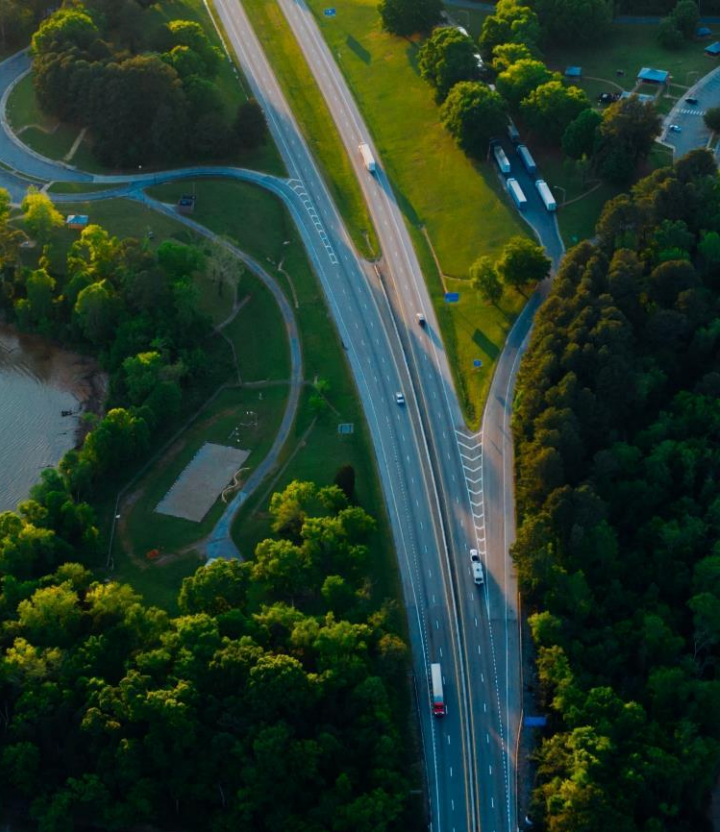


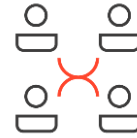
kyndryl™

# Applications Modernization Services for Azure Cloud





Kyndryl brings talent, expertise, and a proven service design to help you co-create solutions that deliver innovative customer experiences



Rich experience and deep expertise through our **people**, best-practice **frameworks & IP**



Reliable services across hybrid/multicloud environments with **minimal business disruption**



Innovate with **Kyndryl Bridge** digital integrations & co-create with designer-led **Kyndryl Vital** teams

#### kyndryl bridge

An open integration platform delivering IT solutions by leveraging Kyndryl's core strengths, data-driven insights and expertise

#### kyndryl vital

Our designer-led co-creation experience that brings partners and customers together to solve complex business problems

Kyndryl offers an integrated portfolio of services to help you unlock the full value of your applications



# Modernize for efficiency and growth

Modernize apps, data, and infrastructure to be more responsive to business needs

## Key goals

- Faster time to market with new products and services
- Flexibility to use open, scalable and adaptive platforms
- Improved data trust and governance
- Secure scalability to meet organizational growth priorities
- A more energy-efficient technology stack
- A cloud strategy aligned with business priorities

## Your challenges

- Complex, high-cost legacy infrastructure and networks
- Containerized, distributed, and latency-sensitive apps
- Insufficient automation
- Data sovereignty concerns
- Sustainability struggles
- Cloud strategy confusion



## How Kyndryl helps you Modernize

- Integration expertise to simplify complex IT environments
- Agnostic alignment of workloads to platforms for compliance and performance
- Unique solutions with the providers in your ecosystem to accelerate transformation
- Proven hybrid cloud and automation strategies that speed deployment and improve resiliency
- Modern management of ongoing mission-critical operations for efficiency and security

# Wherever you are on your transformation journey, we'll meet you there

Kyndryl offers solutions to address common application migration & modernization challenges

**Experts in delivering**  
application migration  
& modernization  
projects of various  
sizes & complexities  
across cloud & hybrid  
environments

**Consistent &  
repeatable**  
delivery experience  
derived from  
expertise in executing  
similar projects  
utilizing standard and  
repeatable processes

**Broad range of  
technologies & tools**  
to deliver client  
engagements  
including cloud-native  
& 3<sup>rd</sup> party



**Thought leadership &  
innovation** to solve  
customer challenges  
based on numerous  
client engagements  
delivered

**Agile delivery &  
continuous  
improvement** to  
maximize lessons  
learned, minimize risks  
& manage costs

# Kyndryl application modernization services overview



## Application code discovery & remediation

- Determine application readiness for modernization
- Articulate remediation requirements by leveraging CAST Highlight or Kyndryl questionnaire



