

# Oracle Linux



Oracle Linux delivers advanced scalability and reliability for enterprise applications and systems, with extreme performance. Unlike many other commercial Linux distributions, Oracle Linux is easy to download and completely free to use, free to distribute, and free to update. And Oracle Linux Support levels are simple and low cost, featuring Premier lifetime support, access to additional management tools such as Oracle Enterprise Manager, zero-downtime kernel updates using Ksplice, and access to award-winning Oracle support resources and customer support specialists.

## KEY FEATURES

- Free to use, free to distribute, free to update
- Zero-downtime kernel updates with Ksplice and comprehensive kernel and application tracing with DTrace
- Linux management and high availability included at no additional charge for Oracle Linux Support customers
- Optimized for Oracle, including Oracle Database and Oracle Applications
- Used in x86-based Oracle Engineered Systems

## KEY BENEFITS

- Lower costs by only paying for support on the systems you want supported
- Increase security by applying patches sooner and minimizing time spent troubleshooting and updating
- Improve performance of Oracle software and hardware

## Innovate, Collaborate, Create

Oracle Linux is an open-source operating system and comes with a choice of two kernels, the Unbreakable Enterprise Kernel (UEK), which is installed and enabled by default, and the Red Hat compatible kernel. The Unbreakable Enterprise Kernel is open source (GPL) and is designed for workloads requiring stability, scalability and performance, such as the Oracle Database. Oracle Linux includes the latest innovations and features, providing more freedom and choice than other commercial Linux distributions. Whether Oracle Linux is deployed with Oracle Applications, third party solutions, as a virtual instance in the cloud, or on bare-metal, Oracle Linux provides the tools, features and flexibility customers and partners need to innovate, collaborate and create world-class solutions.

Oracle Linux is fully compatible with Red Hat Enterprise Linux (RHEL), so applications developed for RHEL run on Oracle Linux without any modifications.

## Free and Easy to Download, Install, and Use

Oracle Linux can be downloaded, used and distributed free of charge, with easy access to installation ISOs. Oracle provides access to the individual RPM packages including all security updates and bug fixes (errata) via public yum repositories, without requiring a support subscription. The source code of the Unbreakable Enterprise Kernel is also available via public git repositories, providing a complete and detailed revision history (including patches and comments) of the operating system core.

## Latest Innovations in Oracle Linux

Oracle Linux with the Unbreakable Enterprise Kernel delivers key features for supporting and optimizing the latest hardware and software features used in data center workloads.

- **Btrfs file system** – Btrfs provides a flexible way to manage storage, without needing

a separate volume manager. It ensures data integrity via the built-in RAID support and checksums on data and meta-data.

- **XFS file system** – Beginning with Oracle Linux 6.4, customers with Premier Support subscriptions will receive support for the XFS file system at no additional charge. XFS is a journaling file system known for extreme scalability with near native I/O performance.
- **Oracle Cluster File System 2** – OCFS2 is a general-purpose, extent-based clustered file system that Oracle developed and contributed to the Linux community. It provides an open source, enterprise-class alternative to proprietary cluster file systems, and provides both high performance and high availability.
- **DTrace** – DTrace is a comprehensive dynamic tracing framework that was initially developed for the Oracle Solaris operating system. DTrace provides a powerful infrastructure to permit administrators, developers, and service personnel to concisely answer arbitrary questions about the behavior of the operating system and user programs in real time.
- **Ksplice Zero Downtime Kernel Updates** – Available to Oracle Linux Premier support customers, Ksplice technology updates the Oracle Linux kernel—while it is running—without requiring a reboot or interruption. Only Oracle Linux offers this unique capability, making it possible to keep up with important kernel updates without burdening you with the operational cost and disruption of rebooting for every update to the Linux kernel.
- **Linux Containers (LXC)** – Safely and securely run multiple applications or instances of an operating system on a single host without risking them interfering with each other. Containers are lightweight and resource-friendly, which saves both rack space and power. Using the Btrfs file system, taking snapshots or clones of Linux Containers can be performed with very little overhead.
- **ASMLib** – ASMLib is a support library for the Automatic Storage Management feature of the Oracle Database, which simplifies database administration.
- **Database Smart Flash Cache** – This feature allows customers to increase the effective size of the Oracle database buffer cache without adding more main memory to the system.
- **Data Integrity** – Oracle Linux supports the T10 Protection Information Model (*T10-PI*) to prevent silent data corruption

