

ORACLE

# Oracle Cloud Native DevOps Platform

DBA BRASIL Data & Cloud 2023

**José Neto**

Cloud Solution Engineer

Oracle Cloud, Pay-As-You-Go Brazil

Jun 24, 2023



## Safe harbor statement

---

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, timing, and pricing of any features or functionality described for Oracle's products may change and remains at the sole discretion of Oracle Corporation.

Diamante



AGGRANDIZE

COMMVAULT 



TD SYNEX

Platina



DISCOVER

Ouro



VERTICA  
by opentext

Prata

TRACES



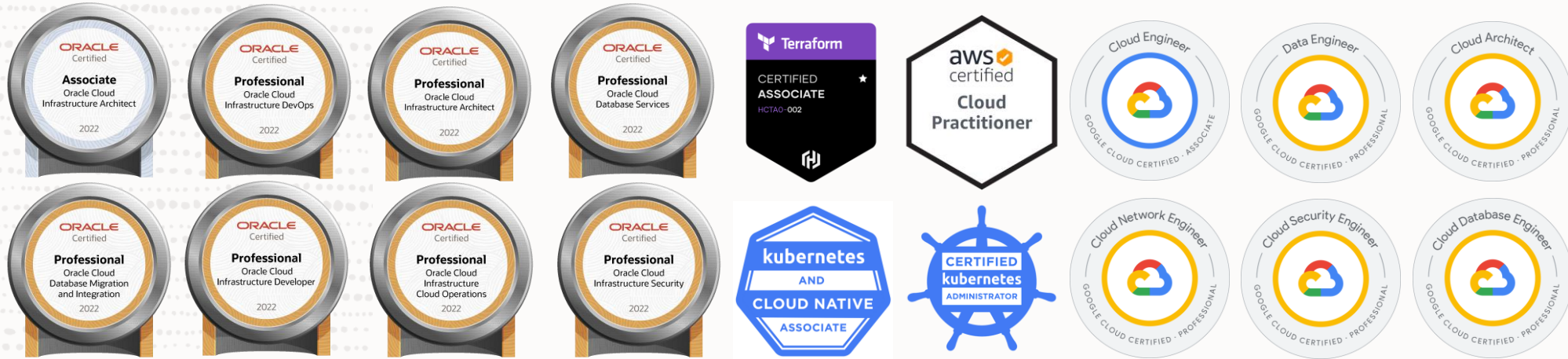
ROX

We take care  
of your data

Apoio


FIAP

GRUPO  
POSEIDON  
DIGITAL



**José Neto**  
DevOps | Cloud  
Solution Engineer



 <https://www.linkedin.com/in/josenetoo/>  
[jose.bm.neto@oracle.com](mailto:jose.bm.neto@oracle.com)

- ✓ **Cloud Solution Engineer na Oracle (10 meses)**
- ✓ **24 anos – São Paulo**
- ✓ Graduado em Sistemas de Informação
- ✓ Pós em Arquitetura e Projetos de Cloud Computing – **Em Andamento**
- ✓ Trabalho com TI e Cloud há 7 anos
- ✓ Experiência com Cloud, DevOps, Cloud Native, MultiCloud, Docker, Kubernetes, Terraform, etc.





# Ampla Camada Free Tier



OCI

Serviços Soluções Por que OCI Clientes Preços Aprenda Desenvolvedores Suporte Mercado



Faça login na Oracle Cloud

## O que são serviços de uso livre?

### Infraestrutura

2 VMs de Computação baseada em AMD com 1/8 OCPU\*\* e 1 GB de memória cada

Núcleos Ampere A1 baseados em Arm e 24 GB de memória utilizável como 1 VM ou até 4 VMs com 3.000 horas de OCPU e 18.000 GB horas por mês

Armazenamento de volumes em 2 blocos, total de 200 GB

Armazenamento de objetos de 10 GB – Padrão

Armazenamento de objetos de 10 GB - Acesso pouco frequente

Armazenamento de arquivos de 10 GB

Gerenciador de recursos : Terraform gerenciado

5 OCI Bastions

### Bancos de dados

Sua escolha de Oracle Autonomous Transaction Processing, Autonomous Data Warehouse, Autonomous JSON Database ou APEX Application Development. Dois bancos de dados no total, cada um com 1 OCPU\*\* e 20 GB de armazenamento.

