



Cloud Native Architectures

Workload Approach Workshop

Introduction

Do you consider...



- ☐ **Adopting a cloud native enterprise approach?**
- ☐ **Automating on-demand services?**
- ☐ **Utilizing cloud based tools? And think they change so much?**
- ☐ **Building and running apps that are highly available, resilient, fully secure, and compliant?**
- ☐ **Modernizing and simplifying your deployments and operations?**

The intention of this workshop is to facilitate and support you to adopt modern and cloud native principles. In a 3 stage approach we will lead from discovery to a verified and validated cloud native solution architecture.

Objectives



During this workshop we will discuss

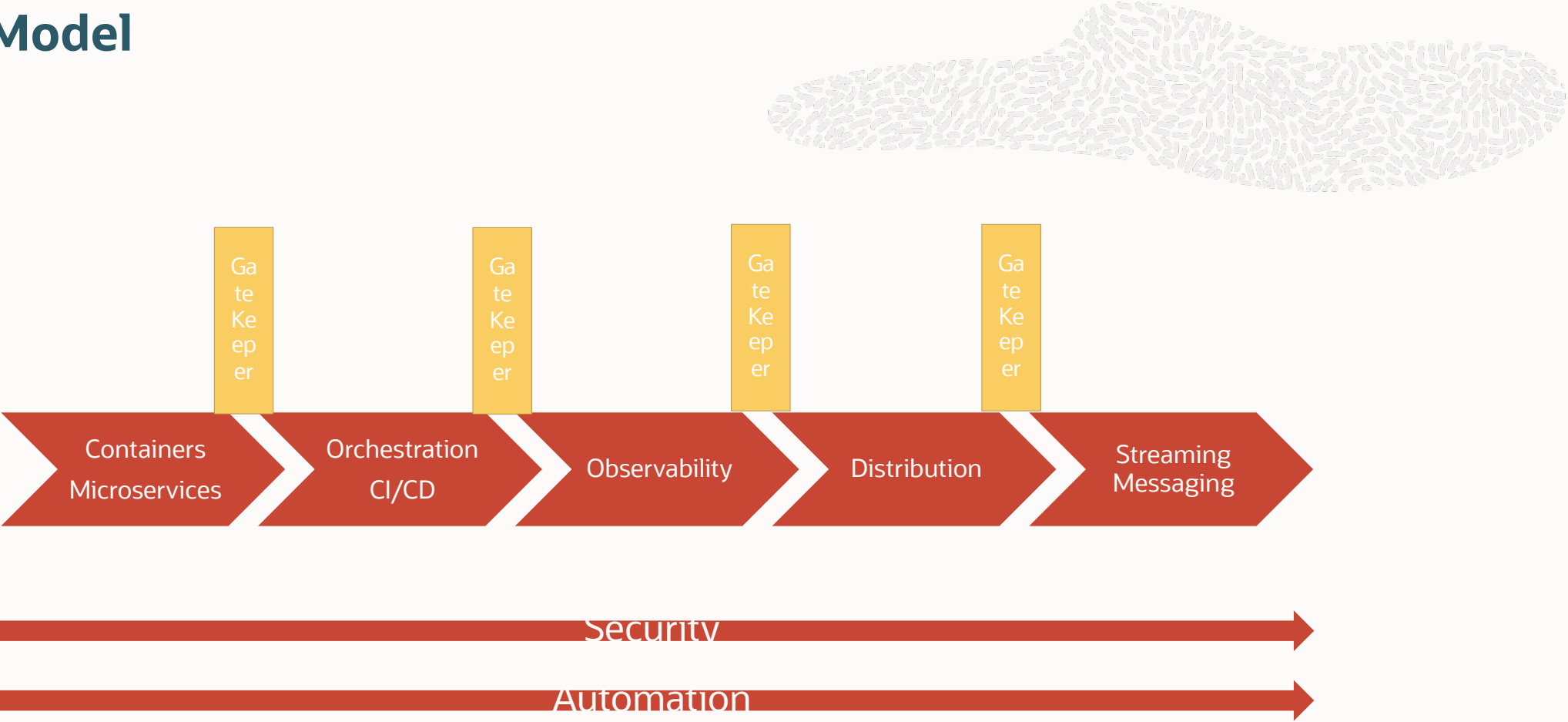
- ❑ **Design principles** and **best practices** that govern application architectures
- ❑ **The core requirements** that apply to your application
- ❑ **Recommend technologies** for modern applications
- ❑ Showcase similar **customers use cases**
- ❑ Which **architecture pattern** fits your situation and the necessary steps to get there

