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Deploying the OCI Observability & Monitoring Platform within an Oracle Distributed Cloud Environment

A step-by-step guide to deploying the OCI Observability & Management Platform to provide a common monitoring and alerting framework across multiple Oracle Distributed Cloud deployments

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Purpose statement

This document outlines the steps necessary for using the OCI Observability & Monitoring Platform services to provide a single, central, and common, observability, monitoring and alerting framework across multiple Oracle Distributed Cloud deployments.

It is intended solely to help you assess the business benefits of using such an approach and to plan your information technology projects accordingly.

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Introduction

Oracle Distributed Cloud allows customers to consume Oracle Cloud services anywhere they require.

The Oracle Public Cloud offerings provide Oracle Cloud Infrastructure (OCI) services from multiple locations, or Oracle Public Cloud Regions, around the world.

The Oracle Distributed Cloud portfolio includes Dedicated Region (OCI in the customer's data center), Exadata Cloud@Customer (to provide dedicated cloud-based database services within the customer's own data center) and Oracle Compute Cloud@Customer (OCI compute, networking, and storage services within the customer's data center) in a 'connected' mode of operation.

Oracle Private Cloud Appliance (PCA) and the OCI Roving Edge Infrastructure provide identical OCI services but operate in a 'disconnected' mode.

Advantages of the Oracle Compute Cloud@Customer

Oracle Compute Cloud@Customer is fully managed, rack-scale infrastructure that lets organizations consume common OCI services anywhere. Remotely managed by Oracle, it lets customers gain cloud automation and economic benefits, while meeting data residency requirements by controlling their data's location.

Compute Cloud@Customer systems can be paired with Oracle Exadata to create an ideal infrastructure for scalable, multitier applications.

Advantages of Oracle Private Cloud Appliance

Oracle Private Cloud Appliance (PCA) is an Oracle Engineered System designed for implementing the application and middleware tiers. PCA is an integrated hardware and software system that reduces infrastructure complexity and deployment time for virtualized workloads in private clouds. It is a complete platform for a wide range of application types and workloads, with built-in management, compute, storage, and networking resources. PCA provides excellent performance and other system properties for hosting a broad range of applications.

Oracle Private Cloud Appliance X10-2 is the latest member of the Oracle Private Cloud Appliance product family. PCA provides cloud and administrative services for a supporting range of workloads including cloud native applications. It makes use of a modern microservices architecture, Kubernetes, and related technologies, for a future-proofed software stack.

A key new feature of Oracle Private Cloud Appliance X10-2, compared to previous versions, is that it delivers private cloud infrastructure and architecture consistent with Oracle Cloud Infrastructure (OCI). Oracle Private Cloud Appliance brings APIs and SDKs compatible with Oracle Cloud Infrastructure (OCI) to an on-premises implementation at rack scale, making workloads, user experience, tool sets and skills portable between private and public clouds. Oracle Private Cloud Appliance can be paired with Oracle Exadata to create an ideal infrastructure for scalable, multi-tier applications.

Customers preferring or requiring an on-premises solution can realize the operational benefits of public cloud deployments using Oracle Private Cloud Appliance X10-2.

Advantages of OCI Roving Edge Infrastructure

Oracle Cloud Infrastructure (OCI) Roving Edge Infrastructure accelerates deployment of cloud workloads outside the data center. Ruggedized devices deliver cloud computing and storage services at the edge of networks in disconnected locations, allowing faster processing close to the data source and enabling faster insights into the data.

Roving Edge devices provide faster processing close to the data source enabling faster insights into the data collected. Leverage Roving Edge Infrastructure devices with powerful computing capabilities for ingesting and processing large amounts of streaming data from sensors in remote locations. Enable seamless deployment of applications for organizations such as embassies and consulates, government offices, forward operating bases,

and remote campuses. Use built-in GPUs or attached VPU/TPU accelerators for faster processing of AI and ML workloads without relying on network connectivity to Oracle Cloud Infrastructure.

Existing OCI compute images and object storage can be synchronized to Oracle Roving Edge devices using the same portal and tenancy tooling as our public regions.

Monitoring & Alerting within an Oracle Distributed Cloud Environment

Multiple Monitoring & Alerting options are available.

The Compute Cloud@Customer operates in a fully 'connected' mode, with a permanent communications channel back to the parent OCI Region. Use of the standard Oracle Cloud Agent can provide centralized monitoring & alerting through the parent OCI Region Oracle Management Cloud services. But this option requires additional services to be configured within both the parent OCI Region and the Compute Cloud@Customer system.

The Private Cloud Appliance X10-2, operating in a 'disconnected' mode, provides monitoring and alerting capabilities through a fully integrated Grafana service. Each Private Cloud Appliance maintains its own, independent Grafana service. Use of the OCI Oracle Cloud Agents can be considered but requires additional services to be made available.

The OCI Roving Edge Infrastructure, like the Private Cloud Appliance, operates in a 'disconnected' mode, but has no in-built monitoring & alerting service.

The OCI Observability & Management Platform provides a common framework that can be utilized across both OCI Tenancies and any associated Oracle Distributed Cloud systems.

Scope and content

This document describes how Virtual Machine instances across multiple Oracle Distributed Cloud deployments can be configured to provide system resource metrics for observability, monitoring and alerting purposes centrally to the designated parent OCI region.

Detailed step-by-step guides are provided to cover two key areas:

- The configuration of the Observability & Management Platform (OMP) services within the parent OCI region
- The installation & configuration of 'local' OMP services within each Oracle Distributed Cloud platform

Each area is covered in a specific section below, along with a description of the tools used for the collection, collation, and visualization of the VM Instance system & stack metrics captured.

OCI Observability and Management Platform

OMP Overview

The Observability and Management Platform (OMP) within Oracle Cloud Infrastructure (OCI) provides a suite of services that support cross stack visibility and rapid performance insights for any technology, deployed anywhere. These services can be used to track the performance of the resources in an OCI tenancy, Oracle Compute Cloud@Customer, Oracle Private Cloud Appliance, or Roving Edge Infrastructure.

OCI observability and management services are designed to meet the challenges of modern applications and solutions consisting of many components that use different technologies. This collection of services provides visibility and insight across cloud native and traditional technology, cloud providers, and on-premises environments, in addition to broad standards-based ecosystem support.

OCI OMP Services

The platform is designed to help manage increasingly diverse and distributed IT portfolios, while reducing troubleshooting time, preventing outages, and enabling IT to manage applications from a business perspective. The services include metrics, events, logs, and beyond, providing flexibility depending on any needs for customization. Services and features include:

- **Monitoring:** Enables OCI services and customers to emit metrics about OCI customer resources. Monitoring capabilities include service metrics, Metrics Explorer, and alarm status and definition. You can configure alarms with thresholds to detect and respond to infrastructure and application anomalies.
- **Health Checks:** Provides high frequency external monitoring to determine the availability and performance of any publicly facing service, including hosted websites, API endpoints, or externally facing load balancers.
- Application Performance Monitoring (APM): Provides deep visibility into the performance of applications and enables DevOps professionals to diagnose issues quickly. APM is compatible with OpenTracing and OpenMetrics for distributed tracing and combines end user monitoring with synthetic monitoring. It can also ingest telemetry from microservices deployed in Kubernetes or Docker containers.
- **Database Management:** Provides comprehensive database performance and management capability for each type of Oracle Database, including OCI and on-premises. This capability significantly reduces the burden on database administrators by providing a full-lifecycle solution encompassing monitoring, performance management, tuning, and database administration.
- Java Management Service: Can discover, monitor and manage your Java environment. Once deployed, the service discovers which versions of Java you have running and where, which ones require updates, and which applications are using them. This service is included with your Java SE Subscription.
- **Logging:** Provides easy ingestion of log data and analysis to diagnose issues. You can integrate Logging with OCI services such as Streaming, Monitoring, OCI Functions, and Notifications. Logging uses the CloudEvents standard by the CNCF and uses CNCF Fluentd to ingest logs from hundreds of sources.
- **Logging Analytics:** Machine learning-based cloud solution that monitors, aggregates, indexes, and analyzes all log data from your on-premises and multi-cloud environments.
- **Notifications:** Highly available, low latency, publish and subscribe (pub/sub) service that sends alerts and messages to OCI Functions, email, and message delivery partners, including Slack and PagerDuty.
- **Operation Insights:** Capacity planning tool that enables administrators to uncover performance issues, forecast consumption, and plan capacity by using machine learning-based analytics on historical and SQL data. Use these capabilities to make data-driven decisions to optimize resource use, proactively avoid outages, and improve performance.
- **Resource Manager:** Terraform-based cloud infrastructure automation tool that provides infrastructure-ascode service capability.
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- Service Connector Hub: Helps cloud engineers manage and move data between OCI services and from OCI to third-party services.
- **Stack Monitoring:** Enables proactive monitoring of applications and their underlying stack, including application servers and databases.
- **Governance:** Provides a comprehensive array of services to help you optimize costs, maximize utilization, and ensure adherence with corporate standards and legislative compliance for assets deployed in OCI.

OCI OMP Deployment Patterns

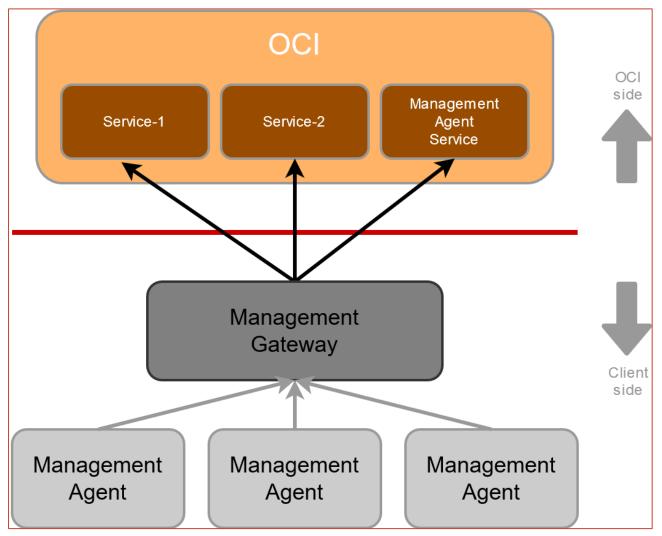
For the deployment of the Observability and Management Platform within an Oracle Distributed Cloud environment requires two components.

Management Agent

A Management Agent (agent) allows the specified OMP service plug-ins to collect data from the host upon which the Management Agent is installed. The Management Agent monitors and collects data from the sources that reside on hosts or virtual hosts.

Management Gateway

The Management Gateway provides a single point of communication between the Management Agents (or any other customer-side products) and the Oracle Cloud Infrastructure.



Using the Management Gateway as the single point for traffic to and from the Oracle Cloud Infrastructure means that the enterprise firewall only needs to allow HTTPS communication from the host where the Management Gateway resides.

This scenario allows installing Management Agent on the remaining hosts which do not need to have direct access to the internet. Oracle recommends configuring the Management Gateway first and then the Management Agent on the other hosts.

Configuration

The following section provides a step-by-step guide for the initial configuration of the following components: -

- OCI Region / Tenancy
- ODC deployed Management Gateway
- ODC deployed Management Agents

The Observability and Management platform in Oracle Cloud Infrastructure (OCI) provides a suite of services that support cross stack visibility and rapid performance insights for any technology, deployed anywhere. These services can be used to track the performance of the resources in an OCI Tenancy, Oracle Compute Cloud@Customer, Oracle Private Cloud Appliance, or Roving Edge Infrastructure.

The links below provide more detailed information as to the capabilities of this platform: -

- Architecture Center Solution Playbook: (<u>https://docs.oracle.com/en/solutions/implement-oci-observability-monitoring/index.html</u>)
- Oracle Documentation Library: (<u>https://docs.oracle.com/en-us/iaas/Content/cloud-adoption-framework/monitoring-and-observability.htm#observability-and-management-platform</u>)

The deployment of the Observability & Management Platform services within an OCI tenancy to provide centralized services for any Oracle Distributed Cloud system requires a few simple steps to be completed.

OCI Region Configuration

Preparation work within the parent OCI Region needs to be completed as part of the initial phase. This consists of a number of elements.

IAM Groups

The access rights for any given individual to the Observability & Management Platform Gateway and Agent services requires membership of a designated IAM Group. Depending on the required Security and Access model required, this could be as simple as permitting an existing IAM Group to control access to these services.

Optionally, the creation of a dedicated IAM Group within the OCI Tenancy would permit more granular control of permissions and access to manage and monitor the Management Gateway and Management Agent services.

For the purposes of this example scenario, a new IAM Group, 'scasg03-agent-mgmt' has been created.

IAM Dynamic Groups & Policies

Three new OCI tenancy policies need to be enabled.

This is best accomplished using an 'admin' level OCI tenancy administrator account. The OCI Marketplace contains applications that create these policies for the designated tenancy / compartment.

These are: -

- Management Gateway Quick Start
- Management Agent Policy Advisor
- Default Alarms for Management Agents

The following screen shot shows these Applications within the OCI Marketplace: -

ORACLE Cloud	Search resources, services, do	ocumentation, and Marketplace				US West (Phoenix	°~ ⊡
New on Marketplace: Use the Type filter	on the left to launch <u>Container Images</u> and <u>H</u>	elm Charts.					
larketplace							Clear search text
	Q management					×	Clear search text
All Applications	All Applications						
Accepted Agreements Work Request	ORACLE Management Gateway	Accessed Agent	ORACLE Logging Analytics	WEBCENTER UNIVERSAL CONTENT MANAGEMENT	ORACLE Identity Management	ORACLE Enterprise Manager 13c	
Filters Clear	Management Gateway Quick Start	Management Agent Policy Advisor	Default Alarms for Management Agents	Oracle WebCenter Universal Content Management 12c	Oracle Access Management	Oracle Enterprise Manager	
Туре	Setup dynamic groups and policies 10 Management Gateway	Setup policies for Management Agents and Agent Install Keys	Set up default alarms for Management Agents and Logging	Accelerate Oracle WebCenter Universal Content Management	Oracle Access Management for Enterprise	Oracle Enterpriser Manager 13.5- RU19 - Enterprise Cloud	
Any C	Type: Stack Nice; Free	Type: Stack Price: Free	Type: Stack Price: Ere	Type: Stack Price: Paid	Type: Stack Price: Free	Type: Stack Price: BYOL	
Any Compute Cloud@Customer/				ORACLE		ORACLE	
Roving Edge Compatible Any	PeopleSoft	PeopleSoft	PeopleSoft	Enterprise Manager 13c Workshop	Logging Analytics	WEBCENTER	
Publisher Oracle	People Soft ELM Update Image Demo	PeopleSoft HCM Update Image Demo	PeopleSoft FSCM Update Image Demo	Oracle Enterprise Manager 13c Workshop	Kubernetes Monitoring and Management	Oracle WebCenter Content 12c	
Category	PeopleSoft Enterprise Learning Management Update Image Demo	PeopleSoft Human Capital Management Update Image Demo	PeopleSoft Financials and Supply Chain Management Update Imag	Enterprise Manager Workshop for Database Lifecycle Automation	DevOps and SecOps Stack for OKE Infrastructure, K8S Platform	Accelerate Oracle WebCenter Content deployment in Oracle	
Any C	Type: Image Price: BYOL	Type: Image Price: BYOL	Type: Image Price: BYOL	Type: Image Price: Free	Type: Stack Price: Free	Type: Stack Price: Paid	
Any O							
			WEBCENTER SATELLITE SERVER	ORACLE Identity Management	ORACLE Identity Management	CRACLE Logging Analytics	
	Oracle WebCenter Imaging 12c	Oracle WebCenter Sites 12c	Oracle WebCenter Sites Satellite Server 12c	Oracle Identity Governance	Oracle Unified Directory	Logging Analytics - Quick Start	
	Accelerate Oracle WebCenter Imaging deployment in Oracle	Accelerate Oracle WebCenter Sites on Oracle Cloud Infrastructure	Accelerate Oracle WebCenter Sites on Oracle Cloud Infrastructure	Oracle Identity Governance for Enterprise	Comprehensive Directory Solution for robust Identity Management	Enable Logging Analytics in your OCI tenant for analyzing any type	

OCI Region – Marketplace Applications

Launch each application in turn, to start the OCI Resource Manager Terraform Stack deployment process for that application. These workflows will provide: -

- Management Gateway Quick Start
 - Setup dynamic groups and policies for Management Gateway
 - This OCI marketplace app creates OCI IAM resources required for using Oracle Management Gateway
- Management Agent Policy Advisor
 - Setup policies for Management Agents and Agent Install Keys
 - Setup policies for management agent
- Default Alarms for Management Agents
 - Set up default alarms for Management Agents and Logging Analytics metrics
 - This OCI marketplace app sets up default alarms for Management Agents and Logging Analytics metrics, to continuously monitor the application and avoid any business impact.

Each individual application is now described in more detail.

Management Gateway Quick Start

The Management Gateway enables secure tunnelling from the customer environment to the Parent Oracle OCI region to aggregate and transmit Observability & Management data.

It required signed certificates for encrypting data and stored in OCI Credential Service. Management Gateway software automatically creates and maintain the lifecycle of certificates within the OCI Credential Service.

This app creates the following IAM resources for Management Gateway to function properly:

- Dynamic Group for Management Agents & policy to allow creation of OCI Credential Resources
- Dynamic Group for OCI Credential Service Resources & required policies

This Resource Manager Stack makes it easy to configure the groups and policies which avoids any kind of manual mistakes. The user will not have to perform separate task to create dynamic groups and policies manually before installation.

Prerequisites:

- User must have permissions to invoke the Resource Manager stack and create policies in compartment
- User must have permissions to create IAM dynamic groups

Steps:

The IAM Resources created can be targeted to specific Compartments, to enable separation of access where multiple Management Gateways are deployed or can be applied to the Root Compartment to enable visibility of the collected Observability & Management data within a 'single pane of glass'.

For this example scenario, the IAM Resources were created within the Root Compartment, allowing these services to be deployed across the whole Tenancy.

Select the required compartment: -

	Cloud Classic > Search resources, services, documentation, and Marketplace		US West (Phoenix) 🗸 🕢 🌐 🧕
Marketplace > Management Gatewa	Quick Start		i
ORACLE Management Gateray	Management Gateway Quick Start Setup dynamic groups and policies for Management Gateway This OCI marketplace app creates OCI IAM resources required for using Oracle Management Gateway. Categories: Cloud Management, Networking, Security	Type Stack Software price per OCPU S0.3(6/2/023)-de↓ ✓ 0.3 (6/2/023)-de↓ Compartment ✓ compartment Compartment ✓ vospm (root) Compartment ✓ ************************************	
Overview Provider M	re apps Usage instructions		
App by Oracle		Support	
signed certificates for encrypting	cure tunnof fom customer nivorment to Oracio O Ci region to aggregate and transmit Observability & Management data. It required alta and stored in OCI Credential Service. Management Gateway software automatically creates and maintain the lifecycle of certificates or creates the following IAM resources for Management Gateway to function property.	Contacts: Support Hotline (+1-8006688921) Links:	
	nt Agents & policy to allow creation of OCI Credential Resources	Version Details	
This Resource Manager Stack m	Intal Service Resources a required <u>opticies</u> kes it easy to configure the groups and policies which avoids any kind of manual mistakes. The user will not have to perform separate policies manually before installation. Customers have option to upload their own certificates on CCI Credendial Service.	Version: 1.1.2 Release Date: Mar 27, 2023, 00:00 UTC	
Screenshots		Tags	
	Math Data Figure Second Second Figure Second Second	Management Agent, Logging Analytics, Database Management, Applica management, logging, logan, loganalytics	
	And Annual Annua	Languages	
Tage and any transmission of the second seco	international de la constantina de la constant	English	
Terms of Use and Privacy Cookie Preferen	4		Copyright © 2024. Oracle and/or its affiliates. All rights reserved.

OCI Region – Management Gateway - Compartment

Launch the Stack and provide the optional Description and Tag information: -

	Assoic > Search resources, services, documentation, and Marketplace	US West (Phoenix) 🗸 🕢 🕀 🕻
Create stack		<u>Help</u>
Stack information Configure variables Beview	Your application will launch as part of a stack that includes the infrastructure resources required to ensure that the application deploys and runs properly.	
	Stack information Oracle Management Gateway Quick Start Channe Dysamic program and policies for a specific compariment within a tenancy for Management Gateway	
	Custom providers Use custom Terraform providers Exert Latter Tendem providers Exert Latter Tendem providers is a latter.	
	Name Optional	
	Management Gateway Quick Start	
	Description Optional Creates Dynamic groups and policies for a specific compartment within a tenancy for Management Galeway.	
	Create in compartment	
	evospm (root)	
	Terraform version	
	1.0.x O	
	0 11 x is no longer supported. What Terraform versions are supported by Resource Manager?	
	Tags Add tags to organize your resources. <u>What can I do with tagging?</u>	
	Tag namespace Tag key Tag value None (add a free-form tag) Image: Comparison of tag key	A
	Add top	
Next <u>Cancel</u>		

OCI Region – Management Gateway – Description & Tags

Confirm the compartment into which the IAM Policies will be created: -

	ic > Search resources, services, documentation, and Marketplace		US West (Phoenix) 🗸 🕢 🤃	€ 0
Create stack				<u>Help</u>
Stack information Configure variables Review	Configure the variables for the infrastructure resources that this stack will create when you run the apply job for this execution plan. Policy Compartment Details			
O REVIEW	Select Policy Compartment			
	svospm (roof)	٥		
	The compartment where your policies insides			
				0
				::::
Previous Next Cancel				
Terms of Use and Privacy Cookie Preferences			Copyright © 2024. Oracle and/or its affiliates. All rights	reserved.

