

New Reference Architectures

NC04Q2

Tested and Proven Implementations with Sun's Reference Architectures

Reference Architectures are designed, tested, tuned and documented proof-of-concept deployment architectures that decrease the complexity of decision-making and deployment while simultaneously increasing reliability and lowering risk.

Each Architecture is completely deployed in Sun's iForce Centers. These Architectures serve as a recommended solution, allowing customers to tailor it to their specific requirements.

The Reference Architectures include extensive testing on real work loads using best-of-class Sun and third-party hardware and software. Complete architecture, implementation, and sizing guides are developed as part of the package. Customers can utilize the iForce Centers for Proof of Concept testing to simulate their own environments and workloads.

Ready-to-Deploy Infrastructure

Sun's Customer Ready Systems program (CRS) delivers added value to the Reference Architecture program. The CRS program offers customers flexible Sun-factory integration capabilities and a wide range of services that deliver enhanced reliability, faster deployment times, further contributing to lower TCO.

Sun Reference Architecture for Cognos Enterprise Business Intelligence

Provides visibility into internal operations, processes, and performance by delivering

timely and accurate data for use in making informed business decisions.

1. Allows single interface analysis of multi-source business data
2. Quicker, more informed decisions based on hard data
3. Enterprise hardware and software design that grows with business needs
4. Global information access with fully interactive browser-based Web interface
5. Decrease in the average transaction response time by more than 60%
6. Increase in the average hits per second by more than 25%

GE Healthcare:

"Using Sun's Reference Architecture for Cognos Enterprise Business Intelligence developed in conjunction with Cognos helped us optimize our business intelligence Architecture to address GE Healthcare's growing business intelligence needs"

Bill Millward
Manager, Global Business Intelligence

Sun Collaboration Reference Architecture

Based upon the Sun MySales collaboration site using Vignette, this Reference Architecture enables employee portal and database-for-knowledge collaboration.

1. Anwhere, anytime web portal access
2. Users form their own communities
3. Grow users and teams seamlessly
4. Scales up to 70,000 users
5. Navigate, search or create in less than 5 seconds

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6. Create team workspace in less than 15 seconds

LSI Logic:

"We needed to quickly bring on new employees and ensure we have current documents. Logic Share, our use of Sun's Collaboration Reference Architecture, blended in seamlessly. The open, web-based architecture was key to our decision. Now our customers, partners and employees have transparent access to shared data."

– Bruce Decock, VP IT and CIO, LSI Logic Corporation

Sun N1 Grid for SAP Solutions Reference Architecture

Implements each SAP component on a common set of database servers based on their needs for scalability and availability while minimizing server sprawl. Technology to support community-building, sharing knowledge and expertise.

1. The Sun N1 Grid approach provides a virtualized and consolidated compute infrastructure for deploying application services across shared resources
2. Centralized management provides consistent provisioning of hardware and application resources across the SAP infrastructure
3. The virtualized and provisionable infrastructure enables the dynamic allocation of hardware and application resources to meet changing demands
4. Sun N1 Grid provides a secure, highly available environment for SAP applications

5. Service levels increased for all services
6. Support tasks reduced by 32%
7. Maintenance costs reduced by 41%
8. Database CPUs reduced by 55%
9. OS Instances reduced by over 30%

"Sun's N1 Grid architecture enables customers to deliver major cost savings. In one of the first installations to combine Sun's N1 Grid vision and SAP solutions, Sun and EDS are implementing an SAP architecture that does not require individual servers for each different SAP solution, thus minimizing the number of servers required, reducing systems complexity, simplifying systems management and administration tasks, and significantly reducing costs.

"Based on successful customer implementations, Sun has developed a Reference Architecture and Infrastructure Solution – N1 Grid for SAP Solutions. Based on Sun's N1 Grid vision of a virtualized, provisionable, centrally managed, and secure environment, customers can manage multiple systems as a single entity in order to minimize costs and maximize efficiency and flexibility."

Stuart Wells
Senior Vice President, Market Development
Sun Microsystems

Sun Reference Architecture for Portal Solutions

Delivers a set of core services routinely found in deployed portal architectures. Provides services for content management, collaboration, search, taxonomy and content syndication as well as additional tools for application integration and portal

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application development.

1. Utilizes Sun's Java Enterprise System as well as software from leading technology vendors to provide the key building blocks required for any portal implementation
2. Helps speed portal deployments by providing a pre-integrated and tested infrastructure, reducing the TCO of the project and raising its ROI
3. Baseline Reference Architecture provides a foundation for an intranet or extranet portal, providing key infrastructure services
4. Can help reduce Portal Infrastructure deployment time by as much as 40%
5. Quicker Time to Market
6. Reduced Cost and Complexity
7. Reduced Risk

Sun Microsystems Case Study:

1. Five Year hard ROI of 105%
2. Five Year Soft ROI of 1757%
3. Five Year estimated net benefit of \$346 million on project investment of \$27 million
4. Initial Project Payback period of 4.87 months
5. Development cycles for new content and applications are projected to decrease by as much as 90%

"We were able to go from initial talks to a fully functioning portal and content management environment available to 35,000 employees in literally a matter of months. And now with the Reference Architecture in place, the end to end deployment should take a fraction of that time. It's changed our outlook on this type of project, from an initiative that would take years to bear fruit to something that can be

accomplished quickly."

