

ORACLE SOLARIS 11

KEY BENEFITS

- **First OS for clouds.** Fast, intelligent provisioning capabilities for rapid service setup and maintenance. Oracle Solaris ZFS makes creating multiple images simple and highly efficient.
- **Built-in virtualization in every dimension.** Fully virtualized networking features for the highest levels of performance with the lowest overhead, adding even more flexibility to Oracle Solaris Zones. Secure live migration with Oracle VM for SPARC and x86.
- **Improved data management.** The industry-leading Oracle Solaris ZFS technology moves yet further ahead with new advanced storage features such as built-in deduplication, encryption, and thin provisioning. The best storage foundation for traditional, virtualized and cloud environments.
- **Advanced security.** Fully integrated security for users, applications, and devices while simplifying administration with fine-grained delegated management, implementing the latest security standards and continuing Oracle Solaris' leadership position as a highly secure operating system

Oracle Solaris 11 builds on the proven technologies of the industry's #1 UNIX, and adds new technologies designed to accelerate adoption of enterprise scale workloads in public, private and hybrid cloud environments. Oracle Solaris 11 is supported on hundreds of SPARC and x86 platforms, including Oracle's Exadata, Exalogic and SPARC SuperCluster engineered systems.

Deploy advanced technologies

Enterprises are under tremendous pressure to do more with less, roll out new business services faster, fit more servers into the same space, and comply with new regulations. Oracle Solaris 11 allows customer to take advantage of the latest Solaris features like network virtualization, data de-duplication and built in data encryption.

Improve IT efficiency

New availability features greatly reduce planned downtime by up to 50%, while eliminating traditional patching. Maintenance-related reboots are greatly reduced and the new faster boot system can decrease system boot time to seconds.

Next-generation virtualization

Oracle Solaris 11 introduces fully virtualized networking capabilities, in addition to existing system and data virtualization features, adding even more flexibility.

Unified software administration

Simplifies the acquisition, installation, and maintenance of Oracle Solaris and additional Oracle, third-party, and in-house applications, through a network-based packaging system that uses dependency-aware tools to update the software stack while virtually eliminating opportunities for errors during updates.

Secure operation

The leading-edge security features in Oracle Solaris help to reduce the risk of intrusions, and secure your applications and data, by making it possible to assign just the minimum set of privileges and roles needed by users and applications. Access to data can be controlled based on its sensitivity label.

Guaranteed compatibility

Oracle Solaris 11 preserves guaranteed compatibility with over 11,000 third-party products and customer developed applications. Enhancing our built-in compatibility features, with Oracle Solaris 10 Zones customers can quickly and easily move entire Oracle Solaris 10 environments into their own separate zone on Oracle Solaris 11.

Oracle Solaris Technologies

Oracle Solaris 11 builds on the reliability, security and performance of Oracle Solaris 10 by adding new features to take on the most challenging issues customers face today. developed applications. Enhancing our built-in compatibility features.

Oracle Solaris Zones

Oracle Solaris Zones is an OS-level virtualization technology built into Oracle Solaris. Using flexible, software-defined boundaries to isolate software applications and services, this breakthrough approach allows multiple private execution environments to be created within a single instance of Oracle Solaris.

By dynamically controlling application and resource priorities, businesses can define and achieve predictable service levels. System administrators can easily meet changing requirements by quickly provisioning new Oracle Solaris Zones, or moving them from system to system or disk to disk within the same system as capacity or configuration needs change.

Oracle Solaris Zones are fully integrated with the new virtualization, management efficiency, security and file system features of Oracle Solaris 11, making them ideal for rapid “thin” provisioning of new services within data center and cloud environments.

Image Packaging System (IPS)

New with Oracle Solaris 11 is the Image Packaging System (IPS), a next-generation service that provides safe system installation, updates, and upgrades. Built-in dependency checking ensures that the correct versions of required software are installed on the system for a system that is more reliable and optimized.

The IPS network-based repository model makes it easy to acquire new software or update existing packages. Associated new technologies include Automated Installation for replicated hands-off system provisioning, and the Distribution Constructor, allowing sites to create “golden images” containing just the OS components necessary for a given deployment, plus additional 3rd party software and in-house software and custom configurations.

Oracle Solaris ZFS

Oracle Solaris ZFS is designed from the ground up to deliver a general-purpose file system that spans from the desktop to the datacenter. Anyone who has ever lost important files, run out of space on a partition, spent weekends adding new storage to servers, tried to grow or shrink a file system, or experienced data corruption knows the limitations of traditional file systems and volume managers. Oracle Solaris ZFS addresses these challenges efficiently and with minimal manual intervention. Oracle Solaris 11 includes advanced storage features such as built-in de-duplication, encryption, compression, and thin provisioning that make the industry-leading Oracle Solaris ZFS technology the best storage foundation for virtualized and cloud environments.

Security

Oracle Solaris' user management and process rights management and Oracle Solaris Zones together allow hundreds of applications and multiple customers to be hosted on the same system. Administrators can leverage features such as Secure by Default, Trusted Extensions, and the Service Management Facility to minimize and harden Oracle Solaris, and:

- Verify system integrity by using Oracle Solaris' digitally signed binaries and file verification features
- Reduce risk by granting only the privileges needed for users and processes, with "root as a role" providing higher levels of security separation and auditing.
- Simplify administration and increase privacy and performance by using the standards-based key management and cryptographic frameworks in Oracle Solaris, automatically leveraging hardware cryptographic acceleration and Trusted Platform Module support when present.
- Secure your system using dynamic service profiles, including a built-in, reduced-exposure network services profile
- Control access to data based on its sensitivity level by using the labeled security technology in Oracle Solaris with trusted extensions

Predictive self healing

Predictive self healing is an innovative Oracle Solaris feature that automatically diagnoses, isolates, mitigates, and helps you recover from many hardware and application faults. As a result, business-critical applications and essential system services can continue uninterrupted in the event of software failures, major hardware component failures, and even software configuration problems.

- Oracle Solaris' fault management architecture continuously monitors data relating to hardware and software errors. By automatically detecting and diagnosing the underlying problem, it can automatically take the faulty component offline on SPARC and x86 processor-based systems. Easy-to-understand diagnostic messages link to articles in Oracle's knowledge base to help clearly guide administrators through corrective tasks requiring human intervention.
- Oracle Solaris' service management facility creates a standardized control mechanism for application services by turning them into first-class objects that administrators can observe and manage in a uniform way. These services can automatically be restarted if they're accidentally terminated by an administrator, fail as the result of a software programming error, or are interrupted by an underlying hardware problem.

Oracle Solaris DTrace

System administrators, integrators, and developers can use the dynamic instrumentation and tracing capabilities in Oracle Solaris to see what's really going on in the system. DTrace can be safely used on production systems—without modifying applications. It is a powerful tool that gives a comprehensive view of the entire system, from kernel to application; and enhanced with popular providers such as Java. With DTrace, you can delve deeply into today's complex systems when troubleshooting systemic problems or diagnosing performance bottlenecks—in real time and on the fly. This level of insight reduces the time for diagnosing problems from days and weeks to minutes and hours, and ultimately reduces the time required to fix those problems.

Enterprise Support

Support for Oracle Solaris 11 is included in all currently available Oracle Solaris support offerings: these include Oracle Premier Support for systems, Oracle Premier support for operating systems, and Oracle Solaris Premier Subscription for non-Oracle hardware.

Contact Us

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

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