Red Hat Summit

Connect

Innovate with Azure Red Hat OpenShift to Build Intelligent Applications

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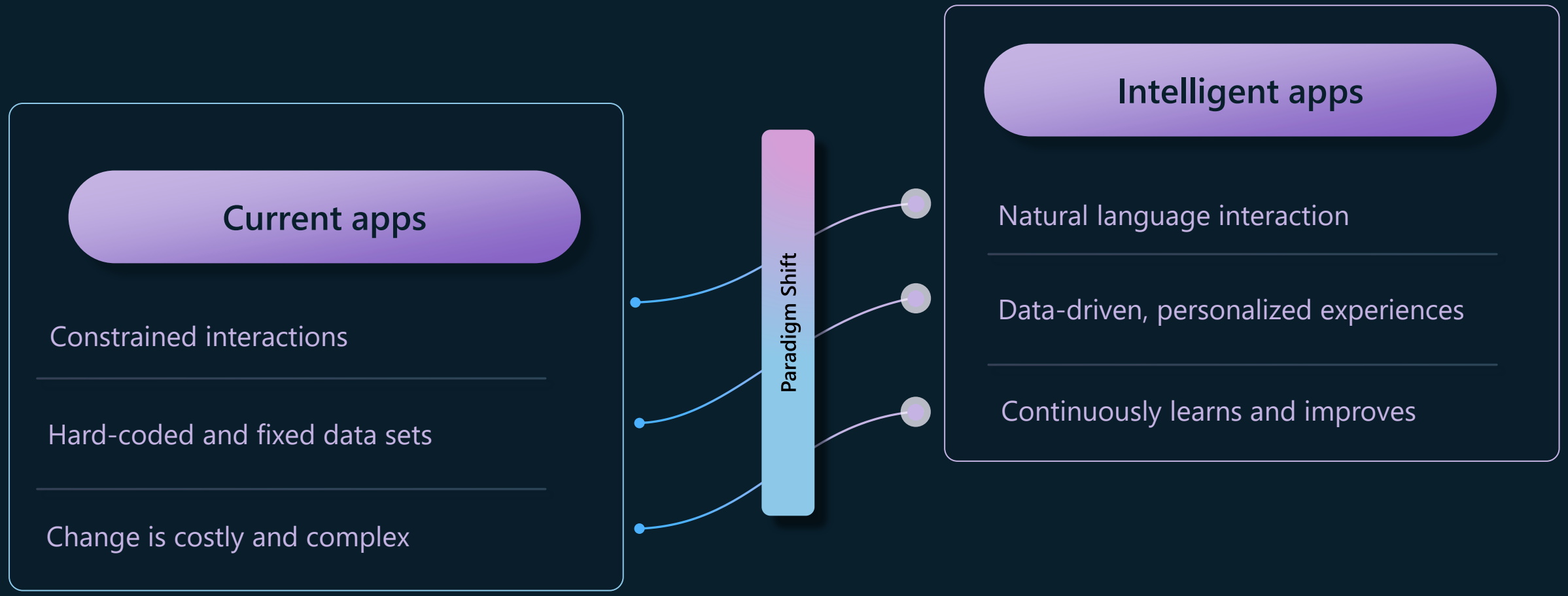
Red Hat

Generative AI makes apps truly intelligent



Essential elements of intelligent applications

Pre-trained models

State of the art pre-trained AI models that are easy to discover, customize, and integrate into new and existing enterprise applications.

Scalability and high performance

Ability to handle high volumes of unstructured data, in real time, from disparate sources

App platform that can scale based on the app's demand and ensure reliable performance.

Simplified app delivery

Developer-ready environments to ship apps securely, and quickly in their language of choice.

Enable frequent iteration by streamlining costly and time-consuming app delivery.

