





Better by Design

Solaris™ 7 Software Environment Overview

Presenter's Name

Presenter's Title

Sun Microsystems, Inc.

Agenda

- Solaris 7 software environment momentum
- Vision
- Market strategy
- Product line overview
- What customers say
- Summary



Solaris Operating Environment[™] Software Momentum



Solaris 7 Software Environment Platform Momentum

ISVs:	8,000+
End Users:	2,500,000+
Growth Rate:	27% per year
Solaris Applications:	12,700 SPARC™, 3,200 Intel



Solaris 7 Software Environment

#1 UNIX® Platform

- #1 UNIX server
- #1 UNIX workstation
- #1 UNIX systems storage
- #1 UNIX service revenue
- UNIX on Intel platform with largest number of OEMs



Solaris 7 Software Environment

A Leader in Network Computing Applications

- #1 platform for E-commerce
- #1 platform for databases
- Leading data warehouse platform
- Fastest growing UNIX platform for ERP
- Leading Web platform
 - Exodus runs on Solaris and hosts Yahoo, eBay, Motley Fool, Lycos...
 - Netscape™ NetCenter runs on Solaris
- Oracle, Sybase, Informix, Netscape...develop on the Solaris software environment

Source: IDC, Dataquest, Sun Microsystems



Solaris 7 Software Environment: A Leading Platform in Growth Industries

- #1 Internet platform
 - 75% of all Internet traffic runs on Sun
 - 10 of top 12 ISPs run on Sun
- #1 UNIX supplier to telco
- #1 UNIX supplier to financial industry
- Leading global healthcare platform
- Leading retail industry platform
 - 7 of 10 top US retailers are Sun customers
 - 12 of 20 top international retailers on Sun

Source: Sun Microsystems

Vision



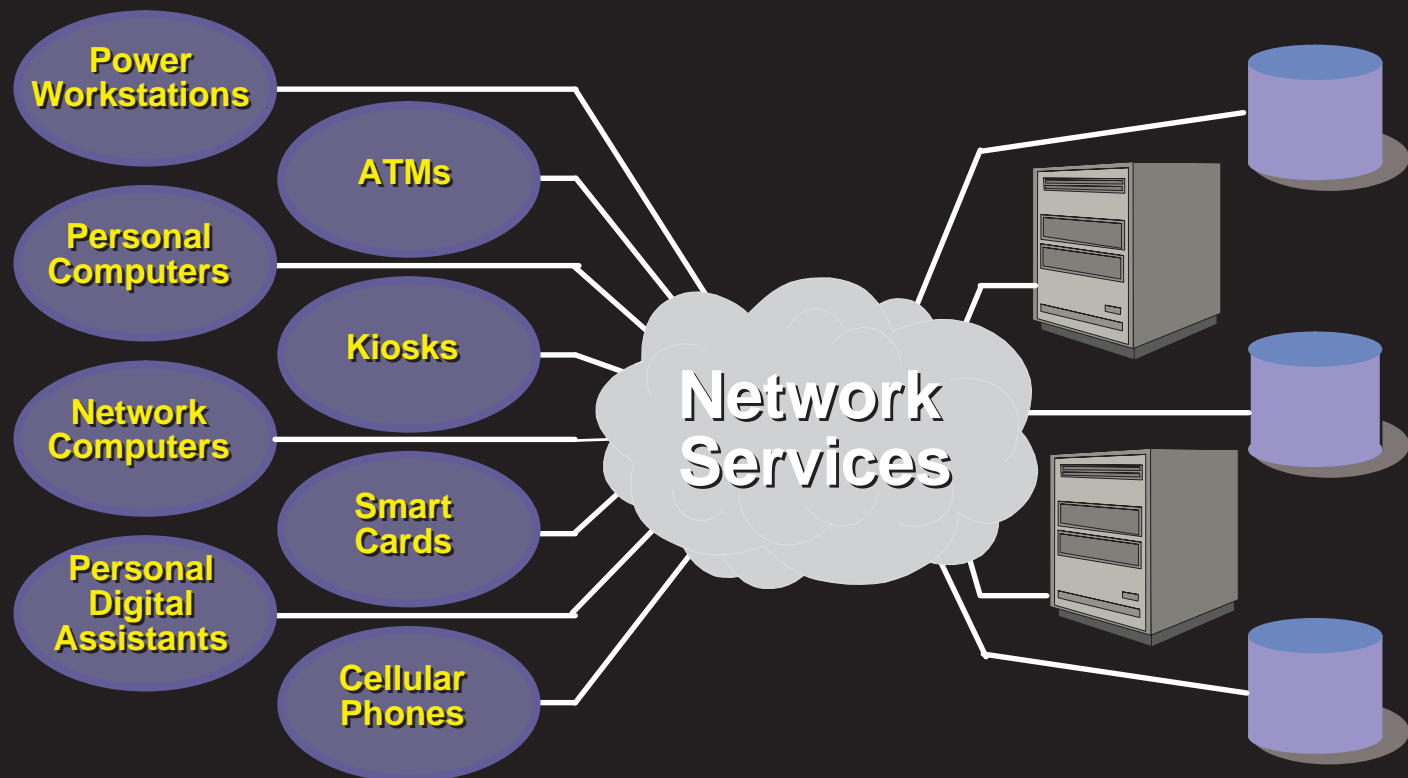
Network Computing Requirements

- Any client
- Thin client
- Global scale
- Distributed
- Multi-vendor
- Open Internet standards

What is Network Computing?

