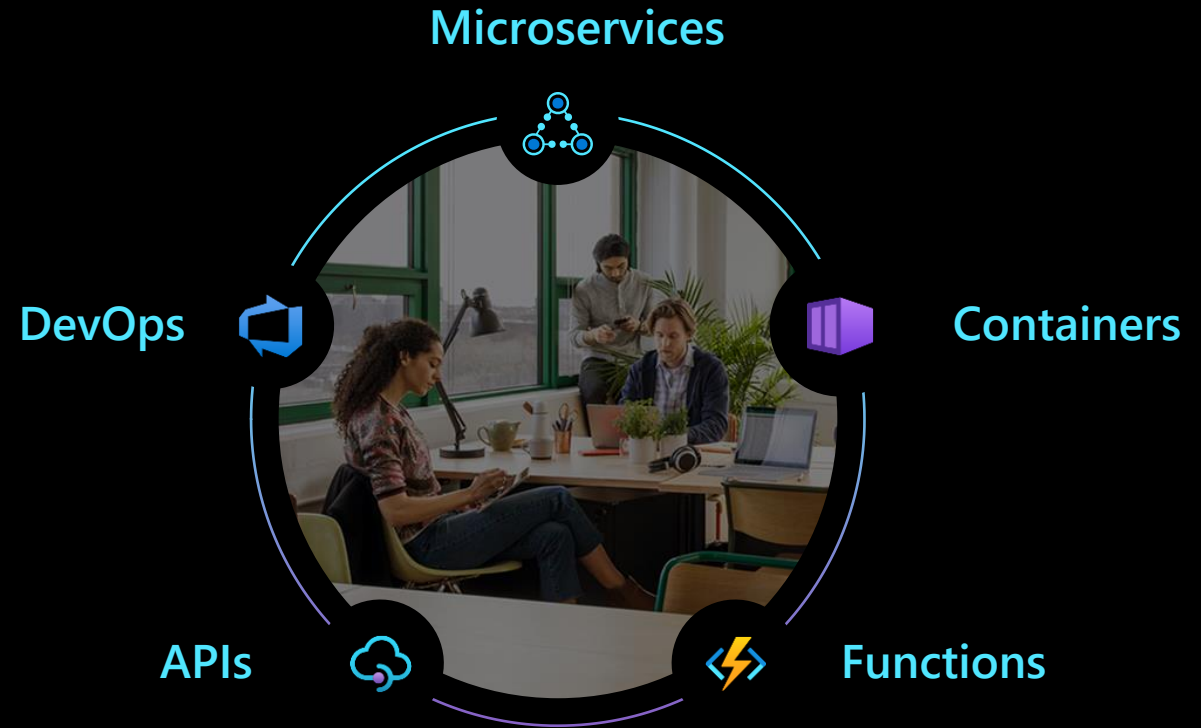
90%

of production apps will
be cloud native by 2025¹

¹ IDC FutureScape

What is cloud native?

Package application code and dependencies in containers, deploy as microservices and manage them using DevOps processes and tools



Innovate with Cloud Native

Hybrid cloud-native apps

Kubernetes on Azure

Serverless container apps

Innovate with Cloud Native

- Hybrid cloud-native apps

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Microsoft's contributions

Accelerating innovation with open source



Linux

- Linux Integration Services
- IPE
- LISA testing framework
- SMB3/CIFS and NFS



Cloud Native

- Moby and Kubernetes
- Dapr and OAM
- Akri
- Helm and CNAB
- Open Service Mesh
- KEDA



Data + AI

- Spark and YARN
- PostgreSQL
- Pandas
- TensorFlow
- ONNX



Languages

- Node.js
- Python
- Rust
- Go
- PHP
- Java (OpenJDK)



Web

- TypeScript
- Webpack
- Babel
- Vue.js
- Bootstrap
- Svelte

Azure application services

Run your apps, anywhere



App
Service



Functions



Logic
Apps



Event
Grid



API
Management



Azure

| On-premises

| AWS

| GCP



Innovate with Cloud Native

Hybrid cloud-native apps



Kubernetes on Azure

Serverless container apps



Managed Kubernetes on Azure

the most integrated experience for developing cloud native apps

Security

- Azure Active Directory
- Azure Policy
- Azure Security Center
- Azure Key Vault