## Committed to Working with the Linux Community

The Linux engineering team at Oracle works closely with the upstream maintainers in the Linux community to develop features and improvements that can later be delivered with Oracle Linux. To encourage collaboration with customers and partners, the Oracle Linux Playground Channel on Oracle's public yum server allows users to evaluate the latest upstream kernel features with real applications on production releases of Oracle Linux, without the need to install an entirely new operating system build.

## Flexible Support Options, Higher Value

Oracle is the only vendor in the industry that offers a complete Linux-based solution stack – applications, middleware, database, management tools, operating system, virtualization, and hardware. With Oracle as your Linux support provider, you have a single point of contact for all your support needs. Oracle delivers enterprise-class support for Oracle Linux and the Unbreakable Enterprise Kernel including premier backports, indemnification, testing and more. Oracle supports Oracle Linux installations at significantly lower cost than competing vendors.

You are free to decide for which of your systems you want to obtain a support sub-

**RELATED PRODUCTS**

Oracle Linux users can easily virtualize their applications by using Oracle VM server virtualization which is tested and integrated with Oracle Linux.

- Oracle VM Server for x86

**RELATED SERVICES**

The following services support Oracle Linux:

- Oracle Linux Support

scription, and at which level each of them should be supported. This makes Oracle Linux an ideal choice for both your development and production systems – you decide which support coverage is the best for each of your systems individually, while keeping all of them up-to-date and secure with the same level of bug fixes and security errata. If you need to convert a system, there is no need to reinstall because there is no difference in the operating system used for paid and unpaid. Oracle Linux is also the Linux development standard at Oracle. The same Oracle products customers deploy in their data center were developed using Oracle Linux. In addition, Oracle understands mission critical application requirements and Oracle Linux is developed and tested to ensure the operating system can provide the reliability, scalability and performance for these demanding enterprise workloads. It receives over 128,000 hours of testing in Oracle environments each day and is the platform used by Oracle's highest performing x86 based engineered systems, like Oracle Exadata Database Machine, Oracle Exalogic Elastic Cloud, and Oracle's Virtual Compute Appliance.

**Comprehensive Management Software**

The right to use Oracle Enterprise Manager 12c is included with every Oracle Linux support subscription at no additional cost. Oracle Enterprise Manager is a feature-rich systems and applications management suite, capable of managing thousands of servers from a central and easy to use web-based interface.

It supports features such as:

- Bare-metal provisioning of Oracle Linux servers
- Configuration management, data collection for analysis and auditing
- Lights-out or ad-hoc patching
- Availability and performance monitoring
- Event management and job systems
- Central package management/deployment via local yum repositories
- Grouping of servers, custom jobs, custom action/corrective action scripts

To ease migrations from existing infrastructures, Oracle Linux also includes and supports Spacewalk, the open source variant of Red Hat Satellite Server.

**Enterprise High Availability**

Included with Oracle Linux support subscriptions is Oracle Clusterware, an enterprise high availability software solution. Oracle Clusterware enables independent servers to operate together as a single system and provides high availability for both Oracle and 3<sup>rd</sup> party applications, and for all workloads. Features of Oracle Clusterware include:

- Robust policy engine
- Support for Active|Active or Active|Passive failovers
- Developed to support changing data center requirements with methods to simplify the addition of servers and storage as needed
- Support for rolling upgrades to meet strict application availability requirements