Realize the power of intelligent apps for your business

Customer support chatbots

Content generation for marketing

Sentiment analysis

Target potential clients

Text comprehension

Risk modelling

HR process automation

User personalized recommendations

Machinery management

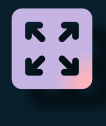
Business goals forecasting

Disease detection

Serverless computing

No infrastructure management

Developers can just focus on their code—without needing to worry about provisioning and managing infrastructure



Instant, event-driven scalability

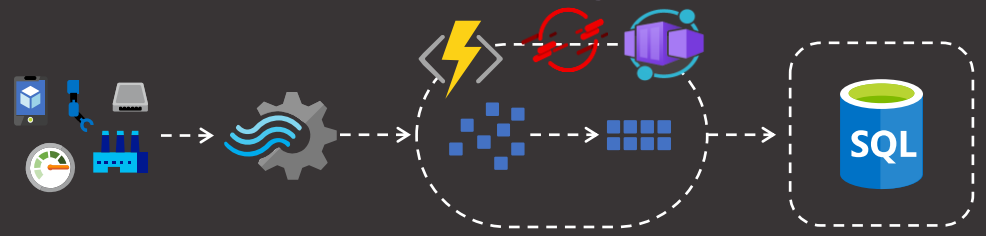
Application components react to events and triggers in near real-time with virtually unlimited scalability

Pay-per-use

Only pay for what you use: billing is typically calculated on the number of function calls, code execution time, and memory used*

Advantages of modernizing with Serverless architectures

Real-time stream processing

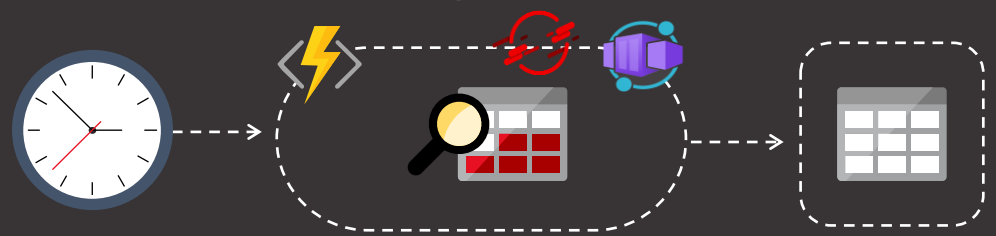


Millions of devices feed into Stream Analytics

Transform to structured data

Store data in SQL DB

Scheduled processing



Every 15 minutes

Find and clean invalid data

Clean table

Backends (Mobile/IoT/Web)

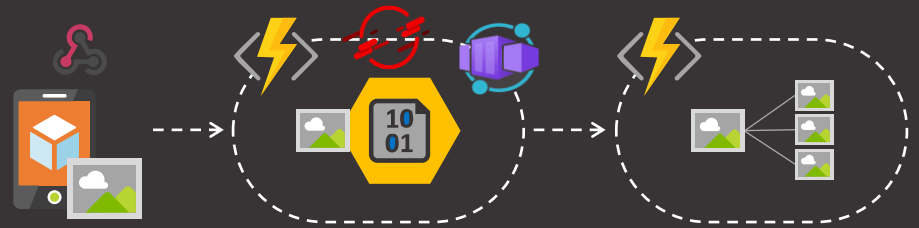
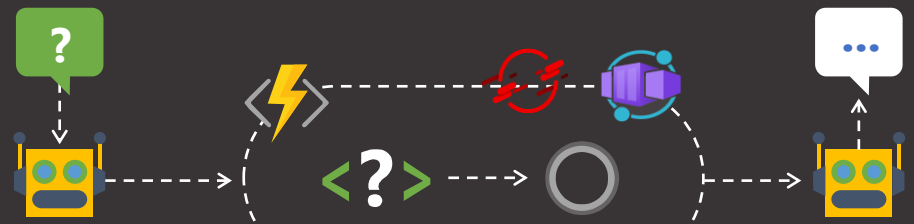


Photo taken and WebHook called

Stores in blob storage

Produces scaled images

AI/ML or real-time bot messaging



Message sent to Chatbot

Cortana Analytics answers questions

Chatbot sends response

Redefine the way you build applications using Containers and Serverless

Retail	Healthcare	Banking	Automotive	Media & Entertainment	Gaming	IT or Software
Inventory management	Patient health monitoring	Data and document processing	Predictive maintenance	Streaming media analytics	Technology & performance analytics	Event & data processing
Mobile backend microservices	Diagnosis recommendation	Customer engagement and support	Connected mobility	Game telemetry data processing		Process insights from ML models
Personalization	Clinical trial simulations, clinical research insights	New digital and data driven products	Digital customer engagement	Media supply chain		Real-time analytics
Order processing	Patient care services like appointments, digital consultation, remote monitoring	Fraud detection				
		Customer retention				