We would also like to discuss

- ❑ What are the **workloads You consider moving to cloud**
- ❑ How **can Oracle help** you with this journey with **Oracle's Lift Service**

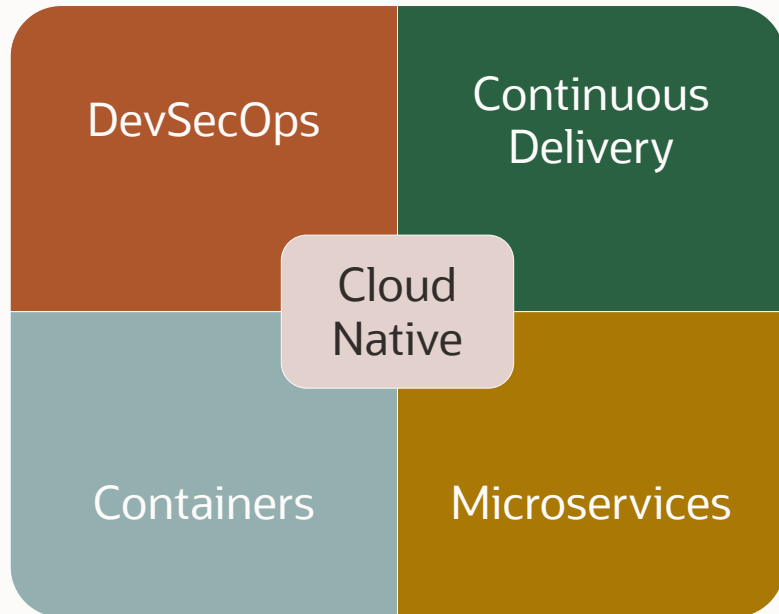
Discovery

Maturity Model



The journey

What is Cloud Native?



CNCF Definition

Cloud native technologies empower organizations to build and run **scalable** applications in modern, dynamic environments such as public, private, and hybrid clouds.

Containers, service meshes, microservices, immutable infrastructure, and **declarative APIs** exemplify this approach.

These techniques enable **loosely coupled systems** that are **resilient**, **manageable**, and **observable**. Combined with robust automation, they allow engineers to make high-impact changes **frequently** and **predictably** with minimal toil.

Cloud Native Journey

A guided roadmap to the future

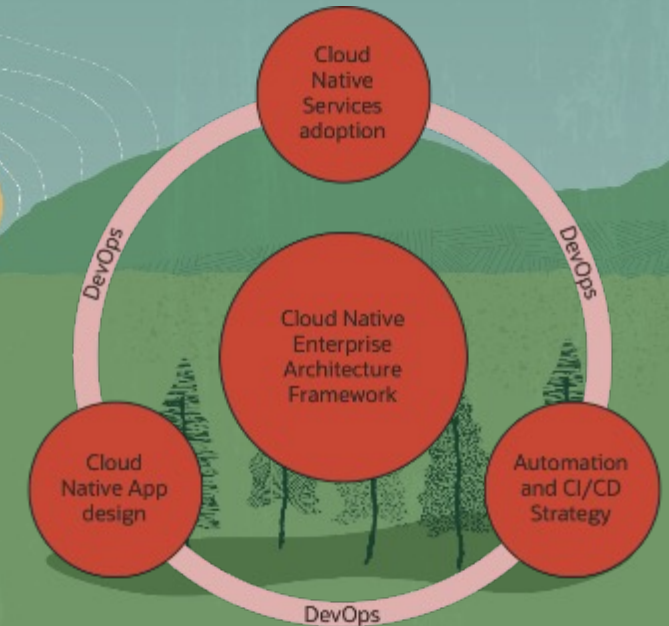
Cloud Native Thinking

Cloud Native EA

Cloud Native Services

Cloud Native App Design

Automation and CI/CD



Cloud Native Architecture

Strategic Pillars

Cloud Native Enterprise Architecture Framework

Aims at ensuring a solid, accepted and implemented Enterprise Architecture aiming for a fully Cloud Native landscape and defining the target state for all the components in the IT landscape.