Developer tools

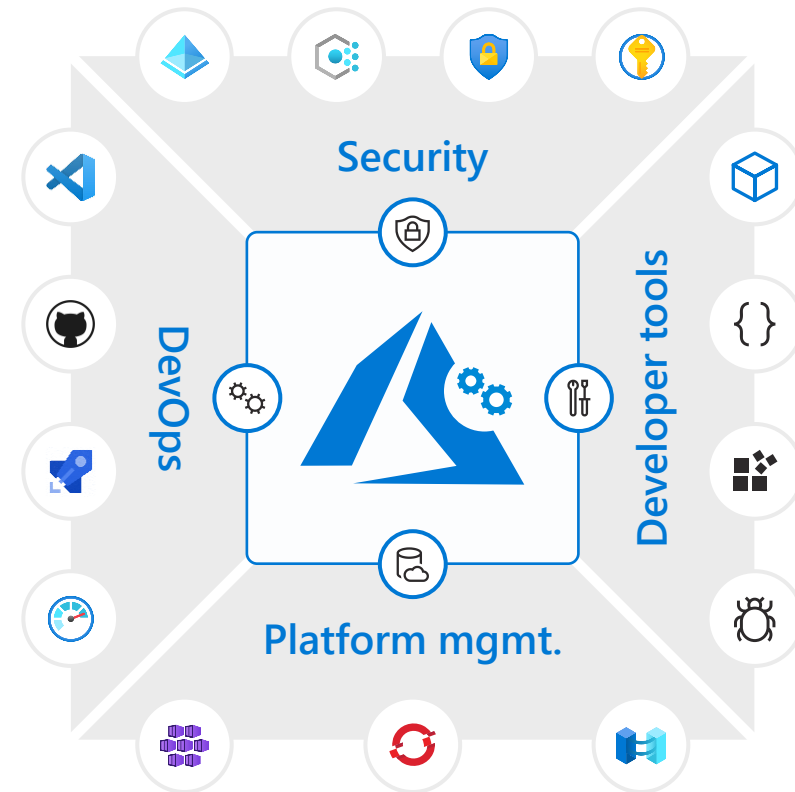
- IDE container support
- Source code repository
- Registry supporting Helm
- Microservice debugging

Platform management

- Azure Kubernetes Service
- Azure Red Hat OpenShift
- Azure Arc-enabled Kubernetes

DevOps

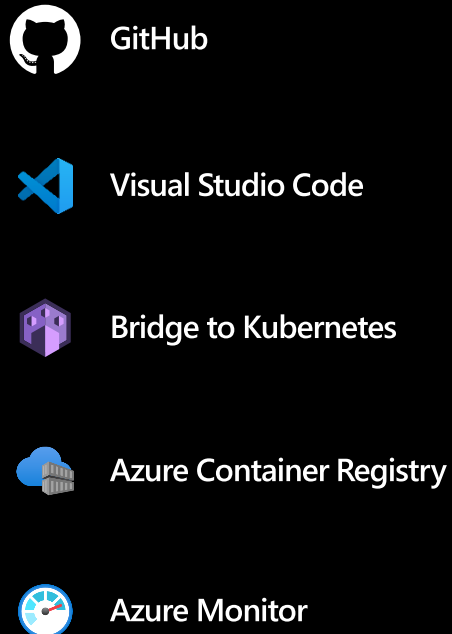
- Visual Studio Code
- GitHub
- Azure Pipelines
- Azure Monitor



