

# ORACLE VM SERVER VIRTUALIZATION & MANAGEMENT

## OVERVIEW

### ORACLE'S CERTIFIED VIRTUALIZATION SOLUTION

- Complete server virtualization and management with no license costs;
- Speeds application deployment with VM Templates;
- Modern, low overhead architecture for leading price/performance;
- Included Secure Live Migration, VM High-Availability, P2V and V2V conversion, Web Services API, and other advanced features.

*Oracle VM is a free, next-generation server virtualization and management solution that makes enterprise applications easier to deploy, manage, and support. Backed worldwide by affordable enterprise-quality support for both Oracle and non-Oracle environments, Oracle VM facilitates the deployment and operation of your enterprise applications on a fully certified platform to reduce operations and support costs while simultaneously increasing IT efficiency and agility.*

### The Virtualization Platform for Your Enterprise Server Workloads

You are facing the challenges of a rapidly expanding data center—increased operating costs, inefficient resource utilization and an appetite for real estate. But any solution also has to increase your flexibility, meet your price/performance needs, and make applications easier to deploy, manage, and support.

[Oracle VM](#) delivers:

- **Oracle VM Manager Web Services API** – Enable integration of third party products with Oracle VM Manager;
- **Faster Software Deployment with Oracle VM Templates** – Download and import pre-configured virtual machines containing pre-installed Oracle enterprise applications or other software to get up and running in hours not weeks;
- **Leading Price/Performance** – Low-overhead architecture provides scalable performance under increasing I/O workloads with no license costs, to meet the most aggressive price/performance requirements;
- **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 SSL links without interruption;
- **High Availability** – Reliably and automatically restart failed VMs on other servers in the server pool after unexpected server- or individual VM outage.
- **Automatic or Manual Server Pool Load Balancing** – Guest VMs are automatically placed on the server with the most resources available in the pool at start-up, or can be started within a user-designated subset of servers;
- **Physical-to-Virtual / Virtual-to-Virtual Machine Conversion** – Quickly convert existing Linux or Windows physical servers or VMware® virtual

machines to Oracle VM virtual machines to reduce license expenses;

- **Virtualization and Management: Zero License Costs, Zero License Keys** – Includes Oracle VM Manager for centralized, browser-based management of your resource pools;
- **Virtual Machine I/O Resource Management** – Set bandwidth cap for each virtual network interface and prioritize the virtual disks;
- **Linux and Windows Support** – Linux and Windows guest operating systems;
- **Official Certification Based On Real-World Testing** – Supported for use with the most sophisticated enterprise workloads under real-world conditions;
- **Affordable, Full-Stack Enterprise-Class Support** – Worldwide support from Oracle for the entire virtualization environment and workloads together.

### Integrated Server Virtualization and Management

Consisting of Oracle VM Server, open source server software, and an integrated web browser-based management console, Oracle VM Manager, Oracle VM provides an easy-to-use, feature-rich graphical interface for creating and managing virtual server pools, running on x86 and x86\_64 based systems across the enterprise.

Users can create and manage virtual machines (VMs) that exist on the same physical server but that can behave independently, with each VM having its own virtual CPUs, network interfaces, storage, and operating system

Oracle VM supports the following guest operating systems (both 32-bit and 64-bit):

- **Both paravirtualized- (PV, “virtualization aware”) and hardware-virtualized kernels:**
  - Enterprise Linux 4 and 5 (from Oracle or Red Hat®).
- **Hardware-virtualized kernels only (Virtualization support in hardware – Intel VT or AMD-V required):**
  - Red Hat Enterprise Linux 3 (32-bit PV drivers also available);
  - Windows 2008 SP1, Windows Vista, Windows 2003, Windows XP Pro, and Windows 2000.

Please refer to the [product documentation](#) for complete information on supported guest operating system configurations.

Oracle VM Server installs on physical, “bare-metal” servers from a single CD or from a network in about a minute to provide the environment for hosting guest virtual machines. Virtual Machines can be created, configured, and managed from either the Oracle VM Server command-line, or hundreds of servers can be managed centrally from a browser using the included Oracle VM Manager software.

### Advanced VM Management

Creating and configuring guest VMs is only the beginning. With Oracle VM’s included management solution, Oracle VM Manager, administrators can enable advanced functionality to load balance across resource pools and automatically

reduce or eliminate outages associated with server downtime.