Gadgets & Gizmos

"Distributed" Data Center





Network Computing is Transforming Businesses

- Altering customer/alliance relationship:
E-commerce
 - Electronic order fulfillment
 - Enables new business models
- Re-engineering business processes: ERP
 - Integrate the corporate environment (finance, HR, operations)
 - Reduce cycle times
- Better decision making: OLTP/Decision support
 - Analyze customer information to enhance business opportunities
 - Share information within and across company boundaries



New World, New Server Requirements

- Massive scale
- Performance
- Reliable
- Support any device
- Java™ technology integration
- Control of resources
- Secure
- Easy-to-administer



Solaris Operating Environment Software Technology Investments

- Massive scale
 - Performance
 - Reliable
 - Support *Any* device
 - Java technology integration
 - Control of resources
 - Secure
 - Easy-to-administer
- 
- 64-bit computing
 - Full Moon Clustering
 - Mainframe RAS
 - Windows integration
 - Java technology in Solaris
 - Resource manager
 - Enterprise security
 - Management console



The Solaris 7 Software Environment Roadmap... Executing on the Vision

Solaris 7

- **64-bit environment**
- **Ease of use/NT interoperability**
- Optimized Java™ and JDK™
- Project Cascade
- Enhanced RAS features
- Full Moon Phase 1
- Resource management
- Directory services

Solaris 8

- **Integrated clustering environment**
- **Clustered server management**
- 8 node cluster
- Clustered file system
- Single system image
- Microsoft active directory support
- NetDynamics Applications Server

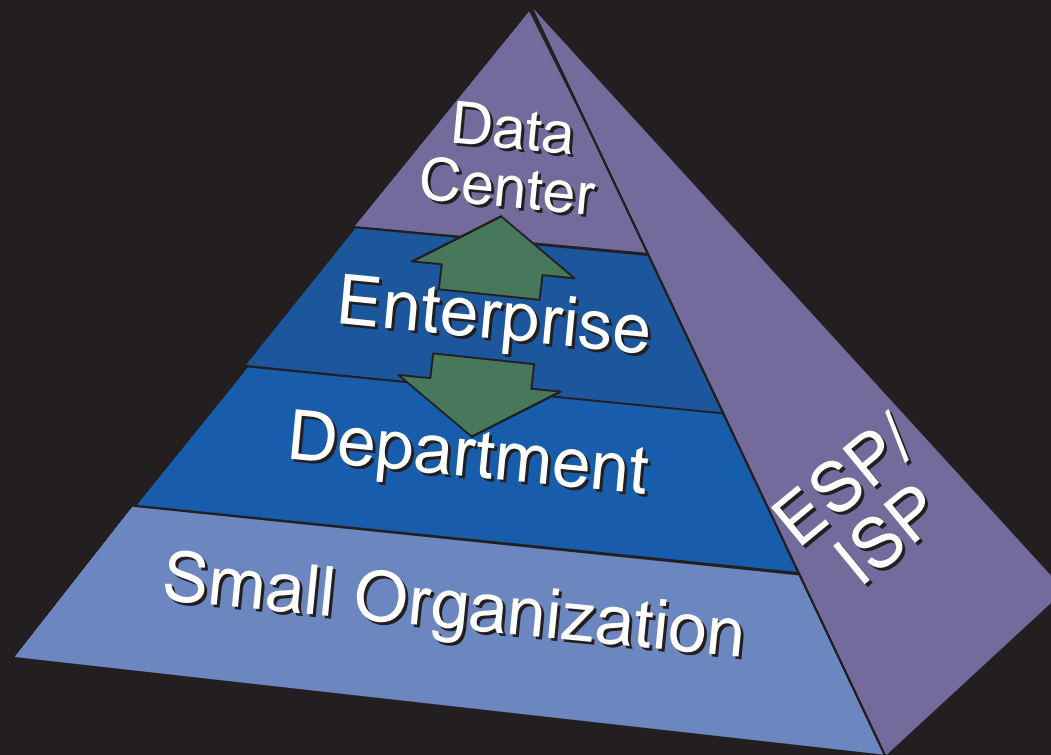
Solaris 9

- **Integrated Java and Jini™ technologies**
- Java APIs for Solaris
- Federated Jini technology support
- Native Java technology middleware support