**Virtualization Made Easy**

With your Oracle Linux subscription, there is no need to worry about whether the system will run as a physical or virtual instance because this is all included in the price of a

single subscription. Users can run Oracle Linux on the host and as many Oracle Linux guest instances, without any additional cost. In addition, Oracle VM incorporates the Xen hypervisor, which has been customized and optimized to support enterprise applications deployed on Oracle Linux. The Dom0 of Oracle VM Server is based on the Unbreakable Enterprise kernel and is built to handle enterprise-class workload requirements. Oracle VM leverages Oracle Linux and has been designed for tight security and scalability in a virtualized environment. In addition, Oracle Linux customers can use Oracle VM Templates to deploy Oracle solutions up to 10x faster in a virtual machine compared to other virtualization technologies, as described in the white paper, **Oracle VM – Quantifying the Value of Application-Driven Virtualization:**

<http://www.oracle.com/us/technologies/virtualization/oracle-vm-validation-report-1738491.pdf>

## Broad Support from ISV and IHV Partners

Besides testing with Oracle products, Oracle also works closely with key vendors such as AMD, Brocade, Cisco, Dell, EMC, Emulex, Fujitsu, HP, IBM, Intel, Microsoft, NetApp, QLogic, SAP and many others, representing a wide range of ISV and IHV partners, ensuring fully tested and certified solutions for customers. For more information, refer to the resources below:

Oracle Validated configurations

<http://www.oracle.com/technetwork/topics/linux/validated-configurations-085828.html>

Oracle Linux and Oracle VM Hardware Certification List

<http://linux.oracle.com/hardware-certifications>

Oracle Linux ISV Partners

<http://www.oracle.com/technetwork/server-storage/linux/partners/index.html>

## Migrating from Red Hat Enterprise Linux

Migrating an existing system from RHEL to Oracle Linux is simple – there is no need to re-install the operating system or any application. Oracle will take over support for your existing RHEL systems. Just follow the instructions outlined at

<https://linux.oracle.com/switch.html>

## Migrating from SUSE Linux

For those who are considering migrating from SUSE Linux to Oracle Linux, Oracle offers a support program and many resources to help with migration efforts. The SUSE Migration Program will provide basic support for your SUSE Linux environments while you plan, schedule and convert your systems to Oracle Linux. For more information, please visit the Migration Made Easy website:

<http://www.oracle.com/us/technologies/suse-to-oracle/index.html>

## Resources

To get more information and to keep up with the latest updates, refer to these resources:

Oracle Linux on oracle.com

<http://www.oracle.com/linux>

Oracle Linux on the Oracle Technology Network

<http://otn.oracle.com/linux>

Oracle Linux Blog

<http://blogs.oracle.com/linux>

Oracle Linux Product Documentation Library

<http://www.oracle.com/technetwork/documentation/ol-1-1861776.html>

Oracle Linux on Facebook

<http://www.facebook.com/OracleLinux>

Oracle Linux on Twitter

[http://www.twitter.com/ORCL\\_Linux](http://www.twitter.com/ORCL_Linux)

Oracle Linux on LinkedIn

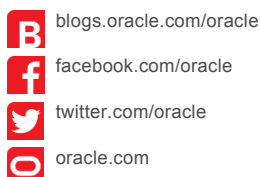
[http://www.linkedin.com/groups?gid=120238&trk=myg\\_ugrp\\_ovr](http://www.linkedin.com/groups?gid=120238&trk=myg_ugrp_ovr)



### CONTACT US

For more information about [insert product name], visit [oracle.com](http://oracle.com) or call +1.800.ORACLE1 to speak to an Oracle representative.

### CONNECT WITH US



### Hardware and Software, Engineered to Work Together

Copyright © 2014, Oracle and/or its affiliates. All rights reserved. This document is provided for information purposes only, and the contents hereof are subject to change without notice. This document is not warranted to be error-free, nor subject to any other warranties or conditions, whether expressed orally or implied in law, including implied warranties and conditions of merchantability or fitness for a particular purpose. We specifically disclaim any liability with respect to this document, and no contractual obligations are formed either directly or indirectly by this document. This document may not be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without our prior written permission.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group. 0714