Banco de dados NoSQL com 133 milhões de leituras por mês, 133 milhões de gravações por mês, 25 GB de armazenamento por tabela, até 3 tabelas.

### Observabilidade e Gerenciamento

Monitoramento: 500 milhões de pontos de dados de ingestão, 1 bilhão de pontos de dados de recuperação

Application Performance Monitoring: 1000 eventos de rastreamento e 10 execuções Sintéticas por hora

Registro em log: 10 GB por mês

Notificações: 1 milhão enviadas por https por mês, 1000 enviadas por email por mês

Service Connector Hub: 2 conectores de serviço

### Serviços adicionais

Flexible Load Balancer: 1 instância, 10 Mbps

Flexible Network Load Balancer

Transferência de dados de saída: 10 TB por mês

Virtual Cloud Networks (VCN): Máximo de 2 VCNs, inclui suporte a IPv4 e IPv6

Logs de fluxo da VCN: até 10 GB por mês compartilhados entre os serviços de log da OCI

VPN Site-to-Site: 50 conexões IPSec

Content Management Starter Edition: 5000 assets por mês

Certificados: 5 certificados CA privados e 150 certificados TLS privados

Entrega de email: 3,000 emails enviados por dia



# Links de acesso ao Trial

A Oracle oferece :

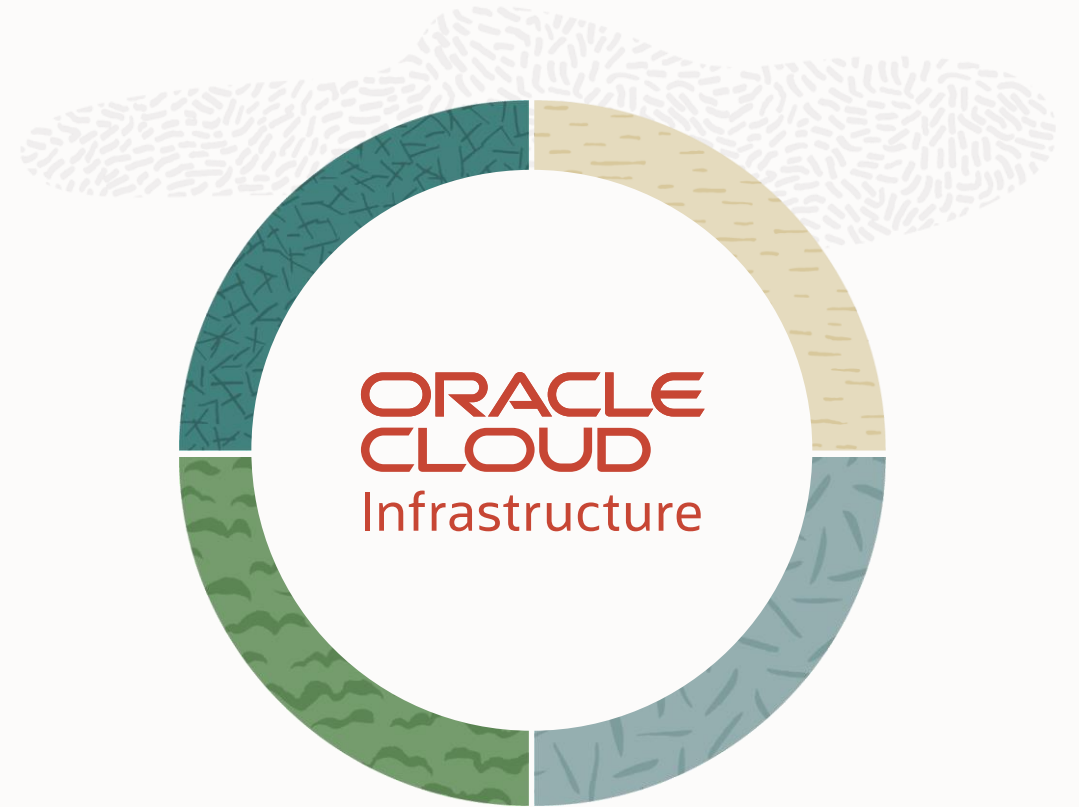
**30 dias de Teste  
com  
300 dólares de créditos**

Cadastro:

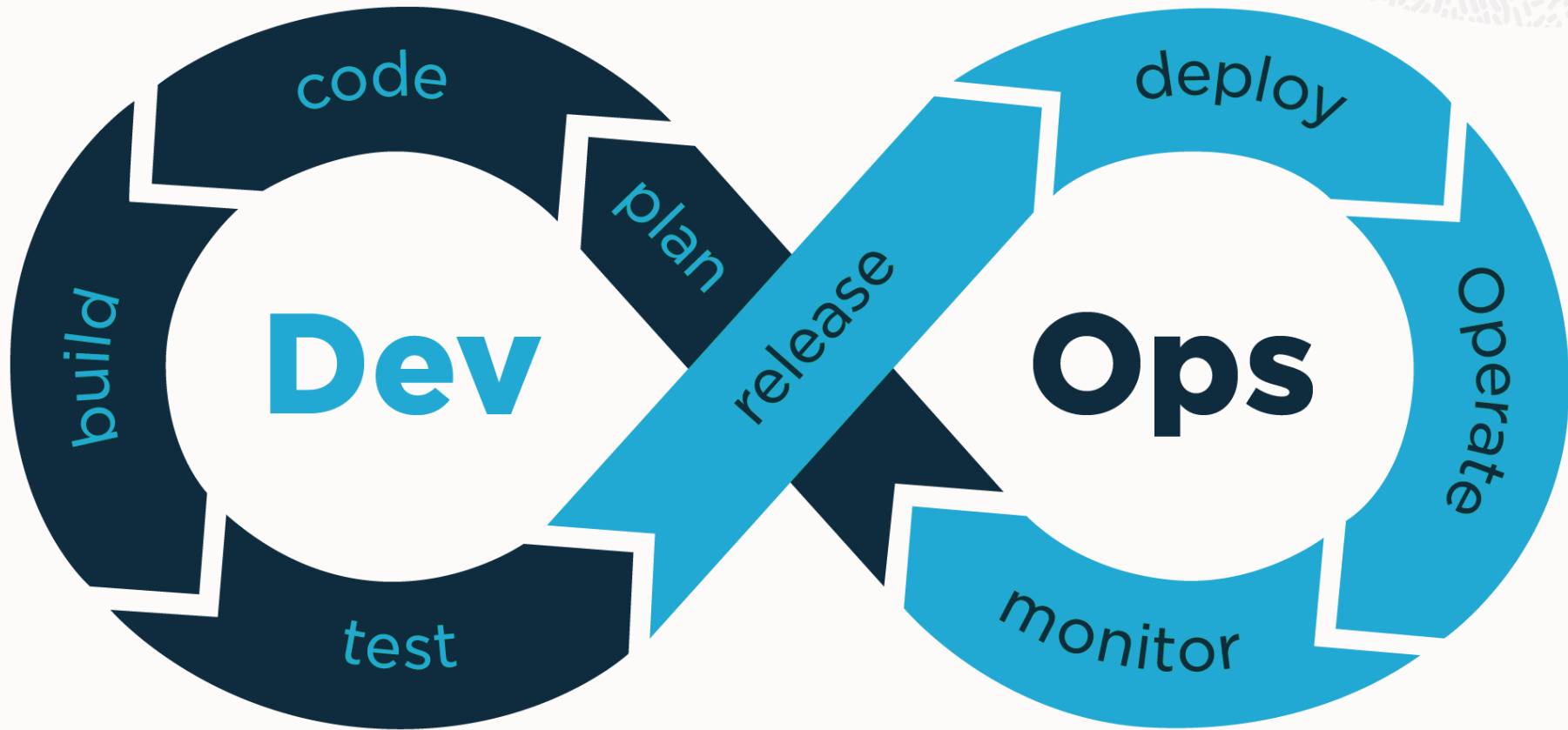
[Modo Gratuito | Oracle Brasil](#)