Market Strategy



Solaris 7 Product Line Target Markets

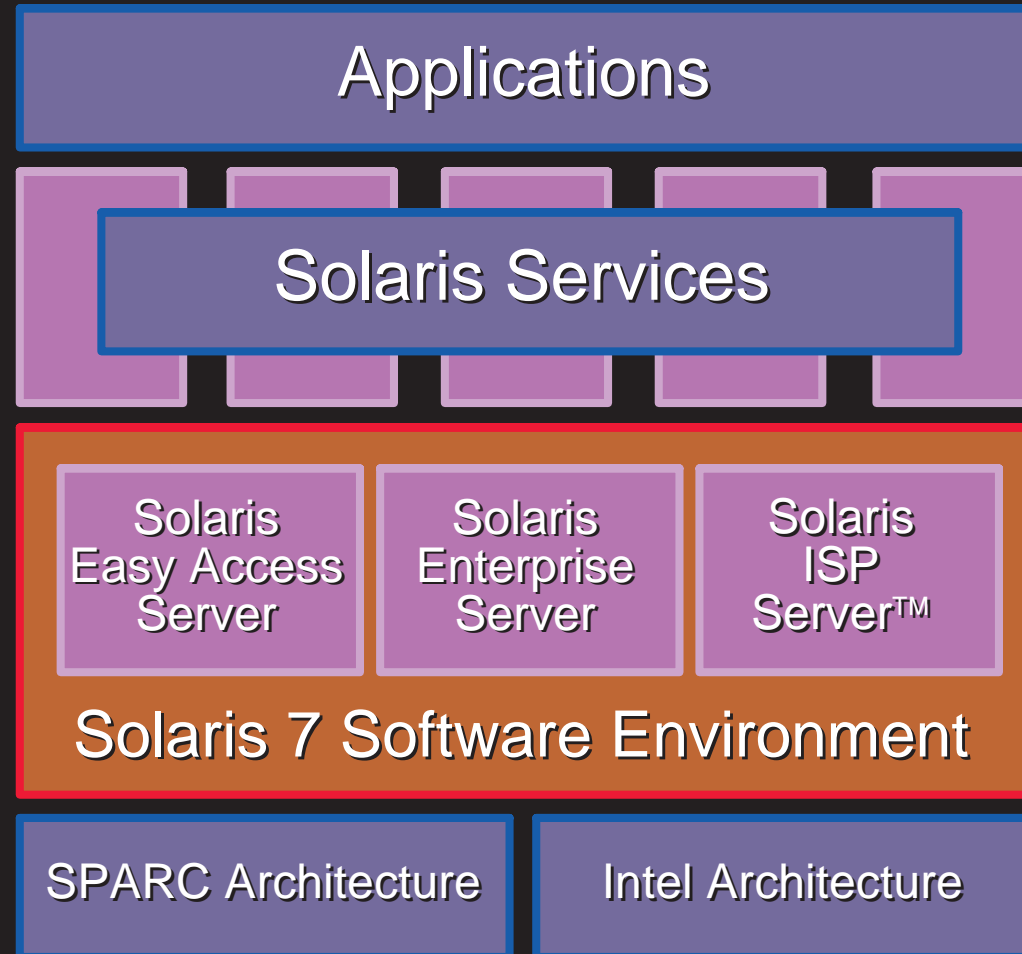




Product Line



Solaris 7 Product Line Overview





Solaris 7 Software Environment Overview

Solaris 7 Software Environment

- 32-bit binary compatibility
- 64-bit operating environment
- Java technology on Solaris
- Euro currency and Y2K
- RAS features

SPARC Architecture

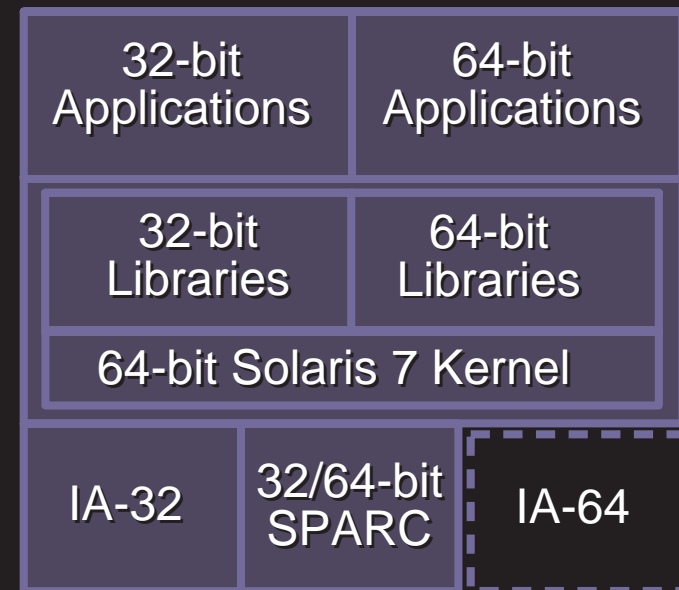
Intel Architecture



64-bit Computing with the Solaris 7 Software Environment

Completing the 64-bit Roadmap

- New class of applications
- Extended capacity
 - Large files and file system support
- Enhanced performance
 - 64-bit virtual addressing
- Extended precision
 - 64-bit arithmetic
- Compatibility
 - LP64 standard compliant
 - 32-bit binary compatibility
 - Better 32-bit performance
 - Merced ready
 - One source base

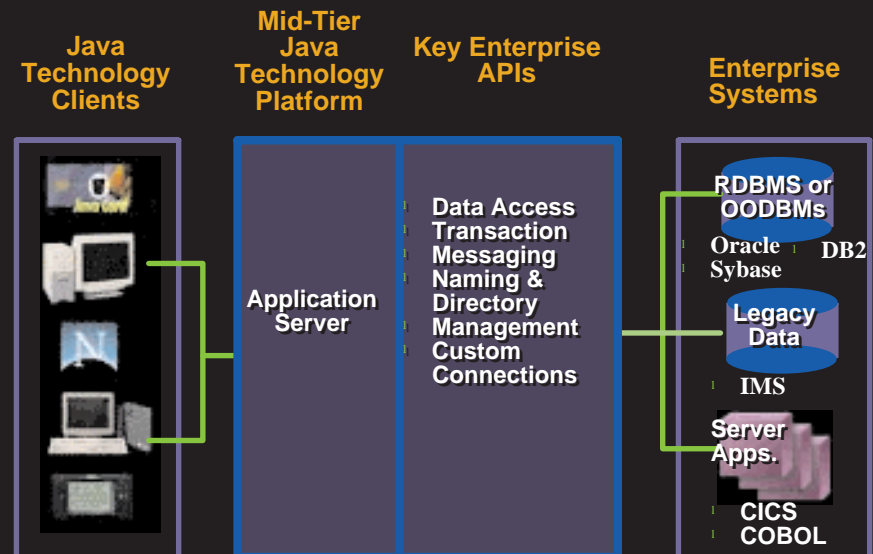




Java™ Technology for the Solaris 7 Software Environment

Optimized for the Enterprise

- Scalability
 - Advanced multi-threaded VM architecture
- Performance
 - New memory system
 - Faster thread synchronization
 - Optimizing JIT
- Reliability
 - Increased stability by design
 - Tuned and tested for the Solaris platform
- Support
 - Now provided through standard Solaris support channels