Problem

PwC's needed to analyze large volumes of compliance data from various clients and create customized compliance solutions

Solution

PwC built a regulatory obligation knowledge-mining solution using scalable APIs with **Azure Functions and Azure AI services to build serverless, event-driven architectures**

Outcomes

- The model had correctly analyzed an entire **100-plus-page regulation in an hour**
- **Saved up to 60% on operational costs**
- Reduced data processing times **from several weeks to just a few hours,** with one process reduced from 18 hours to under 3 hours
- People who once pored over ponderous legalese now **focus on compliance strategy**

Source: Microsoft Customer Stories

Piramal Finance

Problem

Piramal's manual and time-consuming loan origination process led to delays and inefficiencies, negatively impacting customer experience and business operations

Solution

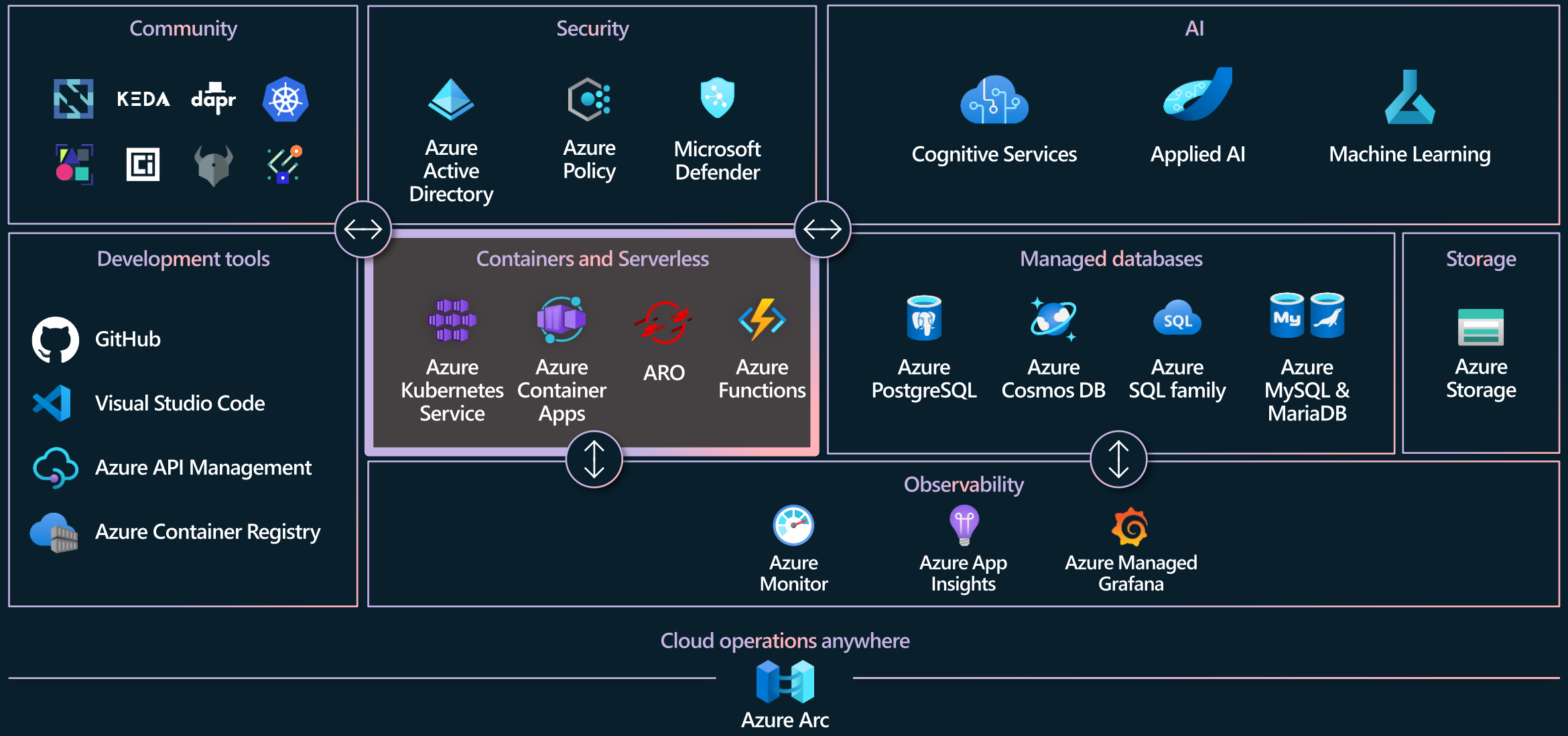
Piramal Finance created an automated loan processing system that streamlined the entire process, from loan application to disbursement, using **Azure Functions and Azure AI services to build serverless, event-driven architectures**

