ORACLE DATA SHEET

Oracle Solaris 11
Security. Speed. Simplicity.

ORACLE SOLARIS

Oracle Solaris 11 is a secure, integrated and open platform engineered for large-scale enterprise cloud environments, allowing you to deploy your enterprise mission-critical applications safely and securely with no compromise. It combines all the security and compliance capabilities you need in your data center today together with OpenStack, zero overhead virtualization, and agile application deployment all in a single, supported cloud platform.

KEY FEATURES

Oracle Solaris enables customers to easily build efficient, secure and compliant cloud environments.

- Centralized cloud management with OpenStack
- Cloud-ready application provisioning in minutes with Unified Archives
- No compromise virtualization with Oracle Solaris Zones and Kernel Zones
- Application Driven Software Defined Networking with Elastic Virtual Switch
- Integrated compliance monitoring and reporting

World-Class, Industry Leading Security

Oracle Solaris combines the power of industry-standard and unique OS security features, anti-malware capabilities, and compliance management tools for low-risk application deployments and cloud infrastructure. With our zero overhead encryption technology, protect your data in-memory, at rest, and in motion.

- Ensure secure infrastructure through hardware enforced anti-malware protections via Software in Silicon feature set, unique security mechanisms and industry standard security controls ensure a secure infrastructure
- Simplify generating compliance reports with new compliance tool. Security policies include PCI-DSS, DISA STIG, and Oracle's recommended configurations
- Sandbox applications, users, and virtual machines via centralized security requirements while delegating necessary access to business units for operational flexibility and centralized control
- Deliver hardware-assisted cryptography on Oracle's systems for Oracle Solaris applications, Oracle Database, Java JCE middleware, or any application
- Oracle Solaris enhances the OpenStack security posture by automatically sandboxing the infrastructure services and limiting allowed behavior, and providing seamless methods to administer, delegate, and record administrative actions across hardware, software infrastructure, and application tiers.

Our integrated deployment workflow ensures businesses can stay secure and compliant from the very start. Once an application environment has been developed, tested and certified, it can be securely deployed and locked down for production use with Immutable Oracle Solaris Zones. This helps to ensure that applications are not compromised and always compliant, critical when deploying 1000's of VMs in a cloud environment.

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KEY BENEFITS

- Simplify cloud operations in a heterogeneous data center environment
- Secure, agile and compliant application provisioning optimized for the complete software lifecycle
- Run mission critical workloads without restrictions with zero overhead virtualization
- Maintain service level agreements with application driven resource management
- Reduce cost of meeting compliance regulation
- Maximize performance, efficiency and costs with Oracle on Oracle

Higher Performance, Higher Density Virtualization

Oracle Solaris 11 enables no compromise virtualization, allowing enterprise workloads to be run within a virtual environment at no performance cost, as if they were run in a bare-metal environment. Oracle Solaris Zones has been used in production for over a decade providing a highly integrated and capable virtualization offering. In stark contrast, the leading virtualization technology vendor imparts a 25% virtualization tax, meaning a greater number of systems to manage, higher latencies and ultimately, higher cost to businesses.

Kernel Zones combines this zero overhead virtualization capability, enabling independent kernel versions, independent patch levels, and secure live migration for greater flexibility with application workloads. The combination of Oracle Solaris Zones, Oracle VM for SPARC, and physical domains in Oracle's high-end system portfolio provides a feature rich environment to suit every workload with extreme administrative efficiency. In addition, both Oracle Solaris Zones and Oracle VM for SPARC are recognized as license boundaries by most enterprise software vendors, leading to significant cost savings.

An Enterprise OpenStack Distribution

Oracle Solaris 11 includes a full distribution of OpenStack, the popular open source project that provides cloud management infrastructure, as a standard, supported part of the platform. Integrated into all the core technology foundations, OpenStack on Oracle Solaris provides a seamless, enterprise-class experience for managing compute, storage and network resources in the data center through a centralized web based portal. This combination enables organizations to securely deliver services in minutes rather than weeks or months and, using OpenStack's vendor-neutral API, also manage a heterogeneous mix of hypervisors and infrastructure in the data center.

Application Driven Software Defined Networking

With the trend towards cloud computing, businesses are struggling to translate existing quality of service metrics for service-level agreements to more complex environments that have a greater amount of consolidation and multi-tenancy. Oracle Solaris 11 enhances its existing, integrated software defined networking technologies to provide much greater application agility without the added overhead of expensive network hardware.

Elastic Virtual Switch enables application agility across a completely distributed set of systems across an arbitrary geographic region without having to redefine your physical network topology. Through the use of VXLANs and centralized virtual switching, physical network infrastructure can entirely be decoupled leading to lower hardware costs, greater network density and more flexible resource control.

RELATED PRODUCTS

Oracle recommends the use of the following products alongside Oracle Solaris:

- Oracle Solaris Cluster for High Availability
- Oracle Enterprise Manager – Ops Center Management Suite
- Oracle Solaris Studio Development Tools

RELATED SERVICES

The following services support Oracle Solaris:

- Oracle Premier Support for Systems
- Oracle Premier Support for Operating Systems
- Oracle Solaris Premier Subscription for Non-Oracle Hardware

Oracle Solaris 11 uniquely extends this base SDN functionality up into the application layer (Layer 7), including all Java based applications, by exposing APIs that enables applications to drive their own priority traffic through a series of resource flows right down to the underlying storage. This advanced capability enables automation of resource management and critical cloud SLAs.

Driving Data Center Efficiency, Lowering Costs

The combination of Oracle Solaris and Oracle SPARC and x86 hardware is redefining data center economics, dramatically reducing the cost of IT and increasing performance. Through Oracle's increased investment in software and hardware R&D, the SPARC processor has established dramatic performance leadership with 2X performance improvement for each processor generation with record-breaking benchmarks. Oracle's revolutionary Software in Silicon technology further pushes these performance boundaries by implementing accelerators directly onto the processor to deliver a rich feature-set such as Database In-Memory Query Acceleration and Application Data Integrity that enables faster and more secure applications. Businesses are seeing significant advantage in Oracle's virtualization solutions, avoiding the virtualization performance tax of other leading virtualization vendors while also increasing VM density per system.

With integrated lifecycle management technologies, updating the cloud is a single click all the way down to the firmware including all virtualized environments, with full failsafe rollback if necessary. This overall simplicity to software lifecycle management has led to a 16X efficiency gain for a major US financial customer with a significantly higher VM administration management ratios for Oracle Solaris 11 compared to leading Linux based platforms.

The combination of Oracle Solaris and SPARC is also driving a reduction in management costs with a 6X savings when compared to an equivalent solution using Red Hat Enterprise Linux and x86 based systems over a 3 year period. A major US telecommunications provider also saw significant savings through improvement management. After deploying Oracle Solaris 11, they calculated they had saved over $500 USD per VM when compared to conventional x86 virtualization solutions. Benefits come from the improvements that Oracle has made to simplify administration, eliminate the cost of compliance, and use hardware more efficiently.

More Information

For more information about Oracle Solaris 11.3, visit oracle.com/solaris.

CONTACT US

For more information about Oracle Solaris, visit oracle.com or call +1.800.ORACLE1 to speak to an Oracle representative.

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Integrated Cloud Applications & Platform Services

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