* Coming Soon



The Solaris 7 Software Environment Has Y2K, Euro & Global Support

Ready for the Next Millennium

- Certified as Year 2000 compliant by an independent testing organization
 - The Software Lab successfully conducted over 1,000 Year 2000 tests
 - Year 2000 certification on SPARC and Intel platforms
- Solaris users not forced to upgrade to latest version
- Euro currency support
 - ISO standard code-sets
 - Keyboard
- Global support
 - 37 languages, covering 95% of the world market



Solaris 7 Product Line Overview

Easy to administer

- Solaris™ Web Start
- Solaris Web Start Wizards™
- InstallShield
- Mgmt Console

Microsoft interoperability

- SunLink™ PC
- SunLink Server
- Directory interoperability
- Intranet services

Solaris
Easy Access
Server

Solaris 7 Software Environment

SPARC Architecture

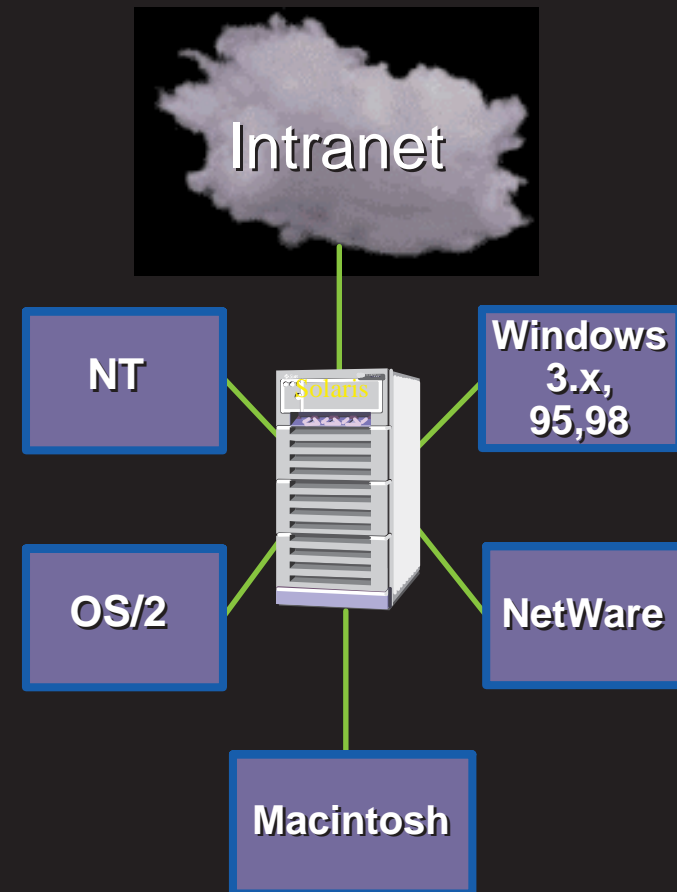
Intel Architecture



Microsoft Interoperability

Easy Access to the Solaris 7 Software Environment

- SunLink™ PC:
 - Interoperability with Microsoft Windows 3.x/95/98, Windows NT, NetWare, and AppleTalk environments
 - No client software required
- SunLink Server
- Solstice NFS Client™
 - NFS™ solution for Microsoft Windows clients, X and host access





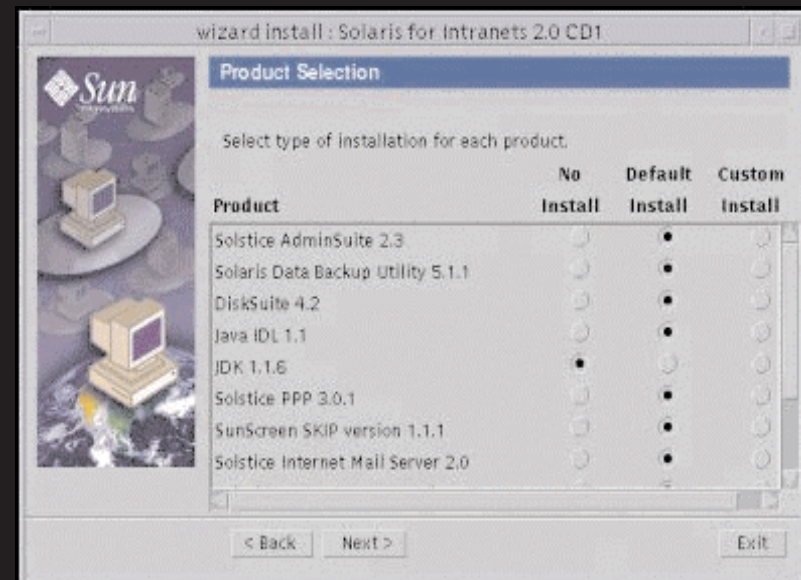
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Solaris Web Start Wizards™

