Oracle Identity and Access Management 12PS4 Containers

Frequently Asked Questions (FAQ)
PURPOSE STATEMENT
This document provides an overview of frequently asked questions about the Container images, Marketplace images of Oracle Identity and Access Management products.

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1.1 What is the Oracle Identity and Access Management containerization about?

Oracle is adopting DevOps delivery model by leveraging Containers for Docker and Kubernetes to modernize the lifecycle management of Oracle Identity and Access Management products. This approach will simplify the deployment and maintenance of Oracle Identity and Access Management products across various deployments on physical, private cloud or public clouds.

1.2 Would Oracle be stopping the software-based delivery model?

No. Oracle will continue to release the software-based releases for new releases and patches. Container-based delivery will be in addition to the software-based delivery. There is no change in the way Oracle's product delivery as software.

1.3 Is the Oracle Identity and Access Management containers relevant only for Cloud?

No. Containers can be deployed on Physical, private cloud or public cloud environments. Enterprise customers can take the benefit of Docker containers and Kubernetes within the firewall too.

1.4 What is Oracle releasing as part of the Oracle Identity and Access Management containerization initiative?

Oracle has released production-ready Docker and Kubernetes container images through MOS (My Oracle Support). Oracle also released samples files for development and customization through github, container images for development purposes through Oracle Container Registry. Refer to Documentation section for additional information.

1.5 What products are part of the Oracle Identity and Access Management Cloud readiness?

Oracle Identity Governance, Oracle Access Management, Oracle Unified Directory (including Oracle Unified Directory Services Manager) are part of the Oracle IAM Cloud readiness initiative.
Most Oracle Identity and Access Management 12c PS4 version of products are part of this initiative.

**LICENSING**

2.1 If I am an existing Oracle IAM customer, are there any additional licenses needed to leverage the container images or other scripts?
   No. There are no changes to Oracle Identity and Access Management licensing and pricing with the release of Oracle container images.

2.2 Do the Oracle IAM containers include Oracle database?
   Oracle database is not part of the IAM containers. It needs to be configured externally.

**DEPLOYMENT**

3.1 What samples does Oracle include for deployment of Oracle Identity and Access Management (IAM) containers?
   Oracle provides sample files for Dockerfile, Kubernetes scripts, and ImageTool script.

3.2 How can I build my own Docker Image for Oracle Identity Governance, Oracle Access Management and Oracle Unified Directory?
   Oracle provides sample Dockerfile and ImageTool. Using ImageTool, you can create custom images with custom set of patches and BLRs. This tool has the capability to create custom container images and apply patches, as well.

3.3 Does Oracle provide auto scale up/out?
   No, auto scaling is not supported in the current release.

3.4 How is the scaling in/out of nodes done based on workload?
   Follow the vendor’s Kubernetes-specific documentation to add or remove nodes.

3.5 How does the patch/upgrade work with OKE deployment?
   It works the same on Oracle Cloud Infrastructure Container Engine for Kubernetes (also known as OKE) as any Kubernetes cluster. You apply the yaml file that contains the name of the new image to be used.

3.6 Is it possible to choose Availability Domain for each Node within a Region?
   OKE Nodepools are distributed across Availability Domains and is managed by OKE. Only Bastion node is on a single Availability Domain.

3.7 How does the BI Publisher get deployed for Oracle Identity Governance and Oracle Access Management?
   BI Publisher is not deployed on Kubernetes. You must setup BI Publisher externally and integrate it with OIG and OAM. This is similar to the integration with the on-prem products.

3.8 Do I have to explicitly setup a separate BI Publisher instance and integrate it with Oracle Identity Governance for identity reports dashboard?
   Yes, you must setup BI Publisher externally and integrate it with OIG.

3.9 Does the Kubernetes deployment support RAC database?
   Yes, ensure that you have the correct scan URL for RAC DB. Everything related to DB remains same in Kubernetes.
3.10 Does the Oracle Identity Governance deployment support Autonomous DB (ADB)?
No, OIG uses some Enterprise Edition features that are not supported with ADB. If the base product is certified with ADB, it will be supported with Kubernetes, as well. Refer to the FMW Certification Matrix => https://www.oracle.com/middleware/technologies/fusion-certification.html for details about supported DB.

3.11 Can I continue to use OMC for monitoring Oracle Identity and Access Management products deployed on containers?
Yes, you can continue to monitor Oracle Identity and Access Management products deployed on containers as long as the interfaces required by OMC are made accessible.

3.12 What Dashboard does Oracle recommend for monitoring IAM WLS Managed Servers?
Oracle recommends using ELK/Prometheus. The WLS console displays IAM WLS Managed Servers in read-only mode.