Cloud Native Service Adoption

Aims at ensuring the adoption of cloud native IaaS, PaaS and SaaS services over the adoption and inclusion of customer managed solutions to ensure optimal use and benefit of cloud based managed services.

Cloud Native Application Design

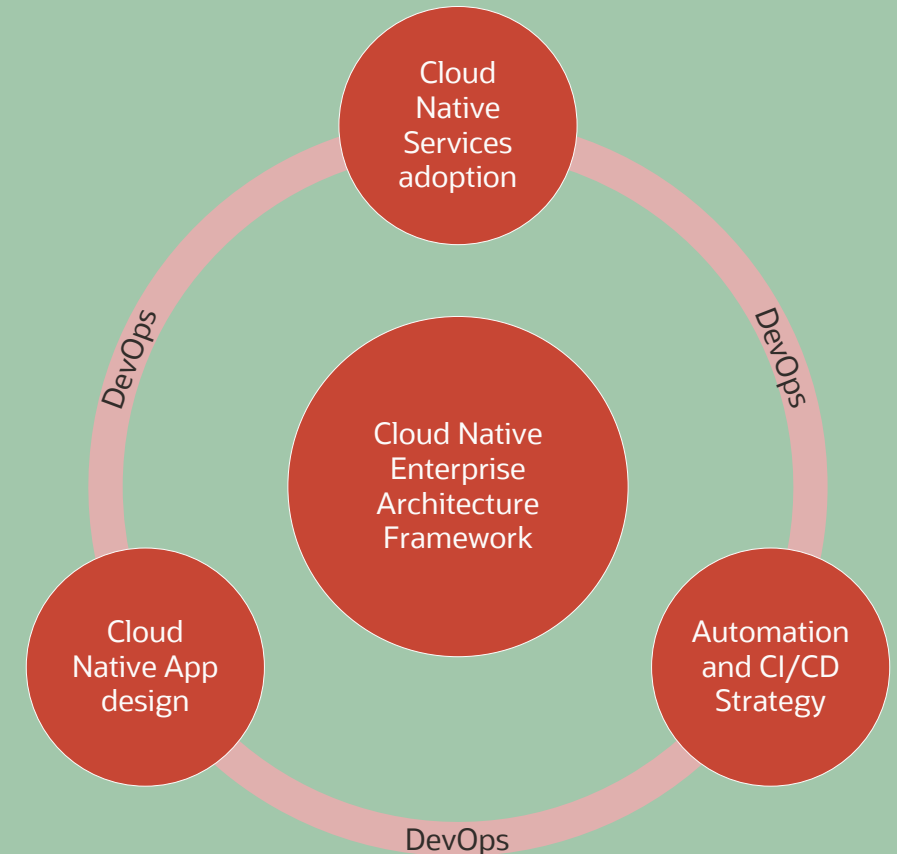
Aims at ensuring the design and build of applications in a true cloud native manner by making use of cloud native design patterns and best practices while staying true to the Enterprise Architecture Framework.

Automation and CI/CD Strategy

Aims at ensuring to remove as many as possible human actions, embedding CI/CD strategies, automation solutions and self-managing system strategies to ensure more secure systems, remove toil and lower operational costs

