Oracle Cloud Native Environment
Release Notes for Release 1.9

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Contents

Preface

1   Component Versions

2   CVE and Bug Fix Updates

3   New Features and Notable Changes

4   Deprecation Notices

5   Documentation Changes

6   Known Issues

Preface

This document contains information about Oracle Cloud Native Environment. This document includes information on component versions, new features, documentation changes and known issues for Oracle Cloud Native Environment.

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Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

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mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure continuity of service as Oracle's offerings and industry standards evolve. Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

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1
Component Versions

This section lists the version numbers of the major components included with Oracle Cloud Native Environment.

To see the version of the packages, use the `rpm -q` command, for example:

```
rpm -q olcne-api-server
olcne-api-server-1.9.x-x.el8.x86_64
```

Table 1-1   Oracle Cloud Native Environment Component Versions

Component	Version
Oracle Cloud Native Environment Platform API Server	1.9
Oracle Cloud Native Environment Platform Agent	1.9
Oracle Cloud Native Environment Platform CLI	1.9
Kubernetes	1.29.14
Calico	3.27.0
Multus	4.0.2
Oracle Cloud Infrastructure Cloud Controller Manager	1.28.0
MetalLB	0.13.10
Rook	1.12.3
KubeVirt	1.1.1
Operator Lifecycle Manager	0.23.1
NGINX Ingress Controller	1.9.6
Istio	1.20.4
Prometheus	2.31.1
Grafana	7.5.15
Helm	3.12.0
RunC	1.0
CRI-O	1.29.1
Kata Containers	3.2.0
NGINX	1.17.7
Flannel	0.22.3

2
CVE and Bug Fix Updates

Notices for Common Vulnerabilities and Exposures (CVEs) and bug fix updates for Oracle Cloud Native Environment are available on the Unbreakable Linux Network at:

https://linux.oracle.com/errata

You can subscribe to the `el-errata@oss.oracle.com` email list to receive these notices via email at:

https://oss.oracle.com/mailman/listinfo/el-errata

All Oracle Cloud Native Environment CVE and bug fix update notices are listed on ULN and on the email list mentioned, and aren't included in this document.

You might also find it helpful to check the list of new and updated packages posted on the Oracle Linux yum server available at:

https://yum.oracle.com/whatsnew.html

Product enhancements, Common Vulnerabilities, and Exposures (CVEs) and bug fix updates are available for Oracle Cloud Native Environment as described in Oracle Linux: Product Life Cycle Information.

3
New Features and Notable Changes

This chapter lists the new features and notable changes in each Oracle Cloud Native Environment release.

Release 1.9.3

This section lists the notable changes in Release 1.9.3 of Oracle Cloud Native Environment.

Updated Components

The following components have been updated:

- **Kubernetes**: Kubernetes is updated to Release 1.29.14. For a list of the Kubernetes API Server changes since the last update in Oracle Cloud Native Environment, see the upstream Kubernetes Release Notes. This shows the changes in Release 1.29.14.

Release 1.9.2

This section lists the notable changes in Release 1.9.2 of Oracle Cloud Native Environment.

Updated Components

The following components have been updated:

- **Kubernetes**: Kubernetes is updated to Release 1.29.9. For a list of the Kubernetes API Server changes since the last update in Oracle Cloud Native Environment, see the upstream Kubernetes Release Notes. This shows the changes in Release 1.29.9.

Release 1.9.0

This section lists the notable changes in Release 1.9.0 of Oracle Cloud Native Environment.

Updated Components

The following components have been updated:

- **Kubernetes**: Kubernetes is updated to Release 1.29.3. For a list of the Kubernetes API Server changes since the last update in Oracle Cloud Native Environment, see the upstream Kubernetes Release Notes. This shows the changes in Release 1.29.3.
- **CRI-O**: CRI-O is updated to Release 1.29.1.
- **Calico**: Calico is updated to Release 3.27.0.
- **Oracle Cloud Infrastructure Cloud Controller Manager**: Oracle Cloud Infrastructure Cloud Controller Manager is updated to Release 1.28.0.
- **Istio**: Istio is updated to Release 3.27.0.
- **Kata Containers**: Kata Containers is updated to Release 3.2.0.
- **KubeVirt**: KubeVirt is updated to Release 1.1.1.

NGINX Ingress Controller Module

A new module is added to install the NGINX Ingress Controller. For information on installing and using the NGINX Ingress Controller, see NGINX Ingress Controller Module.

4

Deprecation Notices

This chapter lists the deprecation notices for Oracle Cloud Native Environment.

Release 1.8

This section lists the deprecation notices for Release 1.8.

Private CA Certificates Script

The `/etc/olcne/gen-certs-helper.sh` script is deprecated. The `olcnectl certificates distribute` and `olcnectl certificates generate` commands can be used to generate and distribute private CA Certificates. The steps to use these commands to generate private CA Certificates is described in Installation.

Release 1.7

This section lists the deprecation notices for Release 1.7.

Oracle Linux 7

Oracle Linux 7 hosts can no longer be used in an Oracle Cloud Native Environment from Release 1.7. Oracle Cloud Native Environment Release 1.6 is the last version that can be used with Oracle Linux 7 hosts.

To upgrade Oracle Linux 7 hosts to Oracle Cloud Native Environment Release 1.6, you must first migrate hosts to Oracle Linux 8. See Updates and Upgrades in the Oracle Cloud Native Environment Release 1.6 documentation for information on how to perform the host OS migration.