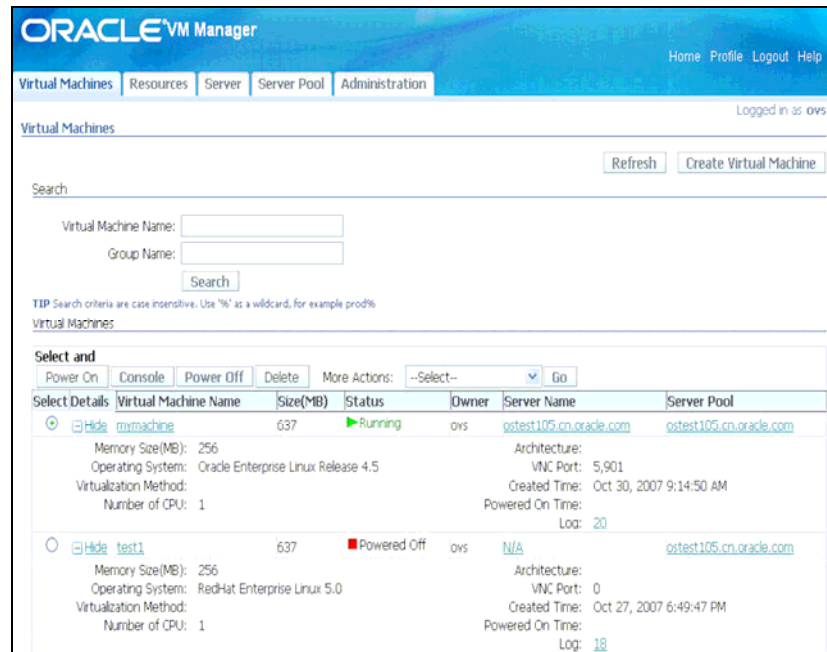


Figure 1. Oracle VM Manager Interface

[Oracle Enterprise Manager 10g Release 5](#) introduces the [Oracle VM Management Pack](#), which provides a comprehensive management solution for managing both the virtual machines and the operating systems and software running inside the virtual machines from a single product. The Oracle VM Management Pack provides integrated in-depth health and performance monitoring, configuration management, and lifecycle automation for both virtual- and physical infrastructure for maximum operational efficiency.

### System Requirements

Two systems with static IP addresses are needed to install Oracle VM: one to install Oracle VM Server and the other to install Oracle VM Manager.

- Oracle VM Server installs directly on server hardware and does not require a host operating system;
- Oracle VM Manager is a Java-based management server running on Linux;
- Oracle VM Manager uses an Oracle database as its management repository, which can be installed either on the management server or a separate server. Oracle Database Express Edition (XE), Standard Edition (SE), Enterprise Edition (EE), and Real Application Clusters (RAC) are supported as the management repository.

Oracle VM Server hardware requirements:

- Oracle VM Server is available as a single CD image for systems with x86 or x86\_64 processors that support PAE (Physical Address Extension);
- Guest operating systems that are not virtualization aware (“hardware

virtualized” VMs or “unmodified” guest kernels) including Microsoft Windows require a CPU with hardware virtualization support (Intel VT or AMD-V);

- A minimum of one dual core CPU or multiple single-core CPUs is recommended when hosting multiple guest VMs;
- 1GB of RAM (minimum) or 2GB (recommended) per Server. Memory requirements can vary significantly depending on the workload and operating systems hosted. Server memory should be sized based on the maximum aggregate requirements when the Server is hosting the maximum planned number of guest VMs to provide optimum performance.

Oracle VM Manager server requirements (minimum):

- x86 (32bit) server hardware, 1 or more 1.83GHz (or faster) CPUs, 2GB RAM;
- 2GB configured swap space, 4GB hard disk space;
- Enterprise Linux Release 4 Update 5 from Oracle or Enterprise Linux Release 4 or later from Red Hat.

### The Certified and Supported Virtualization Environment for Oracle

Oracle performs real-world testing on its broad portfolio of products with Oracle VM to ensure bulletproof reliability and streamlined support. Consult Support Note 464754.1 on [My Oracle Support](#) website for the latest information on exact product versions certified.

### Oracle VM Support: The Complete Stack – One Call Worldwide

Oracle’s world-class support organization offers Oracle VM Premier Support including:

- Access to patches, fixes, and updates delivered via a subscriber network, the Unbreakable Linux Network;
- 24x7 global support.

Oracle VM software is available for [free download](#). Support for Oracle VM can be purchased via [the Oracle VM Store](#).

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

### More Information

For more information, visit [oracle.com/virtualization](http://oracle.com/virtualization)



Oracle is committed to developing practices and products that help protect the environment

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