

## Vendor Spotlight

# Oracle Operating Systems Built for the Cloud

*Charlie Boyle, Senior Director for Product Marketing, Oracle Solaris, Oracle*

*Monica Kumar, Senior Director for Product Marketing, Linux, Virtualization, and MySQL, Oracle*

---

**Charlie Boyle, senior director of product marketing for Oracle Solaris, and Monica Kumar, senior director of product marketing for Linux, Virtualization, and MySQL at Oracle, talk about how Oracle's operating systems take advantage of the Intel® Xeon® processor E5 family to deliver secure, available, and agile cloud solutions.**

The past year has been an important turning point in the way IT managers are approaching cloud computing. IT departments are moving from deploying relatively low-value applications or development testing to looking at broader initiatives that deliver mission-critical, enterprise-level applications in the cloud. Oracle's next-generation cloud solutions provide IT managers with the infrastructure building blocks to build out their cloud environments against key data center criteria—security, performance, and agility.

Security is the number-one area of concern for IT managers. Applications and data deployed into a cloud environment must be as secure as they were in their internal data centers. Cloud performance and application

availability must be able to meet or exceed current service level agreements (SLAs). Plus, cloud environments must offer enough agility to deploy rapidly, scale services up or down, and offer end users choice about whether they deploy in internal private clouds, hybrid clouds, or in a public cloud.

---

*Both Oracle Solaris and Oracle Linux teams work closely with Intel engineers to really drive unique features in our operating system portfolio that are expressed through servers running the latest Intel chipset.*

---

## Oracle Operating Systems

Oracle offers a complete cloud infrastructure stack, including hardware, operating systems, virtualization, and cloud management. Oracle's operating systems—Oracle® Solaris® and Oracle Linux®—are designed to deliver maximum security, performance, and agility. Both also:

- Provide built-in tools and features making them ideal to deploy in a cloud infrastructure
- Integrate with the rest of Oracle's products, including Oracle Applications, making it easy to deploy applications with an Oracle VM template and manage them with Oracle Enterprise Manager

- Take advantage of the latest Intel® Xeon® processor E5 family architecture for our server infrastructure to deliver performance and agility in the cloud
- Are included with Oracle's x86 servers and Oracle Premier Support bundle at no additional cost

Oracle Solaris 11 is the first cloud operating system designed to support enterprise-level cloud workloads. It includes intelligent provisioning; built-in virtualization and data management features such as deduplication, encryption, and thin provisioning; and advanced security with fine-grained delegated management.

Linux is increasingly being deployed for cloud-based solutions, and Oracle Linux is fast, modern, reliable, and optimized for extreme performance and scalability, which is key for cloud deployments. Oracle Linux is an industry-leading Linux for enterprise computing and an important component of Oracle's Engineered Systems such as Oracle Exadata\* Database Machine, Oracle Exalytics\* In-Memory Machine, Oracle Exalogic\* Elastic Cloud, Oracle Big Data Appliance, and Oracle Database Appliance.

---

## The Intel Xeon Processor E5 Family Advantage

Oracle and Intel have a relationship that extends back several decades at both the engineering and the product level. Intel works with our hardware engineers to produce the very best x86 architecture systems in the market. Our Oracle Solaris and Oracle Linux teams also work closely with Intel engineers to really drive unique features in our operating system portfolio that are expressed through the Intel chipset. Plus, we are always looking for how we can get the maximum performance out of our applications by tuning them with our operating systems and the Intel processors.

We're focused on designing infrastructure as building blocks to help customers and our service partners build out complete solutions. The Intel Xeon processor family is a core component of our server line, operating systems technology, and virtualization technology. It brings advanced capabilities and performance that extend into every level of our cloud infrastructure, including:

- Increased security by enabling accelerated encryption
- Low-latency network communication to improve application performance
- Balanced I/O design to increase application execution efficiency

For example, with security a priority for cloud deployments, we've enabled the cryptographic framework in Oracle Solaris to take advantage of accelerated encryption capabilities in the Intel Xeon processor E5 family. Because encryption capabilities are built into the hardware and the operating system, IT managers can provide the benefits of data protection transparently without any drop in performance for end users.

Low latency is important in cloud computing because it enables greater overall application throughput as we consolidate multiple applications on the same system. In a multitier architecture, those applications all need to talk to each other. A low-latency design means the applications can talk faster, deliver more transactions, and at the end of the day, gain more business value from the infrastructure.

---

## Data Center Efficiency for the Cloud

While cloud computing is bringing new challenges to the data center, Oracle is committed to building the right type of infrastructure—in our case with an Oracle stack built with Oracle hardware, operating systems, and virtualization—to really drive overall efficiency. Then, as you add more applications and services to your cloud environment, you can continue to improve efficiency in the overall data center. Processors like the new Intel

Xeon processor E5 family enable our customers to pack more applications on the same number of systems they had in the past, helping them to realize the flexibility and cost benefits promised by cloud computing.

For more information about Oracle Solaris, visit [www.oracle.com/solaris](http://www.oracle.com/solaris). For more information about Oracle Linux, visit [www.oracle.com/linux](http://www.oracle.com/linux).

### Share with Colleagues



This paper is for informational purposes only. THIS DOCUMENT IS PROVIDED "AS IS" WITH NO WARRANTIES WHATSOEVER, INCLUDING ANY WARRANTY OF MERCHANTABILITY, NON-INFRINGEMENT, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY WARRANTY OTHERWISE ARISING OUT OF ANY PROPOSAL, SPECIFICATION, OR SAMPLE. Intel disclaims all liability, including liability for infringement of any property rights, relating to use of this information. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted herein.

©2012 Intel Corporation. All rights reserved. Intel, the Intel logo, Intel Sponsors of Tomorrow, the Intel Sponsors of Tomorrow logo, and Xeon are trademarks of Intel Corporation in the U.S. and other countries.

\*Other names and brands may be claimed as the property of others.

