

## ORACLE

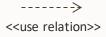
# **Cloud Automation**

## Ralf Lange

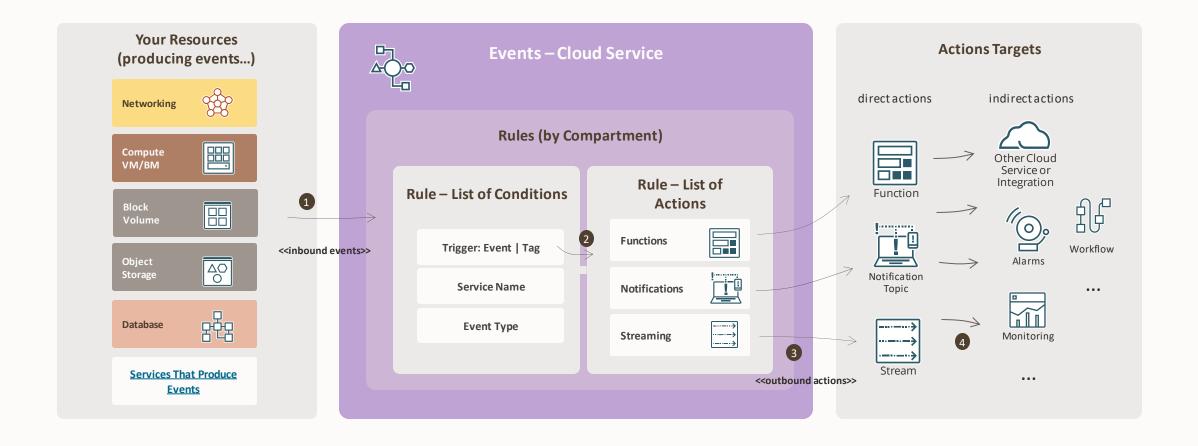
November 2023



## **OCI Cloud Native Automation - Events**

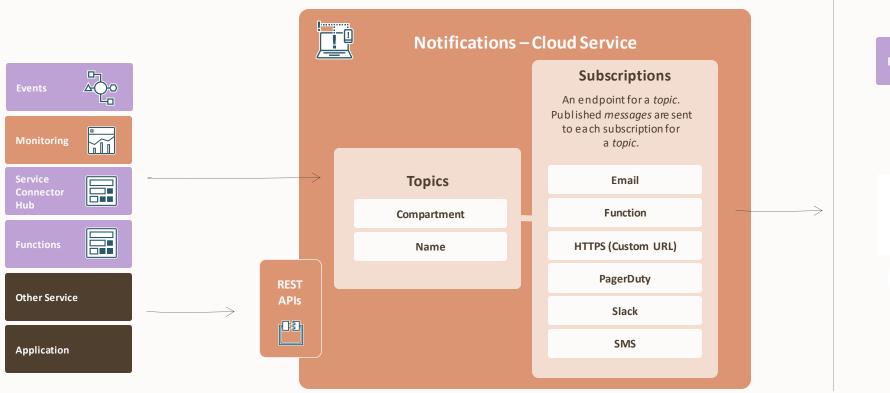








## **OCI Cloud Native Automation - Notifications**









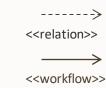


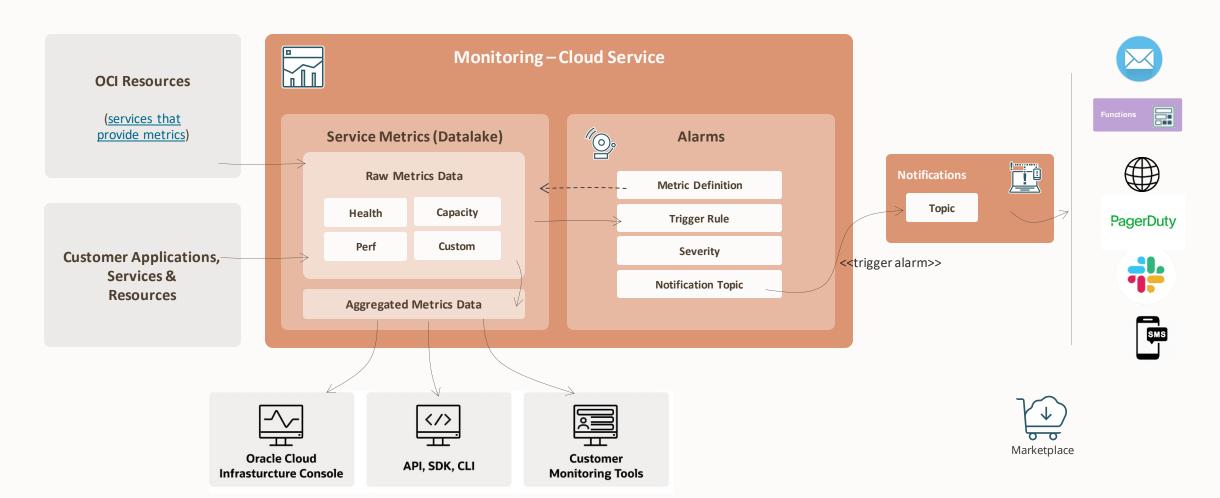






# **OCI Cloud Native Automation - Monitoring**





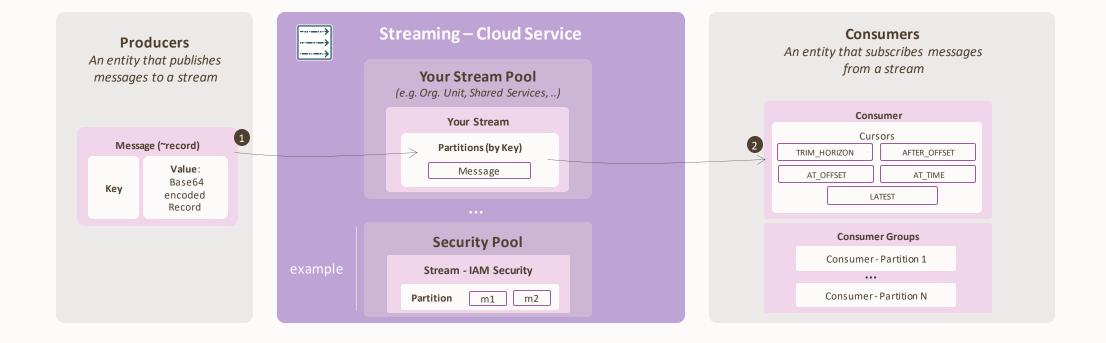


# **OCI Cloud Native Automation - Streaming**



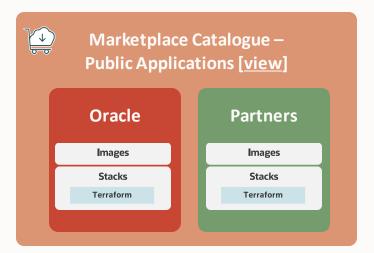
**DESCRIPTION**: This service provides a fully managed, scalable, and durable solution for ingesting and consuming high-volume data streams in real-time. Use Streaming for any use case in which data is produced and processed continually and sequentially in a publish-subscribe messaging model.

**USE CASES:** Messaging; Logging and Metrics Ingestion; Infrastructure and Apps Event Processing





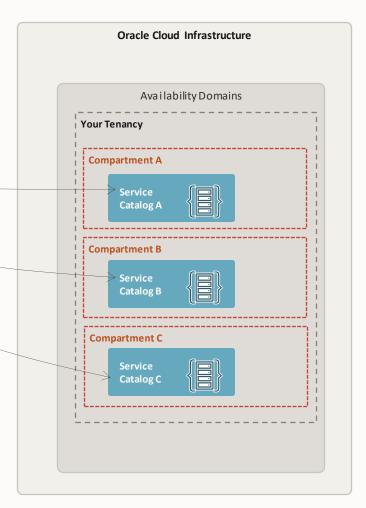
# **OCI Automation - Marketplace**





Online store where you can find listings for images and stacks from Oracle and trusted partners. These listing types include different categories of applications, and some listings are free and others require payment.

A Service Catalog enables your organization to create and manage catalogs of applications that are approved for use in your tenancy. These applications are offered through marketplace in the form of image and stack listings...





**Your Tools** 

OCI

Your Code

# **OCI Automation – Resource Manager**

**Stacks Local Folder** <<import>> Terraform Actions | Edit | Terraform Run Drift | Download **State File Local Zip File** Configuration State | Move Resource | Delete Stack <<discovery>> **OCI Object Storage** <<use>>> <<terraform action creates jobs>> **Existing OCI** <<use>>> Compartment **Source Provider Resources in Your Templates Compartment Jobs** <<manages>> GitHub Repository Variables Plan **Branch** GitLab **Apply** Resources Destroy Modules <<contains>> <<contains>> **Import State** Workload: **Env: DEV** 



WLS

# **Automation Mechanisms**



**OCI Rest APIs** 

**OCI SDKs** 

OCI CLI

OCI Ansible Playbooks

Resource Manager

OCI Rest APIs

SDK for Java, Phyton, JS, .NET, Go, Ruby, PL/SQL

The CLI is built on the OCI SDK for Python and runs on Mac, Windows, or Linux. The code makes calls to OCI APIs