Now with InstallShield Wizards

- Web-based installer for Solaris and application software
- Java technology-based, any platform tool

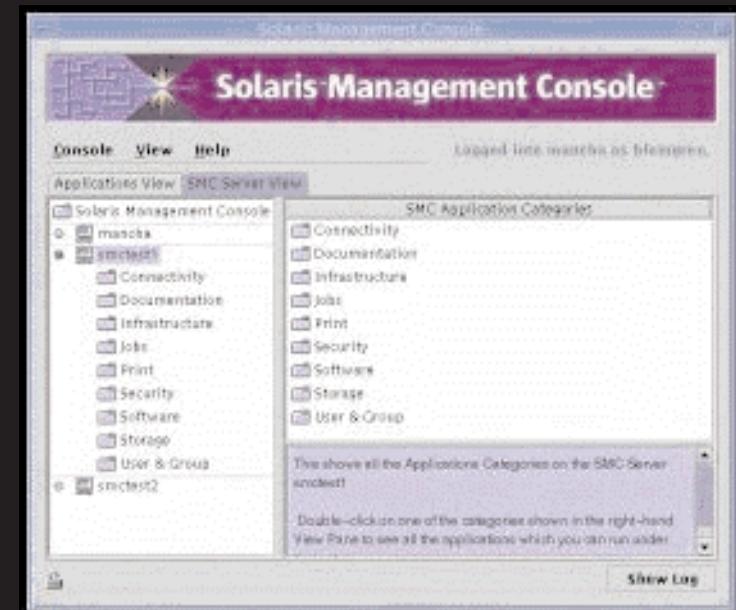




Integrated Web-based Administration

Point and Click Administration of the Solaris Software Environment

- Central integration point for Solaris system administration and management tools
- Configurable, extensible
- Integrates heterogeneous applications: X (Motif), CLI, scripts, Java technology and HTML

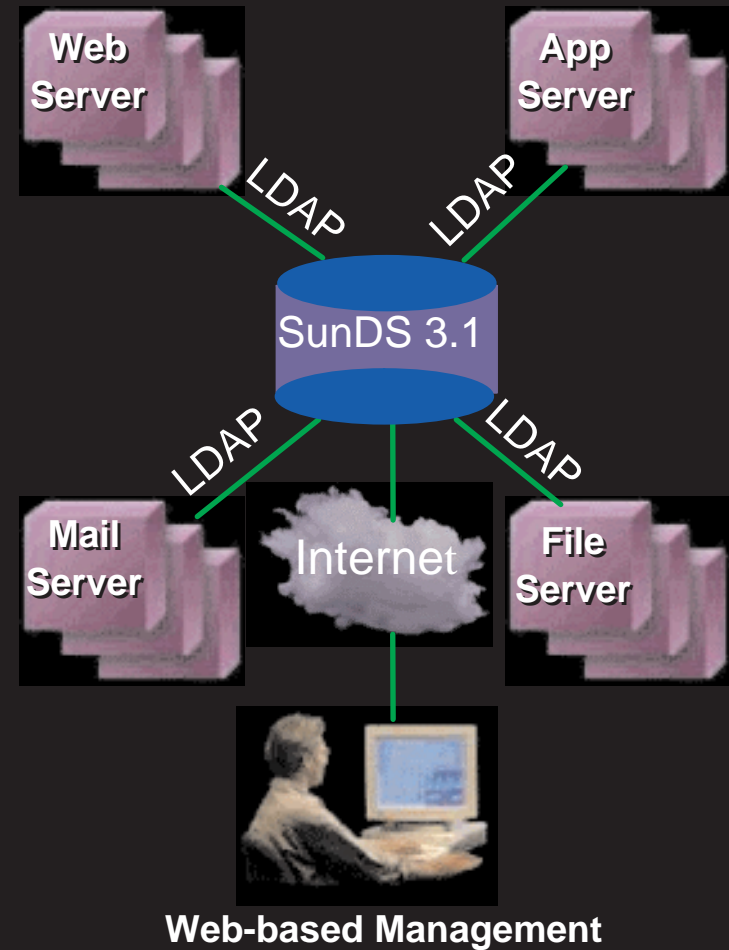




Sun Directory Services 3.1

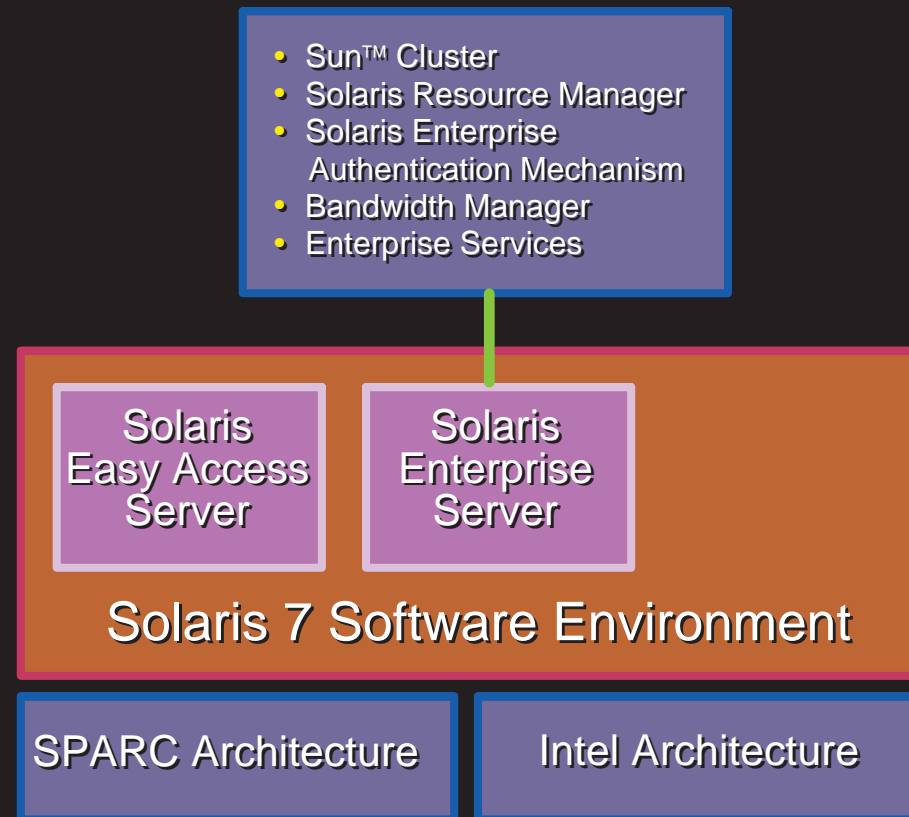
Consolidate Multiple Databases for Better Management