## Microservice-based architecture design

- Understand current application architecture
- Align with business objectives
- Determine functions, features & end-state architecture



## Microservices creation, deployment & integration

- Create microservice applications
- Deploy using DevOps tool chain to the target end-state
- Copy application data and setup application integration

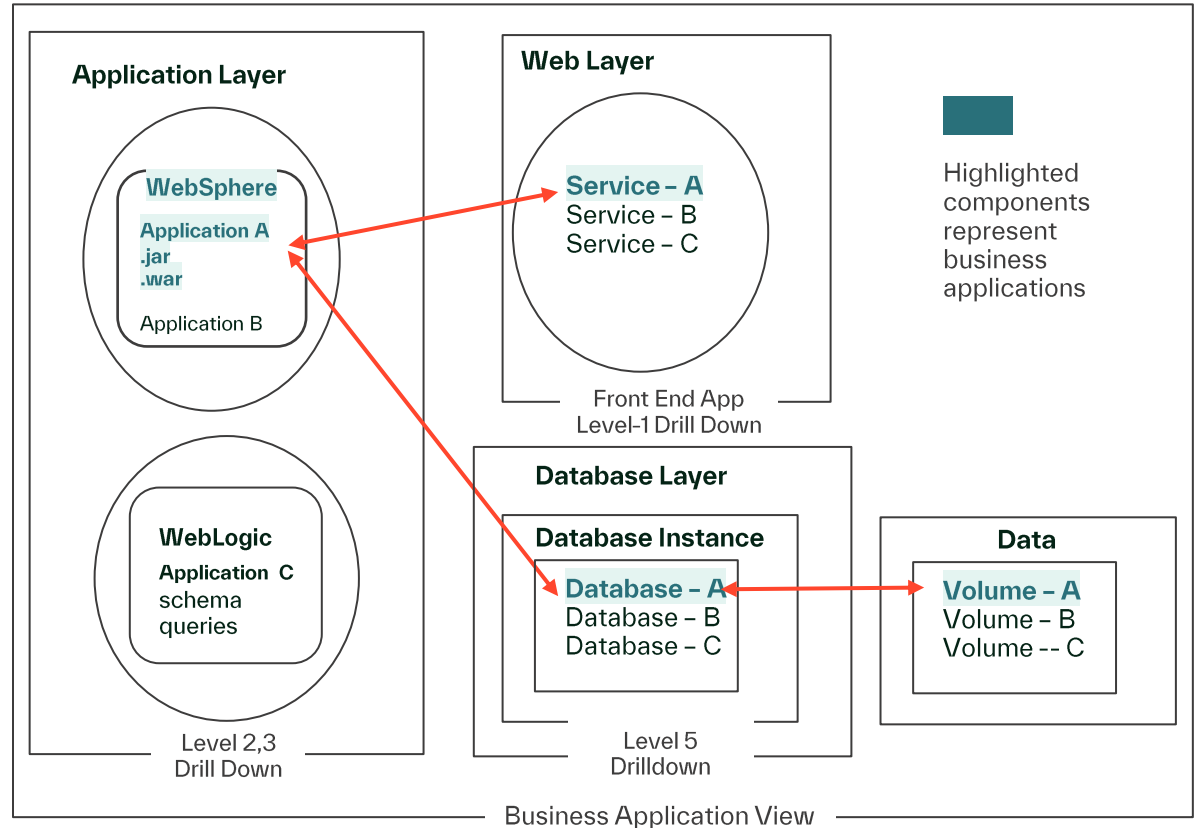


## Functional, UAT & integration testing

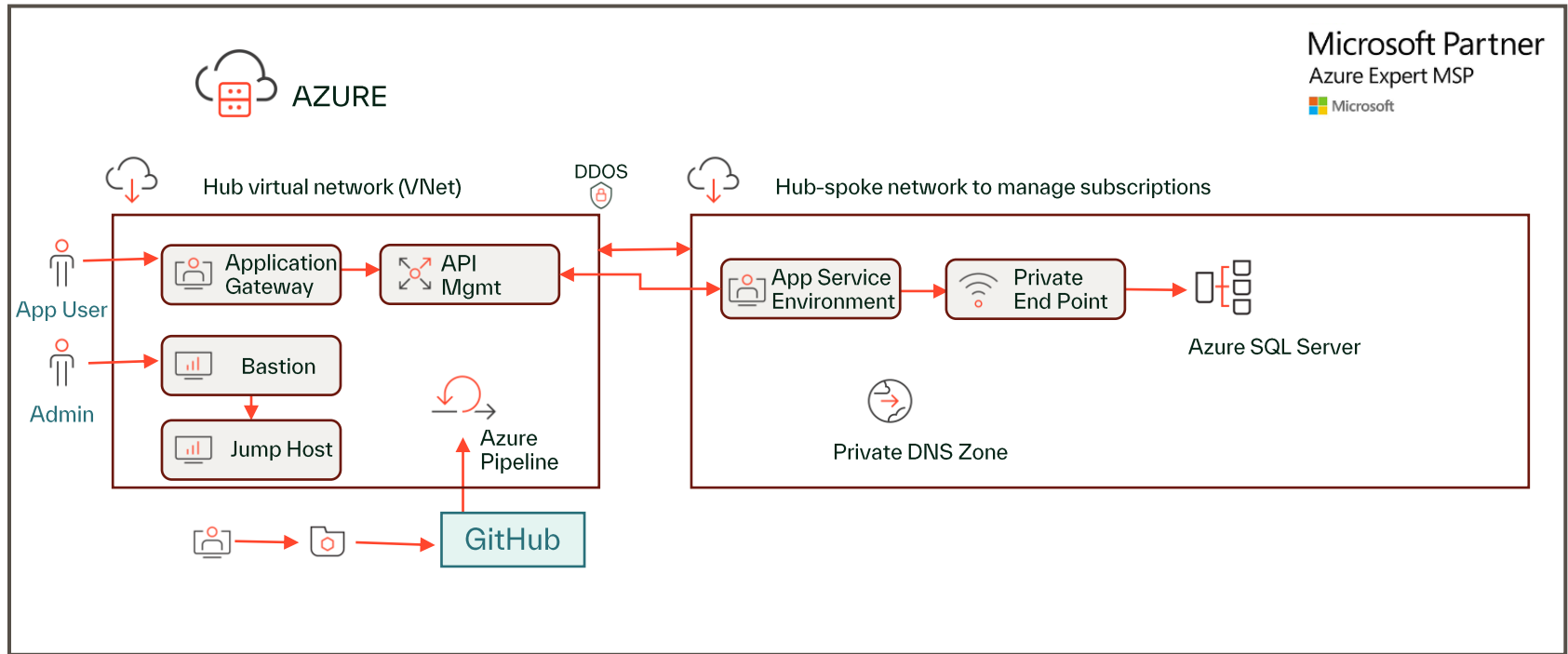
- Determine test strategy and use cases for UAT integration
- Assign & execute test cases
- Evaluate & report on test metrics

# Application code discovery & remediation

- **Discovery:** Automatically analyze cloud readiness of hundreds of apps per week, identify barriers to adoption, define a cloud journey roadmap, and continuously monitor progress
- **Analysis:** Analyze code at the file level to understand software composition and provide consistent and accurate results
- **Remediation:** Leverage CAST Highlight analysis tool for code discovery and remediation