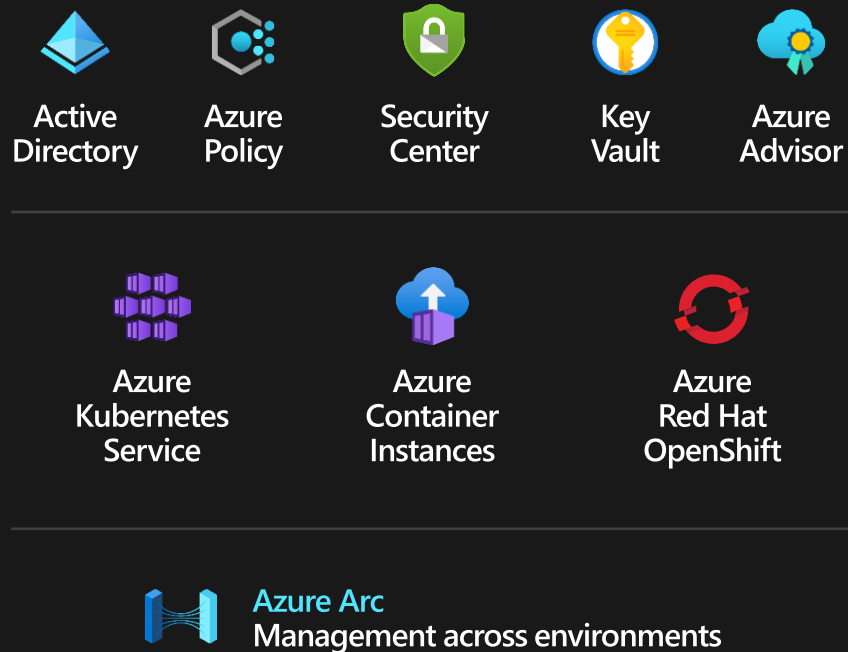
Kubernetes on Azure

Enterprise grade by design

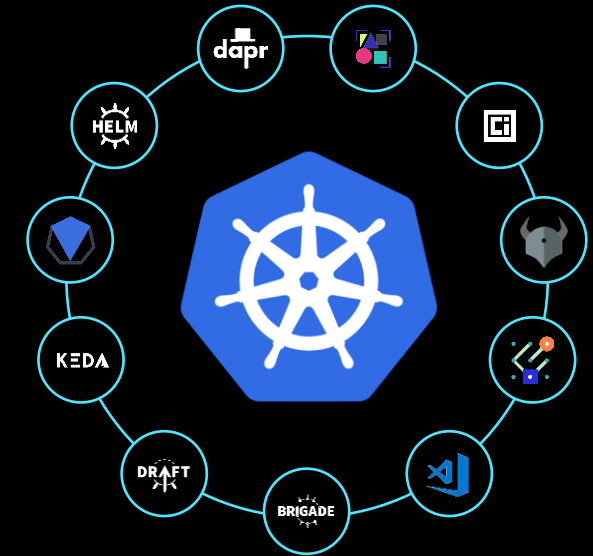
Development tools



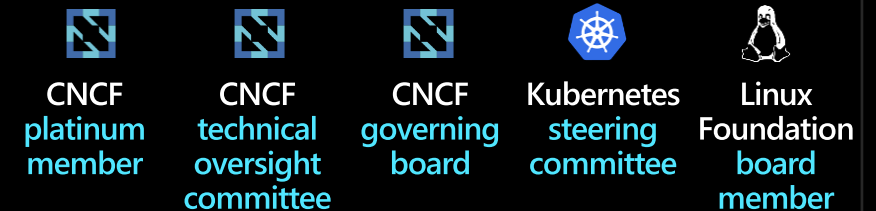
Platform



Community



Microsoft is part of this vibrant community and [leads in the associated committees](#) to help shape the future of Kubernetes and its ecosystem





Azure Kubernetes Service (AKS)

