Cloud native is the new paradigm of software development

>35%

of all production apps will be cloud-native by 2022[1]

[1]IDC FutureScape, 2018

What is cloud native?

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

APIs

Expose services as light-weight APIs for easier integration

Containers

Standard deployment format to abstract code from underlying infrastructure differences

Microservices

Architectural approach to developing an application as a collection of modular, loosely coupled services

DevOps

People, processes and technology that promote collaborative building and delivery

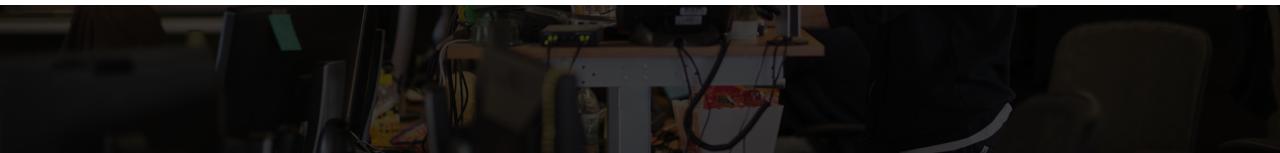# Why cloud native?

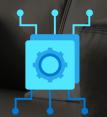Speed of innovation

Security at scale

Reliability

Thousands of companies build cloud native applications on Microsoft Azure

Common cloud native scenarios

Modernize business
critical applications

SaaS
delivery

Real-time
telemetry

Geo-distributed
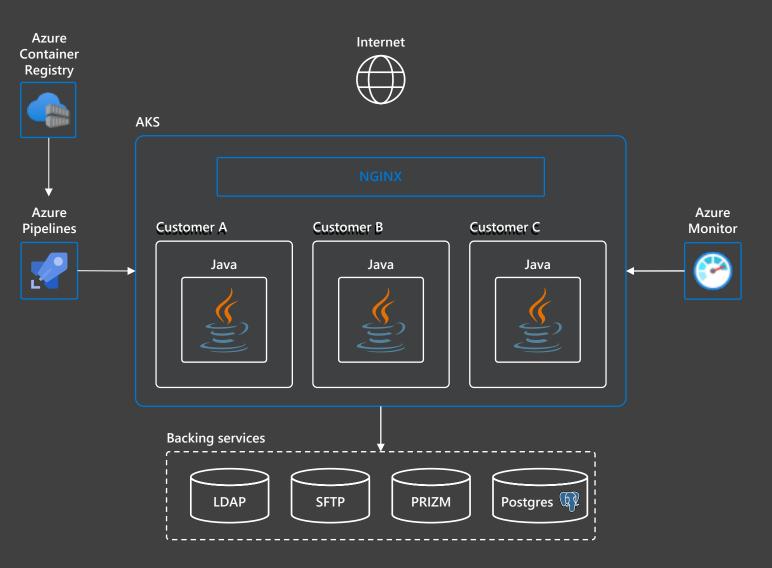applications

Common cloud native scenarios

SaaS
delivery

Faster customer onboarding

Faster customer environment provisioning by changing from server-based to container- and managed service-based architecture in the cloud.

- Managed container platform with built-in CI/CD pipelines to standardize the creation, update, monitoring, and scaling of prospective customer environment.

- Reduce administrative overhead with auto patching, auto upgrade, and auto backup in case of outage.

- Highly secure data integration with intelligent threat protection .