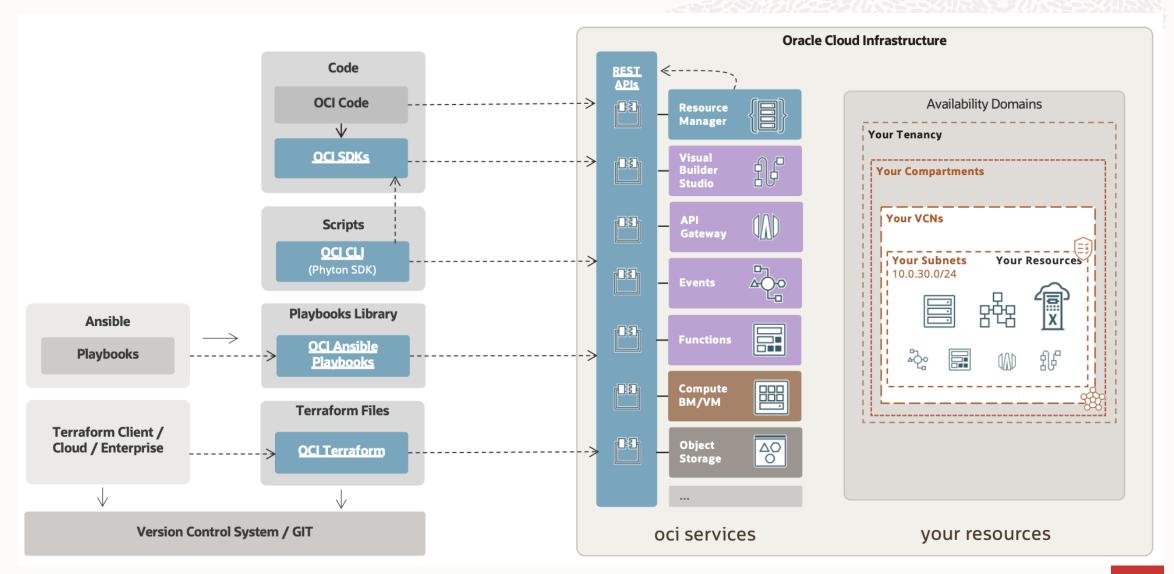
Oracle provides a number of Ansible modules to interact with OCI The OCI Terraform provider can be used to manage OCI resources whenever you use a Terraform distribution, including Terraform Cloud and the OCI Resource Manager.

**OCI Terraform** 

This OCI Service uses
Terraform to help you install,
configure, and manage
resources through the IaC
mode



# Automation Mechanisms – All is based on REST APIs



## **IaC Overview**

#### **DevOps Teams**

## laC Developer

Develops & Test

## Cloud Operator

Provisions & Change

## Infrastructure as Code (IaC)

#### **Terraform**

#### **OCI APIs**

#### Ansible

#### **Declarative IaC**

Focuses on **WHAT** the eventual target configuration should be. It defines the desired **state**, and the **system** executes what needs to happen to achieve that desired **state**.

#### Procedural IaC

Focuses on **HOW** the infrastructure is to be changed to meet this. It defines specific commands that need to be executed in the appropriate order to end with the desired state.

#### **IaC & Definition Files**

**IaC** is the process of **managing** and **provisioning** of infrastructure resources through code and **definition** files – rather than physical hardware configs.

### **Pipelines**

laC is automated through pipelines and jobs. Pipelines enable Continuous Delivery of IaC.

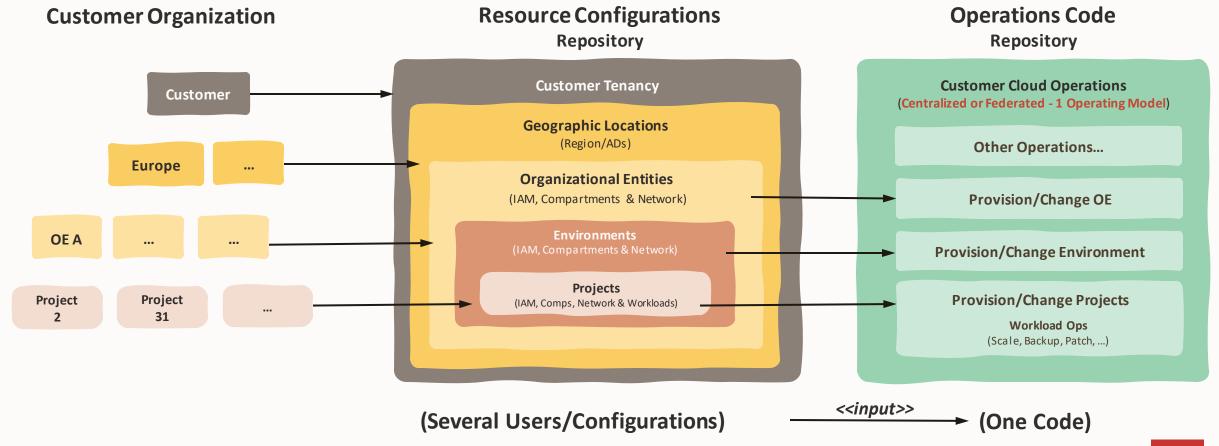
A pipeline is a set of automated processes and tools that allows developers and operations teams to build and deploy code to a production environment.

## **Version Control System**

The version control system is the **single source of truth** for all code and operation (**GitOps**).



# The Operating Model – Who can operate Which Resources





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