Dúvidas Oracle Cloud Free Tier

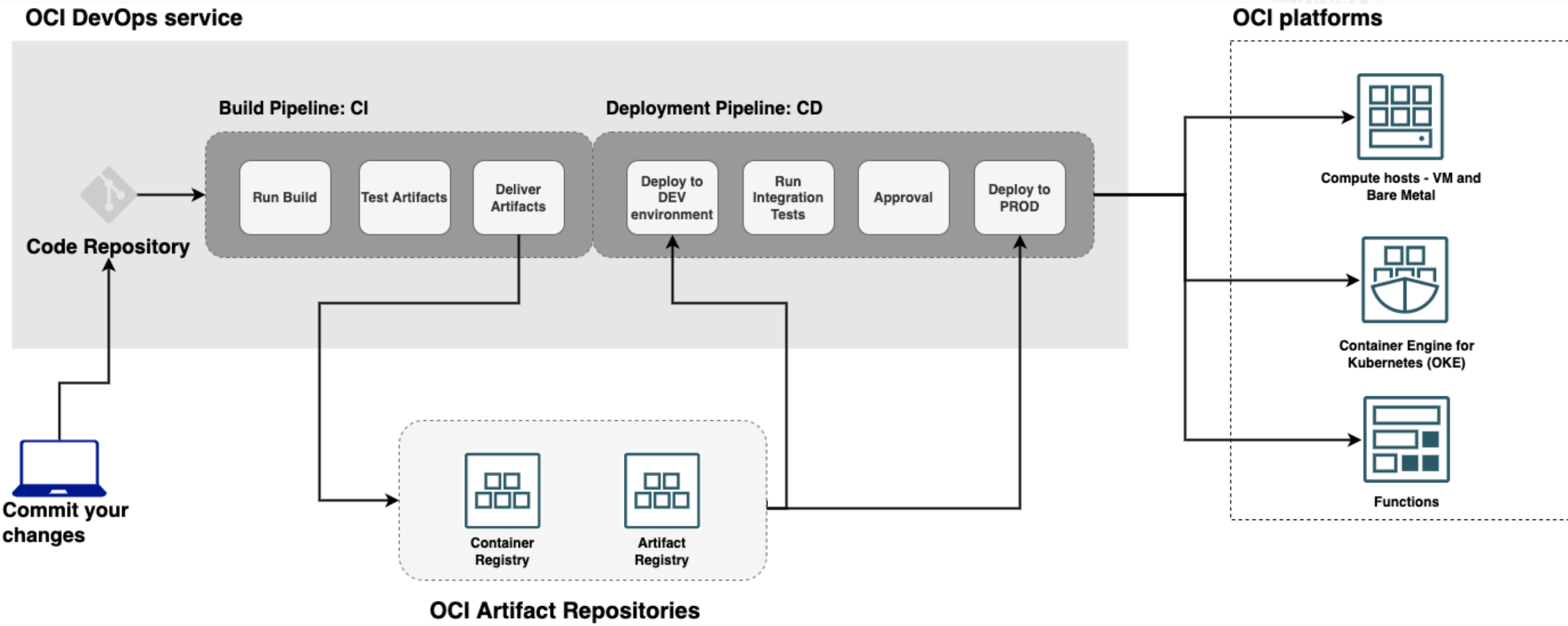
[Perguntas frequentes sobre o Modo Gratuito da Oracle Cloud | Oracle Brasil](#)



# What do we mean by DevOps? Speed and Reliability

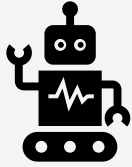


# Complete CI/CD Platform





# OCI DevOps Service



## Automation

Simplify and speed up software development

---

Increase **reliability** and **feature velocity** by automating your entire CI/CD workflow. Fully managed OCI-native CI/CD pipelines.



## Security

Take advantage of Cloud Security

---

Leverage **OCI security** for your CI/CD Pipeline: Container image scanning, signing and deployment validation to OKE.

Control CI/CD pipeline access to resources with **IAM policy**



## Governance

End to end Visibility

---

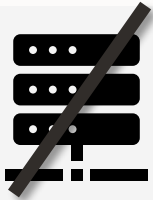
Fully integrated with OCI **observability, logging, governance**. Track issues in production deployments back to commits.

# Why OCI DevOps?

- 1. Cloud-native:** no DevOps servers to maintain and operate. CI/CD workflows integrated with the OCI platform: logging, notifications, identity, security.
- 2. Security:** securely deploy to compute hosts, OKE. More secure than 3<sup>rd</sup> party CI/CD
- 3. Flexible:** meet developers where they are, integrate with CI/CD existing tooling. Automate the CD part
- 4. Developer friendly pricing:** no per-user charge. DevOps costs are underlying build run compute + code repo storage



# DevOps Continuous Integration (CI)

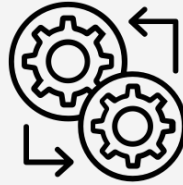


## Serverless, Scalable

No instances to manage

**Serverless pricing**, pay for consumed build memory and compute. Pay for code repositories storage.

Create **concurrent** builds with Dynamic Limits.