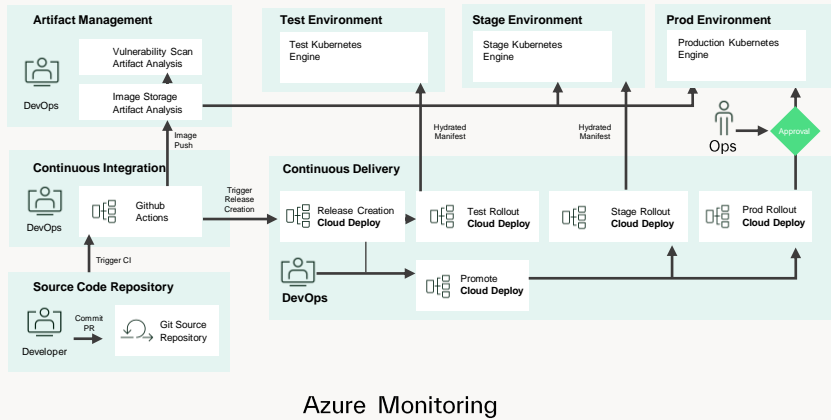


# Microservice-based architecture design

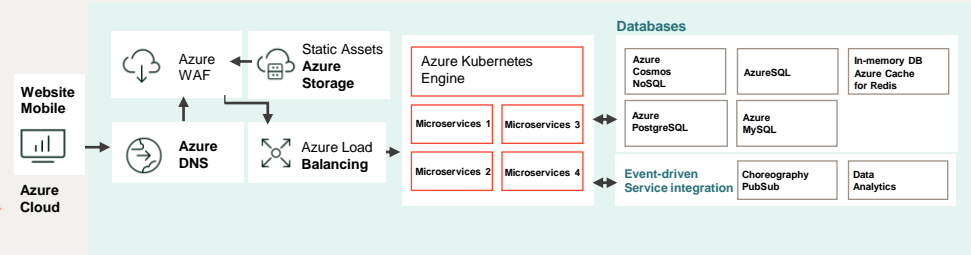


# Microservices creation, deployment & integration

## End-to-End DevOps Pipelines for Azure



## Microservices on Azure Cloud



- SCM → GitHub Enterprise
- Continuous Integration → GitHub Actions
- Continuous Delivery → GitHub & GitHub Actions
- Artifact Management → Artifactory & Azure Container Registry
- Compliance → OPA Gatekeeper

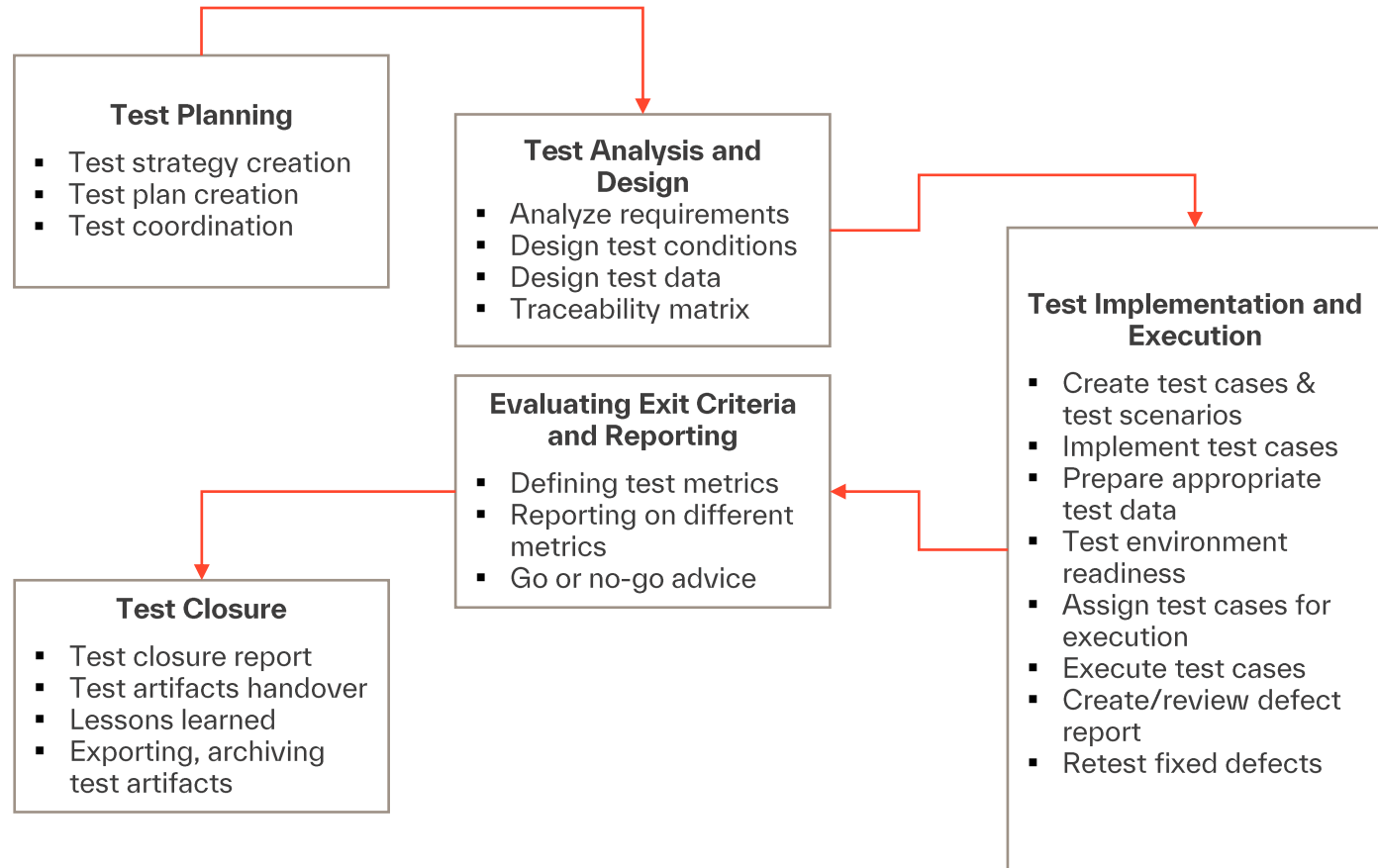
Spinnaker is recommended for successful CI/CD when implementing advanced deployment patterns (blue/green, canary analysis, multi-cloud) but its features may not be needed for smaller organizations or projects



