

Oracle Linux Virtualization Manager

Operating systems, containers, and virtualization are the fundamental building blocks of modern IT infrastructure. Oracle combines them all into one integrated offering: Oracle Linux. Operating on your choice of hardware - in your data center or in the cloud - Oracle Linux provides the reliability, scalability, security, and performance for demanding enterprise workloads.

Oracle Linux Virtualization Manager is a new server virtualization management platform that can be easily deployed to configure, monitor, and manage an Oracle Linux Kernel-based Virtual Machine (KVM) environment with enterprise-grade performance and support from Oracle.

ORACLE LINUX KVM

Oracle Linux KVM is a feature that has been delivered and fully supported as part of Oracle Linux. With the release of the Unbreakable Enterprise Kernel (UEK) Release 5, the Oracle Linux server virtualization solution with KVM has been enhanced. Users can take either a previously deployed version of Oracle Linux and turn the OS into a KVM host, or a KVM configuration can be set up from a base Oracle Linux installation. Oracle Linux KVM is the same hypervisor used in Oracle Cloud Infrastructure, giving users an easy migration path to move workloads into Oracle Cloud in the future.

ORACLE LINUX VIRTUALIZATION MANAGER

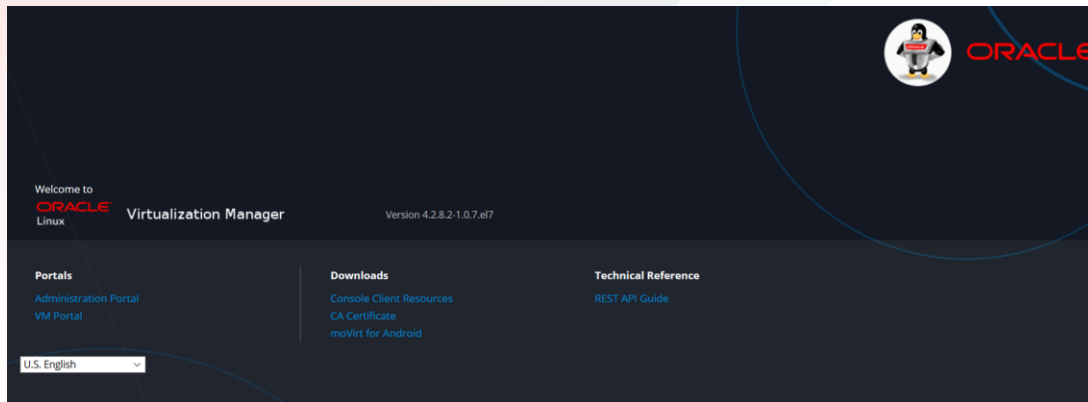
To support multiple hosts running Oracle Linux KVM, IT administrators can use the Oracle Linux Virtualization Manager that is built from the open source oVirt project. The heart of the management solution is the ovirt-engine which is used to discover KVM hosts and configure storage and networking for the virtualized data center. Oracle Linux Virtualization Manager offers a web-based User Interface (UI) and a Representation State Transfer (REST) Application Programming interface (API) which can be used to manage your Oracle Linux KVM infrastructure. Oracle Linux Virtualization Manager allows enterprise customers to continue supporting their on-premises data center deployments with the KVM hypervisor already available on Oracle Linux 7.6 with the UEK Release 5.