Outcomes

- Reduced loan processing time **from 5–6 days to just 24 hours**
- **Improved accuracy, operational efficiency and reduced errors** in loan processing
- Increased customer satisfaction with **30% faster turnaround** times
- **Faster credit decisions** under compliance
- **Reduced costs** and improved scalability

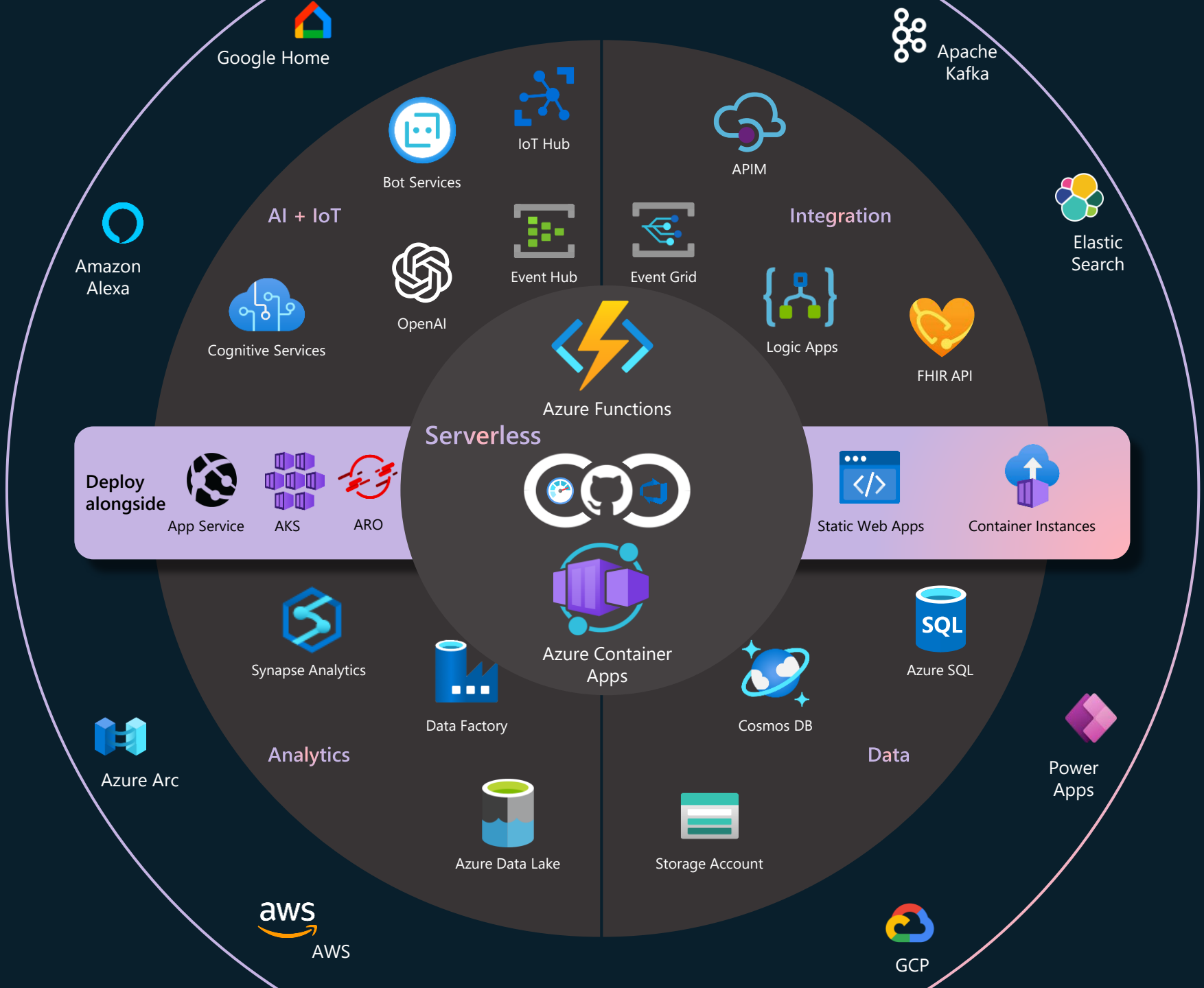