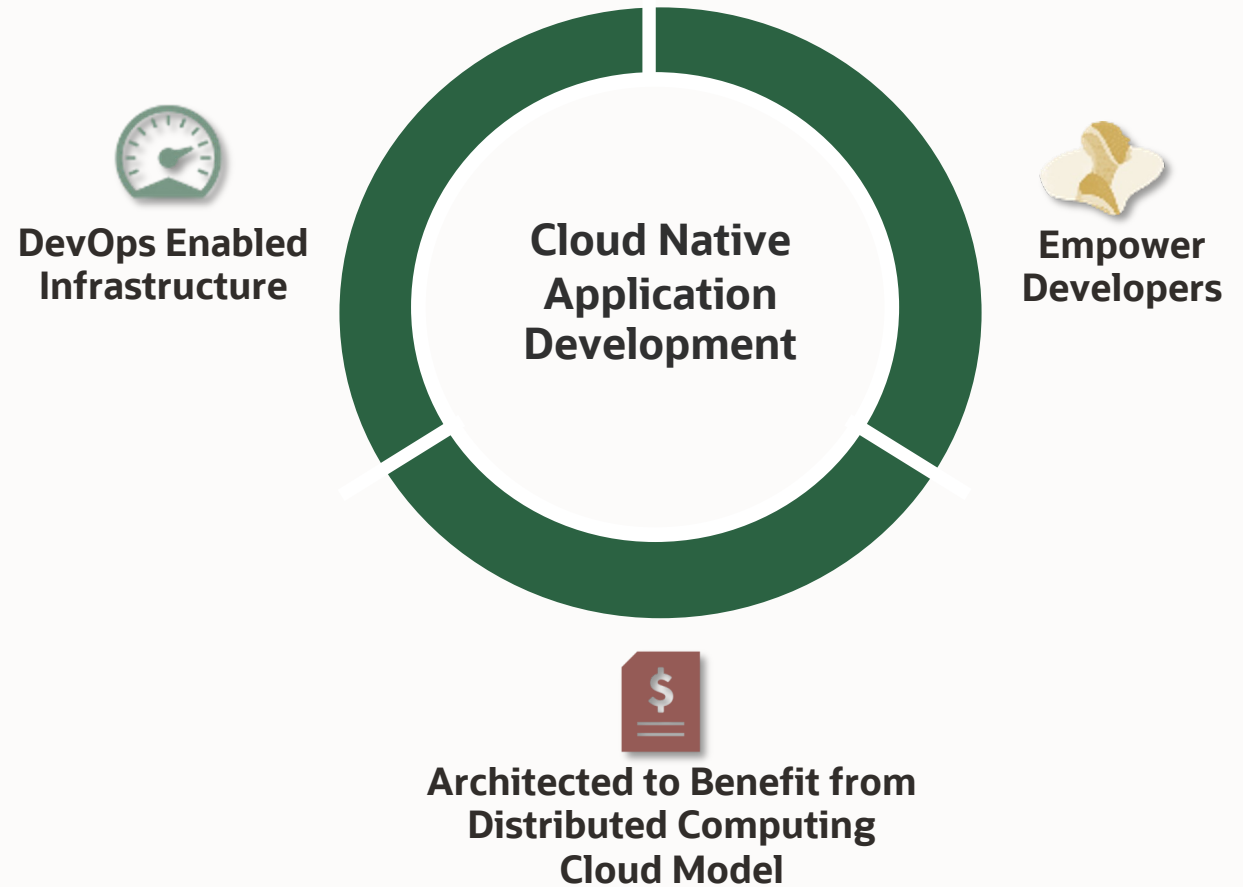
Agile DevOps

Aims at building, improving and supporting a DevOps / BusDevOps culture and way of working within all departments of the enterprise.



What are Cloud Native apps?

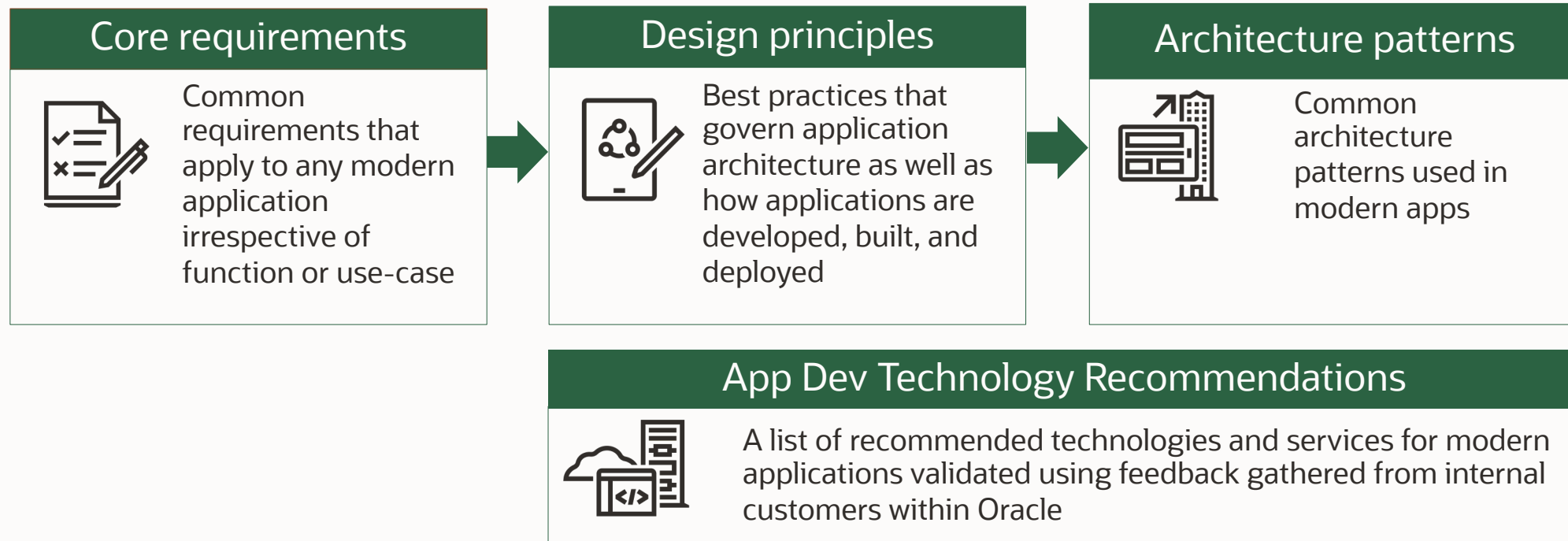
- Agile CI/CD Development
- Standards based
- Choice for Developers
- Designed and developed to benefit from cloud model
- Often containerized, loosely coupled, event-driven