3.13 How do I monitor the OKEs cluster?
Use the OKE dashboard to monitor the OKEs cluster.

3.14 Does Oracle IAM products need to be deployed in its own dedicated compartment on Oracle Cloud Infrastructure (OCI) or can the compartment be shared with other applications?
No, you can choose an existing compartment. Compartments are logical buckets for OCI ACLs.

3.15 If OCI does an upgrade of Kubernetes version, does it affect the deployment?
Kubernetes is not an OCI service. You can choose to decide when to upgrade. OKE is managed Kubernetes from Oracle.

3.16 What are the recommendations for Database deployments?
Database deployments must be external, either on OCI or on-prem. If on-prem, ensure fastconnect works as required. Ensure a proper connectivity between IDM and DB.

3.17 Can I directly upgrade/migrate from 11g to Oracle container images?
You must upgrade to 12cPS4. You can migrate using lift-and-shift strategies for each product.

3.18 Does the Identity and Access Management containers deployment on Kubernetes leverage the WebLogic Kubernetes operator?
Yes, this is true for all Identity and Access Management products that are dependent on WebLogic. However, for products like Oracle Unified Directory, we use Helm charts on Kubernetes.

3.19 How can I deploy Oracle Identity and Access Management (IAM) on other Cloud providers like AWS and Microsoft Azure?
The Kubernetes sample scripts provided by Oracle are generic. You must setup Kubernetes cluster and update the sample yaml files according to your Kubernetes infrastructure.

3.20 How can I deploy upgraded/patched images in customer managed IaaS or Private Cloud?
This can be achieved by leveraging external configuration management apps like Ansible, Jenkins, Chef etc. but this is not included as part of the IAM Containerization release.

MARKETPLACE

4.1 Can I use the Oracle IAM Marketplace images for production?
No, Marketplace is for evaluation only at this point of time.
4.2 What are the differences between the Image available on Marketplace and the images on Oracle Container Registry?

Marketplace provides end-to-end setup on OCI with minimal inputs. OCR uses similar container images, but the setup is manual and customizable.

4.3 For OIG image hosted on Marketplace, is BI Publisher reporting part of the image integrated with OIG for identity reports dashboard?

No, BI Publisher is not deployed with Oracle IAM container images. You must setup BI Publisher externally and integrate it with OIG. This is similar to the integration with the on-prem product.

4.4 Can I assign an SSH key for Bastion server/Nodepool key when using Oracle Marketplace?

No, this is not supported.

4.5 Do I have to explicitly setup a separate BI Publisher instance and integrate it with Oracle Identity Governance for identity reports dashboard?

Yes, you must setup BI Publisher externally and integrate it with OIG.

4.6 How can I upgrade to latest patches and patch-sets if using marketplace images?

After setting up the marketplace, you change the Image in the pods using the standard kubectl command and appropriate yaml file.

4.7 Does the Marketplace Image include the latest versions of IDM products: OAM, OIG, and OUD?

Yes, Marketplace includes Images for IDM products for versions 12.2.1.4.0 and the latest Bundle Patches.

4.8 Are the Marketplace images available for deployment on OCI compute instances, container or Kubernetes?

Yes.

4.9 Does Oracle provide similar Marketplace offerings with other cloud providers, such as Google, AWS, Microsoft Azure, and so on?

No. Currently Oracle provides Marketplace offerings for OCI.

4.10 Do the Marketplace images include rights to use OIG connectors (connector pack) and OAM web gates (From within the image as well as on-premises)?

Marketplace Image is for evaluation only. However, with Oracle IAM containers, you can use connectors if you have the appropriate entitlements.

4.11 On Oracle Marketplace, what is the recommended security policy for OIG/OAM Database?

Database is not installed as part of the image, so you must preinstall it. In whatever VNC/subnet you install it, you are required to have a route available from the new VNC created by Marketplace. You can lockdown the ingress rules on DB VCN to allow only single IP or range using the CIDR.

4.12 Why do we need to open Oracle DB port for this image installation?

Database is not installed as part of the image, so you must preinstall it. In whatever VNC/subnet you install the DB, you are required to have a route available from the new VNC created by Marketplace. You can lockdown the ingress rules on DB VCN to allow only single IP or range using the CIDR.

4.13 For Oracle DB, do I have to open 1521 port for 0.0.0.0/0?

Database is not installed as part of the image, so you must preinstall it. In whatever VNC/subnet you install the DB, you are required to have a route available from the new VNC created by Marketplace. You can lockdown the ingress rules on DB VCN to allow only single IP or range using the CIDR.

4.14 What are the prerequisites/requirements for using the Marketplace?

For Marketplace, you must have a tenancy in OCI and an instance of Oracle Database.
5.1 Where are the documents that I can read to get information about deploying and running Oracle Identity and Access Management products on Docker and Kubernetes?