Source: Microsoft Customer Stories

Build Intelligent Apps with Containers and Serverless on Azure



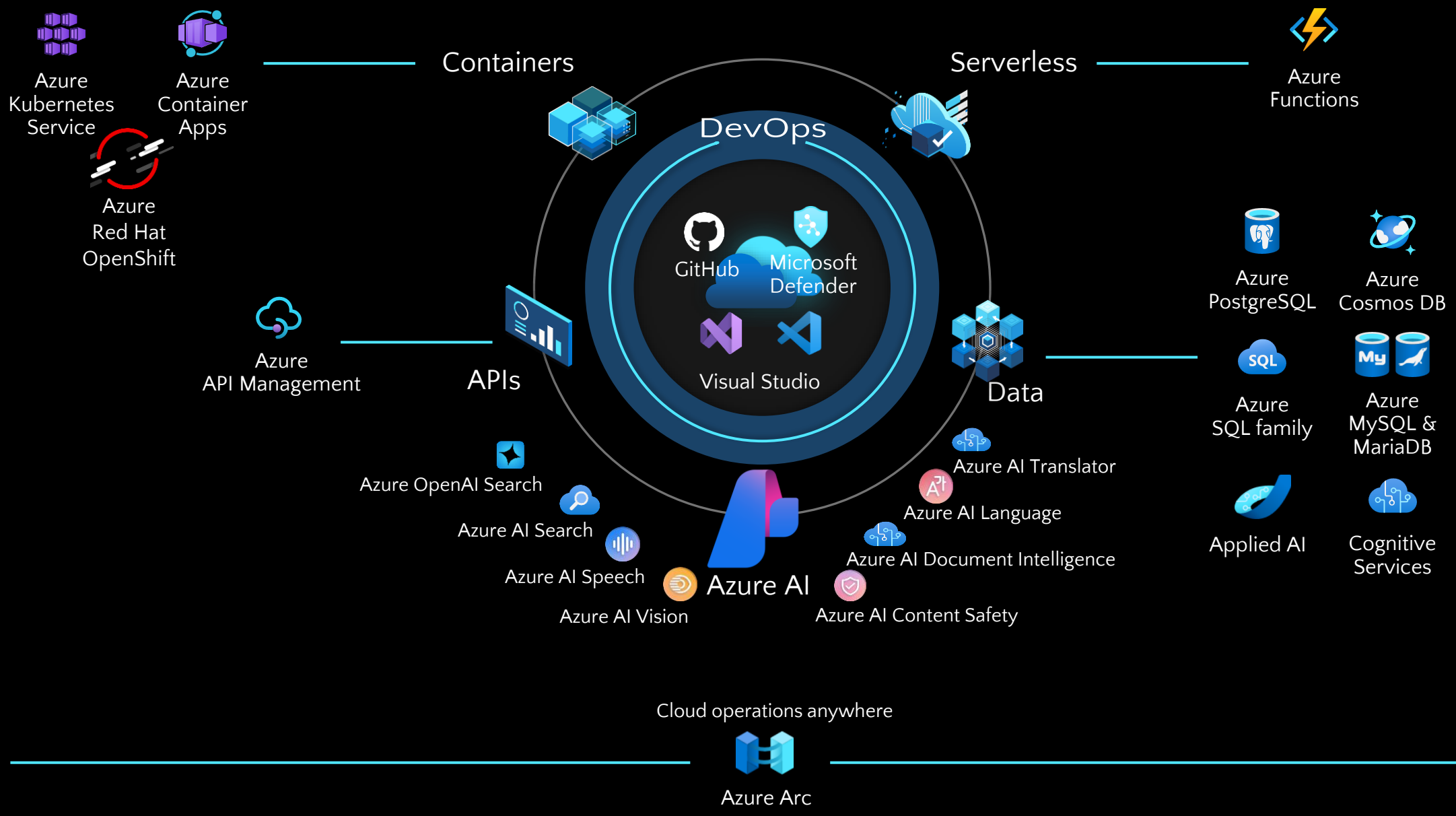
Serverless on Azure

Process your events and data anywhere on-the-go

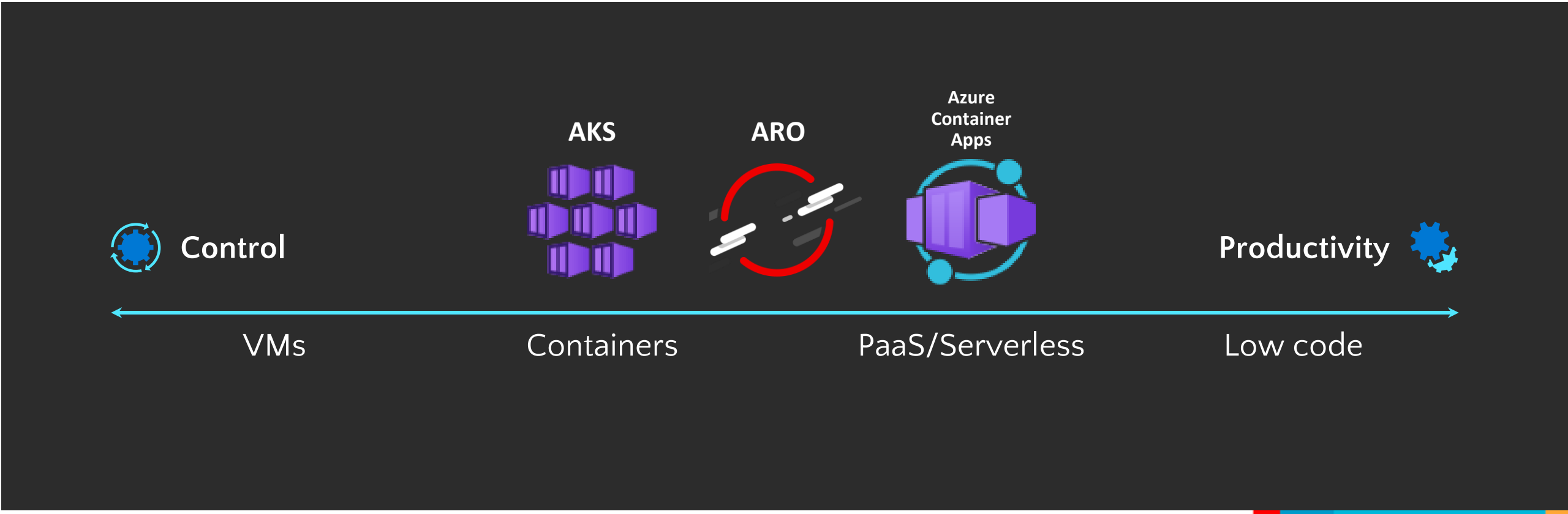


Appliction Migration and Modernization on Azure

Building cloud-native on Azure

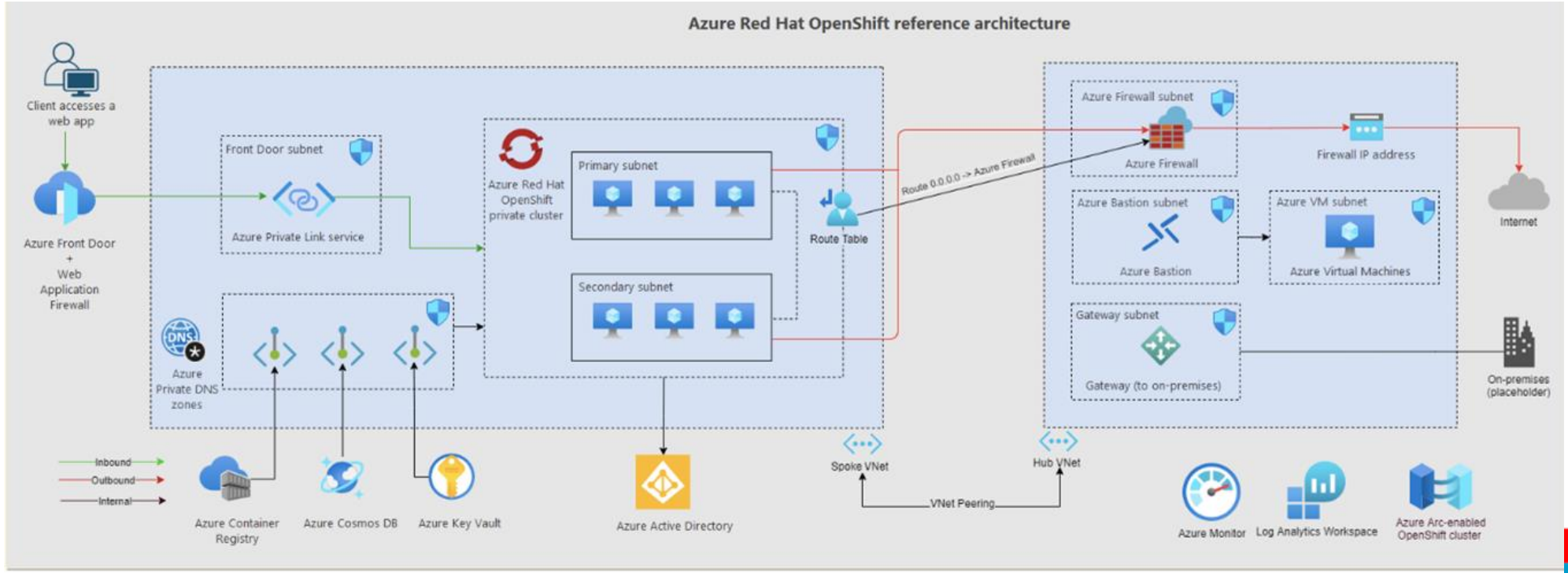