Build New Cloud Native Apps

Simplify the architectural decision-making

Oracle's Modern Application Development approach



<https://www.oracle.com/cloud/architecture-center/modern-app-development/>

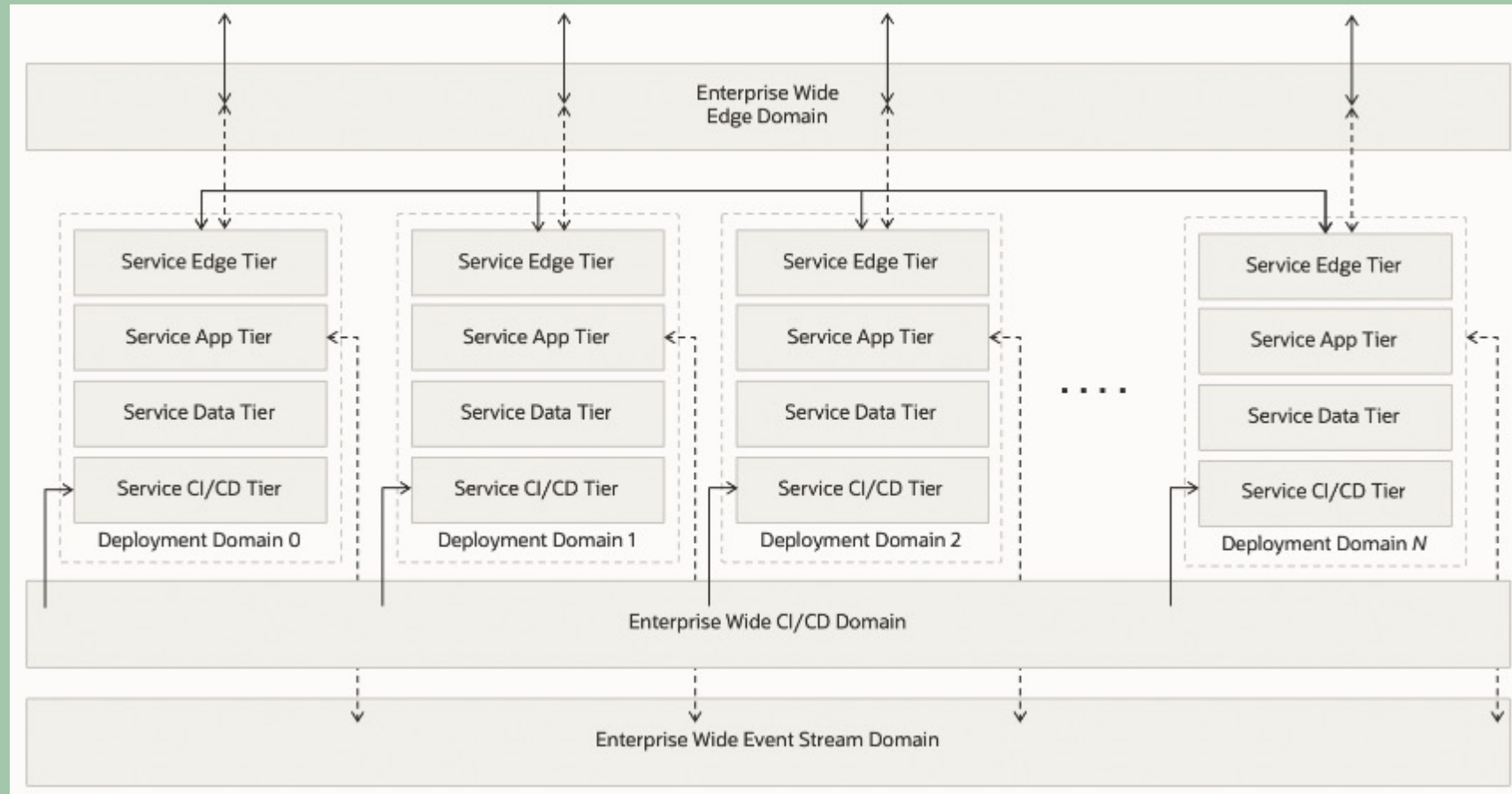
Build New

Oracle's Modern Application Design Principles

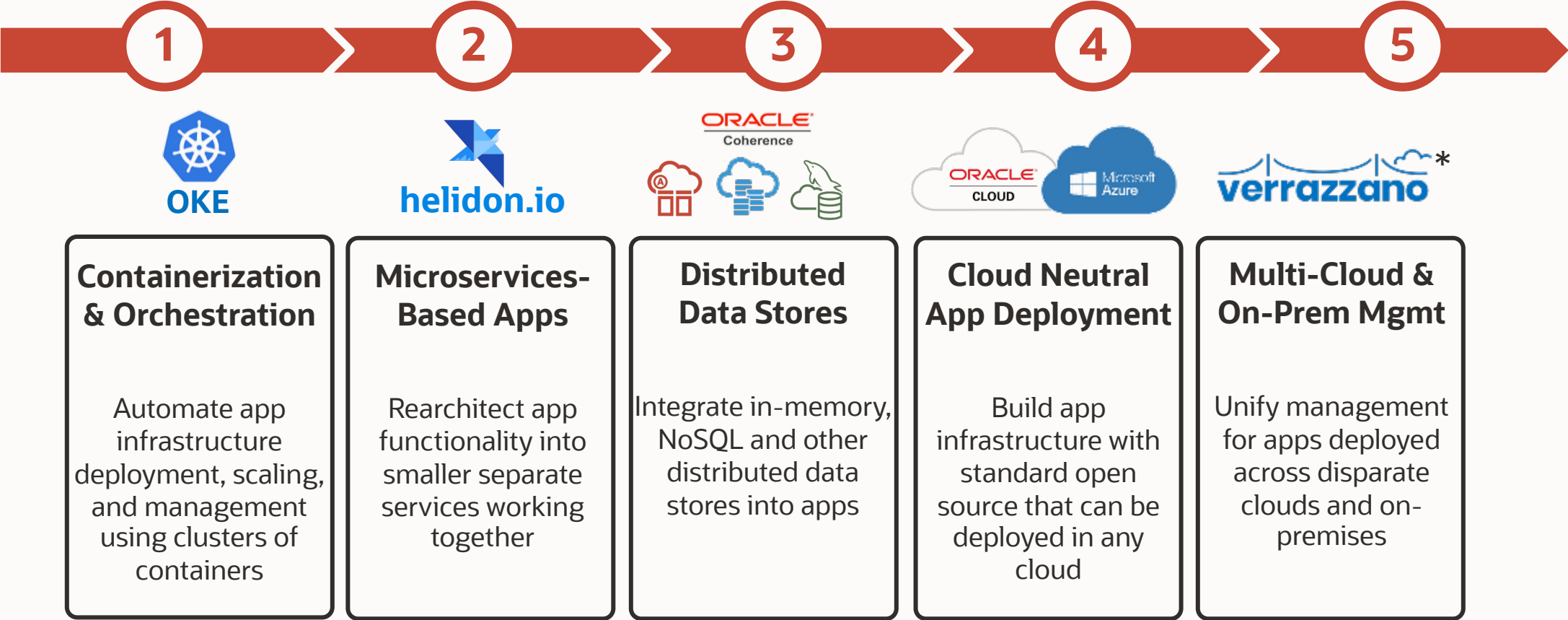
- Use lightweight open-source frameworks and mature programming languages
- Build apps as services that communicate through APIs
- Package and ship apps as containers
- Automate build, test, and deployment
- Use fully managed services to eliminate complexity across application development, runtimes and data management
- Keep application tier stateless
- Use converged databases with full featured support across all data
- Instrument end-to-end monitoring and tracing
- Eliminate single points of failure through automated data replication and failure recovery
- Implement a defense-in-depth approach to secure the app lifecycle



