Frequently Asked Questions

Introduction

This document addresses Frequently Asked Questions for Oracle Private Cloud Appliance.

Oracle Private Cloud Appliance is an agile and intelligent Engineered System, designed for rapid and automated deployment of private cloud. Its built-in secure Multi-tenantiness, zero downtime upgradability, capacity on demand and single pane of glass management make it the ideal infrastructure for rapid deployment of mixed Linux, Windows, Solaris and containerized workloads.

Oracle Private Cloud Appliance fully supports Oracle Linux Cloud Native Environment to easily automate deployment, scaling and management of application containers.

The integrated wire-once design and low latency software-defined networking helps you future proof your investment by scaling compute and storage on demand without re-cabling.

Private Cloud Appliance includes virtualization – Oracle VM and supports “Trusted Partitioning” for efficient licensing of Oracle workloads, thus reducing your TCO by 30-50%.

The users need only to enter some very basic configuration parameters and then create VMs manually or by leveraging Oracle VM Templates and Assemblies to get a full application up and running in as little as a couple of hours.

General Questions

Q: Which Oracle software are certified for use with Oracle Private Cloud Appliance?

A: By default, all Oracle software that has been certified for use with Oracle VM is certified for Oracle Private Cloud Appliance, which includes the Oracle Database, Oracle Fusion Middleware, Oracle Applications, and Oracle Real Application Clusters. Backed by Oracle’s world-class support organization, customers now have a single point of support for their entire hardware and software virtualization environments.

Q: Which external storage systems are certified for use with Oracle Private Cloud Appliance?

A: Oracle Private Cloud Appliance has an integrated ZFS Storage Appliance that supports NFS/iSCSI. This internal storage is used for management and maintenance of the appliance as well as providing extreme performance and superior efficiency required by demanding enterprise applications running in VMs.

External storage is purchased separately and installed externally to the Oracle Private Cloud Appliance. The storage capacity of Oracle Private Cloud Appliance can be expanded beyond the integrated storage, to external data center racks containing Oracle ZFS Storage Appliance, or supported storage available from other storage vendors. By default, any external Oracle or non-Oracle storage appliance that has been certified for use with Oracle VM will integrate with Oracle Private Cloud Appliance. For a list of supported 3rd party storage systems, refer to Hardware Certification List.

Q: Why is Oracle offering the Oracle Private Cloud Appliance?

A: Oracle has a long-standing history of delivering Engineered Systems to help simplify IT and enable data centers to deliver better services from database, business applications to middleware and hardware integrated solutions.

Consistent with this strategy, the Oracle Private Cloud Appliance provides IT a highly scalable, multi-tenant IaaS foundation to support consolidation as well as a robust integrated solution to help IT achieve maximum efficiency.
with existing investments or prepare for the migration to cloud computing.

Oracle Private Cloud Appliance is an easy-to-acquire, easy-to-deploy, "turnkey" solution that integrates compute, network, and storage resources in a software-defined fabric to enable agile and efficient data center deployments. With Oracle Private Cloud Appliance, customers get a converged infrastructure that can be scaled linearly, one server at a time and by addition of extra storage shelves as customer needs grow. In addition, Oracle Private Cloud Appliance uniquely provides the capability to rapidly deploy applications, not just hardware, based on the ability to leverage Oracle VM Templates and Assemblies that are user-created or that are available for download from Oracle.

Q: What are the components of the Oracle Private Cloud Appliance X8-2?

A: Oracle Private Cloud Appliance X8-2 is a turnkey solution which has the following components pre-integrated and wired from the factory:

Compute and Management:
The base rack consists of 2 dedicated Oracle X8-2 Servers as management nodes. In addition a base rack can support a maximum of 25 Oracle X8-2 Servers as compute nodes

Networking:
High-speed, low latency software-defined networking is implemented on top of 100 Gb Ethernet leaf and spine switches. These offer 100 Gb Ethernet connectivity for all communication between internal rack components and allow for flexible 10/25/40/100 GbE connectivity to a customer's data center.

Two 36-port 100 GbE Spine switches
Two 36-port 100 GbE Leaf switches
One 48-port Management switch

Internal Storage:
Oracle ZFS ZS7-2 Storage Appliance that centrally stores the Oracle Private Cloud Appliance controller software as well as customer workloads. With dual ZS7-2 controllers in a high-availability (HA) configuration and one high-capacity DE-24C storage shelf, Oracle Private Cloud Appliance now includes 100 TB of customer usable storage capacity in the rack. This storage can be scaled to 2.2 PB using a combination of DE3-24C or all-flash DE3-24P expansion storage trays.

Software:
Oracle Private Cloud Appliance is preloaded with Oracle Private Cloud Appliance controller software, Oracle VM, Oracle VM Manager, Storage System Software.

Pricing and Licensing
Q: What additional licenses are required with the Oracle Private Cloud Appliance?
A: No additional software licenses are required for Oracle Private Cloud Appliance. The Oracle Private Cloud Appliance system price includes all the required software.

Features and Benefits
Q: What are some of the features and benefits of the Oracle Private Cloud Appliance?
A: Oracle Private Cloud Appliance is an agile and intelligent Engineered System designed for rapid and automated private cloud deployment. Whether running Linux, Windows, Oracle Solaris applications or running containerized cloud native applications, Oracle Private Cloud Appliance supports consolidation for a wide range of mixed workloads.