Enterprise grade by design

Built-in best practices

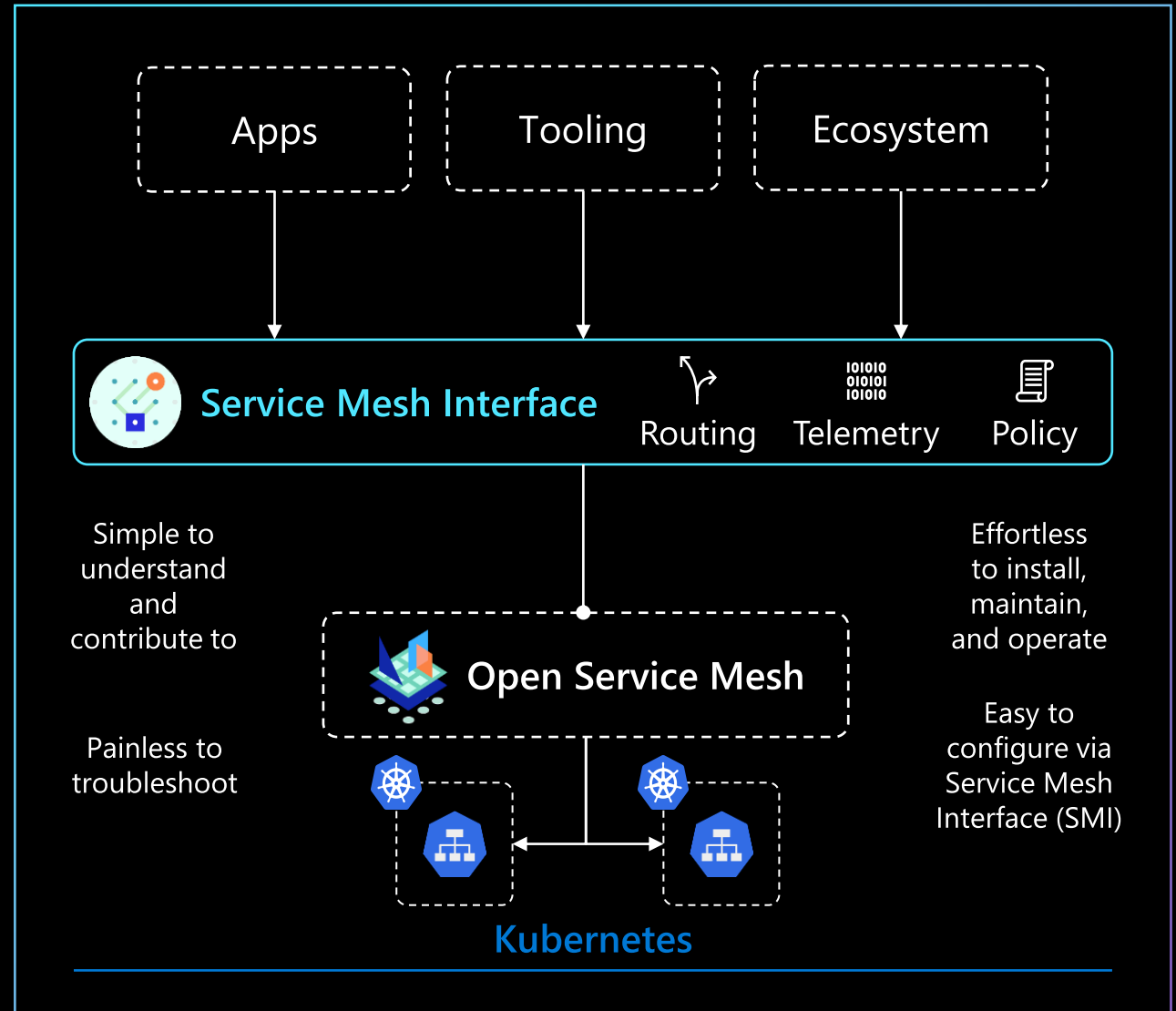
Multi-layer security

Increased operations efficiency

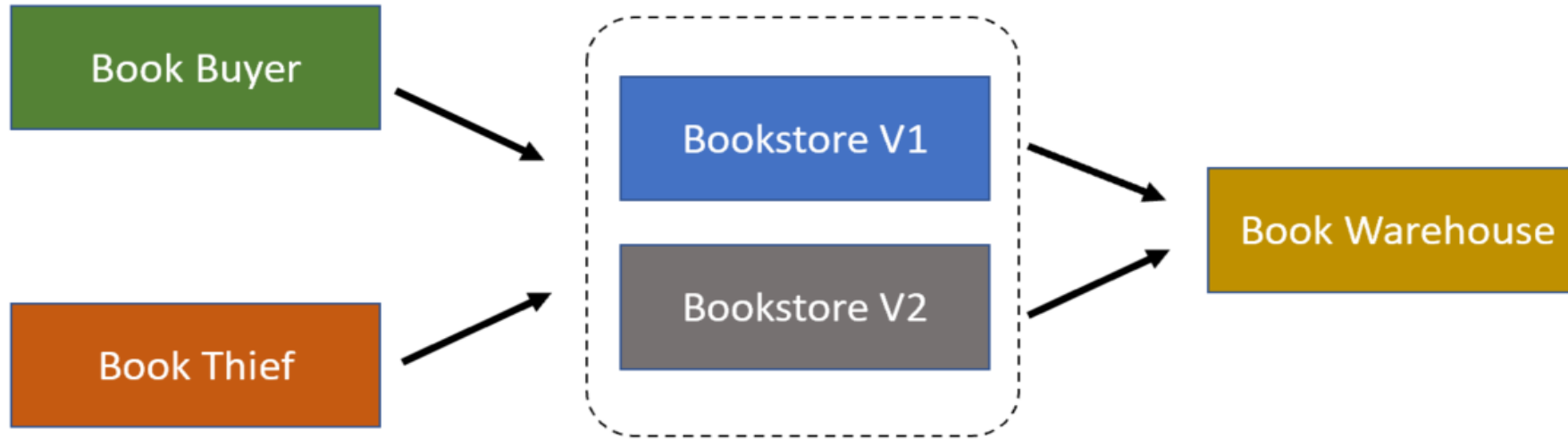
Azure Kubernetes Service

Open Service Mesh (OSM) add-on enabling easy traffic shifting, access control configuration, and microservices communication monitoring

