Ten Moves Ahead

Sun's Solaris™ 10 Operating System is 10 moves beyond anything offered in the industry today. How far can we take you?

solaris™

Java™

Sun microsystems

1. UNMATCHED CUSTOMER CHOICE OF SYSTEMS

- The UNIX® operating system that supports UltraSPARC®, SPARC64®, AMD64, and x86
- Runs on more than 250 different hardware platforms, including systems from IBM, HP, and Dell, further enhancing flexibility and choice for customers[1]
- As the only enterprise-class UNIX available on the x86 platform, the Solaris™ 10 OS is the logical alternative for HP-UX and AIX customers who have been abandoned by their vendors on AMD Opteron processor-based and Intel systems

2. LINUX AND SOLARIS™ 10 OPERATING SYSTEMS APPLICATIONS RUN SIDE-BY-SIDE

- Run your unmodified x86 Linux applications, with no emulation required
- Run the Sun Java™ Enterprise System on Linux and the Solaris 10 OS
- Integration of key open source applications such as Samba, Apache, gcc, Tomcat, MySQL, and more than 170 others
- More than 50 key open source applications supplied and supported as part of the Solaris 10 OS, with more than 120 others supplied, ready to run
- With the Sun Java™ Desktop System, users get the same interface across platforms and even operating systems

3. COOL NEW AND IMPROVED FEATURES

- DTrace, industry-leading real-time systems diagnostics
- Solaris 10 Containers, for more simple, safe, and secure server consolidation
- Predictive Self Healing, for maximum uptime
- Linux Application Environment, to run Linux applications side-by-side with Solaris applications
- ZFS, fail-safe file system for data protection
- Solaris Process Rights Management, for military-grade security
- Guaranteed Source and Binary Compatibility
- The Trusted Solaris™ Operating System, for unparalleled security
- SPARC, AMD Opteron, and Intel support
- Cryptographic Framework, for stronger, faster authentication
- Sun Update Network, for automatic system updates
- World-class Directory Services
- State-of-the-art new J2EE™ Application Server
- Highly secure Web Server

4. AFFORDABLE

- The Sun Java Enterprise System includes the Solaris 10 OS right-to-use (RTU) license

5. APPLICATIONS CAN RUN UP TO 30 TIMES FASTER

- Extensive performance tuning equals significant "out of the box" performance improvements
- Existing applications can run up to 30 times faster
- Scales from 1 to 576 CPUs
- The Solaris 10 OS self tunes based on platform size and architecture
- Improved TCP/IP stack allows networking to scale linearly with zero degradation in system performance as systems and applications scale to hundreds of CPUs and network connections
- Memory Placement Optimization (MPO) means that performance scales linearly with systems
- Dynamic Tracing framework (DTrace) provides additional performance tuning opportunities—up to 3000% performance improvements for real-world applications

6. ACHIEVES UP TO 4X SYSTEM UTILIZATION (no mainframe required)

- Solaris 10 Containers unleash multiple (up to 8192) independently secured applications on the same instance of the Solaris 10 OS, each "contained" in its own private virtual environment, enabling higher utilization levels
- Provides finer granularity than any other UNIX system, with resources shared across virtual environments to further drive up utilization.[2] Resources can be automatically reallocated according to business need, and users can be billed by workloads—ensuring true pay-per-use billing across all Solaris 10 systems

7. MILITARY-GRADE SECURITY—VIRUS-FREE FOR THE LAST 20 YEARS

- Features previously available only on the Trusted Solaris OS, now standard on the Solaris 10 OS on all platforms
- Award-winning technology designed for the Trusted Solaris OS—Process Rights Management—now available in the Solaris 10 OS
- Same high-level computing security as the Pentagon now available on x86 systems running the Solaris 10 OS
- Strengthened cryptographic framework can provide more flexibility and security

across your enterprise, regardless of the platforms you are running on. It adds a common interface for system-wide cryptographic routines with one point of administration and access to hardware accelerated cryptography