OCI Region – Management Gateway – Policy Compartment

Then Confirm and Create the required IAM Components: -

	I Classic > Search resources, services, documentation,	and Marketplace	US West (Phoenix) ~	⊡ ¢ 0 ⊕ Q
Create stack				Help
Stack information Configure variables	Verify your configuration variables, and then create yo Due to limited space, we show only variables without	our stack. The apply job will automatically run to create resources specified in the configuration default values or that you edited.		
3 Review	Stack information			
	Name	Management Gateway Quick Start		
	Description	Creates Dynamic groups and policies for a specific compartment wi thin a tenancy for Management Gateway. <u>Hidg Capy</u> .		
	Compartment	ocid1.tenancy.oc1aaaaaaaub5qoqspiq3odeup2zlkqfujyqdwk4udj c24ndzeyfffsozhfzjq <u>Hide Copy</u>		
	Terraform version	1.0.x		
	Policy Compartment Details			
	Select Policy Compartment	ocid1.tenancy.oc1aaaaaaaab5qoqspiq3odeup2zlkqfujyqdwk4udj c24ndzeyfffsozhfzjq <u>Hide Corey</u> .		
	Run apply on the created stack?			
	Immediately provision the resources defined in the	a Terraform configuration by running the apply action on the new stack.		
	Run apply			
Previous Create Cancel				
Terrer of the and Drivery Court's Dedecation				the section is additional the side of the

OCI Region – Management Gateway – Confirmation & Create

A Terraform job will be submitted to the OCI Resource Manager and will execute.

Check that the job completes successfully, without any errors

2024/05/02 12:33:46[TERRAFORM_CONSOLE] [INFO] Getting providers from hashicorp registry and/or custom terraform providers 2024/05/02 12:33:47[TERRAFORM_CONSOLE] [INFO] Initializing modules... 2024/05/02 12:33:47[TERRAFORM CONSOLE] [INFO] 2024/05/02 12:33:47[TERRAFORM_CONSOLE] [INF0] Initializing provider plugins... 2024/05/02 12:33:47[TERRAFORM_CONSOLE] [INFO] - Finding hashicorp/oci versions matching ">= 4.21.0"... 2024/05/02 12:33:47[TERRAFORM_CONSOLE] [INFO] - Installing hashicorp/oci v5.38.0... 2024/05/02 12:33:48[TERRAFORM_CONSOLE] [INF0] - Installed hashicorp/oci v5.38.0 (unauthenticated) 2024/05/02 12:33:48[TERRAFORM_CONSOLE] [INF0] 2024/05/02 12:33:48[TERRAFORM_CONSOLE] [INFO] Terraform has created a lock file .terraform.lock.hcl to record the provider 2024/05/02 12:33:48[TERRAFORM_CONSOLE] [INFO] selections it made above. Include this file in your version control repository 2024/05/02 12:33:48[TERRAFORM CONSOLE] [INFO] so that Terraform can guarantee to make the same selections by default when 2024/05/02 12:33:48[TERRAFORM_CONSOLE] [INFO] you run "terraform init" in the future. 2024/05/02 12:33:48[TERRAFORM_CONSOLE] [INFO] 2024/05/02 12:33:48[TERRAFORM_CONSOLE] [INFO] Terraform has been successfully initialized! 2024/05/02 12:33:48[TERRAFORM_CONSOLE] [INFO] 2024/05/02 12:33:48[TERRAFORM_CONSOLE] [INFO] You may now begin working with Terraform. Try running "terraform plan" to see 2024/05/02 12:33:48[TERRAFORM_CONSOLE] [INFO] any changes that are required for your infrastructure. All Terraform commands 2024/05/02 12:33:48[TERRAFORM CONSOLE] [INFO] should now work. 2024/05/02 12:33:48[TERRAFORM_CONSOLE] [INFO] 2024/05/02 12:33:48[TERRAFORM_CONSOLE] [INFO] If you ever set or change modules or backend configuration for Terraform, 2024/05/02 12:33:48[TERRAFORM_CONSOLE] [INFO] rerun this command to reinitialize your working directory. If you forget, other 2024/05/02 12:33:48[TERRAFORM_CONSOLE] commands will detect it and remind you to do so if necessary. [INFO] 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] Terraform used the selected providers to generate the following execution 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] plan. Resource actions are indicated with the following symbols: 2024/05/02 12:33:54[TERRAFORM CONSOLE] [INFO] + create 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INF0] 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] Terraform will perform the following actions: 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INF0] 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] module.create mgmt gateway credential dynamicgroup.oci identity dynamic group.dynamic group will be created 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] + resource "oci_identity_dynamic_group" "dynamic_group" { 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] + compartment_id = "ocid1.tenancy.oc1..aaaaaaaaub5qcqspiq3odeup2zlkqfujyqdwk4udjc24ndzeyfffsozhfzjq"
2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INF0] + defined_tags = (known aft + defined_tags = (known after apply)
+ description = "This is the credential dynamic group created by Gateway stack" 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INF0] 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INF0] + freeform_tags = (known after apply) 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INF0] + id = (known after apply) 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] + inactive_state = (known after apply) 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] + matching_rule = "ALL {resource.type='certificateauthority', resource.compartment.id = 'ocid1.compartment.oc1..aaaaaaaaanj2tq5pwiz7vy7w27n2x51fiw6gdezts6rcha7v46z7q51416iia'}" = (known after apply) 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INF0] + name 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] = (known after apply) + state + time_created = (known after apply) 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] } 2024/05/02 12:33:54[TERRAFORM CONSOLE] [INFO] 2024/05/02 12:33:54[TERRAFORM CONSOLE] [INFO] # module.create mgmt gateway dynamicgroup.oci identity dynamic group.dynamic group will be created 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] + resource "oci_identity_dynamic_group" "dynamic_group" { 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] + compartment_id = "ocid1.tenancy.oc1..aaaaaaaaub5qcqspiq3odeup2zlkqfujyqdwk4udjc24ndzeyfffsozhfzjq" + defined_tags = (known after apply)
+ description = "This is the dynamic group created by Gateway stack" 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] + freeform_tags = (known after apply) 2024/05/02 12:33:54[TERRAFORM CONSOLE] [INFO] + id = (known after apply) + inactive_state = (known after apply)
+ matching_rule = "ALL {resource.type='managementagent', resource.compartment.id = 2024/05/02 12:33:54[TERRAFORM CONSOLE] [INFO] 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INF0] 'ocid1.compartment.oc1..aaaaaaaaaj2tq5pwiz7vy7w27n2x5lfiw6gdezts6rcha7v46z7q5l4l6iia'}' = (known after apply) + name 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] = (known after apply) 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INF0] + state 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INF0] + time_created = (known after apply) 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INF0] } 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] # module.create_mgmt_gateway_policies.oci_identity_policy.policies will be created 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] + resource "oci_identity_policy" "policies" { + ETag = (known after apply) 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INF0] 2024/05/02 12:33:54[TERRAFORM CONSOLE] [INFO] compartment_id = "ocid1.compartment.oc1..aaaaaaaaaj2tq5pwiz7vy7w27n2x5lfiw6gdezts6rcha7v46z7q5l4l6iia" + defined_tags = (known after apply)
 + description = "This policy allows to manage Management Gateways" 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] 2024/05/02 12:33:54[TERRAFORM CONSOLE] [INFO] + freeform_tags = (known after apply) 2024/05/02 12:33:54[TERRAFORM CONSOLE] [INFO] + id = (known after apply) 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INF0] + inactive_state = (known after apply) 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INF0] + lastUpdateETag = (known after apply) + name = (known after apply) + policyHash = (known after apply) 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INF0] = (known after apply) 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] + state + statements = (known after apply) 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INF0] + time_created = (known after apply)
+ version_date = (known after apply) 2024/05/02 12:33:54[TERRAFORM CONSOLE] [INFO] 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] 2024/05/02 12:33:54[TERRAFORM_CONSOLE] [INFO] Plan: 3 to add, 0 to change, 0 to destroy. 2024/05/02 12:33:55[TERRAFORM_CONSOLE] [INFO] module.create mgmt gateway credential dynamicgroup.oci identity dynamic group.dynamic group: Creating... 2024/05/02 12:33:55[TERRAFORM_CONSOLE] [INFO] module.create_mgmt_gateway_dynamicgroup.oci_identity_dynamic_group.dynamic_group: Creating.. 2024/05/02 12:33:56[TERRAFORM_CONSOLE] [INF0] module.create_mgmt_gateway_credential_dynamicgroup.oci_identity_dynamic_group.dynamic_group: Creation complete after 1s [id=ocid1.dynamicgroup.oc1..aaaaaaaahcrmtwxemk3x3wk3ax2mrmhlzgvvzrtuwz4qtzzaqp3qvsynq4sq]

2024/05/02 12:33:56[TERRAFORM_CONSOLE] [INFO] module.create_mgmt_gateway_dynamicgroup.oci_identity_dynamic_group.dynamic_group: Creation complete after 1s [id=ocid1.dynamicgroup.oc1aaaaaaaaiib6rypc21mphtps7x2qselv7eogon7u21zdadrs5uhknoqz2eea]
2024/05/02 12:33:56[TERRAFORM_CONSOLE] [INFO] module.create_mgmt_gateway_policies.oci_identity_policy.policies: Creating
2024/05/02 12:33:57[TERRAFORM_CONSOLE] [INFO] module.create_mgmt_gateway_policies.oci_identity_policy.policies: Creation complete after
0s [id=ocid1.policy.oc1aaaaaaaafltmpajag6qmhhd3vrsfjrzlppl3eptfjbywudouz7pulwkwoi2a]
2024/05/02 12:33:57[TERRAFORM_CONSOLE] [INFO]
2024/05/02 12:33:57[TERRAFORM_CONSOLE] [INFO] Apply complete! Resources: 3 added, 0 changed, 0 destroyed.
2024/05/02 12:33:57[TERRAFORM_CONSOLE] [INFO]

OCI Region – Management Gateway – Terraform Log

The log file can be downloaded for future reference.

Management Agent Policy Advisor

The OCI Marketplace App (Management Agent Policy Advisor) allows the configuration of the required policy setup to work with management agents.

This provides an easier way to setup policies by choosing the required compartment and available user groups.

This app gives a single screen setup where you can select the policy compartment, resource compartment and also can the desired user group from the available list of user groups.

Prerequisites:

- User must have permissions to invoke the Resource Manager stack and create policies in compartment
- User must have the required IAM user group created

Steps:

- On launching the stack, under 'Configure variables' page, input the details and create the stack. Further perform Plan & Apply actions on the stack to have the policies created.
 - Under Required Policy Configuration:
 - Policy Compartment \rightarrow This is the compartment where the policy is created
 - Policy Name → Name of the policy
 - Under Management Agent Policies:
 - User group \rightarrow Select from the available list of user groups
 - Management Agent Resource Compartment → This is the management agent resource compartment where the policies are applied

Select the required compartment: -

CRACLE Cloud Classic > Search resources, services, documentation; and Marketpiece		US West (Phoenix) 🗸 💿 🌐
Watekplace's Management Agent Policy Advisor	Type Suck Software price per CAPU 0.00/In 10.1(452024)-def○ Comparison 10.1(452024)-def○ Comparison	
Overview Provider More apps Usage instructions		
App by Oracle The Oct Marketpices App (Management Agent Policy Advisor) shows you to configure the required policy setup to work with management agents. This provides an easier way to setup policies by choosing the required compartment and valuable user groups. This app gives a single screen setup where you can select the policy compartment, resource compartment and also can the desired user group from the available list of user groups. Screenshots Event Event Configuration Review Screen	Support Contects: Support Hotline (+1-8006585921) Links: Version Details Version 18.1 Refease Date: Apr 1, 2024, 00.60 UTC Tags managementagent, policy Languages Engliah	
Terms of laze and Pringey Coalie Professions		Copyright © 2024, Oracle and/or its efficient. All rights reserved.

OCI Region – Management Agent Policy – Compartment

Launch the Stack and provide Policy Name, optional Description and Tags: -

	Search resources, services, document	tation, and Marketplace			US West (Phoenix) ❤	o 🇘	0
Create stack							Help
Stack information Configure variables Review	Your application will launch as part c application deploys and runs proper	of a stack that includes the infrastruct ly.	ure resources required to ensu	re that the			Â
	Stack information Management Agent	Alarms in Oracle Cloud Infrastructure					
	Custom providers Use custom Terraform providers Store custom Terraform providers in a backet						
	Name Optional						
	Default Alarms for Management Agents-2024	40502162354					
	Description Optional						
	Create alarms specific to Management Agen Prerequisite: Ensure users have the required	t and Logging Analytics metrics. I IAM policies and permissions to create alarms		11			
	Create in compartment						
	svospm (root)						
	Terraform version						
	0.12.x			0			
	0.11.x is no longer supported. What T	erraform versions are supported by Resource I	Manager?				
	Tags	the same transfer of					
	Add tags to organize your resources. What can Tag namespace	Tag key	Tag value				
	None (add a free-form tag)			×			
				Add tag			
Next Cancel							
Terms of Use and Privacy Cookie Preferences					Copyright © 2024, Ora	cle and/or its affiliate	s. All rights reserved.

OCI Region – Management Agent Policy – Configure

Review and confirm the User Group that can make use of the Policy: -

Create stack		H
Stack information	Configure the variables for the infrastructure resources that this stack will create when you run the apply job for this execution plan.	
2 Configure variables	Required Policy Configuration	
Review		
	Policies to be created	
	allow group-User group- to manage management-agents in compartment -Management Agent Resource Compartment- allow group -User group- to manage management-agent Istall-keys in compartment -Management Agent Resource Compartment- allow group - User group- to read metrics in compartment -Management Agent Resource Compartment- allow group - User group- to read alters in compartment -Management Agent Resource Compartment- allow group - User group- to read alters in compartment -Management Agent Resource Compartment- allow group - User group- to read users in tenancy	
	Above is the template of policy statements that will be created.	
	Policy Compartment	
	svospm (root)	
	Compartment where the policy definition should be created.	
	Policy Name	
	ManagementAgent_Policy	
	Name of the policy.	
	Management Agent Policies	
	User group	
	scasg03-agent-mgmt C	
	User group for which the policies should be mapped.	
	Management Agent Resource Compartment	
	svospm (root)	
	Compartment where the policies should be applied. Usually the management agents' compartment.	

OCI Region – Management Agent Policy – User Group

Then Confirm and Create the required IAM Components: -

	Dud Classic > Search resources, services, documentation, and Marke	etplace	US West	(Phoenix) 🗸	04	0	•
Create stack							Hel
Stack information Configure variables	Verify your configuration variables, and then create your stack. Due to limited space, we show only variables without default val	The apply job will automatically run to create resources specified in the configura lues or that you edited.	on.				
3 Review	Stack information						
	Name	Management Agent Policy Advisor-20240502161214					
	Description	Create required policies for management agent for the given user g roup and compartment. <u>Hide Copy</u>					
	Compartment	ocid 1.tenancy.oc1aaaaaaaaub5qcqspiq3odeup2zlkqfujyqdvk4udj c24ndzeyfffsozhfzjq <u>Hide Copy</u>					
	Terraform version	1.0.x		US Weat (Phoenix) V II A P I O			
	Required Policy Configuration						
	Policy Compartment	ocid1.tenancy.oc1aaaaaaaub5qcqspiq3odeup2zlkqfujyqdvk4udj c24ndzeyfffsozhfzjq <u>Hide Copy</u>					
	Management Agent Policies						
	User group	ocid1.group.oc1aaaaaaaaixlzhkhm5mky2utbntg6f4dzdbjk5bg3um bfxk3rm6enq2gujuvq <u>Hide Copy</u>					
	Management Agent Resource Compartment	ocid1.tenancy.oc1aaaaaaaub5qcqspiq3odeup2zikqfujyqdvk4udj c24ndzeyfffsozhfzjq <u>Hide Copy</u>					
	Run apply on the created stack?						
	Immediately provision the resources defined in the Terraform	n configuration by running the apply action on the new stack.					
	Z Run apply						
							đ
Previous Create Cancel							
Terms of Use and Privacy Cookie Preferences			Cop	right © 2024, Oracl	and/or its affi	iates. All ri	ghts reserv

OCI Region – Management Agent Policy – Confirm & Create

A Terraform job will be submitted to the OCI Resource Manager and will execute.