# Functional, UAT & integration testing

Cutover planning & strategy

Determine test strategy, use cases, and baselines for functional, UAT & integration testing



# Supported Technology & Tools



## Azure Services

- Azure Kubernetes Service
- Azure Red Hat OpenShift
- Azure Artifacts
- Azure Container Registry
- Azure App Service
- Azure SQL
- Azure MySQL
- Azure Cosmos DB
- Azure Database for PostgreSQL
- Azure Policy
- Azure Key Vault
- Azure Pipelines



## Application Languages

- Java
- ASP .NET
- NodeJS
- Springboot
- Angular JS
- Python
- Ruby



## Database & Middleware

- Oracle / Oracle RAC
- Oracle Exadata
- DB2
- MySQL
- Microsoft SQL
- PostgreSQL
- Mongo DB
- Sybase
- WebSphere MQ
- WebSphere App Server
- Apache Webserver
- Apache Tomcat
- IIS



## Tools

- CAST Highlight
- CAST Imaging
- Visual Studio
- Azure DevOps
- Jenkins
- Terraforms
- Eclipse
- Git Hub

## Replatform and refactor for efficiency & scalability

A major American agricultural chemical and seed company that works with producers and consumers to create an ecosystem that naturally supports people, progress and the planet needed to create a more efficient and scalable application environment.

### Business Challenge

The customer wanted to increase efficiency by migrating applications from IBM Cloud to another platform.

Microsoft Azure's native platform services were determined to be the best fit for the customer's operational environment.

An important part of the decision-making process included an applications assessment to determine compatibility and recommend the best approach to achieve the customer's goals

### Transformation

Utilizing CAST Highlight to analyze the customer's portfolio, Kyndryl proposed two options:

1. Replatform by deploying applications to Microsoft Azure App Service platform.
2. Refactor by upgrading applications to supported versions and deploying to Microsoft Azure App Service.

### Results

Based on a long-standing successful relationship with the customer, Kyndryl took a top-down approach leveraging:

- CAST Highlight (applications assessment)
- Microsoft Azure App Service Migration Assistant (monitoring, security and logging checks)
- .NET Upgrade Assistant tool
- DevOps continuous integration (CI) and continuous delivery (CD) practices
- Microsoft Visual Studio integrated development environment (IDE)

Close collaboration with cross-functional teams and frequent communications with all stakeholders helped build trust and ensure success.



# Together with our alliances, we design, solution, implement, and operate the world's most complex technology estates



## Our Customers

We work in partnership with thousands of customers and are dedicated to ensuring that each achieves peak digital performance

**30+**

... years of designing, building and managing 100 and more than half mission-critical IT environments

Including

...of the Fortune Global 100 and more than half of the Fortune Global 500

60%

### We manage vital environments in critical industries



**5/5** of the top automotive companies by revenue



**11/20** of the top insurance companies by revenue



**4/5** of the top consumer staples retailers by revenue



**3/5** of top telecom companies by total mobile connections



**5/10** of top airlines by total revenue passenger miles (RPM)



## 6 Microsoft Azure Advanced Specializations

- SAP on Azure
- Azure VMware Solution
- Analytics on Azure
- Kubernetes on Azure
- Azure Virtual Desktop
- Low Code Application Development

## 5 Microsoft Solution Partner Designations

- Azure Infrastructure
- Azure Digital & App Innovation
- Security
- Azure Data & AI
- Modern Work

## Kyndryl Services



### Cloud

Delivering seamless advisory, migration, modernization, and management services integrated with Microsoft Cloud



### Core Enterprise & zCloud

Manage mission-critical workloads seamlessly by modernizing mainframes to handle high-volume, always-on computing with Microsoft Cloud



### Digital Workplace

Accelerate hybrid work capabilities and enable collaboration from anywhere with strategy, design, architecture and implementation of Microsoft 365

### Application, Data & AI



Providing full application platform hosting and expert assistance for application modernization to Microsoft Azure



### Network & Edge

Provides unified Network Services for Microsoft Cloud and data center connectivity



### Security & Resiliency

Providing full application platform hosting and expert assistance for application modernization



# Thank You

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