- Integrated packet filtering firewall helps provide a solid foundation for preventing, not just fixing, security problems

8. REVOLUTIONARY NEW FAIL-SAFE FILE SYSTEM FOR DATA PROTECTION

- Unparalleled data security and integrity—99.99999999999999999%[3] (19 nines) chance of error detection and correction, mitigating the risks associated with bad disk firmware, silent data corruption, and the like. Only ZFS can provide this level of data security and integrity
- Can reduce administrative overhead by up to 80%: To create a storage pool, create three file systems, and then to grow the file systems, five simple ZFS commands are required, as opposed to 28 steps with a traditional file system and volume manager such as that in the Solaris 8 OS
- Massive scalability—128-bit versus competitors' 32- and 64-bit file systems, for 16 billion billion times greater capacity than those currently supported by other operating systems. Customers will not exhaust the file system addressable limit in the foreseeable future. A customer creating 1000 files/second would take 9000 years to reach maximum capacity with ZFS
- Fault resilience—the combination of file system and volume management functionality makes ZFS unique in its ability to handle component failure by duplicating and migrating data from potentially failing devices. Only ZFS can provide this unique level of reliability

9. SELF-HEALING—SYSTEMS AND DATA FIX THEMSELVES

- The Solaris Fault Manager and the Solaris Service Manager can predict and detect potential system failures and intervene to prevent problems from occurring
- Detection, diagnosis, and off-lining of components happens automatically and in milliseconds, rather than hours or days
- Unlike HP-UX, Red Hat, and Windows XP, the Solaris 10 OS has the capability to track historical errors, perform root-cause analysis, and shut down any components dependent on the failed service component to help avoid future failures that could result in a loss of service
- The Solaris 10 OS' support for Dynamic Reconfiguration on select Sun Fire™ servers means that failed system components can be replaced with zero downtime
- Simplified administration model helps network operators, reduces customers' total cost of ownership

- The Solaris 10 OS helps system administrators with quick and valuable information on the impact of any failed or failing component in an easy-to-understand format, simplifying their ability to make decisions about future action plans. Only the Solaris 10 OS provides this additional level of detail

10. BETTER SUPPORT AND SERVICE

- Sun℠ Managed Services offers flexible, transitional, and longer-term data center management services without transferring assets
- Services can help with building skills and experience so that customers can eventually "insource," or can free up valuable resources longer term to work on other strategically critical areas—optimizing customer choice and IT investments
- Data center services do not lock customers into long-term contracts or require IT asset transfers, like traditional outsourcing
- The Sun Service Optimized Data Center program focuses on achieving Sun's N1™ software vision of highly efficient, flexible service delivery through the establishment of essential operational capabilities at the technology, people, and process levels—resulting in a continuous improvement program to transform traditional data center infrastructures and operations into highly responsive, service-optimized data centers

ISV PARTNERS FOR SOLARIS 10 OS AND SOLARIS ON x86

AC Technologies	Jaatayu Software
Actuate Corp.	Kabira Technologies, Inc.
Advent Software, Inc.	Kirchman Corp.
BEA Systems	MatrixOne, Inc.
BMC Software	Network Appliance, Inc.
Borland Software Corp.	Oracle Corp.
Business Objects	Preforce Software, Inc.
Computer Associates, Inc.	Pronto Networks, Inc.
Deep Nines Technologies	Qlogic Corp.
Electronic Data Systems Corp.	RSA Security, Inc.
Emulex Corp.	Rogue Wave Software
Entrust Technologies	Sifang Automation Co. Ltd.
FalconStor Software, Inc.	SupplyScape Corp.
Gene-IT	Sunopsis, Inc.
Geospiza, Inc.	Topspin Communications
Hyperion Solutions Corp.	Voice Genie Technologies, Inc.
IFS AB	WizVision Pte. Ltd

1. http://www.sun.com/bigadmin/hcl/

2. Internal Sun testing

3. A 64-bit checksum is recorded and checked every time data is read from or written to disk, making the chances of reading/writing incorrect data 1 in 10000000000000000000