Check that the job completes successfully, without any errors

```
2024/05/02 13:07:27[TERRAFORM_CONSOLE] [INFO] Getting providers from hashicorp registry and/or custom terraform providers
2024/05/02 13:07:28[TERRAFORM_CONSOLE] [INFO] Initializing modules...
2024/05/02 13:07:28[TERRAFORM CONSOLE] [INFO]
2024/05/02 13:07:28[TERRAFORM_CONSOLE] [INFO] Initializing provider plugins...
2024/05/02 13:07:28[TERRAFORM_CONSOLE] [INFO] - Finding hashicorp/oci versions matching ">= 4.21.0"...
2024/05/02 13:07:28[TERRAFORM_CONSOLE] [INFO] - Installing hashicorp/oci v5.40.0...
2024/05/02 13:07:29[TERRAFORM_CONSOLE] [INF0] - Installed hashicorp/oci v5.40.0 (unauthenticated)
2024/05/02 13:07:29[TERRAFORM_CONSOLE]
                                         [INFO]
2024/05/02 13:07:29[TERRAFORM_CONSOLE]
                                        [INFO] Terraform has created a lock file .terraform.lock.hcl to record the provider
2024/05/02 13:07:29[TERRAFORM_CONSOLE] [INFO] selections it made above. Include this file in your version control repository
2024/05/02 13:07:29[TERRAFORM CONSOLE] [INFO] so that Terraform can guarantee to make the same selections by default when
2024/05/02 13:07:29[TERRAFORM_CONSOLE]
                                        [INFO] you run "terraform init" in the future.
2024/05/02 13:07:29[TERRAFORM_CONSOLE] [INFO]
2024/05/02 13:07:29[TERRAFORM_CONSOLE] [INFO] Terraform has been successfully initialized!
2024/05/02 13:07:29[TERRAFORM_CONSOLE]
                                         [INFO]
2024/05/02 13:07:29[TERRAFORM_CONSOLE] [INFO]
                                               You may now begin working with Terraform. Try running "terraform plan" to see
2024/05/02 13:07:29[TERRAFORM_CONSOLE] [INFO]
                                                any changes that are required for your infrastructure. All Terraform commands
2024/05/02 13:07:29[TERRAFORM_CONSOLE] [INFO] should now work.
2024/05/02 13:07:29[TERRAFORM CONSOLE] [INFO]
2024/05/02 13:07:29 [TERRAFORM_CONSOLE] [INFO] If you ever set or change modules or backend configuration for Terraform,
2024/05/02 13:07:29[TERRAFORM_CONSOLE] [INFO] rerun this command to reinitialize your working directory. If you forget, other
2024/05/02 13:07:29[TERRAFORM_CONSOLE]
                                         [INFO]
                                                commands will detect it and remind you to do so if necessary.
2024/05/02 13:07:33[TERRAFORM_CONSOLE] [INFO]
2024/05/02 13:07:33[TERRAFORM_CONSOLE] [INFO] Terraform used the selected providers to generate the following execution
2024/05/02 13:07:33[TERRAFORM_CONSOLE] [INFO] plan. Resource actions are indicated with the following symbols:
2024/05/02 13:07:33[TERRAFORM CONSOLE] [INFO]
                                                  + create
2024/05/02 13:07:33[TERRAFORM_CONSOLE] [INF0]
2024/05/02 13:07:33[TERRAFORM_CONSOLE] [INFO] Terraform will perform the following actions:
2024/05/02 13:07:33[TERRAFORM_CONSOLE]
                                         [INFO]
2024/05/02 13:07:33[TERRAFORM_CONSOLE] [INFO]
                                                  # module.mgmtagent_policy_creation.oci_identity_policy.create_policy will be created
2024/05/02 13:07:33[TERRAFORM_CONSOLE] [INF0]
                                                  + resource "oci_identity_policy" "create_policy"
                                                                        = (known after apply)
2024/05/02 13:07:33[TERRAFORM_CONSOLE] [INFO]
                                                      + ETag
2024/05/02 13:07:33[TERRAFORM_CONSOLE] [INF0] + compartment_id =
"ocid1.tenancy.oc1..aaaaaaaaub5qcqspiq3odeup2zlkqfujyqdwk4udjc24ndzeyfffsozhfzjq"

      2024/05/02
      13:07:33[TERRAFORM_CONSOLE]
      [INFO]
      + defined_tags
      = (known after apply)

      2024/05/02
      13:07:33[TERRAFORM_CONSOLE]
      [INFO]
      + description
      = "This policy allows to manage management agents"

                                                      + freeform_tags = (known after apply)
2024/05/02 13:07:33[TERRAFORM CONSOLE] [INFO]
2024/05/02 13:07:33[TERRAFORM_CONSOLE] [INF0]
                                                                       = (known after apply)
                                                     + id
2024/05/02 13:07:33[TERRAFORM_CONSOLE] [INFO]
                                                     + inactive_state = (known after apply)
2024/05/02 13:07:33[TERRAFORM_CONSOLE] [INFO]
                                                     + lastUpdateETag = (known after apply)
2024/05/02 13:07:33[TERRAFORM_CONSOLE]
                                         [INFO]
                                                      + name
                                                                      = (known after apply)
2024/05/02 13:07:33[TERRAFORM_CONSOLE] [INFO]
                                                      + policyHash
                                                                       = (known after apply)
                                                      + state = (known after apply)
+ statements = [
2024/05/02 13:07:33[TERRAFORM_CONSOLE] [INFO]
2024/05/02 13:07:33[TERRAFORM_CONSOLE] [INF0]
                                                         + "ALLOW GROUP scasg03-agent-mgmt TO MANAGE management-agents IN TENANCY",
2024/05/02 13:07:33[TERRAFORM CONSOLE] [INFO]
2024/05/02 13:07:33[TERRAFORM_CONSOLE] [INF0]
                                                          + "ALLOW GROUP scasg03-agent-mgmt TO MANAGE management-agent-install-keys IN
TENANCY"
2024/05/02 13:07:33[TERRAFORM_CONSOLE] [INFO]
                                                          + "ALLOW GROUP scasg03-agent-mgmt TO READ METRICS IN TENANCY",
                                                          + "ALLOW GROUP scasg03-agent-mgmt TO READ ALARMS IN TENANCY",
2024/05/02 13:07:33[TERRAFORM_CONSOLE] [INFO]
2024/05/02 13:07:33[TERRAFORM_CONSOLE] [INF0]
                                                          + "ALLOW GROUP scasg03-agent-mgmt TO READ USERS IN TENANCY",
2024/05/02 13:07:33[TERRAFORM_CONSOLE]
                                         [INFO]
                                                        1
2024/05/02 13:07:33[TERRAFORM_CONSOLE] [INFO]
                                                      + time created = (known after apply)
2024/05/02 13:07:33[TERRAFORM_CONSOLE]
                                        [INFO]
                                                      + version_date = (known after apply)
2024/05/02 13:07:33[TERRAFORM_CONSOLE]
                                                    3
                                         [INFO]
2024/05/02 13:07:33[TERRAFORM CONSOLE] [INFO]
2024/05/02 13:07:33[TERRAFORM CONSOLE] [INFO] Plan: 1 to add, 0 to change, 0 to destroy.
2024/05/02 13:07:33[TERRAFORM_CONSOLE] [INFO]
2024/05/02 13:07:33[TERRAFORM_CONSOLE] [INFO] Changes to Outputs:
2024/05/02 13:07:33[TERRAFORM_CONSOLE] [INFO]
                                                  + policy_name = (known after apply)
2024/05/02 13:07:34[TERRAFORM_CONSOLE] [INFO] module.mgmtagent_policy_creation.oci_identity_policy.create_policy: Creating...
2024/05/02 13:07:35[TERRAFORM_CONSOLE] [INFO] module.mgmtagent_policy_creation.oci_identity_policy.create_policy: Creation complete after
0s [id=ocid1.policy.oc1..aaaaaaaaaaaaeiqwhoepl6sxahtngne414kdb7lrwbhipzvpgtm5inznxtupa]
2024/05/02 13:07:35[TERRAFORM_CONSOLE] [INFO]
2024/05/02 13:07:35[TERRAFORM_CONSOLE] [INFO] Apply complete! Resources: 1 added, 0 changed, 0 destroyed.
2024/05/02 13:07:35[TERRAFORM_CONSOLE]
                                        [INFO]
2024/05/02 13:07:35[TERRAFORM_CONSOLE] [INFO] Outputs:
2024/05/02 13:07:35[TERRAFORM_CONSOLE] [INF0]
2024/05/02 13:07:35[TERRAFORM_CONSOLE] [INFO] policy_name = "ManagementAgent_Policy_20240502110733"
2024/05/02 13:07:35[TERRAFORM CONSOLE] [INFO]
```

OCI Region - Management Agent Policy - Terraform Log

The log file can be downloaded for future reference

Management Agent Default Alarms

The OCI Marketplace App for configuring out of the box alarms allows you to configure default alarms with predefined metrics threshold in just few clicks. Though there can be multiple metrics that need to be monitored regularly, still there are a couple of metrics that play an important role in the smooth functioning of the applications and their dependent infrastructure. Based on the various resource utilization by management agents and logging analytics, we analyzed and identified couple of metrics that may be considered for configuring the default out-of-the-box alarms through this Marketplace App and start monitoring the critical resources immediately.

This OCI App makes it easy to configure the Management Agent alarms . With the non-traditional approach, the app allows you to set up the alarms for all the management agents under the given compartments and subcompartments in the same step. The user will not have to perform separate task to configure management agent alarms for each compartment where respective management agents reside.

Prerequisites:

- The user must be part of the Admin group or have the necessary permissions to invoke the Resource Manager stack.
- The user must have necessary permissions or policies to manage management agents, metrics and notification topics.

Stack Details:

This stack creates alarms for Management Agent and Logging Analytics metrics in the selected compartment.

- Under Stack Information, update the name and description of the stack as required. Also users can select the desired compartment to where the stack gets created.
- Under Required Configuration section, select the desired compartment of where the management agents reside.
- This stack creates a new notification topic by default without any subscription. Users can then navigate to the notification topic and bind necessary subscriptions. Users can also specify existing notification topic ID, by deselecting the 'Create new topic' checkbox.
- Under Management Agent Alarms Configuration section, this stack creates four critical alarms by default :
 - Agent availability alarm
 - CPU usage alarm
 - Disk space alarm
 - JVM memory usage alarm
- Users have the option to disable any of the four alarms by selecting 'Customize management agent alarms' checkbox. The alarm settings (interval, threshold, severity) can also be modified for each of the alarms.
- Under Logging Analytics Alarms Configuration, this stack creates two critical alarms by default:
 - Logging analytics upload data size alarm
 - Logging analytics upload failure alarm
- Alarms for Logging Analytics metrics are enabled by default which can be disabled by deselecting 'Add logging analytics metrics' checkbox.
- Similarly, users also have the option to disable or modify the alarm settings (interval, threshold, or severity) for any of the above alarms, by selecting 'Customize logging analytics alarms' checkbox.

Select the required compartment: -

	Cloud Classic > Search resources, services, documentation, and Marketplace	US West (Phoenix) 🗸 🔯 🌐 🗎
arketplace > Default Alarms for M		
CRACLE Loging Analytics	Default Alarms for Management Agents Set up default atams for Management Agents This CCI marketplace app sets up default atams for Management Agents and Logging Analytics metrics, to continuously monitor the application and avoid any business impact.	Type Bellewick Version 10.1 (12/17/2022)-dC) Compariment soggem (root) C) Prevenued end sergic for a character 2 frame and Prevenued Prevenued end sergic for a character 2 frame and Prevenued Prevenued end sergic for a character 2 frame and Prevenued Prevenued end sergic for a character 2 frame and Prevenued Prevenued end sergic for a character 2 frame and Prevenued
App by Oracle	lore apps Usage instructions	
metrics that need to be monitorn Based on the various resource in out-of-the-box alarms through th This OCI App makes it easy to o	andquing out of the box atarms allows you to configure default atarms with pre-defined metrics threahold in just few clicks. Though there can be multiple or regularly, still there are a couple of metrics that play an important role in the smooth functioning of the applications and their dependent initiativature, mitication by management signets and signal practice, are analyzed and isolatified couples of metrics that may be considered for configure the default is Markholps after and that monitoring the critical insolution with the couple of the state of the considered for configure the default. With the non-indication approach, the applications you to be top the dams for all the management agents under the given	Support Contacts: Support Holline (1.800.668.8921) Links: Version Details
metrics that need to be monitorn Based on the various resource in out-of-the-box alarms through th This OCI App makes it easy to o	of rigulary, all there are a couple of metrics that plays an important role in the smooth functioning of the applications and their dependent initiativularie. Mitisation by management agents and logings analytics, we analyzed and identified couple of metrics that may be considered for configuring the default is Marketpiace App and start monitoring the critical resources immediately. configure the alarms. With the non-traditional approach, the app allows you to set up the alarms for all the management agents under the given metrix in the same starts. The user will not have to perform some task to configure management agent alarms (where there is the alarms of the sum of the performance and the ability configure the alarms for all the management agents under the given metrix in the same starts. The user will not have to perform some task to configure management agents and and the oraci compariment when the same starts.	Contacts: Support Holine (1.800 668.8921) Links: Version Details Version: 1.0.1 Release Date:
metrics that need to be monitor Based on the various resource i out-of-the-box alarms through th This OCI App makes it easy to o compartments and sub-compat respective management agents	of rigulary, all there are a couple of metrics that plays an important role in the smooth functioning of the applications and their dependent initiativularie. Mitisation by management agents and logings analytics, we analyzed and identified couple of metrics that may be considered for configuring the default is Marketpiace App and start monitoring the critical resources immediately. configure the alarms. With the non-traditional approach, the app allows you to set up the alarms for all the management agents under the given metrix in the same starts. The user will not have to perform some task to configure management agent alarms (where there is the alarms of the sum of the performance and the ability configure the alarms for all the management agents under the given metrix in the same starts. The user will not have to perform some task to configure management agents and and the oraci compariment when the same starts.	Contacts: Suport Holine (1.800 668.8921) Links: Version Details Version: 1.0.1

OCI Region – Management Agent Alarms – Compartment

Launch the Stack and provide the optional Description and Tag information: -

	sec > Search resources, services, documentation, and Marketplace	US West (Phoenix) 🗸 🖸 🌐 😧
Create stack		Hele
Stack information Configure variables Review	Your application will launch as part of a stack that includes the infrastructure resources required to ensure that the application deploys and runs property.	ŕ
	Stack Information Management Agent Alarms in Oracle Cloud Infrastructure	
	Custom providers Use custom Terratorm providers Bares sonom Terreform annual et a locate.	
	Name Optional	
	Default Alarms for Management Agents-20240502162354	
	Description Optional	
	Create alarms specific to Management Agent and Logging Analytics metrics. Prerequisite: Ensure users have the required IAM policies and permissions to create alarms.	
	Create in compartment	
	svospm (root)	
	Terraform version	
	0.12.x 🗘	
	0.11 x is no longer supported <u>What Terraform versions are supported by Resource Manager?</u>	
	Tags Add tags to organize your resources. <u>What can I do with tagging?</u>	
	Tag namespace Tag key Tag value	
	None (add a free-form tag)	
	Add tag	
Next Cancel		
Terms of Use and Privacy Cookie Preferences		Copyright © 2024, Oracle and/or its affiliates. All rights reserved.

OCI Region – Management Agent Alarms – Configure

Confirm the compartment into which the Management Agent Alarms will be created: -

Create stack		He
Stack information Configure variables	Configure the variables for the infrastructure resources that this stack will create when you run the apply job for this execution plan. Required Configuration	
Review	Managament Agent Companient anogan (rede) Companient with management Agent same.	
	Enable stated management agent comparisons Apticulate why for out amputtines. It include that comparisons Apticulate why for out amputtines is include that any same provide that any sam	
	Basic identifier exemption exemptio	
	Prerugueta - Rever Magueta Falcos Palengroup Admilitato to managementer (companienter (companienter (companienter (companienter))) allere group Alamilitato in una entratopia in companienter (companienter) allere group Alamilitato in una entratopia in companienter (companienter) allere group Alamilitato in una entratopia in companienter (companienter)	
	Note stating particular under the states process are set on the states process of a state process and its story made of the state of the states are stored. Management Agent Alarms Configuration	
	The following management agent alorms will be orsated. 1. Critical alorm wine management agent is not communicating within 5 minutes interval. 2. Critical alorm wine CPU segments management agent is not management. 2. Critical alorm wine memory usage greater than 7500K within 5 minutes interval. 4. Critical alorm when memory usage greater than 5500K within 5 minutes interval.	
	Costonize management agent alems Modry aum satings (mous: forwards) of any of the above alems.	
	Logging Analytics Alarms Configuration	
	Ad bgpgs analytics metha surface and the tappy longitum surface. The following bggsgs analytics also as the oriented:	
	Control togging and provide and togging and provide the start of	ta a la construction de la const

OCI Region – Management Agent Alarms – Customise

Then Confirm and Create the required Management Agent Alarms: -

	ud Classic > Search resources, services, documentation, an	id Marketplace	US West (Phoenik) 🗸 🕢 🕀 🛙
Create stack			Hele
Stack information Configure variables	Verify your configuration variables, and then create you Due to limited space, we show only variables without de	r stack. The apply job will automatically run to create resources specified in the configuratio afault values or that you edited.	
3 Review	Stack information		
	Name	Default Alarms for Management Agents-20240502182438 Hide Scott	
	Description	Create alarms specific to Management Agent and Logging Analytic s metrics. Prerequisite: Ensure users have the required IAM policie s and permissions to create alarms. <u>Hide Coev</u>	
	Compartment	ocid1 tenancy.oc1. aaaaaaaubõqcqspiq3odeup2zikqfujyqdwk4udj c24ndzeyfffsozhfzjq <u>Hide Copy</u> .	
	Terraform version	0.12.×	
	Required Configuration		
	Management Agent Compartment	ocid1.tenancy.oc1 sassasa aub5qcqspiq3odeup2zlkqfujyqdwk4udj c24ndzeyfffsozhtgiq <u>Hide Copy</u>	
	Stack identifier	scasg03	
	Run apply on the created stack? Immediately provision the resources defined in the 1	ferraform configuration by running the apply action on the new stack.	
	Run apply		
Previous Create Gancel			
Terms of Use and Privacy Cookse Preferences			Copyright ID 2024, Oracle and/or its atfliates. All rights reserved.

OCI Region – Management Agent Alarms – Confirm & Create

A Terraform job will be submitted to the OCI Resource Manager and will execute.

Check that the job completes successfully, without any errors

2024/05/02 13:36:47[TERRAFORM_CONSOLE] [INFO] Getting providers from hashicorp registry and/or custom terraform providers 2024/05/02 13:36:48[TERRAFORM_CONSOLE] [INFO] 2024/05/02 13:36:48[TERRAFORM CONSOLE] [INFO] Initializing provider plugins... 2024/05/02 13:36:48[TERRAFORM_CONSOLE] [INFO] - Checking for available provider plugins... 2024/05/02 13:36:48[TERRAFORM_CONSOLE] [INFO] - Downloading plugin for provider "oci" (hashicorp/oci) 5.37.0... 2024/05/02 13:36:50[TERRAFORM_CONSOLE] [INF0] 2024/05/02 13:36:50[TERRAFORM_CONSOLE] [INFO] The following providers do not have any version constraints in configuration, 2024/05/02 13:36:50[TERRAFORM_CONSOLE] so the latest version was installed. [INFO] 2024/05/02 13:36:50[TERRAFORM_CONSOLE] [INFO] 2024/05/02 13:36:50[TERRAFORM_CONSOLE] [INFO] To prevent automatic upgrades to new major versions that may contain breaking 2024/05/02 13:36:50[TERRAFORM_CONSOLE] [INFO] changes, it is recommended to add version = "..." constraints to the 2024/05/02 13:36:50[TERRAFORM_CONSOLE] [INFO] corresponding provider blocks in configuration, with the constraint strings 2024/05/02 13:36:50[TERRAFORM_CONSOLE] [INFO] suggested below. 2024/05/02 13:36:50[TERRAFORM_CONSOLE] [INFO] 2024/05/02 13:36:50[TERRAFORM_CONSOLE] [INF0] provider.oci: version = "~> 5.37" 2024/05/02 13:36:50[TERRAFORM_CONSOLE] [INFO] 2024/05/02 13:36:50[TERRAFORM_CONSOLE] [INF0] 2024/05/02 13:36:50[TERRAFORM_CONSOLE] [INFO] Warning: registry.terraform.io: For users on Terraform 0.13 or greater, this provider has moved to oracle/oci. Please update your source in required_providers. 2024/05/02 13:36:50[TERRAFORM_CONSOLE] [INFO] 2024/05/02 13:36:50[TERRAFORM_CONSOLE] [INFO] 2024/05/02 13:36:50[TERRAFORM CONSOLE] [INFO] Terraform has been successfully initialized! 2024/05/02 13:36:50[TERRAFORM_CONSOLE] [INF0] 2024/05/02 13:36:50[TERRAFORM_CONSOLE] [INFO] You may now begin working with Terraform. Try running "terraform plan" to see 2024/05/02 13:36:50[TERRAFORM_CONSOLE] [INFO] any changes that are required for your infrastructure. All Terraform commands 2024/05/02 13:36:50[TERRAFORM_CONSOLE] [INFO] should now work. 2024/05/02 13:36:50[TERRAFORM_CONSOLE] [INFO] 2024/05/02 13:36:50[TERRAFORM_CONSOLE] [INFO] If you ever set or change modules or backend configuration for Terraform, 2024/05/02 13:36:50[TERRAFORM_CONSOLE] [INFO] rerun this command to reinitialize your working directory. If you forget, other 2024/05/02 13:36:50[TERRAFORM CONSOLE] [INFO] commands will detect it and remind you to do so if necessary. 2024/05/02 13:36:50[TERRAFORM_CONSOLE] [INFO] 2024/05/02 13:36:49 [WARN] Log levels other than TRACE are currently unreliable, and are supported only for backward compatibility 2024/05/02 13:36:50[TERRAFORM_CONSOLE] [INFO] Use TF LOG=TRACE to see Terraform's internal logs. 2024/05/02 13:36:50[TERRAFORM_CONSOLE] [INF0] 2024/05/02 13:36:54[TERRAFORM_CONSOLE] [INFO] oci_ons_notification_topic.this_notification_topic[0]: Creating... 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] oci_ons_notification_topic.this_notification_topic[0]: Creation complete after 1s [id=ocid1.onstopic.oc1.phx.amaaaaaa2x5puciavgtwzg5pfxbucdevpsy4cj6e6fos4rerzon2ou5n573a] 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] oci_monitoring_alarm.this_disk_alarm[0]: Creating.. 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] oci_monitoring_alarm.this_cpu_alarm[0]: Creating. 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] oci_monitoring_alarm.this_logan_upload_failure_alarm[0]: Creating... 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] oci_monitoring_alarm.this_logan_upload_data_size_alarm[0]: Creating... 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] oci_monitoring_alarm.this_availability_alarm[0]: Creating... 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] oci_monitoring_alarm.this_memory_alarm[0]: Creating... 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] oci_monitoring_alarm.this_disk_alarm[0]: Creation complete after 0s [id=ocid1.alarm.oc1.phx.aaaaaaaamcoqfubdwg67xhz3frzpqqrjhqbohugobmqkaqp24pznafg65ifq] 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] oci_monitoring_alarm.this_availability_alarm[0]: Creation complete after 0s [id=ocid1.alarm.oc1.phx.aaaaaaaawzybqqxgxwhuty3owflq667grtih2kahebqq5kgsmeu3x254pnwq] 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] oci_monitoring_alarm.this_logan_upload_data_size_alarm[0]: Creation complete after 0s [id=ocid1.alarm.oc1.phx.aaaaaaaaojtqtqu3kvzredmxvlqkuafywet7rtswbxjfi3fdlesjbp3z7qya] 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] oci_monitoring_alarm.this_logan_upload_failure_alarm[0]: Creation complete after 0s [id=ocid1.alarm.oc1.phx.aaaaaaaa6erordojafp6rw3pqw6gfmqbnhv4yqkpyjgtfrxhzwa3fwkquava] 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] oci_monitoring_alarm.this_memory_alarm[0]: Creation complete after 0s [id=ocid1.alarm.oc1.phx.aaaaaaaay5teixuumfi57rvqgigs3lluyda4pnsj5inguvgatlzqcxguopzq] 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] oci_monitoring_alarm.this_cpu_alarm[0]: Creation complete after 0s [id=ocid1.alarm.oc1.phx.aaaaaaaaabp7i7ptpbjbfmv7e7um3s4ogzpdcmi356esgd6y3dfuwhq4zkka] 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INF0] 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] Apply complete! Resources: 7 added, 0 changed, 0 destroyed. 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INF0] 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] Outputs: 2024/05/02 13:36:55[TERRAFORM CONSOLE] [INFO] 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] availability_alarm_id = [2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INF0] [2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] "ocid1.alarm.oc1.phx.aaaaaaaawzybqqxgxwhuty3owflq667grtih2kahebqq5kgsmeu3x254pnwq", 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INF0]], 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO]] 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] cpu_alarm_id = [2024/05/02 13:36:55[TERRAFORM CONSOLE] [INFO] Ε "ocid1.alarm.oc1.phx.aaaaaaaaabp7i7ptpbjbfmv7e7um3s4ogzpdcmi356esgd6y3dfuwhq4zkka", 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INF0] 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INF0]], 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] disk_alarm_id = [2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] Ε "ocid1.alarm.oc1.phx.aaaaaaaamcoqfubdwg67xhz3frzpqqrjhqbohugobmqkaqp24pznafg65ifq", 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INF0] 1, 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO]] 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] logan_upload_data_size_alarm_id = [2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] [2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INF0] "ocid1.alarm.oc1.phx.aaaaaaaaojtqtqu3kvzredmxvlqkuafywet7rtswbxjfi3fdlesjbp3z7qya", 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INF0]], 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO]] 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INF0] logan_upload_failure_alarm_id = [2024/05/02 13:36:55[TERRAFORM CONSOLE] [INFO] Γ 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] "ocid1.alarm.oc1.phx.aaaaaaaa6erordojafp6rw3pqw6gfmqbnhv4yqkpyjgtfrxhzwa3fwkquava", 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INF0]], 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO]] 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] memory_alarm_id = [2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] Ε "ocid1.alarm.oc1.phx.aaaaaaaay5teixuumfi57rvqgigs3lluyda4pnsj5inguvgatlzqcxguopzq", 2024/05/02 13:36:55[TERRAFORM CONSOLE] [INFO] 2024/05/02 13:36:55[TERRAFORM CONSOLE] [INF0]], 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO]] 2024/05/02 13:36:55[TERRAFORM_CONSOLE] [INFO] notification_topic_id = [

OCI Region – Management Agent Alarms – Terraform Log

The log file can be downloaded for future reference.