High Performance modern Web User Interface

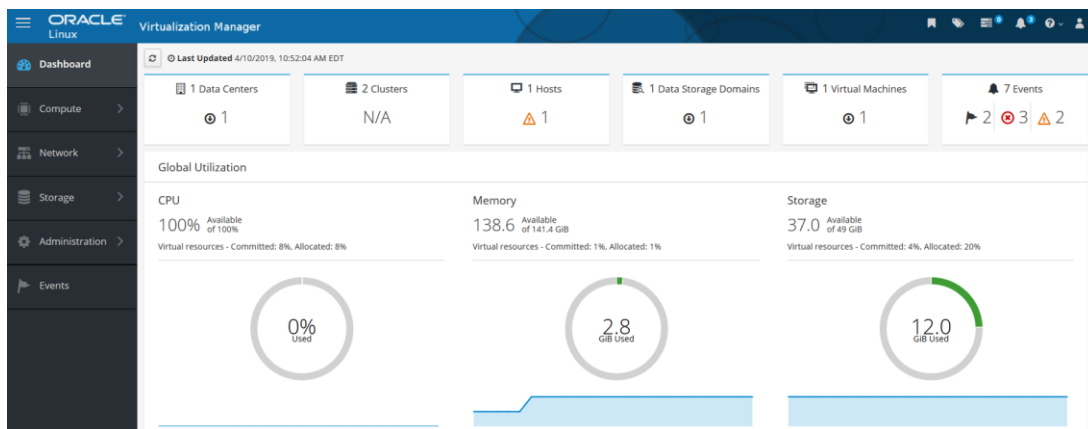
Oracle Linux Virtualization Manager delivers increased performance with a modern Web User Interface. For most day to day operations, many users will rely on the administration portal or the lighter weight VM portal. These portals can be accessed from the Oracle Linux Virtualization Manager landing page when first connected with a browser:

Key Business Benefits

- Complete server virtualization and management solution with zero license cost
- Single software distribution for Oracle Linux OS or Oracle Linux KVM
- Speeds application deployment with Oracle Virtual Appliances
- Ksplice integration to patch kernel, QEMU, and user space libraries with no service interruption
- Path to Oracle Cloud Infrastructure with a common hypervisor



After logging into the administration portal, users will be presented with a Dashboard view which presents all of the key information about their deployment (VM counts, Host counts, Clusters, Storage, etc), including the current status of each entity and key performance metrics:



From the Dashboard, users can move to the Compute view for Hosts, Virtual Machines, Templates, Data Centers, Clusters and Pools to configure or edit their virtual environments. Additional menus and sub-menus for Network, Storage, Administration, and Events give full control, with logical workflows in an easy to use web interface.

In addition to the web-based UI, a REST API is available for users that need to integrate with other management systems or prefer to automate repetitive tasks with scripts.

ENGINEERED FOR OPEN CLOUD INFRASTRUCTURE

You are facing increased operating costs and inefficient resource utilization, and have an eye toward cloud computing. Your virtualization solution has to increase datacenter flexibility, meet your price/performance needs, and make applications easier to deploy, manage, and support.

- **High performance and scalability:** Low-overhead architecture with the KVM hypervisor provides scalable performance under increasing workloads. Supports servers with up to 2048 logical CPUs and 64 TB of memory to accommodate the most demanding enterprise and cloud applications.
- **Broad guest operating system support:** Oracle Linux, Red Hat Enterprise Linux, CentOS, and Microsoft Windows.

Key Features

- Modern, low overhead architecture based on the KVM hypervisor for leading price/performance
- Full REST API allows greater automation and interoperability
- Support for Secure live migration and Storage live migration
- VM high-availability (HA)
- Scheduling Policies automatically distribute VMs for load balancing or power saving
- Backup and restore support with VM snapshots
- Role based access for granular user level controls

- **Modern Linux kernel:** Oracle Unbreakable Enterprise Kernel (UEK) Release 5 offers high performance and streamlined partner certifications. Server certification includes support for Oracle Linux and Oracle Linux KVM.

RELIABILITY AND HIGH AVAILABILITY

In today's online world, applications must retain a high level of availability for end users. Virtualization solutions must deliver a platform for applications to continue to operate even during maintenance activities and hardware failures.

- **High Availability:** Reliably and automatically restart failed VMs on other servers in the server pool after unexpected outages.
- **Secure live VM migration:** Completely eliminate service outages associated with planned maintenance or scale up your resources quickly by migrating running VMs to other servers over secure links without interruption.
- **Storage live VM migration:** Perform live migrations of running virtual machines that have virtual disks on local storage.
- **Rapid VM provisioning:** Clones can be created of a virtual machine that is shut down. These can be used to start up new virtual machines with the same configuration.
- **Backup and restore with snapshots:** Snapshots can be used to create a view of a running VM at a point in time. Multiple snapshots can be stored and used for restoral purposes.