- Single repository
- Supports multiple protocols (LDAP v3, HTTP, NIS, RADIUS)
- Automatic data replication
- Distributed architecture
- NIS interoperability and migration





Solaris 7 Product Line Overview

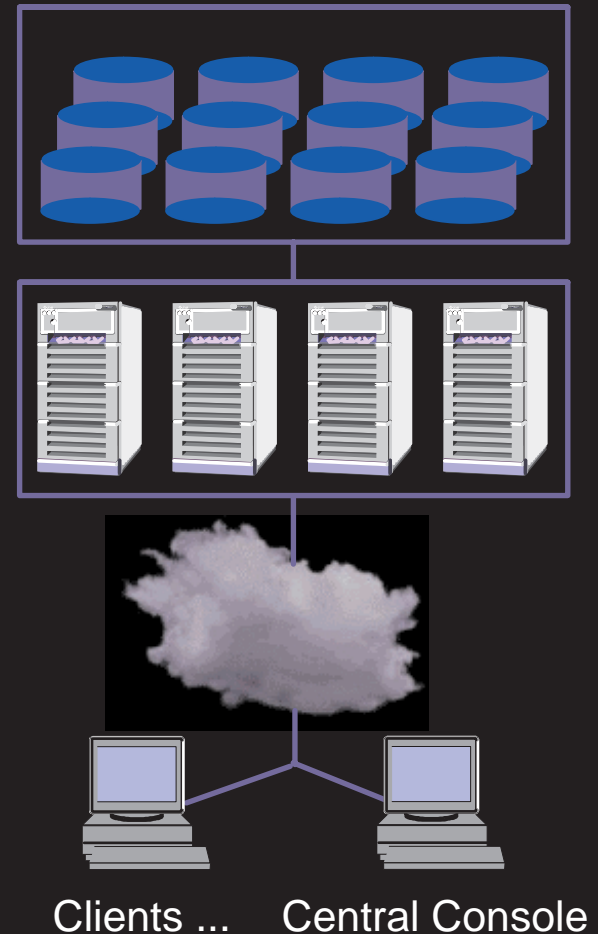




Sun™ Cluster 2.2

Phase One of Full Moon Roadmap

- 2 to 4 nodes
- 64-bit ready
- Multiple file system support: UFS, VxFS, SDS and VxVM
- Standard high availability applications:
 - HA Internets
 - HA databases
 - Parallel databases
 - HA NFS
 - Cluster API
- Campus clusters
- Simplified Web-based install and administration



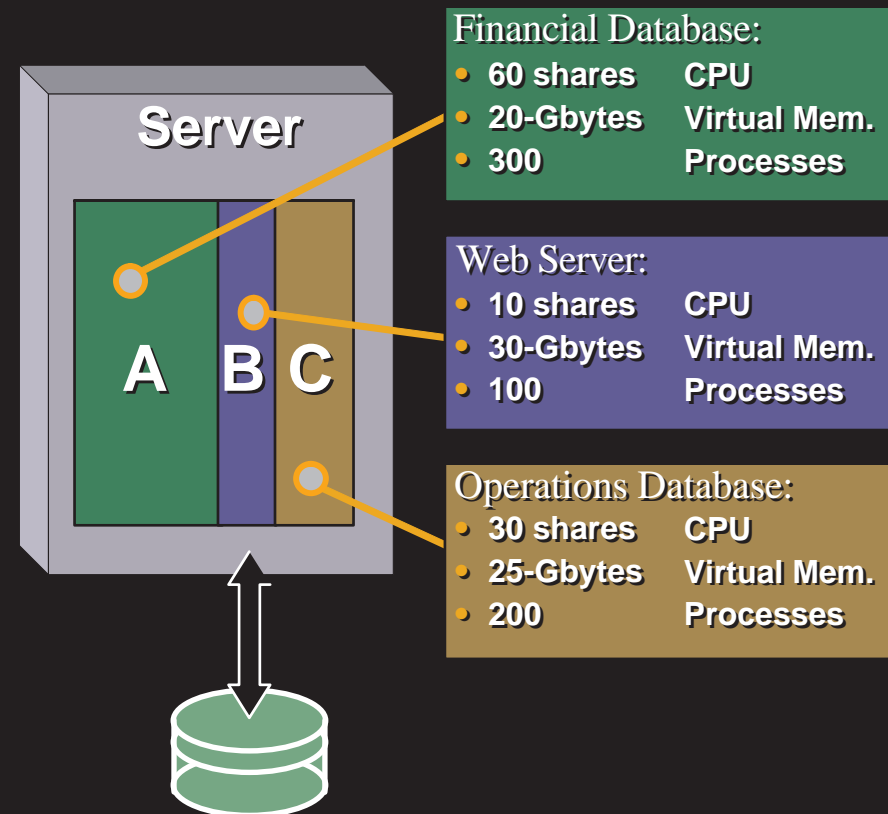
Solaris Resource Manager™ 1.0

Features:

- Control
 - CPU
 - Virtual memory
 - Number of processes
- Policy-based administration
- Hierarchical control model

Benefits:

- Consolidate servers
- Increase resource utilization
- Ensure resource availability





Solaris 7 Product Line Overview

- Sun Internet Administrator™
- Sun Internet Services Monitor™
- ISP Focused Installation/Security
- Host Configuration/Security Hardening
- SunScreen™ SKIP
- Sun Directory Services
- Sun WebServer™
- Sun Internet News Server™
- Sun Internet FTP Server™

Solaris
Easy Access
Server

Solaris
Enterprise
Server

Solaris
ISP
Server

Solaris 7 Software Environment

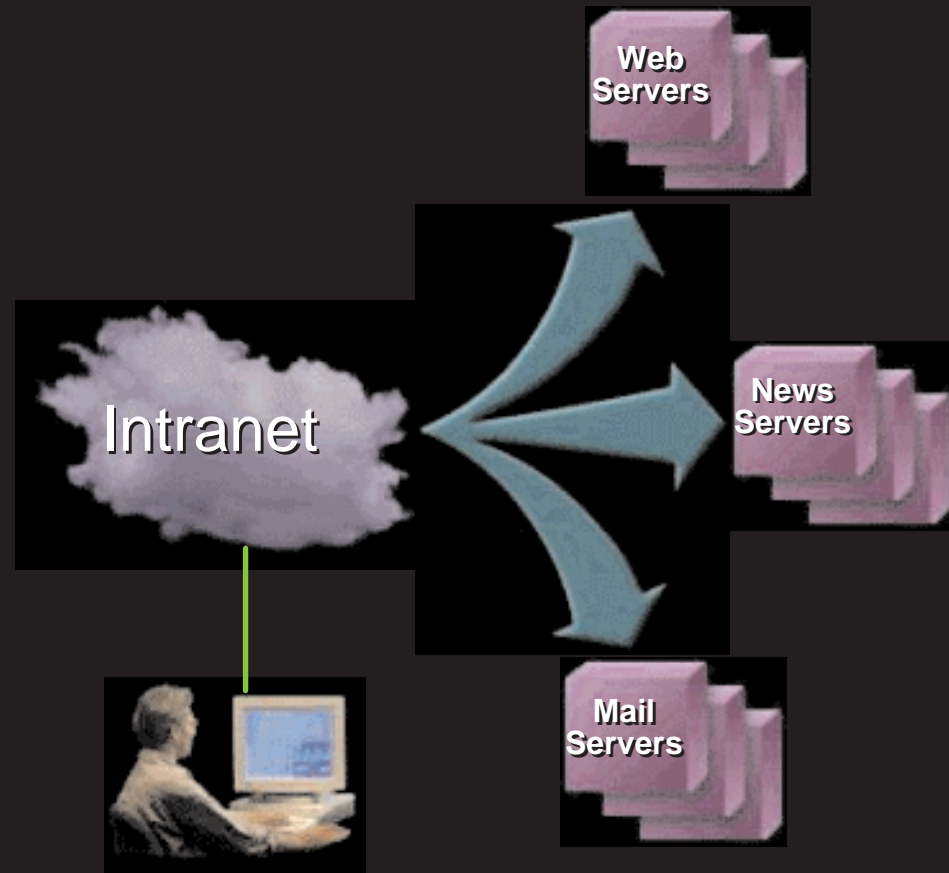
SPARC Architecture

Intel Architecture

ISP-Focused Installation

Rapidly and Consistently Deploy Multiple Servers

- Saves configuration profiles
- Replicates to multiple machines
- Browser-based remote install



Host Configuration

Custom Configuration for Maximum Security

- Security hardening
- Intrusion detection
- Server process monitoring
- Log file management