This completes the initial OCI Region configuration steps.

Basic Oracle Management Gateway Create & Configure

A VM Instance needs to be created within the source Oracle Distributed Cloud system to act as the central Management Gateway. This VM Instance can be based on one of the available Platform Images available and will require both Internal and External networking connectivity.

Create Management Gateway VM Instance on target ODC System

A dedicated Compute Instance (VM) will need to be created on the target ODC system. In this example, an Oracle Cloud@Customer system, SCASG03, will be used.

The following Compute Instance, ocm-mgmtgw-ol9, will be used: -

Running Instance Information Instance Details General Information Instance Details FAULTOON Surre General Information Surre COM Surre Surre Surre Surre Surre Surre Surre Surre Surre Surred Surre Surred Surre Surred Surred Sured Surred	≡	ORACLE Compute Cloud@Customer	Auto Reload 💼 stdenni 👻
Running Instance Information Networking Tags Instance Information Configuration Instance Details Fail Maintenance Rebool Fail Source Configuration Unicyco-Dracke Linux-9-2023.09.26_0.0cl Instance Information Configuration Source Source Configuration Landth Mode q-4-infragred/Strips Landth Mode q-4-infragred/Strips Landth Mode Source Configuration Source Configuration Source Enabled Source Enabled		Dashboard / Instances / ocm-mgmtgw-ol9	
Resources Attached Block Volumes Attache Block Volumes		Running Instance Information Networking To General Information Fault Commany Fault Commany To Fault Commany Fault Commany Fault Commany To State of the Commany Commany To General Information Fault Commany To State of the Commany Commany Commany State of the Commany Commany Commany State of the Commany Commany Commany Commany	gs Instance Details Maintenance Reboot - Source Un-space-Drote-Linux-P-2023/0/26_0.oc/ Launo Mode PRAMMTULIZED Legacy Interne Metadata Service Endpoints
No data available: No dat		Attached Block Volumes (D). Attached WNGA (T) Boot Volumes (T) Conside Connection (O) Iretiance Exports (D) Werk Requests (T)	Attach Block Wolune

ODC System – Management Gateway – Compute Instance Information

	ustomer	Auto Reload 💼 stdennil 👻
Dashboard / Instances / ocm	-mgmtgw-d9	
Resources Attached Block Volumes (0) Attached Block Volumes (1) Console Connection (10) Instance Departs (0) Work Requests (1)	ocm-engentgev-obg	<page-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></page-header>

ODC System – Management Gateway – Compute Instance Configuration

ORA	LE Compute Cloud@Customer	Auto Reicad 💼 stdenni 👻
Dashb	oard / <u>Instances</u> / ocm-mgmtgw-ol9	
Run	ocm-mgmtgw-olg	Tage Tage Mathematical States State
	urces Attached Block Volumes bit dida valiable.	Attach Black Volume
Attach	ed VNICs (1)	
	olumes (1)	
77/10/27/07/17/2010/PS/07/07	e Connection (0) ze Exports (0)	
	requests (1)	

ODC System – Management Gateway – Compute Instance Networking

This Compute Instance is based on the OL9 Platform Image and is based on an VM.PCAStandard.E5.Flex flexible shape with 1 OCPU, 10GB Memory, and a default Boot Volume of 50GB.

Networking connectivity is presented using an Internet Gateway (IGW) with external networking access. Both a Private and Public IP address have been allocated.

The Compute Instance has been updated to the latest rpm packages available with a 'dnf update' command.

Install pre-requisite packages

The Oracle Management Gateway requires that a Java jdk is available.

This can be installed using the 'dnf install java-1.8.0-openjdk' command. For the Management Gateway Compute Instance 'ocm-mgmtgw-ol9', this required a significant number of additional packages to be installed: -

======================================	ARCHITECTURE		REPOSITORY	SIZE
INSTALLING: JAVA-1.8.0-OPENJDK	X86_64	1:1.8.0.412.B08-2.0.1.EL9	OL9_APPSTREAM	453 K
INSTALLING DEPENDENCIES:	X80_04	1.1.0.0.412.000-2.0.1.119	OLD_AFFSTREAM	499 K
MODEMMANAGER-GLIB	· · · - ·	1.20.2-1.EL9	OL9_BASEOS_LATEST	334 K
ADWAITA-CURSOR-THEME	NOARCH	40.1.1-3.EL9	OL9_APPSTREAM	686 K
RACKER-MINERS	X86_64	3.1.2-4.EL9_3	OL9_APPSTREAM	1.0 M
XDG-DESKTOP-PORTAL-GTK	X86_64	1.12.0-3.EL9	OL9_APPSTREAM	162 K
RANSACTION SUMMARY				
INSTALL 127 PACKAGES				
OTAL DOWNLOAD SIZE: 96 M				
INSTALLED SIZE: 304 M				
S THIS OK [Y/N]: Y				
OWNLOADING PACKAGES:				
1/127): BLUEZ-LIBS-5.64-2.EL9.X86_64.RPM	1		503 KB/S 83 KB	00:0
(2/127): BUBBLEWRAP-0.4.1-6.EL9.X86_64.RF	PM		288 KB/S 50 KB	00:0
(126/127): XKEYBOARD-CONFIG-2.33-2.EL9.NC)ARCH.RPM		27 MB/S 1.1 MB	00:0
(127/127): XORG-X11-FONTS-TYPE1-7.5-33.EL	9.NOARCH.RPM		14 MB/S 526 KB	00:0
TOTAL			47 MB/S 96 MB	00:0
RUNNING TRANSACTION CHECK				
RANSACTION CHECK SUCCEEDED.				
UNNING TRANSACTION TEST				
RANSACTION TEST SUCCEEDED.				
UNNING TRANSACTION				
RUNNING SCRIPTLET: COPY-JDK-CONFIGS-4.0	-3.EL9.NOARCH			1/
RUNNING SCRIPTLET: JAVA-1.8.0-OPENJDK-H	HEADLESS-1:1.8.0.412.	B08-2.0.1.EL9.X86_64		1/
PREPARING :				1/
INSTALLING : LIBXI-1.7.10-8.EL9.X	(86_64			1/12
INSTALLING : LIBOGG-2:1.3.4-6.ELS	9.X86_64			2/12
VERIFYING : XORG-X11-FONTS-TYPE1	L-7.5-33.EL9.NOARCH			127/12
NSTALLED:				
MODEMMANAGER-GLIB-1.20.2-1.EL9.X86_64		ADWATTA - CURSOR - THEME	-40.1.1-3.EL9.NOARCH	

ODC System – Management Gateway – java jdk installation

Some 126 dependency packages were installed alongside the 'java-1.8.0-openjdk' rpm package.

Install & Configure the OCI CLI toolset

The installation and configuration of the standard oci-cli toolset will simplify the long-term management and maintenance of the Oracle Management Gateway VM Instance.

Install the appropriate Oracle Linux RPM packages for the oci-cli toolset: -

	VELOPMENT PACKAGES (X86_64) IRATION CHECK: 0:00:15 AGO ON OCI-SDK-2.93.1-1.EL9.X86_64 I: LVED.		42:10 AM GMT.	80 MB/S	86 MB	00:01
PACKAGE		ARCHITECTURE	VERSION	REPOSITORY		SIZE
INSTALLING: PYTHON39-OCI-CLI		NOARCH	3.42.0-1.EL9	OL9_DEVELOPER		39 M
UPGRADING:						55
PYTHON39-OCI-SDK		X86_64	2.127.0-1.EL9	OL9_DEVELOPER		75 M
INSTALLING DEPEND	ENCIES:	NOADCH	1 1 0 2 510			152 V
PYTHON3-ARROW PYTHON3-IMPORTLI	Β-ΜΕΤΔΟΔΤΔ	NOARCH NOARCH	1.1.0-2.EL9 4.12.0-2.EL9	OL9_DEVELOPER OL9_ADDONS		153 K 75 K
PYTHON3-JMESPATH		NOARCH	0.10.0-4.EL9	OL9_DEVELOPER		78 K
PYTHON3-PROMPT-T		NOARCH	3.0.38-4.EL9	OL9_APPSTREAM		1.0 M
PYTHON3-TERMINAL	TABLES	NOARCH	3.1.10-8.0.1.EL9	OL9_DEVELOPER		60 K
PYTHON3-WCWIDTH PYTHON3-ZIPP		NOARCH NOARCH	0.2.5-8.EL9 0.5.1-1.EL9	OL9_APPSTREAM OL9_ADDONS		65 K 24 K
FTHORD-ZIFF		NOARCH	0.5.1-1.225			24 K
TRANSACTION SUMMA	RY					
INSTALL 8 PACKAG UPGRADE 1 PACKAG	ES					
TOTAL DOWNLOAD SI						
IS THIS OK [Y/N]: DOWNLOADING PACKA						
	PORTLIB-METADATA-4.12.0-2.EL9	NOARCH.RPM		869 KB/S	75 KB	00:00
	WIDTH-0.2.5-8.EL9.NOARCH.RPM			722 KB/S		00:00
	ROW-1.1.0-2.EL9.NOARCH.RPM			6.4 MB/S		00:00
	PP-0.5.1-1.EL9.NOARCH.RPM			608 KB/S		00:00
	ESPATH-0.10.0-4.EL9.NOARCH.RP OMPT-TOOLKIT-3.0.38-4.EL9.NOA			3.8 MB/S 7.5 MB/S		00:00 00:00
	RMINALTABLES-3.1.10-8.0.1.EL9			3.0 MB/S		00:00
	CI-CLI-3.42.0-1.EL9.NOARCH.RP			48 MB/S		00:00
(9/9): PYTHON39-0	CI-SDK-2.127.0-1.EL9.X86_64.R	PM		77 MB/S	75 MB	00:00
TOTAL				103 MB/S	115 MB	00:01
RUNNING TRANSACTI	ON CHECK					
TRANSACTION CHECK RUNNING TRANSACTI						
TRANSACTION TEST RUNNING TRANSACTI						
PREPARING	:					1/1
	: PYTHON39-OCI-SDK-2.127.0-3	L.EL9.X86_64				1/10
UPGRADING		L.10-8.0.1.EL9.NOARC	CH			2 (4 0
INSTALLING	: PYTHON3-TERMINALTABLES-3.					2/10
INSTALLING INSTALLING	: PYTHON3-TERMINALTABLES-3.: : PYTHON3-JMESPATH-0.10.0-4					3/10
INSTALLING INSTALLING INSTALLING	: PYTHON3-TERMINALTABLES-3.: : PYTHON3-JMESPATH-0.10.0-4 : PYTHON3-ARROW-1.1.0-2.EL9	NOARCH				3/10 4/10
INSTALLING INSTALLING	: PYTHON3-TERMINALTABLES-3.: : PYTHON3-JMESPATH-0.10.0-4	NOARCH	сн			3/10
INSTALLING INSTALLING INSTALLING INSTALLING	: PYTHON3-TERMINALTABLES-3.: : PYTHON3-JMESPATH-0.10.0-4 : PYTHON3-ARROW-1.1.0-2.EL9 : PYTHON3-ZIPP-0.5.1-1.EL9.	NOARCH NOARCH A-4.12.0-2.EL9.NOARC	сн			3/10 4/10 5/10
INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING	: PYTHON3-TERMINALTABLES-3.: : PYTHON3-JMESPATH-0.10.0-4 : PYTHON3-ARROW-1.1.0-2.EL9. : PYTHON3-ZIPP-0.5.1-1.EL9. : PYTHON3-IMPORTLIB-METADAT. : PYTHON3-WCWIDTH-0.2.5-8.EL : PYTHON3-PROMPT-TOOLKIT-3.(NOARCH NOARCH A-4.12.0-2.EL9.NOARC L9.NOARCH 0.38-4.EL9.NOARCH	сн			3/10 4/10 5/10 6/10 7/10 8/10
INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING	: PYTHON3-TERMINALTABLES-3.: : PYTHON3-JMESPATH-0.10.0-4 : PYTHON3-ARROW-1.1.0-2.EL9 : PYTHON3-ZIPP-0.5.1-1.EL9.I : PYTHON3-IMPORTLIB-METADAT/ : PYTHON3-WCWIDTH-0.2.5-8.EI : PYTHON3-PROMPT-TOOLKIT-3.(: PYTHON39-OCI-CLI-3.42.0-1	NOARCH NOARCH A-4.12.0-2.EL9.NOARC J9.NOARCH D.38-4.EL9.NOARCH EL9.NOARCH	сн			3/10 4/10 5/10 6/10 7/10 8/10 9/10
INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING CLEANUP	: PYTHON3-TERMINALTABLES-3.: : PYTHON3-JMESPATH-0.10.0-4 : PYTHON3-ARROW-1.1.0-2.EL9 : PYTHON3-ZIPP-0.5.1-1.EL9.1 : PYTHON3-IMPORTLIB-METADAT/ : PYTHON3-WCWIDTH-0.2.5-8.EL : PYTHON3-PROMPT-TOOLKIT-3.(: PYTHON39-OCI-CLI-3.42.0-1 : PYTHON39-OCI-SDK-2.93.1-1	NOARCH NOARCH 1-4.12.0-2.EL9.NOARC 9.NOARCH 8.38-4.EL9.NOARCH EL9.NOARCH .EL9.NOARCH	CH			3/10 4/10 5/10 6/10 7/10 8/10 9/10 10/10
INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING CLEANUP	: PYTHON3-TERMINALTABLES-3.: : PYTHON3-JMESPATH-0.10.0-4 : PYTHON3-ARROW-1.1.0-2.EL9 : PYTHON3-ZIPP-0.5.1-1.EL9.I : PYTHON3-IMPORTLIB-METADAT/ : PYTHON3-WCWIDTH-0.2.5-8.EI : PYTHON3-PROMPT-TOOLKIT-3.(: PYTHON39-OCI-CLI-3.42.0-1	NOARCH NOARCH 9-4-12.0-2.EL9.NOARC 9.NOARCH 0.38-4.EL9.NOARCH EL9.NOARCH EL9.X86_64 EL9.X86_64	CH			3/10 4/10 5/10 6/10 7/10 8/10 9/10
INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING CLEANUP RUNNING SCRIPTL VERIFYING VERIFYING	: PYTHON3-TERMINALTABLES-3.: : PYTHON3-JMESPATH-0.10.0-4 : PYTHON3-ARROW-1.1.0-2.EL9. : PYTHON3-ZIPP-0.5.1-1.EL9. : PYTHON3-VENDORTLIB-METADAT. : PYTHON3-WCWIDTH-0.2.5-8.EL : PYTHON3-PROMPT-TOOLKIT-3.(: PYTHON39-OCI-CLI-3.42.0-1 : PYTHON39-OCI-SDK-2.93.1-1 : PYTHON39-PCI-SDK-2.93.1-1 : PYTHON39-PCI-SDK-2.93.1-1 : PYTHON39-PCI-TOOLKIT-3.(: PYTHON3-PROMPT-TOOLKIT-3.(NOARCH NOARCH -4-12.0-2.EL9.NOARCH 9.NOARCH 0.38-4.EL9.NOARCH EL9.NOARCH EL9.X86_64 0.38-4.EL9.NOARCH 9.38-4.EL9.NOARCH				3/10 4/10 5/10 6/10 7/10 8/10 9/10 10/10 10/10 1/10 2/10
INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING CLEANUP RUNNING SCRIPTL VERIFYING VERIFYING	: PYTHON3-TERMINALTABLES-3.: : PYTHON3-JMESPATH-0.10.0-4 : PYTHON3-ARROW-1.1.0-2.EL9. : PYTHON3-ZIPP-0.5.1-1.EL9. : PYTHON3-IMPORTLIB-METADAT. : PYTHON3-WCWIDTH-0.2.5-8.EI : PYTHON3-PROMPT-TOOLKIT-3.(: PYTHON39-OCI-SDK-2.93.1-1 : PYTHON39-OCI-SDK-2.93.1-1 : PYTHON39-OCI-SDK-2.93.1-1 : PYTHON39-PCI-SDK-2.93.1-1 : PYTHON3-PROMPT-TOOLKIT-3.(: PYTHON3-PROMPT-TOOLKIT-3.(: PYTHON3-WCWIDTH-0.2.5-8.EI : PYTHON3-IMPORTLIB-METADAT/	NOARCH NOARCH -4-12.0-2.EL9.NOARCH 9.NOARCH 9.38-4.EL9.NOARCH EL9.NOARCH EL9.X86_64 9.38-4.EL9.NOARCH 9.38-4.EL9.NOARCH 9.NOARCH A-4.12.0-2.EL9.NOARCH				3/10 4/10 5/10 6/10 7/10 8/10 9/10 10/10 10/10 1/10 2/10 3/10
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INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING CLEANUP RUNNING SCRIPTL VERIFYING VERIFYING VERIFYING VERIFYING	: PYTHON3-TERMINALTABLES-3.: : PYTHON3-JMESPATH-0.10.0-4 : PYTHON3-ARROW-1.1.0-2.EL9.1 : PYTHON3-ZIPP-0.5.1-1.EL9.1 : PYTHON3-WCWIDTH-0.2.5-8.EL : PYTHON3-PROMPT-TOOLKIT-3.4 : PYTHON39-OCI-SDK-2.93.1-1 : PYTHON39-OCI-SDK-2.93.1-1 : PYTHON3-PROMPT-TOOLKIT-3.4 : PYTHON3-PROMPT-TOOLKIT-3.4 : PYTHON3-PROMPT-TOOLKIT-3.4 : PYTHON3-PROMPT-TOOLKIT-3.4 : PYTHON3-PROMPT-TOOLKIT-3.4 : PYTHON3-PROMPT-TOOLKIT-3.4 : PYTHON3-PROMPT-TOOLKIT-3.4 : PYTHON3-PROMPT-TOOLKIT-3.4 : PYTHON3-ZIPP-0.5.1.1.EL9.1 : PYTHON3-ARROW-1.1.0-2.EL9	NOARCH NOARCH A-4.12.0-2.EL9.NOARCH 9.NOARCH EL9.NOARCH EL9.X86_64 9.38-4.EL9.NOARCH 9.NOARCH 9.NOARCH A-4.12.0-2.EL9.NOARC NOARCH NOARCH	сн			3/10 4/10 5/10 6/10 7/10 8/10 10/10 10/10 1/10 2/10 3/10 4/10 5/10
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INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING CLEANUP RUNNING SCRIPTL VERIFYING VERIFYING VERIFYING VERIFYING VERIFYING VERIFYING VERIFYING	<pre>: PYTHON3-TERMINALTABLES-3.: PYTHON3-JMESPATH-0.10.0-4 : PYTHON3-ARROW-1.1.0-2.EL9 : PYTHON3-ZIPP-0.5.1-1.EL9.1 : PYTHON3-WCWIDTH-0.2.5-8.EI : PYTHON3-PROMPT-TOOLKIT-3.(: PYTHON39-OCI-SDK-2.93.1-1 : PYTHON39-OCI-SDK-2.93.1-1 : PYTHON3-PROMPT-TOOLKIT-3.(: PYTHON3-PROMPT-TOOLKIT-3.(: PYTHON3-PROMPT-TOOLKIT-3.(: PYTHON3-PROMPT-TOOLKIT-3.(: PYTHON3-PROMPT-TOOLKIT-3.(: PYTHON3-PROMPT-TOOLKIT-3.(: PYTHON3-PROMPT-LIB-METADAT/ : PYTHON3-ZIPP-0.5.1-1.EL9.1 : PYTHON3-JMESPATH-0.10.0-4 : PYTHON3-MESPATH-0.10.0-4 : PYTHON3-CI-CLI-3.42.0-1 : PYTHON39-OCI-SDK-2.127.0-3</pre>	NOARCH NOARCH 1-4.12.0-2.EL9.NOARC 9.NOARCH EL9.NOARCH EL9.X86_64 0.38-4.EL9.NOARCH 9.38-4.EL9.NOARCH 9.NOARCH 1-4.12.0-2.EL9.NOARC NOARCH NOARCH L.EL9.NOARCH 1.10-8.0.1.EL9.NOARC	сн			3/10 4/10 5/10 6/10 7/10 10/10 10/10 1/10 2/10 3/10 4/10 5/10 6/10 7/10 8/10
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INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING CLEANUP RUNNING SCRIPTL VERIFYING	<pre>: PYTHON3-TERMINALTABLES-3.: : PYTHON3-JMESPATH-0.10.0-4 : PYTHON3-ARROW-1.1.0-2.EL9 : PYTHON3-ZIPP-0.5.1-1.EL9.1 : PYTHON3-WCWIDTH-0.2.5-8.EL : PYTHON3-PROMPT-TOOLKIT-3. (: PYTHON39-OCI-SDK-2.93.1-1 : PYTHON39-OCI-SDK-2.93.1-1 : PYTHON3-PROMPT-TOOLKIT-3. (: PYTHON3-PROMPT-TOOLKIT-3. (: PYTHON3-PROMPT-TOOLKIT-3. (: PYTHON3-WCWIDTH-0.2.5-8.EL : PYTHON3-WCWIDTH-0.2.5-8.EL : PYTHON3-MPORTLIB-METADAT/ : PYTHON3-ZIPP-0.5.1-1.EL9.1 : PYTHON3-MESPATH-0.10.0-4 : PYTHON3-JMESPATH-0.10.0-4 : PYTHON3-TERMINALTABLES-3.: : PYTHON39-OCI-CLI-3.42.0-1 : PYTHON39-OCI-SDK-2.93.1-1</pre>	NOARCH NOARCH 1-4.12.0-2.EL9.NOARC 9.NOARCH 29.NOARCH EL9.NOARCH EL9.X86_64 0.38-4.EL9.NOARCH 9.NOARCH 1-4.12.0-2.EL9.NOARCH 9.NOARCH NOARCH .EL9.NOARCH 1.10-8.01.EL9.NOARC EL9.NOARCH 1.EL9.X86_64	сн сн			3/10 4/10 5/10 6/10 8/10 10/10 10/10 1/10 2/10 3/10 4/10 5/10 6/10 7/10 8/10 9/10
INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING INSTALLING CLEANUP RUNNING SCRIPTL VERIFYING VERIF	<pre>: PYTHON3-TERMINALTABLES-3.: : PYTHON3-JMESPATH-0.10.0-4 : PYTHON3-ARROW-1.1.0-2.EL9 : PYTHON3-ZIPP-0.5.1-1.EL9.I : PYTHON3-WCWIDTH-0.2.5-8.EI : PYTHON3-PROMPT-TOOLKIT-3.(: PYTHON39-OCI-SDK-2.93.1-1 : PYTHON39-OCI-SDK-2.93.1-1 : PYTHON39-OCI-SDK-2.93.1-1 : PYTHON3-PROMPT-TOOLKIT-3.(: PYTHON3-PROMPT-TOOLKIT-3.(: PYTHON3-PROMPT-TOOLKIT-3.(: PYTHON3-WCWIDTH-0.2.5-8.EI : PYTHON3-WCWIDTH-0.2.5-8.EI : PYTHON3-WCWIDTH-0.2.5-8.EI : PYTHON3-JMPORTLIB-METADAT/ : PYTHON3-JMPORTLIB-METADAT/ : PYTHON3-JMESPATH-0.10.0-4 : PYTHON3-TERMINALTABLES-3.: : PYTHON39-OCI-SDK-2.127.0- : PYTHON39-OCI-SDK-2.93.1-1 : PYTHON39-OCI-SDK-2.93.1-1</pre>	NOARCH NOARCH 4-4.12.0-2.EL9.NOARCH 9.NOARCH 9.38-4.EL9.NOARCH EL9.NOARCH 4.EL9.X86_64 9.38-4.EL9.NOARCH 9.NOARCH 4-4.12.0-2.EL9.NOARCH 1.10-8.0.1.EL9.NOARCH 1.10-8.0.1.EL9.NOARCH 1.EL9.NOARCH 1.EL9.NOARCH 1.EL9.NOARCH 1.EL9.NOARCH 1.EL9.NOARCH 1.EL9.NOARCH 1.EL9.X86_64 EL9.X86_64	TH TH TADATA-4.12.0-2.EL9.NOARC			3/10 4/10 5/10 6/10 7/10 8/10 10/10 10/10 2/10 3/10 4/10 5/10 6/10 7/10 8/10 10/10