There are separate guides available for every product that covers this information:
- Oracle Identity Governance 12.2.1.4.0: https://docs.oracle.com/en/middleware/idm/identity-governance/12.2.1.4/oigdk/index.html
- Oracle Access Management 12.2.1.4.0: https://docs.oracle.com/en/middleware/idm/access-manager/12.2.1.4/oamkd/index.html
- Oracle Unified Directory Services Manager 12.2.1.4.0: https://docs.oracle.com/en/middleware/idm/unified-directory/12.2.1.4/dsmdk/index.html

5.2 Where can I find download the latest pre-built Oracle Identity and Access Management container images?

Oracle has released production-ready Docker and Kubernetes container images through My Oracle Support. Information about patches for specific products is listed as part of the MOS note at https://support.oracle.com/epmos/faces/DocumentDisplay?id=2723908.1

5.3 Where can I get the instructions and download scripts to build Container images of Oracle Identity and Access Management products?

You can get the instructions and scripts from GitHub:
- Oracle Identity Governance: https://github.com/oracle/docker-images/tree/master/OracleIdentityGovernance

5.4 Where can I view the samples and scripts for the deployment of Oracle Identity and Access Management products on Kubernetes Cluster?

Here are a few links that should help to view the samples and scripts for the deployment of Oracle Identity and Access Management products on Kubernetes Cluster:
- Oracle Identity Governance: https://github.com/oracle/fmw-kubernetes/tree/master/OracleIdentityGovernance

5.5 Are there any free tutorials for using the Oracle Identity and Access Management Docker images?

Yes, the tutorials are posted at:
Oracle Access Management: https://docs.oracle.com/en/middleware/idm/access-manager/12.2.1.4/tutorial-oam-docker/

5.6 Where can I get information for deployment of Oracle Identity and Access Management products on Kubernetes Cluster?

Oracle Identity Governance: https://oracle.github.io/fmw-kubernetes/oig/
Oracle Access Management: https://oracle.github.io/fmw-kubernetes/oam/
Oracle Unified Directory: https://oracle.github.io/fmw-kubernetes/oud/
Oracle Unified Directory Services Manager: https://oracle.github.io/fmw-kubernetes/oudsm/

SUPPORT

6.1 If I run into a problem, how will Oracle support assist me?

If the problem is a known Oracle issue, Oracle Support will recommend the appropriate known solution. If not, Oracle Support will attempt to reproduce the problem outside the Docker Container and Kubernetes, directly on a certified Host OS, unless Oracle Support believes the problem is related to use of Docker or Kubernetes.

If the problem cannot be reproduced on a certified Host OS, Oracle Support will attempt to reproduce the problem on a certified Docker Container and certified Kubernetes. If the problem still cannot be reproduced, Oracle will request that the customer reproduce the problem on a certified Docker Container, certified Kubernetes or directly on a certified Host OS. If the problem cannot be reproduced in either of these environments, Oracle Support will assume the problem is caused by differences between the certified Kubernetes platform, and the Kubernetes platform being used by the customer. If the problem is a network communication issue Oracle Support will assume the problem is caused by the network fabric being used by the customer. Oracle Support will refer the customer to the non-certified Kubernetes platform or the network vendor for support.

6.2 Does Oracle provide support if I create my own container OIG setup on non-Oracle cloud?

On Oracle Cloud Infrastructure (OCI), yes; ensure correct license and support contract exists. On non-OCI cloud, Oracle support will try to provide best effort support.

6.3 Does Oracle support the integration of the containers & other automation with Ansible?

Oracle does not provide the integration. However, you can write the Ansible scripts yourself.

6.4 If I need additional information about the deployment, what do I need to do?

Please refer to the product documentation, container documentation and MOS notes on Oracle Support site. If you need more information, reach out to Oracle support team for additional help.

FUTURE

7.1 What additional samples does Oracle intend to provide in the future?
The OCI terraform templates will be provided in future releases. Based on customer and partner feedback other samples will be evaluated and would be released.

7.2 Is there a T-shirt sizing guide for deployments of small, medium and large?

No, this is not available currently. It will be made available on a future date.

7.3 Would the images for Oracle Identity and Access Management on OCI Marketplace be production ready in the future?

Yes. Oracle will provide production ready images on OCI Marketplace.

7.4 Would Oracle provide a reference architecture for Cloud deployments of Oracle Identity and Access Management?

Yes. Oracle will update the Enterprise Deployment Guide which will include reference architecture, High Availability, Multi-data centre and other best practices.

7.5 Would Oracle be adding Container images for Oracle Internet Directory and Oracle Directory Services Manager?

Oracle has provided the container images for Oracle Unified Directory and Oracle Unified Directory Services Manager and will evaluate the market demand for Oracle Internet Directory and if there is sufficient demand, Oracle will come up with the container images for Oracle Internet Directory in the future.