MANAGEMENT OPTIONS AND EASE OF USE FEATURES

IT operations teams are under increased pressure to deliver more services with fewer resources. Virtualization solutions need to offer multiple management interfaces, automation options and features that make it easier to deploy applications to end users.

- **Advanced management for zero extra cost:** A rich, dynamic HTML based Web user interface provides ease of use, centralized management and includes comprehensive event tracking and virtualized system health status. In addition to the main administration portal, a light weight VM portal can be used to manage your VM's:

The image displays the Oracle Linux Virtualization Manager (OLVM) interface. At the top, there's a header with the Oracle Linux logo and 'Virtualization Manager'. Below this, a section titled 'Virtual Machines' shows three VMs: 'Oracle-DB-VM' (Off), 'Oracle-Enterprise-Manager-CloudControl' (Running), and 'Oracle-Fusion-Middleware-12c' (Off). A large green arrow points from the 'Oracle-Enterprise-Manager-CloudControl' VM to a detailed configuration window. This window shows the VM's state as 'Running' and provides various management options like 'Console', 'VNC', 'Disks', 'Network interface', and 'Snapshots'. It also lists system details such as 'Operating System: Oracle Linux 7.x x64', 'Defined Memory: 1.0 GB', and 'CPUs: 1'.

- **Oracle Linux Virtualization Manager REST API:** Oracle Linux Virtualization Manager exposes a REST API, enabling a higher level of automation, interoperability and integration.
- **Standards based Virtual Appliance support:** Oracle Linux Virtualization Manager supports importing and exporting Open Virtualization Format (OVF) and Open Virtualization Archive (OVA) based software appliances to accelerate application deployment.
- **Faster software deployment:** Download and import pre-configured virtual machines containing pre-installed Oracle enterprise applications or other software to get up and running in hours.
- **Role Based Access:** Allow different users with different access permissions to perform the tasks that are relevant to their role with full audit control.

ORACLE LINUX KVM WITH KSPLICE

Oracle Linux KVM supports Ksplice patching for the kernel, hypervisor and user-space packages. In a virtualized environment, any forced reboot of the VM server node is an ordeal, requiring careful planning to migrate affected workloads or accept multiple outages. This is a major hassle and can severely impact productivity. With Ksplice support, IT administrators now have an enhanced set of tools to maximize security and application availability while virtualized.

SYSTEM REQUIREMENTS

Please refer to the [Oracle Linux Virtualization Manager Documentation Library](#) for specific software and hardware requirements, and other pertinent information.

Oracle Linux KVM is supported on Oracle and non-Oracle x86 systems. Please refer to this list of [Oracle Linux certified hardware](#) to see which systems are certified.

THE CERTIFIED AND SUPPORTED VIRTUALIZATION ENVIRONMENT FOR ORACLE

Oracle performs real-world testing on its broad portfolio of products with Oracle Linux KVM to ensure bulletproof reliability and streamlined support. All new Oracle product releases are certified by default, but consult Support Note 266043.1 on the [My Oracle Support website](#) for information on the exact application versions certified.

ORACLE LINUX SUPPORT: THE COMPLETE STACK, ONE CALL WORLDWIDE

Oracle's world-class support organization offers Oracle Linux Premier Support including:

- 24x7 global support
- Access to patches, fixes, and updates delivered via the Unbreakable Linux Network
- Back-porting of bug fixes
- Lifetime software support

Oracle Linux Virtualization Manager software is available for [free download](#). Support for Oracle Linux Virtualization Manager is included in Oracle Linux Premier Support which can be purchased via the [Oracle Linux Store](#).

Pricing for Oracle Linux support is calculated on a per system basis: Consult [Oracle's pricing guide](#) for further details.

For Oracle x86 systems, Oracle Linux support is included with [Oracle Premier Support for Systems](#).

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