But where should workloads land?



Use case: Application migration and modernization on Azure

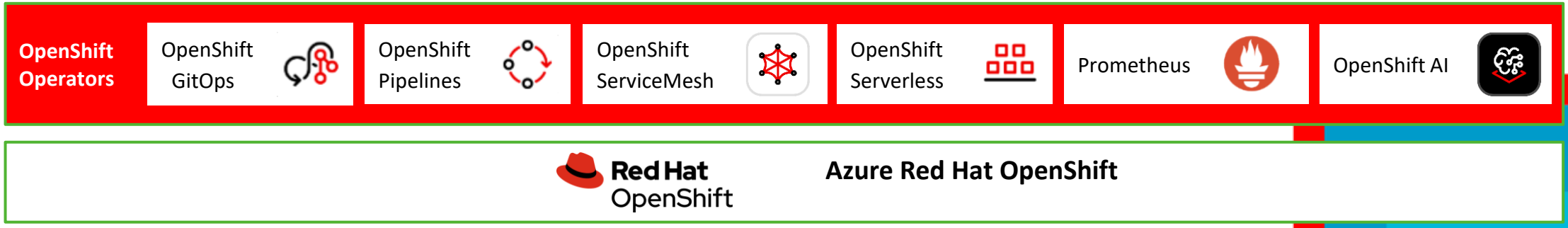
Quickly migrate and deploy with Azure with guidance from the ARO landing zone accelerator



Red Hat OpenShift

One platform for AI workload optimization and continuous development, integration, and deployment for AI/ML models

- **One platform for all.** Collaborative environments for dev, data engineers, data scientists and DevOps.
- **Extend capabilities with operators.** Operators allow bringing AI/ML capabilities to OpenShift.
- **Hybrid-cloud support.** Cloud and on-premise support for model development, delivery and deployment.
- **Enhanced security.** Expand DevSecOps practices to protect the AI/Ml lifecycle.