## Integrated

Works with your resources

Run a build pipeline with your **GitHub or Gitlab** repositories.

**DevOps Code Repositories** – secure, private Git storage.



## Complete

Native CI/CD Platform

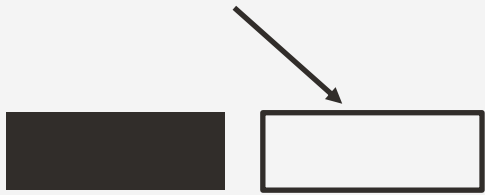
**Connect** deployments from a build pipeline.

**Trigger** build from a commit

**Deliver** to OCI Artifact Repositories

Manage build **secrets** with OCI Vault

# DevOps Continuous Deployment (CD)

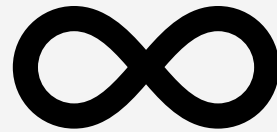


## Release Strategies

Reduce downtime, faster recovery

**Blue/Green deployments,**  
**Canary stage** – minimize downtime and increase confidence in your deployment

Perform **global deployments** across regions.



## Integrated

Connect your workflows

**Jenkins plugin** to run a DevOps deployment from your Jenkins pipeline.

Orchestrate **multi-cloud** deployments with Spinnaker

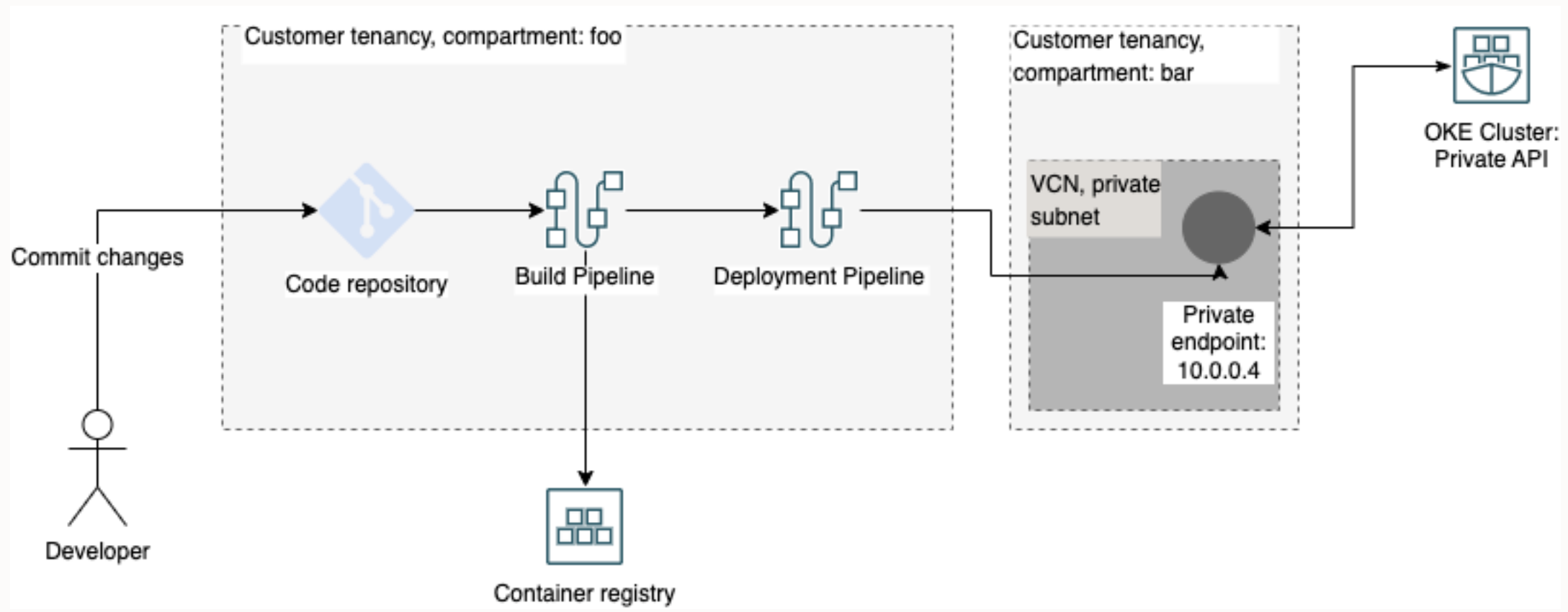


## Rollback

Recover from errors