ODC System – Management Gateway – oci-cli installation

Configure the oci-cli toolset to connect to, and authenticate with, the parent OCI Region & Tenancy: -

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OCI SESSION AUTHENTICATE --NO-BROWSER
ENTER A REGION BY INDEX OR NAME(E.G.
1: AF-JOHANNESBURG-1, 2: AP-CHIYODA-1, 3: AP-CHUNCHEON-1, 4: AP-DCC-CANBERRA-1, 5: AP-DCC-GAZIPUR-1,
6: AP-HYDERABAD-1, 7: AP-IBARAKI-1, 8: AP-MELBOURNE-1, 9: AP-MUMBAI-1, 10: AP-OSAKA-1,
11: AP-SEOUL-1, 12: AP-SINGAPORE-1, 13: AP-SYDNEY-1, 14: AP-TOKYO-1, 15: CA-MONTREAL-1,
16: CA-TORONTO-1, 17: EU-AMSTERDAM-1, 18: EU-DCC-DUBLIN-1, 19: EU-DCC-DUBLIN-2, 20: EU-DCC-MILAN-1,
21: EU-DCC-MILAN-2, 22: EU-DCC-RATING-1, 23: EU-DCC-RATING-2, 24: EU-DCC-ZURICH-1, 25: EU-FRANKFURT-1,
26: EU-FRANKFURT-2, 27: EU-JOVANOVAC-1, 28: EU-MADRID-1, 29: EU-MADRID-2, 30: EU-MARSEILLE-1,
31: EU-MILAN-1, 32: EU-PARIS-1, 33: EU-STOCKHOLM-1, 34: EU-ZURICH-1, 35: IL-JERUSALEM-1
36: ME-ABUDHABI-1, 37: ME-ABUDHABI-3, 38: ME-DCC-DOHA-1, 39: ME-DCC-MUSCAT-1, 40: ME-DUBAI-1,
41: ME-JEDDAH-1, 42: MX-MONTERREY-1, 43: MX-QUERETARO-1, 44: SA-BOGOTA-1, 45: SA-SANTIAGO-1,
46: SA-SAOPAULO-1, 47: SA-VALPARAISO-1, 48: SA-VINHEDO-1, 49: UK-CARDIFF-1, 50: UK-GOV-CARDIFF-1,
51: UK-GOV-LONDON-1, 52: UK-LONDON-1, 53: US-ASHBURN-1, 54: US-CHICAGO-1, 55: US-GOV-ASHBURN-1,
56: US-GOV-CHICAGO-1, 57: US-GOV-PHOENIX-1, 58: US-LANGLEY-1, 59: US-LUKE-1, 60: US-PHOENIX-1,
61: US-SALTLAKE-2, 62: US-SANJOSE-1): 60
ERROR: COULD NOT FIND CONFIG FILE AT /ROOT/.OCI/CONFIG
DO YOU WANT TO CREATE A NEW CONFIG FILE? [Y/N]: Y
DO YOU WANT TO CREATE YOUR CONFIG FILE BY LOGGING IN THROUGH A BROWSER? [Y/N]: N
    THIS COMMAND PROVIDES A WALKTHROUGH OF CREATING A VALID CLI CONFIG FILE.
    THE FOLLOWING LINKS EXPLAIN WHERE TO FIND THE INFORMATION REQUIRED BY THIS
    SCRIPT:
    USER API SIGNING KEY, OCID AND TENANCY OCID:
        HTTPS://DOCS.CLOUD.ORACLE.COM/CONTENT/API/CONCEPTS/APISIGNINGKEY.HTM#OTHER
    REGION:
        HTTPS://DOCS.CLOUD.ORACLE.COM/CONTENT/GENERAL/CONCEPTS/REGIONS.HTM
    GENERAL CONFIG DOCUMENTATION:
        HTTPS://DOCS.CLOUD.ORACLE.COM/CONTENT/API/CONCEPTS/SDKCONFIG.HTM
ENTER A LOCATION FOR YOUR CONFIG [/ROOT/.OCI/CONFIG]:
ENTER A USER OCID: OCID1.USER.OC1..AAAAAAAAVHG7Z6BL62ZUKK5AFYQ4OLK3CCD00KYIBTMJDA5CSAEKMTYOKU60
ENTER A TENANCY OCID: OCID1.TENANCY.OC1..AAAAAAAABB50C0SPI030DEUP2ZLK0FUJY0DWK4UDJC24NDZEYFFFS0ZHFZJ0
ENTER A REGION BY INDEX OR NAME(E.G.
1: AF-JOHANNESBURG-1, 2: AP-CHIYODA-1, 3: AP-CHUNCHEON-1, 4: AP-DCC-CANBERRA-1, 5: AP-DCC-GAZIPUR-1,
6: AP-HYDERABAD-1, 7: AP-IBARAKI-1, 8: AP-MELBOURNE-1, 9: AP-MUMBAI-1, 10: AP-OSAKA-1,
11: AP-SEOUL-1, 12: AP-SINGAPORE-1, 13: AP-SYDNEY-1, 14: AP-TOKYO-1, 15: CA-MONTREAL-1,
16: CA-TORONTO-1, 17: EU-AMSTERDAM-1, 18: EU-DCC-DUBLIN-1, 19: EU-DCC-DUBLIN-2, 20: EU-DCC-MILAN-1,
21: EU-DCC-MILAN-2, 22: EU-DCC-RATING-1, 23: EU-DCC-RATING-2, 24: EU-DCC-ZURICH-1, 25: EU-FRANKFURT-1, 26: EU-FRANKFURT-2, 27: EU-JOVANOVAC-1, 28: EU-MADRID-1, 29: EU-MADRID-2, 30: EU-MARSEILLE-1,
31: EU-MILAN-1, 32: EU-PARIS-1, 33: EU-STOCKHOLM-1, 34: EU-ZURICH-1, 35: IL-JERUSALEM-1,
36: ME-ABUDHABI-1, 37: ME-ABUDHABI-3, 38: ME-DCC-DOHA-1, 39: ME-DCC-MUSCAT-1, 40: ME-DUBAI-1,
41: ME-JEDDAH-1, 42: MX-MONTERREY-1, 43: MX-QUERETARO-1, 44: SA-BOGOTA-1, 45: SA-SANTIAGO-1,
46: SA-SAOPAULO-1, 47: SA-VALPARAISO-1, 48: SA-VINHEDO-1, 49: UK-CARDIFF-1, 50: UK-GOV-CARDIFF-1,
51: UK-GOV-LONDON-1, 52: UK-LONDON-1, 53: US-ASHBURN-1, 54: US-CHICAGO-1, 55: US-GOV-ASHBURN-1,
56: US-GOV-CHICAGO-1, 57: US-GOV-PHOENIX-1, 58: US-LANGLEY-1, 59: US-LUKE-1, 60: US-PHOENIX-1,
61: US-SALTLAKE-2, 62: US-SANJOSE-1): 60
DO YOU WANT TO GENERATE A NEW API SIGNING RSA KEY PAIR? (IF YOU DECLINE YOU WILL BE ASKED TO SUPPLY THE PATH TO AN EXISTING KEY.)
[Y/N]: Y
ENTER A DIRECTORY FOR YOUR KEYS TO BE CREATED [/ROOT/.OCI]
ENTER A NAME FOR YOUR KEY [OCI_API_KEY]: PHX_SVOSPM_OCI_API_KEY
PUBLIC KEY WRITTEN TO: /ROOT/.OCI/PHX_SVOSPM_OCI_API_KEY_PUBLIC.PEM
ENTER A PASSPHRASE FOR YOUR PRIVATE KEY ("N/A" FOR NO PASSPHRASE):
REPEAT FOR CONFIRMATION:
PRIVATE KEY WRITTEN TO: /ROOT/.OCI/PHX_SVOSPM_OCI_API_KEY.PEM
FINGERPRINT: 49:09:59:22:82:CD:6F:0D:CA:DC:76:F1:5B:BB:14:90
DO YOU WANT TO WRITE YOUR PASSPHRASE TO THE CONFIG FILE? (IF NOT, YOU WILL NEED TO ENTER IT WHEN PROMPTED EACH TIME YOU RUN AN OCI COMMAND) [Y/N]: Y
CONFIG WRITTEN TO /ROOT/.OCI/CONFIG
    IF YOU HAVEN'T ALREADY UPLOADED YOUR API SIGNING PUBLIC KEY THROUGH THE
    CONSOLE, FOLLOW THE INSTRUCTIONS ON THE PAGE LINKED BELOW IN THE SECTION
     'HOW TO UPLOAD THE PUBLIC KEY':
        HTTPS://DOCS.CLOUD.ORACLE.COM/CONTENT/API/CONCEPTS/APISIGNINGKEY.HTM#HOW2
SUCCESSFULLY CREATED CONFIG FILE WITH YOUR NEW CLI USER PROFILE
Once your public key is uploaded in the console, you can re-run your command to use your new config file and user profile
```

```
ODC System - Management Gateway - oci-cli authentication
```

With the example above, a new API key pair was used to authenticate the session. Other Authentication options are available. See the relevant OCI documentation for more details.

Confirm connectivity to the parent OCI Region / Tenancy

Once the oci cli has been configured, confirm connectivity by issuing a simple 'oci iam compartment list' command: -

OCI IAM COMPARTMENT LIST GREP DESCRIPTION
"DESCRIPTION": "PROJECT - C3 SIMULATOR TESTING",
"DESCRIPTION": "PROJECT LEVEL COMPARTMENT FOR C3 SIMULATOR TESTING",
"DESCRIPTION": "PROJECT - DISTRIBUTED CLOUD MANAGEMENT",
"DESCRIPTION": "PROJECT LEVEL COMPARTMENT FOR TESTING OF DISTRIBUTED CLOUD MANAGEMENT",
"DESCRIPTION": "PROJECT - OKE CONTAINER TESTING",
"DESCRIPTION": "PROJECT - RH OPENSHIFT TESTING",
"DESCRIPTION": "PROJECT LEVEL COMPARTMENT FOR RH OPENSHIFT TESTING",
"DESCRIPTION": "COMPARTMENT FOR TESTING OF SIEBEL MARKETPLACE IMAGE FOR C3",
"DESCRIPTION": "PROJECT - TELECOM PROTOCOL TESTING",
"DESCRIPTION": "PROJECT LEVEL COMPARTMENT FOR TELECOM PROTOCOL TESTING",
"DESCRIPTION": "PROJECT - VIRTUAL FIREWALL TESTING",
"DESCRIPTION": "PROJECT LEVEL COMPARTMENT FOR VIRTUAL FIREWALL TESTING",
"DESCRIPTION": "SHARED RESOURCES FOR THE TENANCY",
"DESCRIPTION": "PERMANENT - SYSTEMS PRODUCT MANAGEMENT LEADERSHIP TEAM",
"DESCRIPTION": "PERMANENT COMPARTMENT FOR SYSTEMS PRODUCT MANAGEMENT LEADERSHIP TEAM",
"DESCRIPTION": "IDCS-EA3A61214CA7438E9B971537AA5324E5 23654458 ORACLE AMERICA, INC INTERNAL",
"DESCRIPTION": "THIS COMPARTMENT WAS AUTOMATICALLY CREATED WHEN YOU SET UP INGESTION FOR LOGGING ANALYTICS.",
"DESCRIPTION": "PROJECT - RH OPENSHIFT TESTING",
"DESCRIPTION": "PERMANENT - PRODUCT MANAGEMENT TEAM",
"DESCRIPTION": "PERMANENT - ROVING EDGE INFRASTRUCTURE TEAM",
"DESCRIPTION": "PERMANENT COMPARTMENT FOR ROVING EDGE INFRASTRUCTURE TEAM",
"DESCRIPTION": "PERMANENT COMPARTMENT FOR SOLARIS & ORACLE SECURE DESKTOP TEAM",
"DESCRIPTION": "PERMANENT - SOLARIS & ORACLE SECURE DESKTOP TEAM",
"DESCRIPTION": "PERMANENT - ENGINEERED SOLUTIONS TEAM",
"description": "Devops Authorizations",

ODC System - Management Gateway - oci-cli connectivity confirmation

In the example above, the resulting oci output has been piped through the Linux 'grep' command to display a single row (description) for each compartment found.

Download the OMP Oracle Linux RPM packages

With oci connectivity confirmed to the parent OCI tenancy, it is now possible to display the available management gateway and agent packages and download locally to the Management Gateway Compute Instance.

First, list the available Gateway packages, using the command 'oci management-agent agent-image list --install-type GATEWAY': -

```
oci management-agent agent-image list --install-type GATEWAY
  "data": [
    {
      "checksum": "d60c2cba960479aba6efce4ce7cb0a11ff9a02996e22e3ce94403da3701cabaa",
      "id": "ocid1.managementagentimage.oc1.phx.amaaaaaa4zy67iaawuixkt4lt7onoo42w7xn5gso43unfrvj6gzbabufin4q",
      "image-object-storage-details": {
         "checksum": "d60c2cba960479aba6efce4ce7cb0a11ff9a02996e22e3ce94403da3701cabaa",
        "object-bucket": "agent_images",
"object-name": "Windows-x86_64/latest/oracle.mgmt_gateway.zip",
        "object-namespace": "idtskf8cjzhp",
        "object-url": "https://objectstorage.us-phoenix-1.oraclecloud.com/n/idtskf8cjzhp/b/agent_images/o/Windows-
x86_64/latest/oracle.mgmt_gateway.zip"
      "lifecycle-state": "ACTIVE",
       object-url": "https://objectstorage.us-phoenix-1.oraclecloud.com/n/idtskf8cjzhp/b/agent images/o/Windows-
x86_64/latest/oracle.mgmt_gateway.zip",
      "package-architecture-type": "X86_64",
      "package-type": "ZIP",
"platform-name": "Windows-x86_64",
"platform-type": "WINDOWS",
      "size": 102712814.0,
      "version": "240508.1440.1715517696"
    },
      "checksum": "14f2524d3619e255cf2b8d50a00d2aaf13348db3977a09efcb377d7d750854a6",
      "id": "ocid1.managementagentimage.oc1..aaaaaaaawsmdi5q27iddhat3fwlhotzhuxgumkb5dem5yqzdk2r4peckzbra",
      "image-object-storage-details":
         "checksum": "14f2524d3619e255cf2b8d50a00d2aaf13348db3977a09efcb377d7d750854a6",
        "object-bucket": "agent_images"
        "object-name": "Linux-Aarch64/latest/oracle.mgmt_gateway.rpm",
        "object-namespace": "idtskf8cjzhp",
"object-url": "https://objectstorage.us-phoenix-1.oraclecloud.com/n/idtskf8cjzhp/b/agent_images/o/Linux-Aarch64/latest/oracle.mgmt_gateway.rpm"
      "lifecycle-state": "ACTIVE",
       "object-url": "https://objectstorage.us-phoenix-1.oraclecloud.com/n/idtskf8cjzhp/b/agent_images/o/Linux-
Aarch64/latest/oracle.mgmt_gateway.rpm
      "package-architecture-type": "AARCH64",
      "package-type": "RPM",
"platform-name": "Linux-Aarch64",
       "platform-type": "LINUX",
      "size": 102099704.0,
```

```
"version": "240508.1440.1715517696"
    },
    {
       "checksum": "d84585f4d399dae4c0ab279f821eb44dfb71a9f2a6682d1e036d8cbdf7ea335b",
      "id": "ocid1.managementagentimage.oc1..aaaaaaaajeky4y5lxkh7zcu6wk4br4k7qqpb3d5ov6gdgno4ljsretvgf5yq",
       "image-object-storage-details"
         "checksum": "d84585f4d399dae4c0ab279f821eb44dfb71a9f2a6682d1e036d8cbdf7ea335b",
         "object-bucket": "agent_images"
         "object-name": "Linux-x86_64/latest/oracle.mgmt_gateway.rpm",
"object-namespace": "idtskf8cjzhp",
"object-url": "https://objectstorage.us-phoenix-1.oraclecloud.com/n/idtskf8cjzhp/b/agent_images/o/Linux-
x86_64/latest/oracle.mgmt_gateway.rpm"
       "lifecycle-state": "ACTIVE",
"object-url": "https://objectstorage.us-phoenix-1.oraclecloud.com/n/idtskf8cjzhp/b/agent_images/o/Linux-
x86_64/latest/oracle.mgmt_gateway.rpm",
       "package-architecture-type": "X86_64",
       "package-type": "RPM",
"platform-name": "Linux-x86_64",
       "platform-type": "LINUX",
      "size": 102137376.0,
      "version": "240508.1440.1715517696"
    }
 ]
}
```

ODC System - Management Gateway - oci-cli list gateway packages

Three different gateway packages are displayed. Identify the correct Management Gateway package to be used, in this example the rpm package for "Linux-x86_64", and download locally: -

Now repeat for the available Agent packages using the command 'oci management-agent agent-image list -- install-type AGENT: -