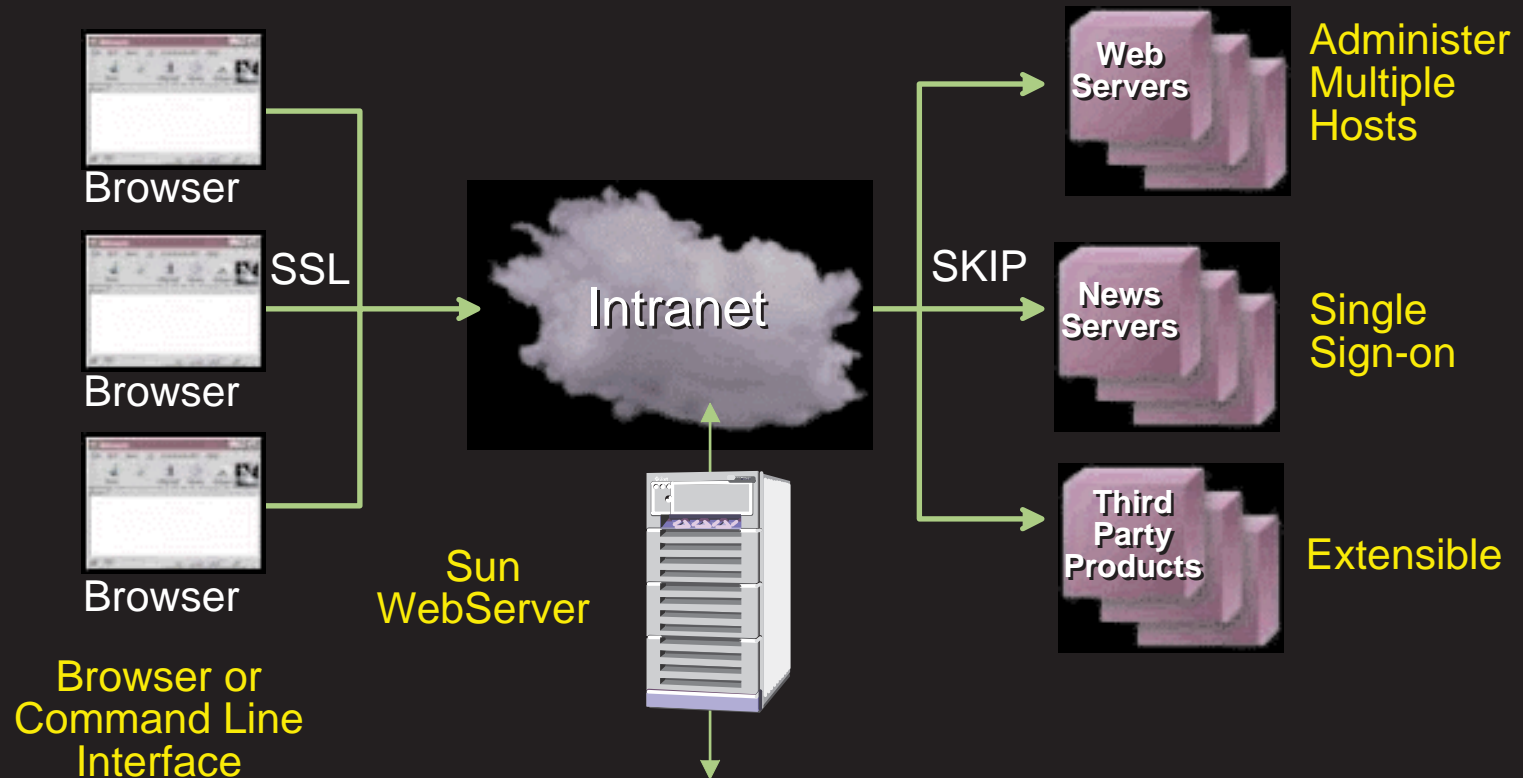


Hacker



Sun Internet Administrator

Secure, Remote Access from a Single Console



- Authentication (PAM)
- Access control (Sun DS)
- Central auditing (syslog)



Scalable, Integrated Core Services

Complete Internet Services

Sun WebServer™ 2.0

- Java™ technology servlets
- Virtual hosting
- HTTP 1.1
- Web administration



Sun Internet News Server™

- User authentication
- Separate feed/read process
- Article synchronization
- Web administration

Sun Internet FTP Server™

- User authentication
- Virtual hosting
- Web administration



What Customers Say



The Solaris 7 Software Environment is Scalable

"As the world's largest dedicated Internet server facility supporting enterprise customers, our business depends on the mission-critical reliability and scalability of Solaris."

- Digex

"The high performance and scalability of Solaris easily handles our current capacity requirements and also provides plenty of room for future project development."

- National Center for Genome Research
*(Mapping and sequencing the entire human genome
on a scale that has been never done before)*



The Solaris 7 Software Environment is High Performance

"Solaris 7 will reduce data warehouse query times that typically take hours to a few minutes."

- Advanced Technology Front
*(Provides very large-scale data warehousing solutions
for telecom and pharmaceutical industry)*

"Solaris supporting Internet access to UPS services has put our web sites among the fastest on the World Wide Web."

- UPS



The Solaris 7 Software Environment is Reliable

"In the transportation industry, quality customer service is a primary advantage. Solaris servers enable our customers to gain quick and dependable information about their shipments."

- United Parcel Service

"The reliability of Solaris is key as Cisco Connection On-Line operates 7x24 and maintains six mirror sites around the globe."

- Cisco Systems

(World's largest business to business E-commerce site, handling over 60% of revenue via its Web site)



The Solaris 7 Software Environment is Easy to Manage

"Sun's systems are easy to manage. Now we've got a single point of management for all systems, and we can manage any system from anywhere."

- J. Crew
(A leading clothing retailer in the U.S.)



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The Solaris 7 Software Environment is a Strong Bet for the Future

- Strong in the dynamic, future-oriented markets (ERP, E-commerce, data warehousing, telco, etc.)
- Has the right technological base:
 - Architected
 - Networking
 - Scalability
 - Clustering
- Supports major chip architectures
 - IA 32 & IA 64
 - SPARC V8 & SPARC V9
- Well equipped to handle future market trends
 - Internet computing/Webtone
 - Thin clients/thin servers
 - Java technology



The Solaris 7 Software Environment Summary

***The UNIX Market Leader Today...
...and Gaining Momentum***

***The Foundation for
Network Computing***

#1 In Enterprise Network Computing

***Solaris Supports Leading
Enterprise Applications***



THE NETWORK IS THE COMPUTER™