**Automatic or manual** rollback of a deployment stage

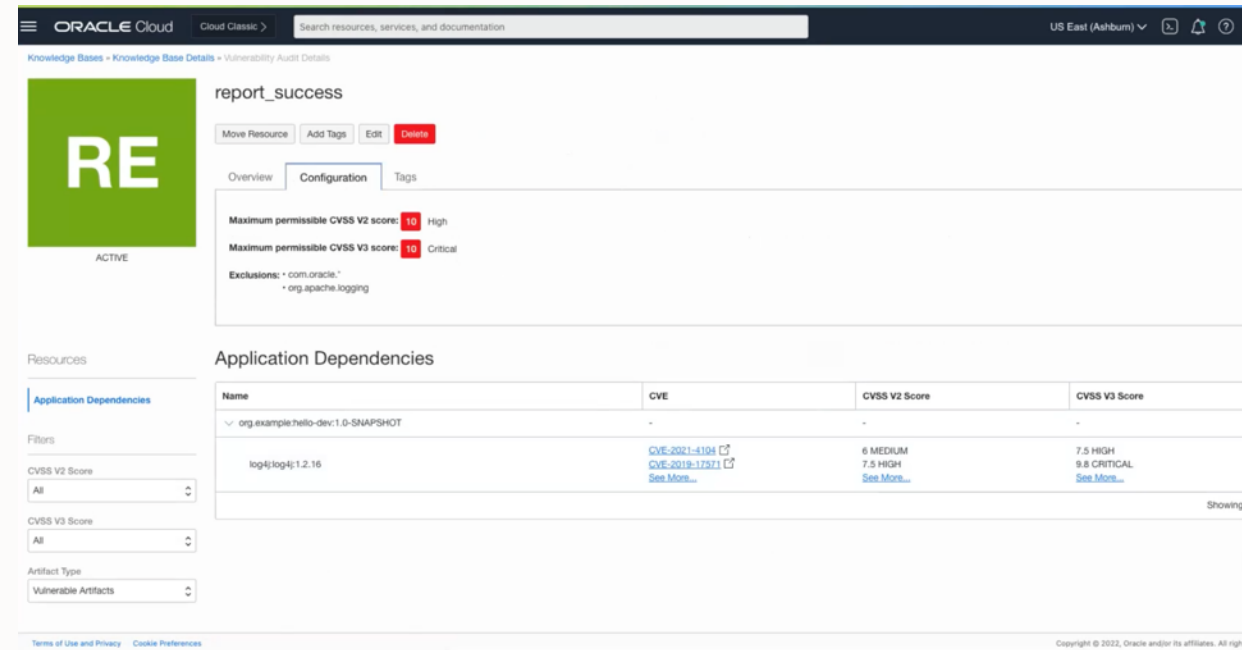
# Secure deployments – private platforms





# Vulnerability audits

- Software composition analysis (SCA)
- Scan dependencies for known vulnerabilities (CVE)
- For maven packages (for now...)
- Set thresholds for pass/fail
- Integrated as a step in build instructions



The screenshot displays the Oracle Cloud interface for a Knowledge Base resource named 'report\_success'. The resource is in an 'ACTIVE' state. The configuration section shows the following settings:

- Maximum permissible CVSS V2 score: 10 (High)
- Maximum permissible CVSS V3 score: 10 (Critical)
- Exclusions: com.oracle, org.apache.logging

The 'Application Dependencies' section shows a table of dependencies:

Name	CVE	CVSS V2 Score	CVSS V3 Score
org.example.hello-dev:1.0-SNAPSHOT	-	-	-
log4j-log4j:1.2.16	<a href="#">CVE-2021-4104</a> <a href="#">CVE-2019-17321</a>	6 MEDIUM 7.5 HIGH	7.5 HIGH 9.8 CRITICAL