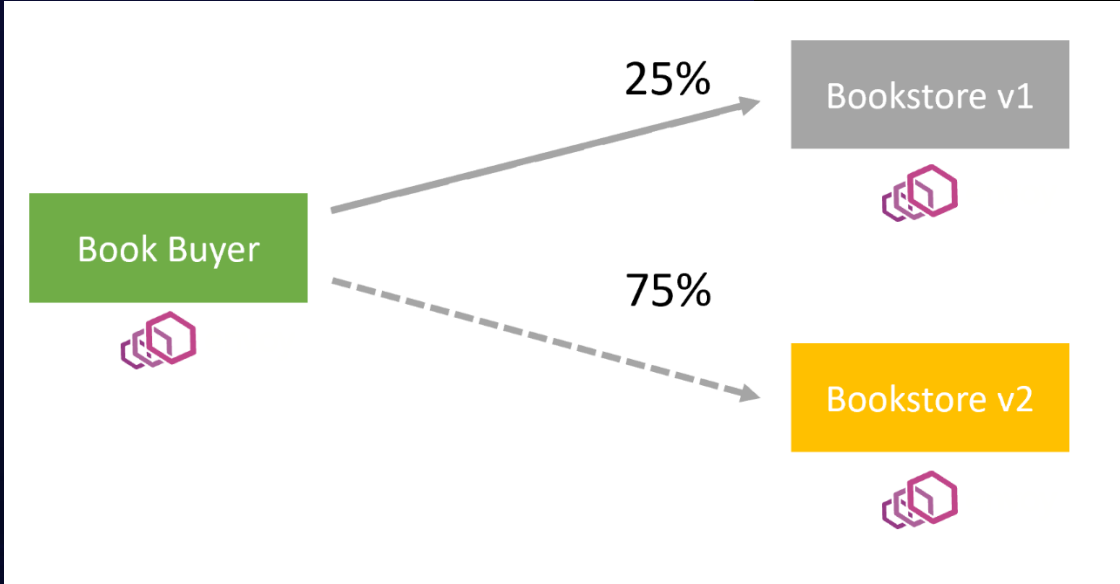
<https://aka.ms/aks/osm>



Open Service Mesh (OSM) add-on for AKS – Demo



Open Service Mesh (OSM) add-on for AKS



YAML

```
apiVersion: split.smi-spec.io/v1alpha2
kind: TrafficSplit
metadata:
  name: bookstore-split
  namespace: bookstore
spec:
  service: bookstore.bookstore
  backends:
    - service: bookstore
      weight: 25
    - service: bookstore-v2
      weight: 75
```

```
2
3 ## Create Azure Resource Group
4
5 az group create -l eastus2 -n ignite-osm-aks-demo -o none
6
7 ## Create AKS Cluster with OSM addon
8
9 az aks create -g ignite-osm-aks-demo -n ignite-osm-aks-demo --node-osdisk-type Ephemeral --node-osdisk-size 30
  --enable-managed-identity --network-plugin azure --enable-addons open-service-mesh --generate-ssh-keys -o none
10
11 ## Connect to AKS cluster
12
13 az aks get-credentials -g ignite-osm-aks-demo -n ignite-osm-aks-demo
```