```
OCI MANAGEMENT-AGENT AGENT-IMAGE LIST --INSTALL-TYPE AGENT
  "DATA": [
    {
      "CHECKSUM": "1A75054356BF8E7460475A04D81797CEF916483CB00AAC4847C0D645B1EB2842"
       "ID": "OCID1.MANAGEMENTAGENTIMAGE.OC1..AAAAAAAAWNWWSTBLQBJT4NFQCJT24NKDNJ05WGMTQMAENZVOHQGTWTQL4VHQ",
       "IMAGE-OBJECT-STORAGE-DETAILS":
         "CHECKSUM": "1A75054356BF8E7460475A04D81797CEF916483CB00AAC4847C0D645B1EB2842",
         "OBJECT-BUCKET":
                           "AGENT_IMAGES"
        "OBJECT-NAME": "WINDOWS-X86_64/LATEST/ORACLE.MGMT_AGENT.ZIP",
         "OBJECT-NAMESPACE": "IDTSKF8CJZHP"
"OBJECT-URL": "HTTPS://OBJECTSTORAGE.US-PHOENIX-1.ORACLECLOUD.COM/N/IDTSKF8CJZHP/B/AGENT_IMAGES/O/WINDOWS-
X86_64/LATEST/ORACLE.MGMT_AGENT.ZIP"
       "LIFECYCLE-STATE": "ACTIVE",
"OBJECT-URL": "HTTPS://OBJECTSTORAGE.US-PHOENIX-1.ORACLECLOUD.COM/N/IDTSKF8CJZHP/B/AGENT_IMAGES/O/WINDOWS-
X86 64/LATEST/ORACLE.MGMT AGENT.ZIP",
       "PACKAGE-ARCHITECTURE-TYPE": "X86_64",
      "PACKAGE-TYPE": "ZIP",
      "PLATFORM-NAME": "WINDOWS-X86_64",
"PLATFORM-TYPE": "WINDOWS",
      "SIZE": 100837953.0,
      "VERSION": "240508.1440"
    },
      "CHECKSUM": "BCBE5853B9C334195FBDCC467E5B86583E8FCE07EC73728AFF5A7E5EBAB56AA5"
      "ID": "OCID1.MANAGEMENTAGENTIMAGE.OC1..AAAAAAAADYGF5N3T6A66HOW7SJQDKN6WV3VBYXFUHXGG65GV4Z6Q44JEGHBA",
       "IMAGE-OBJECT-STORAGE-DETAILS": {
         "CHECKSUM": "BCBE5853B9C334195FBDCC467E5B86583E8FCE07EC73728AFF5A7E5EBAB56AA5",
"OBJECT-BUCKET": "AGENT_IMAGES",
         "OBJECT-NAME": "WINDOWS-X86/LATEST/ORACLE.MGMT_AGENT.ZIP",
        "OBJECT-NAMESPACE": "IDTSKF8CJZHP"
"OBJECT-URL": "HTTPS://OBJECTSTORAGE.US-PHOENIX-1.ORACLECLOUD.COM/N/IDTSKF8CJZHP/B/AGENT_IMAGES/O/WINDOWS-
X86/LATEST/ORACLE.MGMT_AGENT.ZIP"
       "LIFECYCLE-STATE": "ACTIVE"
       "OBJECT-URL": "HTTPS://OBJECTSTORAGE.US-PHOENIX-1.ORACLECLOUD.COM/N/IDTSKF8CJZHP/B/AGENT_IMAGES/O/WINDOWS-
X86/LATEST/ORACLE.MGMT_AGENT.ZIP"
       "PACKAGE-ARCHITECTURE-TYPE": "X86".
       "PACKAGE-TYPE": "ZIP",
       "PLATFORM-NAME": "WINDOWS-X86",
      "PLATFORM-TYPE": "WINDOWS",
      "SIZE": 100445400.0,
```

```
"VERSION": "240508.1440"
    },
    {
      "CHECKSUM": "D20FBEFCA0B0440016A9C389F00DE9A9046F9C646612C026D76B68EFDBE3EB84",
      "ID": "OCID1.MANAGEMENTAGENTIMAGE.OC1..AAAAAAAAEHNXPNZPG3CN2YBZB7NAOESRXU3S72JTI5JHD7VCVS6KCQJGG4IQ",
       "IMAGE-OBJECT-STORAGE-DETAILS": {
         "CHECKSUM": "D20FBEFCA0B0440016A9C389F00DE9A9046F9C646612C026D76B68EFDBE3EB84",
         "OBJECT-BUCKET": "AGENT_IMAGES";
         "OBJECT-NAME": "SOLARIS-SPARC64/LATEST/ORACLE.MGMT_AGENT.ZIP",
         "OBJECT-NAMESPACE": "IDTSKF8CJZHP"
         "OBJECT-URL": "HTTPS://OBJECTSTORAGE.US-PHOENIX-1.ORACLECLOUD.COM/N/IDTSKF8CJZHP/B/AGENT_IMAGES/O/SOLARIS-
SPARC64/LATEST/ORACLE.MGMT_AGENT.ZIP'
       "LIFECYCLE-STATE": "ACTIVE",
"OBJECT-URL": "HTTPS://OBJECTSTORAGE.US-PHOENIX-1.ORACLECLOUD.COM/N/IDTSKF8CJZHP/B/AGENT_IMAGES/O/SOLARIS-
SPARC64/LATEST/ORACLE.MGMT_AGENT.ZIP",
      "PACKAGE-ARCHITECTURE-TYPE": "SPARC",
      "PACKAGE-TYPE": "ZIP",
"PLATFORM-NAME": "SOLARIS-SPARC64",
"PLATFORM-TYPE": "SOLARIS",
      "SIZE": 100335486.0,
      "VERSION": "240508.1440"
    },
      "CHECKSUM": "A24BD7E2B16883D56B4F71534C9802585B144AA4DBA89DAF2791848AE7477ADB",
      "ID": "OCID1.MANAGEMENTAGENTIMAGE.OC1..AAAAAAAAUZMTJNNTW5SED7IQIKKYWHSCA55TOBRG3IBO4GEE2J3ORLKT4PMQ",
       "IMAGE-OBJECT-STORAGE-DETAILS": {
         CHECKSUM": "A24BD7E2B16883D56B4F71534C9802585B144AA4DBA89DAF2791848AE7477ADB",
         "OBJECT-BUCKET": "AGENT_IMAGES",
         "OBJECT-NAME": "MACOS-X86_64/LATEST/ORACLE.MGMT_AGENT.ZIP",
        "OBJECT-NAMESPACE": "IDTSKF8CJZHP"
"OBJECT-URL": "HTTPS://OBJECTSTORAGE.US-PHOENIX-1.ORACLECLOUD.COM/N/IDTSKF8CJZHP/B/AGENT_IMAGES/O/MACOS-
X86_64/LATEST/ORACLE.MGMT_AGENT.ZIP"
       "LIFECYCLE-STATE": "ACTIVE",
"OBJECT-URL": "HTTPS://OBJECTSTORAGE.US-PHOENIX-1.ORACLECLOUD.COM/N/IDTSKF8CJZHP/B/AGENT_IMAGES/O/MACOS-
X86_64/LATEST/ORACLE.MGMT_AGENT.ZIP",
       "PACKAGE-ARCHITECTURE-TYPE": "X86_64",
      "PACKAGE-TYPE": "ZIP",
      "PLATFORM-NAME": "MACOS-X86_64",
"PLATFORM-TYPE": "MACOSX",
      "SIZE": 100487775.0,
      "VERSION": "240508.1440"
    }.
    {
      "CHECKSUM": "1B31EEB6428FA79201BE6851DDC6D2AC5A21CEDCFE07005C49ECCE77638C6C46",
       "ID": "OCID1.MANAGEMENTAGENTIMAGE.OC1.PHX.AMAAAAAA4ZY67IAAK6MBGT3PEMXTJMHY2SFGMB6UMXVHGQQVPCTPIMKOB23Q",
       "IMAGE-OBJECT-STORAGE-DETAILS": {
         "CHECKSUM": "1B31EEB6428FA79201BE6851DDC6D2AC5A21CEDCFE07005C49ECCE77638C6C46",
        "OBJECT-BUCKET": "AGENT_IMAGES",
"OBJECT-NAME": "MACOS-AARCH64/LATEST/ORACLE.MGMT_AGENT.ZIP",
         "OBJECT-NAMESPACE": "IDTSKF8CJZHP"
        "OBJECT-URL": "HTTPS://OBJECTSTORAGE.US-PHOENIX-1.ORACLECLOUD.COM/N/IDTSKF8CJZHP/B/AGENT_IMAGES/O/MACOS-
AARCH64/LATEST/ORACLE.MGMT_AGENT.ZIP"
       "LIFECYCLE-STATE": "ACTIVE"
"OBJECT-URL": "HTTPS://OBJECTSTORAGE.US-PHOENIX-1.ORACLECLOUD.COM/N/IDTSKF8CJZHP/B/AGENT_IMAGES/O/MACOS-
AARCH64/LATEST/ORACLE.MGMT_AGENT.ZIP",
       "PACKAGE-ARCHITECTURE-TYPE": "AARCH64",
      "PACKAGE-TYPE": "ZIP",
"PLATFORM-NAME": "MACOS-AARCH64",
       "PLATFORM-TYPE": "MACOSX",
      "SIZE": 100271606.0,
      "VERSION": "240508.1440"
    },
      "CHECKSUM": "21C60D45E539E4885029C7354A02829DAC2CDB4843FE01A02354E6537D2B2712"
      "ID": "OCID1.MANAGEMENTAGENTIMAGE.OC1..AAAAAAAAAYWYP7TPZ4BNJJ4TBU5PEJY44RYDG7LE6NSDKS7DPCU2JW5YE5JHQ",
       "IMAGE-OBJECT-STORAGE-DETAILS": {
         "CHECKSUM": "21C60D45E539E4885029C7354A02829DAC2CDB4843FE01A02354E6537D2B2712",
         "OBJECT-BUCKET": "AGENT_IMAGES",
         "OBJECT-NAME": "LINUX-AARCH64/LATEST/ORACLE.MGMT_AGENT.RPM",
         "OBJECT-NAMESPACE": "IDTSKF8CJZHP"
         "OBJECT-URL": "HTTPS://OBJECTSTORAGE.US-PHOENIX-1.ORACLECLOUD.COM/N/IDTSKF8CJZHP/B/AGENT_IMAGES/O/LINUX-
AARCH64/LATEST/ORACLE.MGMT_AGENT.RPM"
       "LIFECYCLE-STATE": "ACTIVE"
       "OBJECT-URL": "HTTPS://OBJECTSTORAGE.US-PHOENIX-1.ORACLECLOUD.COM/N/IDTSKF8CJZHP/B/AGENT_IMAGES/O/LINUX-
AARCH64/LATEST/ORACLE.MGMT_AGENT.RPM",
      "PACKAGE-ARCHITECTURE-TYPE": "AARCH64",
      "PACKAGE-TYPE": "RPM",
"PLATFORM-NAME": "LINUX-AARCH64",
       "PLATFORM-TYPE": "LINUX",
      "SIZE": 100289148.0.
      "VERSION": "240508.1440"
    },
    {
      "CHECKSUM": "618B2021BCB1E499A6F69E38613F37030F1582488D2F24F579BA7B3BA5AD8352",
      "ID": "OCID1.MANAGEMENTAGENTIMAGE.OC1..AAAAAAAAYDSOVQAX7B467MXDIOUED2IFQE0F4GHS2GFN35LAOV2TY5KXS2MA",
       "IMAGE-OBJECT-STORAGE-DETAILS": {
         "CHECKSUM": "618B2021BCB1E499A6F69E38613F37030F1582488D2F24F579BA7B3BA5AD8352".
```

```
"OBJECT-BUCKET": "AGENT_IMAGES",
         "OBJECT-NAME": "LINUX-AARCH64/LATEST/ORACLE.MGMT_AGENT.ZIP",
         "OBJECT-NAMESPACE": "IDTSKF8CJZHP"
         "OBJECT-URL": "HTTPS://OBJECTSTORAGE.US-PHOENIX-1.ORACLECLOUD.COM/N/IDTSKF8CJZHP/B/AGENT_IMAGES/O/LINUX-
AARCH64/LATEST/ORACLE.MGMT_AGENT.ZIP'
       "ITEECYCLE-STATE": "ACTIVE".
       "OBJECT-URL": "HTTPS://OBJECTSTORAGE.US-PHOENIX-1.ORACLECLOUD.COM/N/IDTSKF8CJZHP/B/AGENT_IMAGES/O/LINUX-
AARCH64/LATEST/ORACLE.MGMT_AGENT.ZIP
      "PACKAGE-ARCHITECTURE-TYPE": "AARCH64",
      "PACKAGE-TYPE": "ZIP",
"PLATFORM-NAME": "LINUX-AARCH64",
"PLATFORM-TYPE": "LINUX",
       "SIZE": 100262457.0.
      "VERSION": "240508.1440"
    },
    {
      "CHECKSUM": "BA3FA13886F5C606744768CAEDB280EB29896AC69D6149F2D9E105A81D7DBCC2",
       "ID": "OCID1.MANAGEMENTAGENTIMAGE.OC1..AAAAAAAAD226QEUK2NHNU6EXDMOZEK306EYJZ5ZZF45VMGSVONW6NPZDGJDQ",
       "IMAGE-OBJECT-STORAGE-DETAILS": {
         CHECKSUM": "BA3FA13886F5C606744768CAEDB280EB29896AC69D6149F2D9E105A81D7DBCC2",
         "OBJECT-BUCKET": "AGENT_IMAGES",
         "OBJECT-NAME": "LINUX-X86_64/LATEST/ORACLE.MGMT_AGENT.ZIP",
         "OBJECT-NAMESPACE": "IDTSKF8CJZHP"
         "OBJECT-URL": "HTTPS://OBJECTSTORAGE.US-PHOENIX-1.ORACLECLOUD.COM/N/IDTSKF8CJZHP/B/AGENT_IMAGES/O/LINUX-
X86_64/LATEST/ORACLE.MGMT_AGENT.ZIP'
       "LIFECYCLE-STATE": "ACTIVE".
"OBJECT-URL": "HTTPS://OBJECTSTORAGE.US-PHOENIX-1.ORACLECLOUD.COM/N/IDTSKF8CJZHP/B/AGENT_IMAGES/O/LINUX-
X86_64/LATEST/ORACLE.MGMT_AGENT.ZIP",
       "PACKAGE-ARCHITECTURE-TYPE": "X86_64",
      "PACKAGE-TYPE": "ZIP",
      "PLATFORM-NAME": "LINUX-X86_64",
"PLATFORM-TYPE": "LINUX",
       "SIZE": 100301527.0,
      "VERSION": "240508.1440"
    },
    {
      "CHECKSUM": "02DAFC5CFEB0B272EB551BB092C6E9281BD8CC26B054D19F7C6139813D981D35"
       "ID": "OCID1.MANAGEMENTAGENTIMAGE.OC1..AAAAAAAAUAYOTCFIEZ3YJZ45LJESCCWECSYUCSP4N4DVB5PA7NMGFGUI3ICA",
       "IMAGE-OBJECT-STORAGE-DETAILS":
         "CHECKSUM": "02DAFC5CFEB0B272EB551BB092C6E9281BD8CC26B054D19F7C6139813D981D35",
         "OBJECT-BUCKET": "AGENT_IMAGES",
"OBJECT-NAME": "LINUX-X86_64/LATEST/ORACLE.MGMT_AGENT.RPM",
         "OBJECT-NAMESPACE": "IDTSKF8CJZHP"
         "OBJECT-URL": "HTTPS://OBJECTSTORAGE.US-PHOENIX-1.ORACLECLOUD.COM/N/IDTSKF8CJZHP/B/AGENT_IMAGES/O/LINUX-
X86_64/LATEST/ORACLE.MGMT_AGENT.RPM"
       "LIFECYCLE-STATE": "ACTIVE",
"OBJECT-URL": "HTTPS://OBJECTSTORAGE.US-PHOENIX-1.ORACLECLOUD.COM/N/IDTSKF8CJZHP/B/AGENT_IMAGES/O/LINUX-
X86_64/LATEST/ORACLE.MGMT_AGENT.RPM",
       "PACKAGE-ARCHITECTURE-TYPE": "X86 64",
      "PACKAGE-TYPE": "RPM",
"PLATFORM-NAME": "LINUX-X86_64",
      "PLATFORM-TYPE": "LINUX",
      "SIZE": 100328133.0,
      "VERSION": "240508.1440"
      "CHECKSUM": "E57B37D13FE7E13DD30D3A531E24C6264B277FBDC31FBC542FEAA8ACCB00484C"
      "ID": "OCID1.MANAGEMENTAGENTIMAGE.OC1..AAAAAAAAAQQFZNYOVVNO2KPSVQYHBWGXX6WJWCARU2G6VRSWRYKVDRNOLFVA",
       "IMAGE-OBJECT-STORAGE-DETAILS": {
         "CHECKSUM": "E57B37D13FE7E13DD30D3A531E24C6264B277FBDC31FBC542FEAA8ACCB00484C",
         "OBJECT-BUCKET": "AGENT_IMAGES";
         "OBJECT-NAME": "AIX-PPC64/LATEST/ORACLE.MGMT_AGENT.ZIP",
         "OBJECT-NAMESPACE": "IDTSKF8CJZHP"
         "OBJECT-URL": "HTTPS://OBJECTSTORAGE.US-PHOENIX-1.ORACLECLOUD.COM/N/IDTSKF8CJZHP/B/AGENT_IMAGES/O/AIX-
PPC64/LATEST/ORACLE.MGMT_AGENT.ZIP"
       "LIFECYCLE-STATE": "ACTIVE"
"OBJECT-URL": "HTTPS://OBJECTSTORAGE.US-PHOENIX-1.ORACLECLOUD.COM/N/IDTSKF8CJZHP/B/AGENT_IMAGES/O/AIX-
PPC64/LATEST/ORACLE.MGMT_AGENT.ZIP",
      "PACKAGE-ARCHITECTURE-TYPE": "UNKNOWN_ENUM_VALUE",
      "PACKAGE-TYPE": "ZIP",
"PLATFORM-NAME": "AIX-PPC64",
"PLATFORM-TYPE": "UNKNOWN_ENUM_VALUE",
      "SIZE": 100457171.0,
      "VERSION": "240508.1440"
    }
 1
}
```

ODC System – Management Gateway – oci-cli list agent packages

Ten different agent packages are displayed. Identify the correct Management Agent package to be used, in this example the rpm package for "Linux-x86_64", and download locally: -

ODC System - Management Gateway - oci-cli download agent

Gateway Firewall Rule Changes

One final step needs to be completed, where the Compute Instance has its local firewall daemon service running. Custom services need to be created to permit the Oracle Management Agents to connect to the Oracle Management Gateway over port 4480 (default): -