Design Pattern Implementation



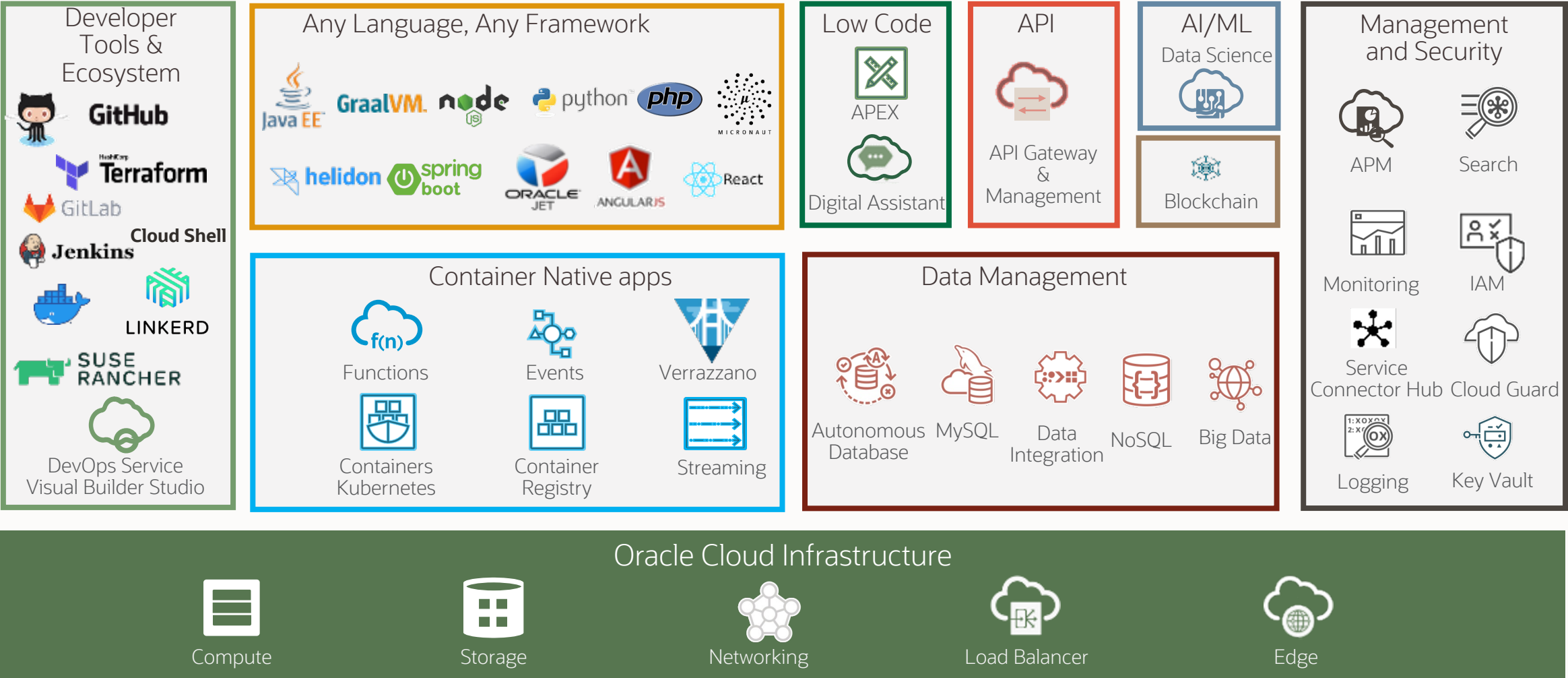
Key Technologies of the Modern Application


















*Available today in Community Edition



Application Development with Oracle Cloud



What's the best fit for you ?

	On-premises	OCI	Other Cloud
1		 CI/CD  Applications Containers  Databases	
2	 CI/CD	 Databases	 Applications Containers
3	 Databases	 Databases  Applications Containers	 Applications Containers  CI/CD
4	 Applications Containers	 Databases  CI/CD	 Applications Containers