bash + v [icon] [icon] ^ x

```
pg@PG:~/src/MSignite$
```

Innovate with Cloud Native

Hybrid cloud-native apps

Kubernetes on Azure



Serverless container apps



Azure Container Apps

Serverless containers for microservices

Build modern apps on open source

Focus on apps, not infrastructure

Seamlessly upgrade to Kubernetes



Kubernetes



KEDA



DAPR

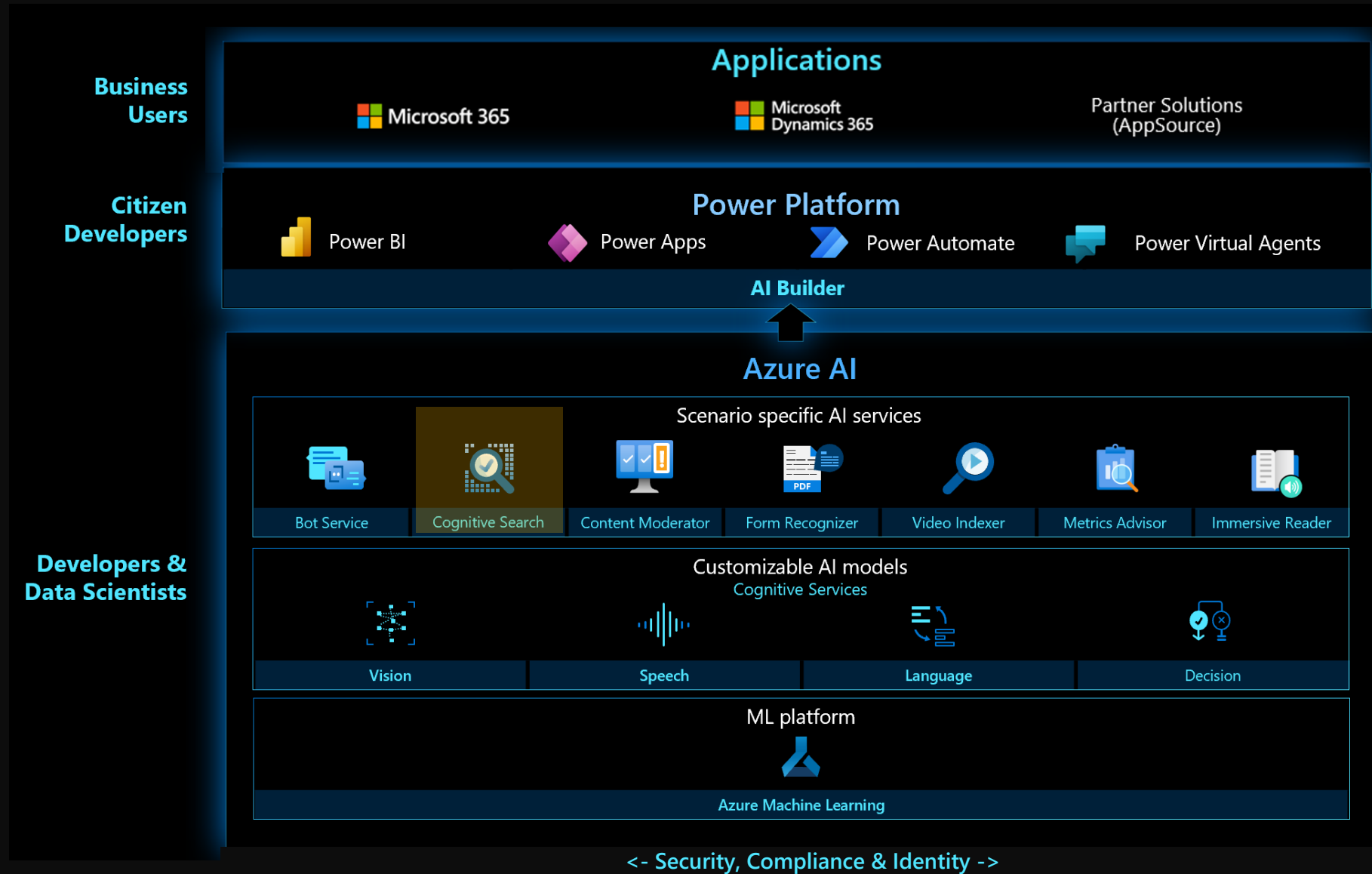


Envoy

Try out Azure Container Apps today

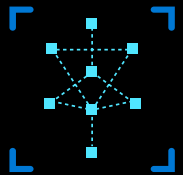
<https://aka.ms/containerapps>

Microsoft Portfolio of AI



Azure Cognitive Services

Pre-Trained and Customizable models with your data



Vision

Identify and analyze content within images, videos, and digital ink

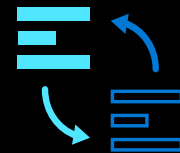
- Computer Vision
- Custom Vision
- Face API



Speech

Integrate speech processing into apps and services

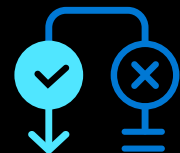
- Speech to Text
- Text to Speech
- Speech Translation
- Speaker Recognition