```
FIREWALL-CMD --GET-ACTIVE-ZONE
 PUBLIC
 INTERFACES: ENS3
FIREWALL-CMD --LIST-SERVICES
DHCPV6-CLIENT SSH
FIREWALL-CMD --PERMANENT --NEW-SERVICE=CUSTOM-OCI-MGMT-AGENT-4480
SUCCESS
FIREWALL-CMD --PERMANENT --SERVICE=CUSTOM-OCI-MGMT-AGENT-4480 --SET-DESCRIPTION="CUSTOM SERVICE FOR ORACLE MANAGEMENT AGENT ON TCP
PORT 4480'
SUCCESS
FIREWALL-CMD --PERMANENT --SERVICE=CUSTOM-OCI-MGMT-AGENT-4480 --ADD-PORT=4480/TCP
SUCCESS
FIREWALL-CMD --PERMANENT --ZONE=PUBLIC --ADD-SERVICE=CUSTOM-OCI-MGMT-AGENT-4480
SUCCESS
SYSTEMCTL RESTART FIREWALLD
FIREWALL-CMD --LIST-SERVICES
CUSTOM-OCI-MGMT-AGENT-4480 DHCPV6-CLIENT SSH
FOR S IN $(FIREWALL-CMD --LIST-SERVICES); DO FIREWALL-CMD --PERMANENT --SERVICE "$S" --GET-PORTS; DONE;
4480/TCP
546/UDP
22/TCP
```

ODC System – Management Gateway Firewall Changes

This completes the configuration steps for the Management Gateway Compute Instance.

Basic Oracle Management Agent Configuration

For each Compute Instance that will have the Oracle Management Agent configured ensure that each Compute Instance has been updated to the latest rpm packages available with a 'dnf update' command.

Install pre-requisite packages

The Oracle Management Agent requires that a Java jdk is available.

This can be installed using the 'dnf install java-1.8.0-openjdk' command. For the Management Gateway Compute Instance 'ocm-mgmtgw-ol9', this required a significant number of additional packages to be installed: -

PACKAGE	ARCHITECTURE		REPOSITORY	SIZE
INSTALLING:				
JAVA-1.8.0-OPENJDK	X86_64	1:1.8.0.412.B08-2.0.1.EL9	OL9_APPSTREAM	453 K
INSTALLING DEPENDENCIES: MODEMMANAGER-GLIB	X86_64	1.20.2-1.EL9	OL9_BASEOS_LATEST	334 K
ADWAITA-CURSOR-THEME	NOARCH	40.1.1-3.EL9	OL9_APPSTREAM	686 K
FRACKER-MINERS	X86_64	3.1.2-4.EL9_3	OL9_APPSTREAM	1.0 M
XDG-DESKTOP-PORTAL-GTK	X86_64	1.12.0-3.EL9	OL9_APPSTREAM	162 K
RANSACTION SUMMARY				
INSTALL 127 PACKAGES				
OTAL DOWNLOAD SIZE: 96 M				
INSTALLED SIZE: 304 M				
S THIS OK [Y/N]: Y				
OWNLOADING PACKAGES:				
1/127): BLUEZ-LIBS-5.64-2.EL9.X86_64.RPM			503 KB/S 83 KB	00:0
2/127): BUBBLEWRAP-0.4.1-6.EL9.X86_64.RPM			288 KB/S 50 KB	00:00
(126/127): XKEYBOARD-CONFIG-2.33-2.EL9.NOAR	CH.RPM		27 MB/S 1.1 MB	00:0
(127/127): XORG-X11-FONTS-TYPE1-7.5-33.EL9.		14 MB/S 526 KB	00:0	
rotal			47 MB/S 96 MB	
RUNNING TRANSACTION CHECK				
RANSACTION CHECK SUCCEEDED.				
RUNNING TRANSACTION TEST				
TRANSACTION TEST SUCCEEDED.				
RUNNING TRANSACTION				
RUNNING SCRIPTLET: COPY-JDK-CONFIGS-4.0-3	.EL9.NOARCH			1/
RUNNING SCRIPTLET: JAVA-1.8.0-OPENJDK-HEA	DLESS-1:1.8.0.412.	B08-2.0.1.EL9.X86_64		1/
PREPARING :				1/
INSTALLING : LIBXI-1.7.10-8.EL9.X86	_64			1/12
INSTALLING : LIBOGG-2:1.3.4-6.EL9.X	86_64			2/12
VERIFYING : XORG-X11-FONTS-TYPE1-7	.5-33.EL9.NOARCH			127/12
NSTALLED:				
MODEMMANAGER-GLIB-1.20.2-1.EL9.X86_64		ADWAITA-CURSOR-THEME	40 1 1 2 FLO NOARCH	

ODC System – Management Agent – java jdk installation

Some 126 dependency packages were installed alongside the 'java-1.8.0-openjdk' rpm package

Agent Firewall Rule Changes

One final step needs to be completed, where the Compute Instance has its local firewall daemon service running. Custom services need to be created to permit the Oracle Management Agents to connect to the Oracle Management Gateway over port 4480 (default): -

```
firewall-cmd --get-active-zone
public
interfaces: ens3
firewall-cmd --list-services
dhcpv6-client ssh
firewall-cmd --permanent --new-service=custom-OCI-Mgmt-Agent-4480
success
firewall-cmd --permanent --service=custom-OCI-Mgmt-Agent-4480 --set-description="custom service for Oracle Management Agent on TCP
port 4480"
success
firewall-cmd --permanent --service=custom-OCI-Mgmt-Agent-4480 --add-port=4480/tcp
 success
firewall-cmd --permanent --zone=public --add-service=custom-OCI-Mgmt-Agent-4480
success
systemctl restart firewalld
firewall-cmd --list-services
custom-OCI-Mgmt-Agent-4480 dhcpv6-client ssh
for s in $(firewall-cmd --list-services); do firewall-cmd --permanent --service "$s" --get-ports; done;
4480/tcp
546/udp
22/tcp
```

ODC System – Management Agent Firewall Changes

This completes the steps for the Compute Instance Management Agent configuration.

Installation

Once the configuration steps have been completed within the parent OCI Region, the Management Gateway Compute Instance and the Compute Instances that will have the Oracle Management Agents deployed, the installation stages can be completed.

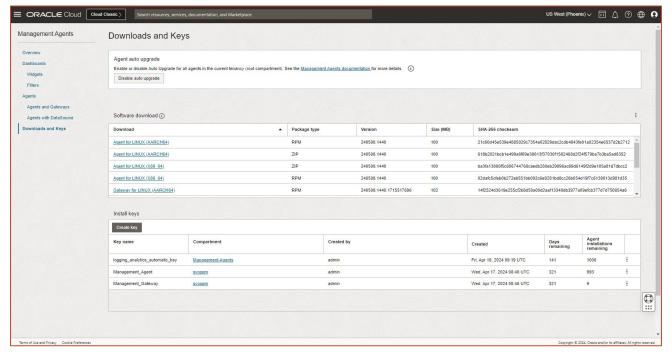
As before this will require actions across all three component areas: -

- OCI Region / Tenancy
- ODC deployed Management Gateway Compute Instance
- ODC deployed Management Agent Compute Instances

OCI Region Installation

Preparation work within the parent OCI Region needs to be completed as part of the initial phase. This consists of creating the keys that will be used to validate both the Management Gateway and the Management Agents as they connect.

Connecting to the OCI Console, navigate to the Observability & Management -> Management Agent -> Downloads & Keys screen: -



OCI Region - Management Agent Keys

Create a new Install Key: -

	d Classic > Search resources, services	, documentation, and Mark	retpisce			US West (Phoe	mix)∨ 🖸 🗘	0		
Management Agents	Downloads and Key	S								
Overview Dashboards Widgets Filters	Agent auto upgrade Enable or disable Auto Upgrade for all agents in the current tenancy (root compartment). See the <u>Management Agents documentation</u> for mo Disable auto upgrade Interverys tasSource Software download		ncy (root compartment). See the <u>Management Agentia documentation</u> for more details.							
Agents Agents and Gateways Agents with DataSource	Software download		Create key							
Downloads and Keys	Download			Size (MB)	SHA-256 checksum					
Management Agents Overview Dashboards Wogeh Filters Agents and Gateways Agents with DataSource Downloads and Keys Downloads and Keys Downloads and Keys Downloads and Keys Download Common Software				100	21c60d45e539e4885029c7354a02829dac2cdb4843fe01a02354e6537d2b2712					
	Agent for LINUX (AARCH64)			100	618b2021bcb1e499a6f69e36613f37030f1582488d2f24f579ba7b3ba5ad8352 ba3fa13886f5c606744768caedb280eb29896ac69d6149f2d9e105a81d7dbcc2					
	Agent for LINUX (X86 64)			100						
	Agent for LINUX (X86_64)			100	100 02dafc5cfeb0b272eb551bb092c6e9281bd8cc26b054d19f7c6139813d981d35					
	Gateway for LINUX (AARCH64)		Valid for 1 V A Year V	102	102 14f2524d3619e255cf2b8d50a00d2aaf13348db3977a09efcb377d7d750854a6					
			Unlimited If the Unlimited evolves is aelected, the key can be used for an unlimited number of installations and If were equiper. For information about the initial of using unlimited keys, we <u>therapented Agents</u> <u>documentation</u>	it .						
	Key name	Compartment	Create Cancel		Created	Days remaining	Agent installations remaining			
	logging_analytics_automatic_key	Management-Agents	admin	_	Fri, Apr 19, 2024 09:19 UTC	141	1000	:		
	Management_Agent	svospm	admin		Wed, Apr 17, 2024 08:46 UTC	321	993	:		
	Management_Gateway	svospm	admin		Wed, Apr 17, 2024 08:46 UTC	321	9	:		
								Q 		
Terms of Use and Privacy Cookie Preferences		E SAIV				Copyright ©	2024. Oracle and/or its affil	ates. All rights reserved.		

OCI Region – Management Agent Key Create

And the download the response file for this new Install Key: -

ORACLE Cloud	Downloads and Key	'S	1.57	MIE					hoenix) 🗸 🔂 🔔		
Overview Dashboards Widgets Filters	Agent auto upgrade Enable or disable Auto Upgrade for all agents in the current tenancy (root compartment). See the <u>Management Agents documentation</u> for more details.										
Agents Agents and Gateways Agents with DataSource	Software download										
Downloads and Keys	Download		Package type		Version	Size (MB)	SHA-256 checksum				
	Agent for LINUX (AARCH64)	Agent for LINUX (AARCH64)			240508.1440	100	21c60d45e539e4885029c7354a02829dac2cdb4843fe01a02354e6537d2		2712		
	Agent for LINUX (AARCH64)	ZIP		240508.1440	100	618b2021bcb1e499a6f69e38613f37030f1582488d2f24f579ba7b3ba5ad8352			52		
	Agent for LINUX (X86_64)		ZIP		240508.1440	100	ba3fa13886f5c606744768caedb280eb29896ac69d6149f2d9e105a81d7dbcc2			:02	
	Agent for LINUX (X86 64)	RPM		240508.1440	100	02dafc5cfeb0b272eb551bb092c6e9281bd8cc26b054d19f7c6139813d981d35					
	Gateway for LINUX (AARCH64)		RPM 240508.1440.1715517696 10		102	14f2524d3619e255cf2b8d50a00d2aaf13348db3977a09efcb377d7d750854a6					
	Install keys										
	Create key										
	Key name	Compartment		Created by			Created	Days remaining	Agent installations remaining		
	SCASG03-Mgmt_Agent	svospm		stdenni			Fri, May 31, 2024 12:15 UTC	365	Copy OCID to clipboard	:	
	logging_analytics_automatic_key	Management-Agenta		admin			Fri, Apr 19, 2024 09:19 UTC	141	Copy key to clipboard	:	
	Management_Agent	svospm	admin				Wed, Apr 17, 2024 08:46 UTC	321	Download key to file	:	
	Management_Gateway	svospm		admin			Wed, Apr 17, 2024 08:46 UTC	321	Delete key	:	

OCI Region – Management Agent Key Download

The downloaded key file had the following contents: -



ODC System – Management Agent Response File

Some customizations of this file will be required to provide improved visibility of the resulting Gateway and Agent installations.

As bare minimum, provide: -

- an AgentDisplayName
- defined FreeFormTags

In addition, for the Management Agents, add two new entries

- GatewayServerHost
- GatewayServerPort

The resulting response (rsp) files need now to be copied across to the Management Gateway Compute Instance.

This completes the OCI Region Installation steps.

Oracle Management Gateway Installation

Having completed the Management Gateway Compute Instance configuration steps, all that remains is to install the management gateway rpm package and configure with the correct response file.

Install Management Gateway rpm package

Run the command 'dnf localinstall oracle.mgmt_gateway.rpm' to install the Management Gateway package downloaded previously: -

```
DNF LOCALINSTALL ORACLE.MGMT_GATEWAY.RPM
LAST METADATA EXPIRATION CHECK: 0:06:16 AGO ON FRI 31 MAY 2024 12:32:25 PM GMT.
DEPENDENCIES RESOLVED.
PACKAGE
                               ARCHITECTURE
                                                  VERSION
                                                                                     REPOSITORY
                                                                                                                SIZE
      .....
INSTALLING:
 ORACLE.MGMT_GATEWAY
                                X86_64
                                                    240508.1440.1715517696-1
                                                                                      @COMMANDLINE
                                                                                                                97 M
TRANSACTION SUMMARY
                  _____
INSTALL 1 PACKAGE
TOTAL SIZE: 97 M
INSTALLED SIZE: 97 M
IS THIS OK [Y/N]: Y
DOWNLOADING PACKAGES:
RUNNING TRANSACTION CHECK
TRANSACTION CHECK SUCCEEDED.
RUNNING TRANSACTION TEST
TRANSACTION TEST SUCCEEDED.
RUNNING TRANSACTION
 PREPARING
1/1
 RUNNING SCRIPTLET: ORACLE.MGMT GATEWAY-240508.1440.1715517696-1.X86 64
1/1
CHECKING PRE-REOUISITES
       CHECKING IF ANY PREVIOUS GATEWAY SERVICE EXISTS
       CHECKING IF OS HAS SYSTEMD OR INITD
       CHECKING AVAILABLE DISK SPACE FOR GATEWAY INSTALL
       CHECKING IF /OPT/ORACLE/MGMT_AGENT DIRECTORY EXISTS
       CHECKING IF 'MGMT_AGENT' USER EXISTS
       CHECKING JAVA VERSION
              JAVA_HOME IS NOT SET OR NOT READABLE TO ROOT
              TRYING DEFAULT PATH /USR/BIN/JAVA
              JAVA VERSION: 1.8.0_412 FOUND AT /USR/BIN/JAVA
       CHECKING AGENT VERSION
                 : ORACLE.MGMT_GATEWAY-240508.1440.1715517696-1.X86_64
  INSTALLING
1/1
 RUNNING SCRIPTLET: ORACLE.MGMT_GATEWAY-240508.1440.1715517696-1.X86_64
1/1
EXECUTING INSTALL
       UNPACKING SOFTWARE ZIP
       COPYING FILES TO DESTINATION DIR (/OPT/ORACLE/MGMT_AGENT)
       INITIALIZING SOFTWARE FROM TEMPLATE
       CHECKING IF JAVASCRIPT ENGINE IS AVAILABLE TO USE
       CREATING 'MGMT_GATEWAY' DAEMON
       GATEWAY INSTALL LOGS: /OPT/ORACLE/MGMT_AGENT/INSTALLER-LOGS/INSTALLER.LOG.0
       SETUP GATEWAY USING INPUT RESPONSE FILE (RUN AS ANY USER WITH 'SUDO' PRIVILEGES)
       USAGE:
              SUD0 /OPT/ORACLE/MGMT_AGENT/AGENT_INST/BIN/SETUPGATEWAY.SH OPTS=[FULL_PATH_TO_INPUT.RSP]
GATEWAY INSTALL SUCCESSFUL
 VERIFYING
               : ORACLE.MGMT_GATEWAY-240508.1440.1715517696-1.X86_64
1/1
INSTALLED:
 ORACLE.MGMT_GATEWAY-240508.1440.1715517696-1.X86_64
Complete!
```

ODC System - Management Gateway package install

The installation of this package creates a new user & group 'mgmt_agent' and installs the package contents into the 'opt/oracle/mgmt_agent' directory.

Copy the required Management Gateway response file across to the 'opt/oracle/mgmt_agent' directory and change ownership to 'mgmt_agent and check the response file contents: -

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```
CD /OPT/ORACLE/MGMT_AGENT/
15 -1
TOTAL 0
DRWXR-X---. 6 MGMT_AGENT MGMT_AGENT 128 MAY 31 12:38 240508.1440
DRWXR-X---. 9 MGMT_AGENT MGMT_AGENT 99 MAY 31 12:38 AGENT_INST
DRWXR-X---. 2 MGMT_AGENT MGMT_AGENT 105 MAY 31 12:38 INSTALLER-LOGS
DRWXR-X---. 4 MGMT_AGENT MGMT_AGENT 86 MAY 31 12:38 ZIP
CP -P /ROOT/FILES/MANAGEMENT_GATEWAY.RSP
CHOWN MGMT_AGENT:MGMT_AGENT MANAGEMENT_GATEWAY.RSP
LS -L
TOTAL 4
DRWXR-X---. 6 MGMT_AGENT MGMT_AGENT 128 MAY 31 12:38 240508.1440
DRWXR-X---. 9 MGMT_AGENT MGMT_AGENT 99 MAY 31 12:38 AGENT_INST
DRWXR-X---. 2 MGMT_AGENT MGMT_AGENT 105 MAY 31 12:38 INSTALLER-LOGS
-RW-R--R--. 1 MGMT_AGENT MGMT_AGENT 1401 MAY 31 12:29 MANAGEMENT_GATEWAY.RSP
DRWXR-X---. 4 MGMT_AGENT MGMT_AGENT 86 MAY 31 12:38 ZIP
CAT MANAGEMENT GATEWAY.RSP
****
# PLEASE REFER THE FOLLOWING MANAGEMENT AGENT INSTALLATION GUIDE FOR MORE DETAILS.
# HTTPS://DOCS.CLOUD.ORACLE.COM/IAAS/MANAGEMENT-AGENTS/INDEX.HTML
# SINCE THIS FILE HAS SENSITIVE INFORMATION, PLEASE MAKE SURE THAT AFTER
# EXECUTING SETUP.SH YOU EITHER DELETE THIS FILE OR STORE IT IN A SECURE
# LOCATION.
*****
MANAGEMENTAGENTINSTALLKEY
MI4WLHVZLXBOB2VUAXGTMSXVY2LKMS50ZW5HBMN5LM9JMS4UYWFHYWFHYWF1YJVXY3FZCGLXM29KZXVWMNPSA3FMDWP5CWR3AZR1ZGPJMJRUZHPLEWZMZNNVEMHMEMPXLG
9JAWQXLM1HBMFNZW1LBNRHZ2VUDGLUC3RHBGXRZXKUB2MXLNBOEC5HBWFHYWFHYTJ4NXB1Y2LHYME1N2LOMMU1C3PYAXNUNWFWDZN2D29IAMZXEHLIBXJSNTQ3D3UYD3F6
AWESSVPHUMHOADF0BFJE0E90MEXFT09JV1PMDKVMWVP2EWLYCZNWY2IXMW==
AGENTDISPLAYNAME = SCASG03-0CM-MGMTGW-0L9
#PLEASE UNCOMMENT THE BELOW TAGS PROPERTIES AND PROVIDE VALUES AS NEEDED
FREEFORMTAGS = [{"GATEWAYGROUP":"SCASG03"}]
#FREEFORMTAGS = [{"<KEY1>":"<VALUE1>"}, {"<KEY2>":"<VALUE2>"}]
#DEFINEDTAGS = [{"NAMESPACE1":{"<KEY1>":"<VALUE1>"}}, {"NAMESPACE2":{"<KEY2>":"<VALUE2>"}}]
CREDENTIALWALLETPASSWORD
#SERVICE.PLUGIN.LOGAN.DOWNLOAD=TRUE
#SERVICE.PLUGIN.APPMGMT.DOWNLOAD=TRUE
#SERVICE.PLUGIN.JM.DOWNLOAD=TRUE
#SERVICE.PLUGIN.DBAAS.DOWNLOAD=TRUE
#SERVICE.PLUGIN.JMS.DOWNLOAD=TRUE
#SERVICE.PLUGIN.OSMH.DOWNLOAD=TRUE
#SERVICE.PLUGIN.OPSIHOST.DOWNLOAD=TRUE
```

ODC System - Management Gateway package checks

Management Gateway Setup

With the correct AgentDisplayName and FreeFormTags settings in place, the gateway setup can now be completed: -

/OPT/ORACLE/MGMT_AGENT/AGENT_INST/BIN/SETUPGATEWAY.SH OPTS=/OPT/ORACLE/MGMT_AGENT/MANAGEMENT_GATEWAY.RSP VALIDATING RESPONSE FILE VALIDATING CERTIFICATE PROPERTIES SUCCESSFULLY VALIDATED RESPONSE FILE /OPT/ORACLE/MGMT_AGENT/AGENT_INST/BIN/SETUPAGENT.SH OPTS=/OPT/ORACLE/MGMT_AGENT/MANAGEMENT_GATEWAY.RSP EXECUTING CONFIGURE PARSING INPUT RESPONSE FILE VALIDATING INSTALL KEY GENERATING COMMUNICATION WALLET GENERATING SECURITY ARTIFACTS REGISTERING MANAGEMENT GATEWAY FOUND SERVICE PLUGIN(S): [GATEWAYPROXY] STARTING GATEWAY GATEWAY STARTED SUCCESSFULLY STARTING PLUGIN DEPLOYMENT FOR: [GATEWAYPROXY] DEPLOYING SERVICE PLUGIN(S)...DONE. GATEWAYPROXY : SUCCESSFULLY DEPLOYED EXTERNAL PLUGIN GATEWAY SETUP COMPLETED AND THE GATEWAY IS RUNNING. IN THE FUTURE GATEWAY CAN BE STARTED BY DIRECTLY RUNNING: SUDO SYSTEMCTL START MGMT GATEWAY PLEASE USE OCI CLI OR OCI MANAGEMENT AGENT CONSOLE TO VALIDATE THE SUCCESSFUL ACTIVATION OF YOUR AGENT. PLEASE MAKE SURE THAT YOU DELETE /OPT/ORACLE/MGMT_AGENT/MANAGEMENT_GATEWAY.RSP OR STORE IT IN SECURE LOCATION. CHECKING FOR PLUGIN TO BE DEPLOYED PLUGIN DEPLOYED SUCCESSFULLY SETTING UP GATEWAY CREATING GATEWAY SYSTEM PROPERTIES FILE CREATING PROPERTIES FILE CREATING OR VALIDATING CERTIFICATES WAITING FOR MANAGEMENT GATEWAY TO CREATE OR VALIDATE CERTIFICATES ... WAITING FOR MANAGEMENT GATEWAY TO CREATE OR VALIDATE CERTIFICATES ... WAITING FOR MANAGEMENT GATEWAY TO CREATE OR VALIDATE CERTIFICATES ... CREATING WALLETS WAITING FOR MANAGEMENT GATEWAY TO SETUP ... MANAGEMENT GATEWAY PLUGIN SET UP SUCCESSFULLY.