Azure Container Registry

Internet

AKS

NGINX

Azure Pipelines

Azure Monitor

Customer A

Java

Customer B

Java

Customer C

Java

Backing services

LDAP
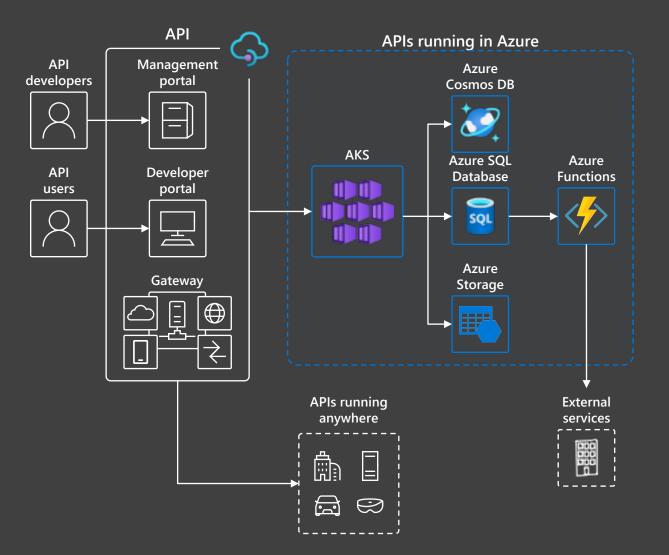
SFTP

PRIZM

Postgres

Pegasus One

Evolving to API-first SaaS business model

Adapt, evolve, and allow faster innovation to turn opportunities into strategic advantages

- Create API gateway and developer portal in minutes and publish APIs easily for internal or external use

- Handle any data schema and adapt quickly to rapid changes

- Connect to back-end services anywhere and manage, secure, and optimize all APIs in one place

API developers

API users

API

Management portal

Developer portal

Gateway

AKS

APIs running in Azure

Azure Cosmos DB

Azure SQL Database

Azure Storage

Azure Functions

APIs running anywhere

External services

Pegasus One

Retail

Deliver engaging digital customer experiences

- Deliver customized offers and personalized shopper experiences in real time

- Add new revenue streams faster with improved target marketing

- Serverless scaling to meet seasonal demand spike

Transform store management

- Brand ambassadors empowered by always up-to-date product catalog and inventory

- Build IoT innovations that reduce errors and strengthen loss prevention

- Deploy securely connected mPOS systems to reduce wait times

Build an intelligent supply chain

- Close the gap between demand and fulfillment with real-time order processing and supply chain management

- Expose fraud by detecting and alerting anomalies in real time

- Build partner/vendor portal to improve customer service response and accuracy

Manufacturing & Automotive

Deliver new services

- Unlock omnichannel and personalized customer experiences
- Create a collaborative development environment for partner apps marketplace
- Take advantage of infrastructure advances to bring lean capabilities into IT

Achieve industrial IoT innovation

- Ingest and analyze high volumes of IoT data and generate real-time recommendations and insights
- Power smart buildings and cities
- Predict equipment needs and safety issues before they happen with instant equipment diagnostics
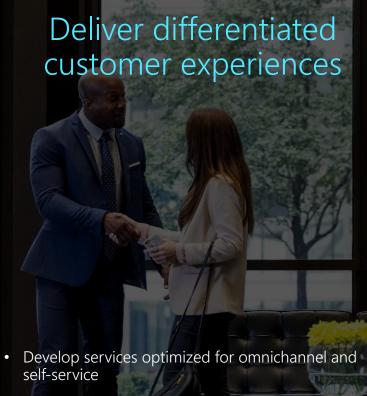
Enable smart, scalable supply chain management

- Produce the right parts at the right time
- Deploy analytics to improve quality, increase operational efficiency, and drive faster time-to-market
- More effectively use computing and human resources, saving time and money

Financial Services

Deliver differentiated customer experiences

- Develop services optimized for omnichannel and self-service

- Speed trading and transactions with digital kiosks

- Improve customer acquisitions with personalized sales and marketing

Manage risk and detect fraud

- Conduct real-time analytics to stress-test risk and exceed compliance levels across standards

- Expose fraud by detecting and alerting anomalies in real time

- Deploy securely and confidently on-premises and in the cloud

Real-time payments

- Centralize payment pipelines to scale high volumes of payment data accurately with low latency

- Enable mobile wallets for efficient use of resources

- Build frictionless peer-to-peer models