Language

Extract meaning from unstructured text

- Language Understanding
- QnA Maker
- Text Analytics
- Translator

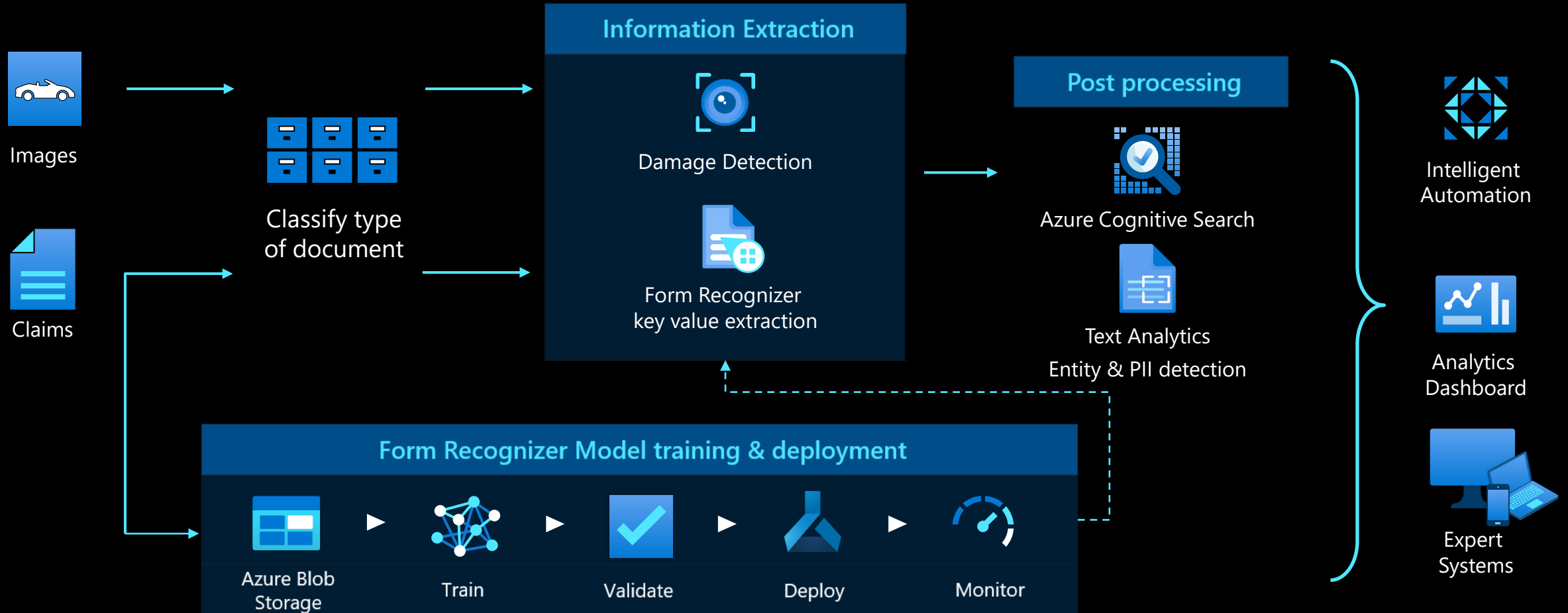


Decision

Make smarter decisions faster

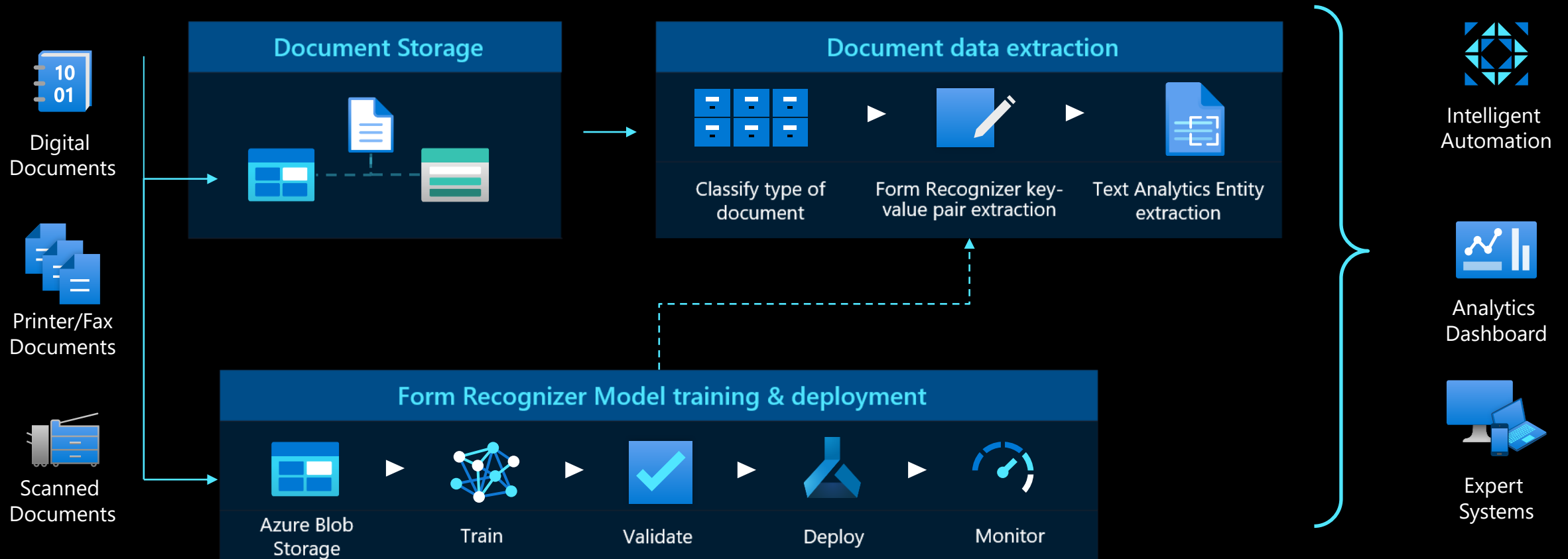
- Anomaly detector
- Content Moderator
- Personalizer

Claims Management & Automation Overview



Continuous learning process and automated model enhancements with human in the loop (HITL)

Document Process Automation Solution Overview





Build your apps
in Azure

Questions, Comments

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Thank you!