ODC System – Management Gateway Setup

This completes the Management Gateway Compute Instance installation steps.

Oracle Management Agent Installation

The following steps needs to be completed for each Compute Instance where the Oracle Management Agent will be deployed.

Check Internal network connectivity

A simple ping test will be sufficient. The Agent Compute Instances need to be able to 'see' the Management Gateway Compute Instance

- This can be accomplished by having the Management Gateway VM Instance (target) within the same VCN / Subnet constructs as the VM Instance(s) to which the Oracle Management Agent is to be deployed
- Or by having the necessary networking constructs in place to permit such inter VCN traffic (e.g. Local Peering Gateway)

```
PING OCM-MGMTGW.EXT.SVOSPM-VCN1.ORACLEVCN.COM

PING OCM-MGMTGW.EXT.SVOSPM-VCN1.ORACLEVCN.COM (172.20.0.3) 56(84) BYTES OF DATA.

64 BYTES FROM OCM-MGMTGW.EXT.SVOSPM-VCN1.ORACLEVCN.COM (172.20.0.3): ICMP_SEQ=1 TTL=64 TIME=2.10 MS

64 BYTES FROM OCM-MGMTGW.EXT.SVOSPM-VCN1.ORACLEVCN.COM (172.20.0.3): ICMP_SEQ=2 TTL=64 TIME=0.435 MS

64 BYTES FROM OCM-MGMTGW.EXT.SVOSPM-VCN1.ORACLEVCN.COM (172.20.0.3): ICMP_SEQ=3 TTL=64 TIME=0.430 MS

64 BYTES FROM OCM-MGMTGW.EXT.SVOSPM-VCN1.ORACLEVCN.COM (172.20.0.3): ICMP_SEQ=3 TTL=64 TIME=0.430 MS

64 BYTES FROM OCM-MGMTGW.EXT.SVOSPM-VCN1.ORACLEVCN.COM (172.20.0.3): ICMP_SEQ=3 TTL=64 TIME=0.292 MS

^C

--- OCM-MGMTGW.EXT.SVOSPM-VCN1.ORACLEVCN.COM PING STATISTICS ---

4 PACKETS TRANSMITTED, 4 RECEIVED, 0% PACKET LOSS, TIME 3005MS

RTT MIN/AVG/MAX/MDEV = 0.292/0.814/2.100/0.744 MS
```

ODC System - Management Agent Connectivity

Copy Management Agent rpm and response file from Gateway

The Management Gateway Compute instance has local copies of the Management Agent rpm and the Management Agent response file. These need to be copied across to each Compute Instance for local installation and setup: -



ODC System - Management Agent File Copy

Customize the Management Agent Response File

A number of Compute Instance specific values need to be amended for each individual Management Agent deployment. These are highlighted in **BOLD** below: -



ODC System – Management Agent Customization

Ensure that the correct AgentDisplayName, GatewayServerHost, and GatewayServerPort are in place within the Management Agent response file before running the Management Agent setup.

Install Management Agent rpm package

Run the command 'dnf localinstall oracle.mgmt_agent.rpm' to install the Management Agent package downloaded previously: -

```
DNF LOCALINSTALL ORACLE.MGMT AGENT.RPM
LAST METADATA EXPIRATION CHECK: 0:46:08 AGO ON FRI 31 MAY 2024 01:23:31 PM GMT.
DEPENDENCIES RESOLVED.
        _____
                             ARCHITECTURE
                                                       VERSION
                                                                         REPOSITORY
PACKAGE
                                                                                                          SIZE
 _____
                                                                                                         ......
INSTALLING:
ORACLE.MGMT_AGENT
                             X86_64
                                                       240508.1440-1
                                                                          @COMMANDLINE
                                                                                                          96 M
TRANSACTION SUMMARY
                INSTALL 1 PACKAGE
TOTAL SIZE: 96 M
INSTALLED SIZE: 96 M
IS THIS OK [Y/N]: Y
DOWNLOADING PACKAGES:
RUNNING TRANSACTION CHECK
TRANSACTION CHECK SUCCEEDED.
RUNNING TRANSACTION TEST
TRANSACTION TEST SUCCEEDED.
RUNNING TRANSACTION
 PREPARING
1/1
 RUNNING SCRIPTLET: ORACLE.MGMT_AGENT-240508.1440-1.X86_64
1/1
CHECKING PRE-REQUISITES
      CHECKING IF ANY PREVIOUS AGENT SERVICE EXISTS
      CHECKING IF OS HAS SYSTEMD OR INITD
      CHECKING AVAILABLE DISK SPACE FOR AGENT INSTALL
      CHECKING IF /OPT/ORACLE/MGMT_AGENT DIRECTORY EXISTS
      CHECKING IF 'MGMT_AGENT' USER EXISTS
      CHECKING JAVA VERSION
             JAVA_HOME IS NOT SET OR NOT READABLE TO ROOT
             TRYING DEFAULT PATH /USR/BIN/JAVA
             JAVA VERSION: 1.8.0_412 FOUND AT /USR/BIN/JAVA
      CHECKING AGENT VERSION
 TNSTALL TNG
               : ORACLE.MGMT_AGENT-240508.1440-1.X86_64
1/1
RUNNING SCRIPTLET: ORACLE.MGMT_AGENT-240508.1440-1.X86_64
1/1
EXECUTING INSTALL
      UNPACKING SOFTWARE ZIP
      COPYING FILES TO DESTINATION DIR (/OPT/ORACLE/MGMT_AGENT)
      INITIALIZING SOFTWARE FROM TEMPLATE
      CHECKING IF JAVASCRIPT ENGINE IS AVAILABLE TO USE
      CREATING MGMT_AGENT DAEMON
      AGENT INSTALL LOGS: /OPT/ORACLE/MGMT_AGENT/INSTALLER-LOGS/INSTALLER.LOG.0
      SETUP AGENT USING INPUT RESPONSE FILE (RUN AS ANY USER WITH 'SUDO' PRIVILEGES)
      USAGE:
             SUDO /OPT/ORACLE/MGMT_AGENT/AGENT_INST/BIN/SETUP.SH OPTS=[FULL_PATH_TO_INPUT.RSP]
AGENT INSTALL SUCCESSFUL
 VERIFYING
             : ORACLE.MGMT_AGENT-240508.1440-1.X86_64
1/1
INSTALLED:
 ORACLE.MGMT_AGENT-240508.1440-1.X86_64
COMPLETE!
```

ODC System - Management Agent package install

The installation of this package creates a new user & group 'mgmt_agent' and installs the package contents into the 'opt/oracle/mgmt_agent' directory.

Copy the required Management Agent response file across to the 'opt/oracle/mgmt_agent' directory and change ownership to 'mgmt_agent and check the response file contents: -

```
CD /OPT/ORACLE/MGMT AGENT/
[ROOT@OCM-AGENT04-OL9 MGMT_AGENT]# CP -P /ROOT/MANAGEMENT_AGENT.RSP .
[ROOT@OCM-AGENT04-OL9 MGMT_AGENT]# LS -L
TOTAL 4
DRWXR-X---. 6 MGMT_AGENT MGMT_AGENT 107 MAY 31 14:09 240508.1440
DRWXR-X---. 9 MGMT_AGENT MGMT_AGENT 99 MAY 31 14:09 AGENT_INST
DRWXR-X---. 2 MGMT_AGENT MGMT_AGENT 105 MAY 31 14:09 INSTALLER-LOGS
-RW-R--R--. 1 ROOT ROOT 1492 MAY 31 14:11 MANAGEMENT_AGENT.RSP
DRWXR-X---. 4 MGMT_AGENT MGMT_AGENT 86 MAY 31 14:09 ZIP
[ROOT@OCM-AGENT04-OL9 MGMT_AGENT]# CHOWN MGMT_AGENT:MGMT_AGENT MANAGEMENT_AGENT.RSP
[ROOT@OCM-AGENT04-OL9 MGMT_AGENT]# LS -L
TOTAL 4
DRWXR-X---. 6 MGMT_AGENT MGMT_AGENT 107 MAY 31 14:09 240508.1440
DRWXR-X---. 9 MGMT_AGENT MGMT_AGENT 99 MAY 31 14:09 AGENT_INST
DRWXR-X---. 2 MGMT_AGENT MGMT_AGENT 105 MAY 31 14:09 INSTALLER-LOGS
-RW-R--R--. 1 MGMT_AGENT MGMT_AGENT 1492 MAY 31 14:11 MANAGEMENT_AGENT.RSP
DRWXR-X---, 4 MGMT AGENT MGMT AGENT 86 MAY 31 14:09 ZIP
[ROOT@OCM-AGENT04-OL9 MGMT_AGENT]# CAT MANAGEMENT_AGENT.RSP
*****
# PLEASE REFER THE FOLLOWING MANAGEMENT AGENT INSTALLATION GUIDE FOR MORE DETAILS.
# HTTPS://DOCS.CLOUD.ORACLE.COM/IAAS/MANAGEMENT-AGENTS/INDEX.HTML
# SINCE THIS FILE HAS SENSITIVE INFORMATION. PLEASE MAKE SURE THAT AFTER
# EXECUTING SETUP.SH YOU EITHER DELETE THIS FILE OR STORE IT IN A SECURE
# LOCATION.
MANAGEMENTAGENTINSTALLKEY
MI4WLHVZLXBOB2VUAXGTMSXVY2LKMS50ZW5HBMN5LM9JMS4UYWFHYWFHYWF1YJVXY3FZCGLXM29KZXVWMNPSA3FMDWP5CWR3AZR1ZGPJMJRUZHPLEWZMZNNVEMHMEMPXLG
9JAWQXLM1HBMFNZW1LBNRHZ2VUDGLUC3RHBGXRZXKUB2MXLNBOEC5HBWFHYWFHYTJ4NXB1Y2LHCHJYDWLWNZVXDWKØETRPZGE3BNQ3NXRIA2NXYMØ2NMZWEDVYN3RYDMRO
EMESSVFGZJZUQ2LXYNHQVNFQWKHWTKPILURNZUPXCG9XBJVIYMP0EKNSBW==
AGENTDISPLAYNAME = SCASG03-OCM-AGENT04-OL9
#PLEASE UNCOMMENT THE BELOW TAGS PROPERTIES AND PROVIDE VALUES AS NEEDED
FREEFORMTAGS = [{"GATEWAYGROUP":"SCASG03"}]
#FREEFORMTAGS = [{"<KEY1>":"<VALUE1>"}, {"<KEY2>":"<VALUE2>"}]
#DEFINEDTAGS = [{"NAMESPACE1":{"<KEY1>":"<VALUE1>"}}, {"NAMESPACE2":{"<KEY2>":"<VALUE2>"}}]
CREDENTIALWALLETPASSWORD =
#SERVICE.PLUGIN.LOGAN.DOWNLOAD=TRUE
#SERVICE.PLUGIN.APPMGMT.DOWNLOAD=TRUE
#SERVICE.PLUGIN.JM.DOWNLOAD=TRUE
#SERVICE.PLUGIN.DBAAS.DOWNLOAD=TRUE
#SERVICE.PLUGIN.JMS.DOWNLOAD=TRUE
#SERVICE.PLUGIN.OSMH.DOWNLOAD=TRUE
#SERVICE.PLUGIN.OPSIHOST.DOWNLOAD=TRUE
GATEWAYSERVERHOST = OCM-MGMTGW-OL9.EXT.SVOSPM-VCN1.ORACLEVCN.COM
GATEWAYSERVERPORT = 4480
```

ODC System - Management Agent package checks

Management Agent Setup

With the correct AgentDisplayName, FreeFormTags, GatewayServerHost, and GatewayServerPort settings in place, the agent setup can now be completed: -

```
/OPT/ORACLE/MGMT_AGENT/AGENT_INST/BIN/SETUP.SH OPTS=/OPT/ORACLE/MGMT_AGENT/MANAGEMENT_AGENT.RSP
EXECUTING CONFIGURE

PARSING INPUT RESPONSE FILE
VALIDATING INSTALL KEY
GENERATING COMMUNICATION WALLET
GENERATING SECURITY ARTIFACTS
REGISTERING MANAGEMENT AGENT
SETTING PROXY FOR AGENT COMMUNICATION

STARTING AGENT...
AGENT STARTED SUCCESSFULLY

AGENT SETUP COMPLETED AND THE AGENT IS RUNNING.

IN THE FUTURE AGENT CAN BE STARTED BY DIRECTLY RUNNING: SUDD SYSTEMCTL START MGMT_AGENT
PLEASE USE OCI CLI OR OCI MANAGEMENT AGENT CONSOLE TO VALIDATE THE SUCCESSFUL ACTIVATION OF YOUR AGENT.

PLEASE MAKE SURE THAT YOU DELETE /OPT/ORACLE/MGMT_AGENT/MANAGEMENT_AGENT.RSP OR STORE IT IN SECURE LOCATION.
```

ODC System – Management Agent Setup

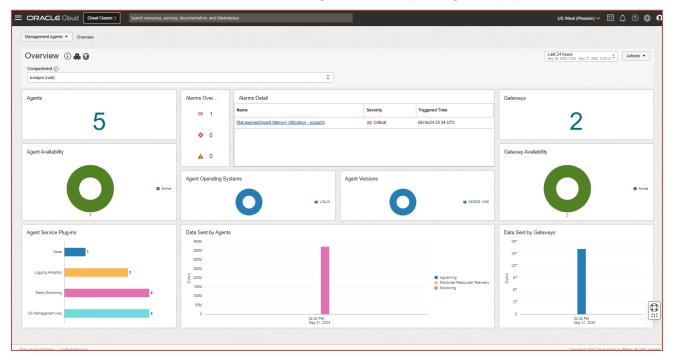
This completes the Management Agent Compute Instance installation steps.

Verification

The verification of the successful configuration, installation & setup for the Oracle Management Gateway and Agents can be shown at three separate levels.

OCI Region Confirmation

Two OCI Console screens show the status of the Management Gateway and Agent deployments: -



OCI Region – Management Agent Overview

The Management Agents Overview dashboard shows the number and status of the Oracle Management Agents and the Oracle Management Gateways.

	Cloud Classic > Search resources, services, documentation, and	Marketplace				US We	st (Phoenix) 🗸 👩 🧔)
lanagement Agents	Agents and Gateways in svosp	m (root) compartment			1527.11			
Overview Dashboards	Name	A Host	Availability	Operating system	Version	Plug- ins	Created	
Widgets	scasg03-ocm-agent01-ol7	ocm-agent01-ol7.ext.svospm-vcn1.oraclevcn.com	 Active 	LINUX	240508.1440	OS Man	Thu, Apr 18, 2024 13:33 UTC	:
Filters	scasg03-ocm-agent02-ol8	ocm-agent02-ol8.ext.svospm-vcn1.oraclevcn.com	Active	LINUX	240508.1440	OS Man	Thu, Apr 18, 2024 13:38 UTC	:
Agents	scasg03-ocm-agent03-ol9	ocm-agent03-ol9.ext.svospm-vcn1.oraclevcn.com	Active	LINUX	240508.1440	OS Man	Thu, Apr 18, 2024 10:03 UTC	:
Agents and Gateways	scasg03-ocm-agent04-ot9	ocm-agent04-ol9.ext.svospm-vcn1.oraclevcn.com	Active	LINUX	240508.1440		Fri, May 31, 2024 14:13 UTC	:
Agents with DataSource	scasg03-ocm-mgmtgw	ocm-mgmtgw.ext.svospm-vcn1.oraclevcn.com	Active	LINUX	240229.1733	Gateway	Wed, Apr 17, 2024 16:06 UTC	:
Downloads and Keys	scasg03-ocm-mgmtgw-ol9	ocm-mgmtgw-ol9.ext.svospm-vcn1.oraclevcn.com	Active	LINUX	240508.1440	Gateway	Fri, May 31, 2024 12:49 UTC	:
Scope	scasg03-ocm-oshub-ol8	ocm-oshub-ol8.ext.svospm-vcn1.oraclevcn.com	Active	LINUX	240508.1440	OS Man	Wed, May 1, 2024 15:53 UTC	:
Filters								
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OCI Region – Management Agent List

The Management Agents 'Agents & Gateway' screen shows individual Management Agents and Gateways in a tabular format.

Management Gateway Confirmation

A simple 'systemctl status mgmt_gateway.service' command displays the local status for the Oracle Management Gateway daemon: -

```
SYSTEMCTL STATUS MGMT GATEWAY.SERVICE
MGMT GATEWAY.SERVICE - MGMT GATEWAY
    LOADED: LOADED (/ETC/SYSTEM/MGMT_GATEWAY.SERVICE; ENABLED; PRESET: DISABLED)
    ACTIVE: ACTIVE (RUNNING) SINCE FRI 2024-05-31 13:52:57 GMT; 10S AGO
    PROCESS: 1544 EXECSTART=/OPT/ORACLE/MGMT_AGENT/AGENT_INST/BIN/AGENTCORE START SYSD (CODE=EXITED, STATUS=0/SUCCESS)
  MAIN PID: 1687 (WRAPPER)
     TASKS: 96 (LIMIT: 60122)
    MEMORY: 725.4M
      CPU: 15.093S
    CGROUP: /SYSTEM.SLICE/MGMT_GATEWAY.SERVICE
            WRAPP>
-1931 /USR/LIB/JVM/JAVA-1.8.0-OPENJDK-1.8.0.412.B08-2.0.1.EL9.X86_64/JRE/BIN/JAVA -
DORG.TANUKISOFTWARE.WRAPPER.WRAPPERSI>
           L-4557 /USR/LIB/JVM/JAVA-1.8.0-OPENJDK-1.8.0.412.B08-2.0.1.EL9.X86_64/JRE/BIN/JAVA -XMX512M -
DORACLE.GATEWAY.FIPS.APPROVE>
MAY 31 13:52:44 OCM-MGMTGW-OL9 SYSTEMD[1]: STARTING MGMT_GATEWAY..
MAY 31 13:52:44 OCM-MGMTGW-OL9 AGENTCORE[1544]: STARTING MGMT_GATEWAY..
MAY 31 13:52:52 OCM-MGMTGW-OL9 AGENTCORE[1544]: WAITING FOR MGMT_GATEWAY.....
MAY 31 13:52:57 OCM-MGMTGW-OL9 AGENTCORE[1544]: .....RUNNING: PID:1687
MAY 31 13:52:57 OCM-MGMTGW-OL9 SYSTEMD[1]: STARTED MGMT_GATEWAY.
```

ODC System - Management Gateway Status

Management Agent Confirmation

A simple 'systemctl status mgmt_agent.service' command displays the local status for the Oracle Management

Agent daemon: -

```
SYSTEMCTL STATUS MGMT AGENT.SERVICE
MGMT AGENT.SERVICE - MGMT AGENT
     LOADED: LOADED (/ETC/SYSTEMD/SYSTEM/MGMT_AGENT.SERVICE; ENABLED; PRESET: DISABLED)
     ACTIVE: ACTIVE (RUNNING) SINCE FRI 2024-05-31 14:14:12 GMT; 1MIN 135 AGO
    PROCESS: 9178 EXECSTART=/OPT/ORACLE/MGMT_AGENT/AGENT_INST/BIN/AGENTCORE START SYSD (CODE=EXITED, STATUS=0/SUCCESS)
   MAIN PID: 9256 (WRAPPER)
      TASKS: 44 (LIMIT: 60121)
     MEMORY: 215.9M
       CPU: 9,0655
     CGROUP: /SYSTEM.SLICE/MGMT_AGENT.SERVICE
              -9256 /OPT/ORACLE/MGMT_AGENT/AGENT_INST/BIN/./WRAPPER /OPT/ORACLE/MGMT_AGENT/AGENT_INST/BIN/../CONFIG/WRAPPER.CONF
WRAPPER.SYSLOG.IDENT=>
L-9271 /USR/LIB/JVM/JAVA-1.8.0-OPENJDK-1.8.0.412.B08-2.0.1.EL9.X86_64/JRE/BIN/JAVA - DORG.TANUKISOFTWARE.WRAPPER.WRAPPERSIMPLEAPP.MAXSTART>
MAY 31 14:14:00 OCM-AGENT04-OL9 SYSTEMD[1]: STARTING MGMT_AGENT.
MAY 31 14:14:00 OCM-AGENT04-OL9 AGENTCORE[9178]: STARTING MGMT_AGENT...
MAY 31 14:14:07 OCM-AGENT04-OL9 AGENTCORE[9178]: WAITING FOR MGMT_AGENT..
                                                                              . . . . . . .
MAY 31 14:14:12 OCM-AGENT04-OL9 AGENTCORE[9178]: .....RUNNING: PID:9256
MAY 31 14:14:12 OCM-AGENT04-OL9 SYSTEMD[1]: STARTED MGMT_AGENT.
```

ODC System – Management Agent Status

This completes the verification steps for the Oracle Management Agent and Gateway services within an Oracle Distributed Cloud environment .

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