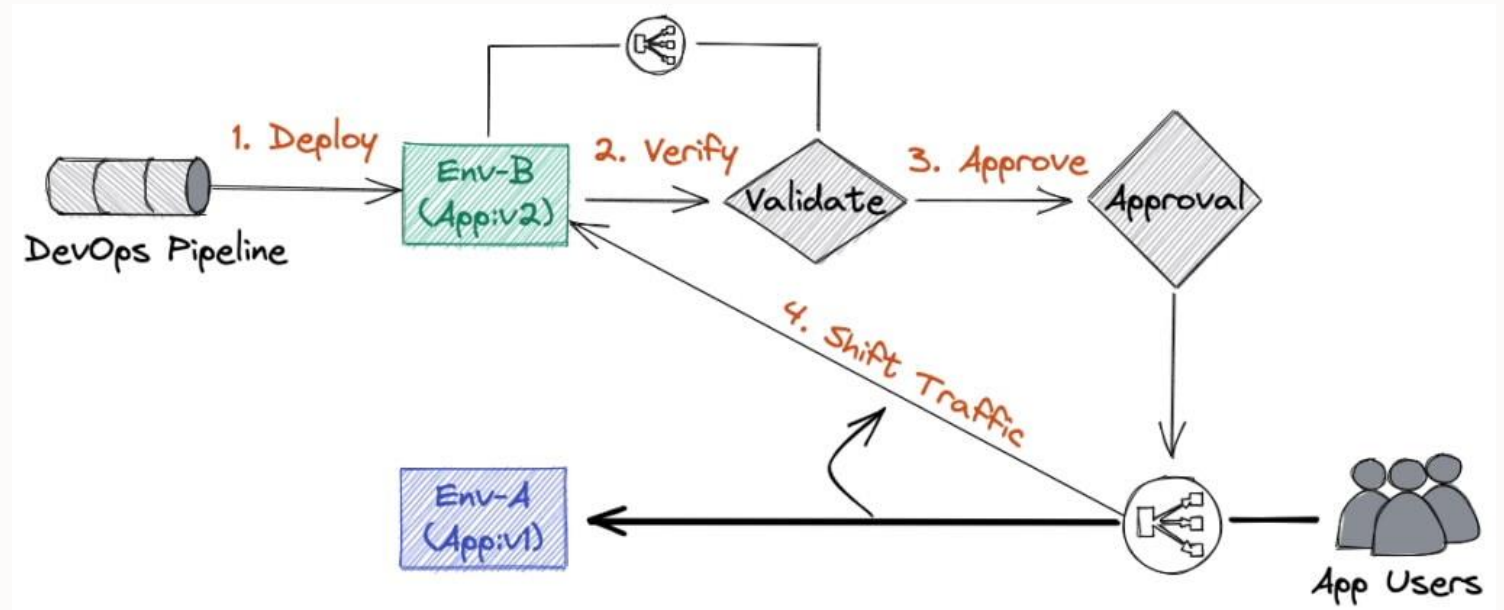
# DevOps – recent updates

## Release strategies

- Blue/Green deployment
- Canary tests
- Helm chart packages
- Private OKE cluster

## Builds

- Bitbucket source code repo
- Self-managed Gitlab code repos
- Vulnerability audit: code scanning

