



Cloud Foundation Standards

BY TOM HAUNERT

Wim Coekaerts, senior vice president of Linux and virtualization engineering at Oracle, discusses how operating systems and virtualization power the data center, the cloud, and Oracle Private Cloud Appliance.

A solid infrastructure is the foundation of successful business projects and high-performance, low-cost IT. Oracle Magazine sat down with Wim Coekaerts, senior vice president of Linux and virtualization engineering at Oracle, to discuss the state of Linux, virtualization, application containers, and general-purpose converged systems. Coekaerts' direct replies follow each question.

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— WIM COEKAERTS

Senior Vice President of Linux and Virtualization Engineering, Oracle

How has Linux evolved in the enterprise, and how does Linux fit in with cloud deployments?

Years ago, early Linux adopters tested Linux in the enterprise on systems that were not running mission-critical and production applications. There were questions about reliability and scalability.

This is no longer a question or an issue. Linux is now the de facto server operating system (OS) on x86 hardware. Linux is also part of OpenStack cloud platform distributions, and it is the de facto OS in private and public clouds, including Oracle Cloud.

Oracle has made a significant investment in Oracle Linux, and Oracle Linux is the distribution on which most Oracle customers run their Oracle Database and Oracle Applications.

Oracle Linux continues to enjoy double-digit growth year over year. And the growth is not just in support of Oracle Database and Oracle Applications. Oracle Linux supports general-purpose computing for any type of application, in the data center and in private and public clouds.

Security breaches continue to make headlines. What are the security challenges facing Linux today?

A big challenge to company security policies is the downtime required to do server patching. With the Ksplice feature in Oracle Linux, you can patch the Oracle Linux kernel instantly, with no system or application downtime. We're also working to extend the "hot patching" we do for the Oracle Linux kernel to other critical system areas.

And when Oracle releases a patch for Oracle Linux, you have the security of knowing that the patch has been tested and is running on Oracle production systems and Oracle Cloud.

Application containers have become part of the virtualization conversation. How do application containers work with virtualization?

Containers are not new. Container technologies such as the Oracle Solaris Zones feature in Oracle Solaris have been around for many years.

And containers are not going to replace virtualization. Virtualization technology and container technology typically solve different problems, and they can nicely complement each other. Oracle VM, for example, doesn't compete with Linux containers or Docker.

Docker ships with Oracle Linux. We provide full support for Docker as part of Oracle Linux subscriptions, and Oracle is working to certify Docker to run with Oracle Database and Oracle WebLogic Server.

Oracle Private Cloud Appliance combines OS and virtualization in an engineered system. What challenges does Oracle Private Cloud Appliance address?



Wim Coekaerts is senior vice president of Linux and virtualization engineering at Oracle.

Organizations are tired of spending three months talking to 10 vendors and then trying to install and integrate server, networking, storage, OS, virtualization, and applications from different vendors in one system. And they're even more tired when something goes wrong and they have to call many different vendors, who are sometimes competitors, to fix the problem.

Oracle Private Cloud Appliance is a converged infrastructure hub, and it solves these problems. Oracle installs and tests the hardware and software, so when you buy Oracle Private Cloud Appliance, you plug it in, and two hours later, you can start running virtual machines on the appliance.

Standardization is another benefit. Running your system on a unique combination of server, networking, storage, OS, and virtualization components—a combination that your vendors have not tested—is a challenge. Unique combinations and configurations are not good in IT. They're not easy to support. When you run your applications on Oracle Private Cloud Appliance, you're running on validated configurations, and you're running on the same software versions of Oracle Linux and Oracle VM that power Oracle Cloud.

For more information on Oracle infrastructure solutions, visit oracle.com:

- [Oracle Linux](#)
- [Oracle Private Cloud Appliance](#)

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