• Power-on to production in hours as opposed to months
• Prebuilt Oracle VM templates help deploy Oracle applications like Oracle RAC and middleware in minutes
• Support for Oracle Linux Cloud Native Environment (OL CNE) to automate deployment, scaling and management of containerized applications
• Supports Trusted Partitioning for efficient Oracle software licensing
• Secure multitenancy – up to 8 isolated tenant groups
• Supports 2-25 compute nodes in a single base rack without making any changes to the network infrastructure

Oracle Private Cloud Appliance offers exceptional value in the following areas:

Secure, scalable and agile private cloud
• Scalable from 2-25 nodes, one node at a time
• Supports up to 15 additional capacity and flash storage trays
• Supports up to 8 fully isolated tenant groups
• Zero Downtime upgrades

**Built for cost-effective application consolidation**
• Supports Linux, Solaris, Windows and containerized workloads
• Trusted partitioning helps in efficient Oracle software licensing
• Prebuilt OVM templates enable rapid app deployment

**Application Portability**
• Includes support for OL CNE (based on open CNCF standards) to automate deployment, scaling and management of container workloads
• Oracle Container Registry is the trusted source of Oracle S/W as Docker containers
• Applications seamlessly portable to any Kubernetes compliant platform

**Q:** Can Oracle VM Templates be used with Oracle Private Cloud Appliance?

**A:** Yes, Oracle VM Templates can be used with Oracle Private Cloud Appliance. Oracle VM Templates provide an innovative approach to deploying a fully configured software stack by offering pre-installed and pre-configured software images. Use of Oracle VM Templates eliminates the installation and configuration costs, helping organizations achieve faster time-to-market and lower cost of operations. Oracle VM Templates of many key Oracle products are available for download, including Oracle Database, Oracle Real Application Cluster (RAC), Oracle E-Business Suite, JD Edwards, Fusion Middleware, HCM, PeopleSoft and many more. Learn more about Oracle VM Templates.

**Technical Details**
**Q:** How do customers manage their Oracle Private Cloud Appliance?

**A:** A browser-based management dashboard is included along with the Oracle Private Cloud Appliance controller software. The dashboard allows customers to manage the hardware. The controller software, which runs on the management nodes, is responsible for the automation and control of the appliance. To manage the virtualized environment, a browser-based management solution **Oracle VM Manager** is included at no additional charge.

**Q:** What guest operating systems are supported with Oracle Private Cloud Appliance?

**A:** The following guest operating systems are supported with Oracle Private Cloud Appliance:

- Oracle Solaris
- Oracle Linux
- Red Hat Enterprise Linux
- Microsoft Windows Server

Please refer to [Oracle VM 3.4.6 release notes](#) for complete information on supported Guest OS configurations.

**Q:** What are the technical specifications for the compute and management nodes in Oracle Private Cloud Appliance X8?

**Oracle Servers X8-2** are the compute nodes and management nodes supported in Oracle Private Cloud Appliance X8.

The Oracle Server X8-2 Management node has the following specifications:

- (2) Intel® Xeon® 5218 2.3 GHz, 16 core processors (Total 32 cores)
- 12X32 GB DDR4 DIMMs (384 GB RAM total)
- (2) 1.2 TB HDDs (RAID1)
- (1) Dual-port 100Gbit Ethernet HCA (CX5)
- (1) GbE management port (BASE-T)
- 1 Gbit + 2 X 10/25 Gbit embedded Ethernet ports
- Redundant power supplies, cooling fans and disks

The Oracle Server X8-2 serving as Compute Nodes has the following specifications:

- (2) Intel® Xeon® 8260 2.4 GHz, 24 cores, 165 watts processors (Total 48 cores)
- 3 memory configurations with 384GB, 768GB and 1.5 TB RAM
- (2) 1.2 TB HDDs (RAID1)
- 1 Gbit + (2) 10/25 Gbit Embedded Ethernet ports
- (1) Dual-port 100Gbit Ethernet HCA (CX5)
- (1) GbE management port (BASE-T)
• Hot-swappable and redundant disks, cooling fans and power supply units

Q: Does Oracle Private Cloud Appliance include any Ethernet switching elements?

A: Yes, Oracle Private Cloud Appliance uses Ethernet. High-speed, low latency software-defined networking is implemented on top of 100 Gb Ethernet leaf and spine switches. These offer 100 Gb Ethernet connectivity for all communication between internal rack components and allow for flexible 10/25/40/100 GbE connectivity to a customer’s data center.

Q: Do you have a tool that can be used to migrate VMware vSphere virtual machines to Oracle VM?

A: Yes, we have a tool that automates migration of virtual machines from VMware vSphere to Oracle VM. Please reference the accompanying whitepaper and tool.

Support Details

Q: How do I get access to patches and updates?

A: Patches for Oracle Private Cloud Appliance are available through My Oracle Support. Get the download instructions from Oracle VM OTN download page.

Q: What is Microsoft’s support policy regarding Windows and Oracle VM?


More Information

For more information about Oracle Private Cloud Appliance visit https://www.oracle.com/servers/private-cloud-appliance/ or call +1.800.ORACLE1 to speak to an Oracle representative.

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Integrated Cloud Applications & Platform Services

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