Gluster Container Storage Interface Module

The Gluster Container Storage Interface module, used to install Gluster and set up Glusterfs, is removed. The Gluster Container Storage Interface module is no longer available to be used. You must migrate storage to another system, such as Ceph using the Rook module.

Release 1.6.1

This section lists the deprecation notices for Release 1.6.1.

Platform CLI Commands

The `--oci-private-key` option, used when creating the `oci-ccm` module with the `olcnectl module create` command, and in `YAML` environment configuration files, is deprecated in Release 1.6.1. This option was used for specifying the location of the private key for the Oracle Cloud Infrastructure API signing key. From Release 1.6.1 onwards, use the `--oci-private-key-file` option instead.

Release 1.6

This section lists the deprecation notices for Release 1.6.

Gluster Container Storage Interface Module

The Gluster Container Storage Interface module, used to install Gluster and set up Glusterfs, is deprecated. The Gluster Container Storage Interface module might be removed in a future release.

Helm Module

The Helm module is deprecated in Release 1.6. You don't need to create and install a Helm module to install optional modules. Helm is automatically installed with the Kubernetes module and associated with it to perform optional module installations. Any Platform CLI syntax that requires creating, specifying or updating the Helm module is no longer required. Backward compatibility is maintained, so existing scripted installations you have are honored.

Platform CLI Commands

The `--master-nodes` option, used to specify hostnames or IP addresses of the Kubernetes control plane nodes, is deprecated in Release 1.6. The option was used in YAML environment configuration files, and in `olcnectl` commands that specify the control plane nodes, for example, `olcnectl module create`, `olcnectl module update`, and `olcnectl provision`.

From Release 1.6 onwards, you use the `--control-plane-nodes` option to specify control plane nodes.

Release 1.5

This section lists the deprecation notices for Release 1.5.

Oracle Cloud Infrastructure Container Storage Interface Module

In Release 1.5, the name of this module is changed to the *Oracle Cloud Infrastructure Cloud Controller Manager* module. In Release 1.4, when creating the Oracle Cloud Infrastructure Container Storage Interface module you used the module type of `oci-csi`. This module type is now deprecated. From Release 1.5 onwards, use the module type of `oci-ccm`.

Platform CLI Commands

The `--node-labels` and `--node-ocids` options in the `olcnectl module create` command are deprecated in Release 1.5. These options were used to set Oracle Cloud Infrastructure information related to Kubernetes nodes when creating the `kubernetes` module. This information was then used by the `oci-csi` module to set up storage for Kubernetes applications in Oracle Cloud Infrastructure. These options are no longer required.

Release 1.4

This section lists the deprecation notices for Release 1.4.

Unbreakable Enterprise Kernel Release 5

Oracle Linux 7 running Unbreakable Enterprise Kernel Release 5 (UEK R5) is removed as a kernel in Oracle Cloud Native Environment Release 1.4. Oracle Cloud Native Environment Release 1.3 is the last release this kernel can be used.

Release 1.2

This section lists the deprecation notices for Release 1.2.

Platform CLI Commands

The `apiserver-advertise-address` option in the `olcnectl module create` command is deprecated in Release 1.2.0. This option set the IP address on which to advertise the Kubernetes API server to members of the Kubernetes cluster in a cluster with a single control plane node. The `--master-nodes` option specifies the IP address and this deprecated option is no longer used.

5

Documentation Changes

This chapter lists notable changes to the Oracle Cloud Native Environment documentation.

Release 1.9

This section lists the notable changes in the documentation for Release 1.9 of Oracle Cloud Native Environment.

Some information has been reorganized and renamed. These are:

• A new book named NGINX Ingress Controller Module is added to show how to install and use the NGINX Ingress Controller.

6
Known Issues

This chapter contains information about known issues and limitations in this release.

Disabled virt module on Oracle Linux 8

After deploying the Kubernetes module on Oracle Linux 8, the `virt` module is disabled in the OS. We recommend that you don't enable this module again unless requested to do so in this documentation or by Oracle Support.

Errors using overlay networking

A Kubernetes cluster that uses overlay networking, might result in an issue with the VxLAN configuration for the cluster. Nodes that are affected by the issue contain errors similar to the following in the `dmesg` output:

```
[  610.495450] bnxt_en 0000:00:03.0 ens3: hwrm req_type 0xa1 seq id 0x67
error 0xf
[  610.498246] bnxt_en 0000:00:03.0 ens3: hwrm_tunnel_dst_port_alloc failed.
rc:15
```

This issue is commonly caused when the `tx offload` feature is enabled in the `bnxt_en` driver module. You can resolve this issue by disabling the `tx offload` feature using the `ethtool` command. For example:

```
sudo ethtool --offload $(ip -o -4 route show to default | awk '{print $5}') tx off
```

Listing environments

The Platform CLI doesn't yet have a method to display a list of the environments created.

Validating a module reports network ports aren't open

If you open network ports on nodes using the range option, the `olcnectl module validate` command can't validate the ports are open. This is because of an issue in the `firewall-cmd` command. For example, if you use a command such as the following which opens ports using a port range:

```
sudo firewall-cmd --add-port=2379-2380/tcp
sudo firewall-cmd --add-port=2379-2380/tcp --permanent
```

The `olcnectl module validate` command reports that ports 2379 and 2380 aren't open.

Workaround: Open network ports individually, without specifying a port range. For example:

```
sudo firewall-cmd --add-port=2379/tcp
sudo firewall-cmd --add-port=2379/tcp --permanent
sudo firewall-cmd --add-port=2380/tcp
sudo firewall-cmd --add-port=2380/tcp --permanent
```