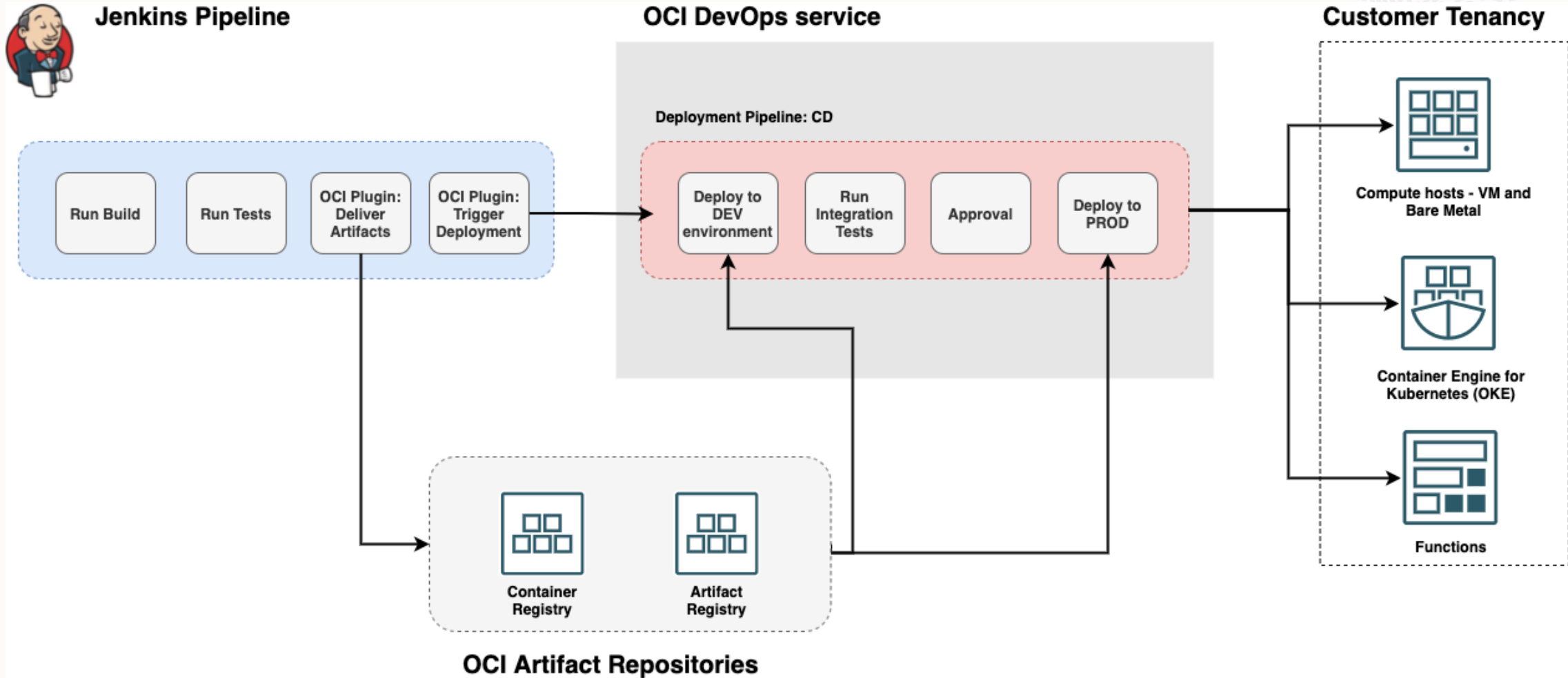


# Integrations

---

Work with teams' existing DevOps tooling

# Bring your own CI: Jenkins Plugin



# Integrations: Jenkins, GitHub, GitLab, Spinnaker

## Connect CI with OCI CD

From existing pipelines:

Easier to migrate existing pipelines – keep your current Jenkins file, GitHub Actions

- Deliver Artifacts to OCI Artifact Registry
- Trigger a Deployment Pipeline

Mirror a GitHub or GitLab repo to your OCI Code Repository to speed up builds

Spinnaker: open source multi-cloud orchestration for Kubernetes and VMs

- Deploy to OCI platforms



**Jenkins**



**GitLab**



**GitHub**



# DevOps customers



THOMSON REUTERS



# Demo



- ✓ **OCI DevOps Project**
- ✓ **External Connections - Github**
- ✓ **Build Pipelines**
- ✓ **Deployment Pipelines**
- ✓ **Environments – OKE**
- ✓ **Artifacts**

# Get Started!



Start simplifying your CI/CD with OCI DevOps

# Get started with the OCI DevOps service



**Reference architecture:** get started with the OCI DevOps service, using “Deploy to Oracle Cloud” and Resource Manager

- [Complete example DevOps CI/CD pipeline](#)
- [Example Hello World deployments to OKE, Functions, Instance Groups](#)
- CD Lab: <https://apexapps.oracle.com/pls/apex/dbpm/r/livelabs/view-workshop?wid=857>

[DevOps webinar](#) with customer feature

Example application for a Build Pipeline: <https://github.com/oracle-quickstart/oci-devops-node>

**Blog posts:** [DevOps launch](#), [Simplify software deployments with the OCI DevOps service](#),

Get started with the [Oracle Cloud Free Tier](#)







# Thank You!

José Neto  
Cloud Solution Engineer



 <https://www.linkedin.com/in/josenetoo/>

[jose.bm.neto@oracle.com](mailto:jose.bm.neto@oracle.com)



ORACLE