Use case: AI enabled applications

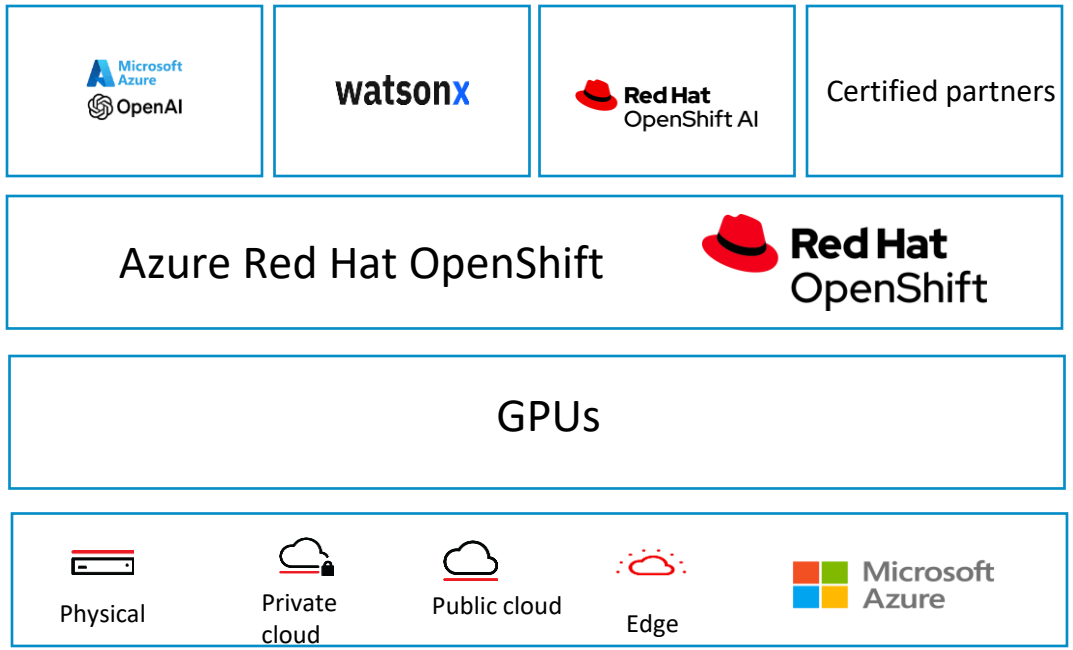
Deploy your AI enabled applications on Azure Red Hat OpenShift

Model development, serving and monitoring

Orchestration, compute resource and fleet mgt

GPU acceleration support

Deploy anywhere



Consistency and choice across deployment options and AI/ML tools

Focus on AI Innovation and minimize complexity with a fully managed platform

Accelerate deployments with a comprehensive app platform that operationalizes AI faster

Microsoft’s Support – CMF and VBD

- Customers asked for guidance on best practices and standards, ARO LZA delivers on this.
- Supports multiple deployment methods, results in same baseline, adaptable to customer’s IaC needs.
- Provides templates for integration with Azure services (Entra, Keyvault, Container Registry, etc.)
- Can be utilized for best-practice ARO deployment, or, in conjunction with CMF program for application migration assistance (On-prem/competitor to Azure)
- Delivery checklist walks the CSA through all of the typical patterns with the On-prem OpenShift to ARO use case.
- Several tools available that can help identify specifics of cluster and workload

ARO integrates Azure Developer and Management Tools

OpenShift developer console

Code Ready Workspaces

OpenShift Operators

OpenShift Pipelines

Red Hat Runtimes

OpenShift API Management

OpenShift Serverless

OpenShift Service Mesh

OpenShift GitOps

Log analytics workspace

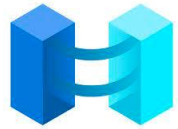
Azure Arc-enabled OpensShift cluster

Azure Resource Manager

Azure AD

Azure OpenAI

Azure Firewall



Azure Arc

Azure Monitor

Azure Load Testing

Azure Log Analytics

Additional tools: Azure Developer Tools and Management products

Run your apps

Kubernetes

and **OpenShift**

Red Hat Summit

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