Ian Gover
Global Director, Internal
Portal Services

Sun Intrusion Detection System Reference Architecture

Provides the actionable information organizations need to respond effectively to every kind of an attack to networked assets. Based on Symantec ManHunt.

1. Provides intrusion detection capabilities for perimeter security
2. Provides architectural best practices, integration and system characterization
3. Based on Sun Fire V60x server product line
4. Minimizes business interruption by providing comprehensive intrusion detection solution
5. Provides actionable information organizations need to respond to all attacks
6. Wards off zero day attack
7. High bandwidth of gigabit detection
8. Low false positives
9. Low procurement and TCO

Sun Grid Infrastructure Reference Architecture

Upgrade to existing Reference Architecture based on new V20z (Opteron) servers. Also includes updates for scalable NFS services in the data grid.

1. Maximizes utilization and efficiency of enterprise wide computational resources through the controlled management and sharing of resources.

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2. Scalable storage and computational building block components can be combined into transparently accessed resources
3. Increases the productivity of engineers and scientists.
4. Higher quality products, cost savings, and reduced time to market.
5. 60% higher performance
6. 30% more scalability
7. 128 nodes loaded and working in less than 100 minutes
8. High performance and cost effective computational solution based on a V20z cluster and Sun StorEdge products.
9. Gain access to additional CPU cycles across a heterogeneous environment and also develop further and better links with the diverse community of contributors across the multi-site Grid.

"We chose Sun because of their strong Grid product line, their Grid professional services, and the Sun Grid Infrastructure Reference Architecture."

Greg Whynott, Network & Infrastructure Manager, Calibre Digital Pictures

Sun ERP Grid Reference Architecture for Oracle Database 10g

Designed to provide a horizontally scalable commercial database grid focused on ERP workloads for Linux-based systems leading to lower cost of ownership.

1. Delivers high ERP and database throughput and performance at comparable service levels of SMPs
2. Database, app server and web server tiers are contained in a single grid rack with

- rack-level control and management
3. Decreases management complexity with InfiniBand
4. Saves customers over 3000 man hours in design, integration and deployment
5. Uses Linux OS on Opteron and Xeon processor-based servers for low cost horizontal scalability

Oracle.com

"This Reference Architecture gives a real leg up for companies who want to deploy a low cost, scale-out Oracle ERP architecture. Customers can save significant time by taking advantage of the joint architecture, sizing and implementation work done by Oracle and Sun. This Reference Architecture validates the benefits of a grid computing model to achieve lower costs and higher utilization of a company's compute resources."

Doug Kennedy
Vice President, Platform Partners
Oracle Corporation

Sun Voice Over IP Reference Architecture for Lucent Solutions

Updated Reference Architecture with JES + a centralized engine software (Broadworks), and Sunray support using Lucent SIP Softphone (VOIP).

1. Seamless and flexible portal to unify communications
2. Scaleable from Enterprise to Service Providers
3. Brings Sun Security Levels to VoIP
4. Simplified deployment through Customer Ready Systems

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5. Scalable from 250 to 35,000 users
6. 40% reduction in telephony costs by routing intra-company calls over IP network
7. One click access to voice and data services to increase productivity

Sun Reference Architecture for Highly Available Application Services

Defines the hardware and software building blocks to build a web services infrastructure that address specific business needs. Implemented on Java Enterprise System Application Server 7.1 EE software and Sun Volume System Platforms.

1. Multi-layered Security Implementation
2. Provides secure web services based on J2EE™ horizontally scaled-out architecture with 99.999% availability – virtually eliminating downtime for mission-critical applications
3. Helps enterprises to deploy a more secure and reliable web infrastructure without the high cost of customized services
4. Superior Service Quality with Proven Five-9's Availability
5. Lowers Cost of Ownership by 50%

Local China RA's

A set of 7 Reference Architectures for the China Market have been developed with local partners.

1) Sun Government Integrated Licensing Engine Reference Architecture for EcQuaria

Provides a web-based one-stop business

license registration system , allowing new companies to register a business and obtain all required licenses using a single unified process.

"This Reference Architecture has provided us a blueprint of an infrastructure for a Licensing Service that is secure and scaleable, ensuring maximum performance for applicants. Governments today need to implement systems that are robust, and yet flexible to meet the ever-changing demands of a dynamic business landscape. Our Licensing Service demonstrates a system that connects multiple agencies and presents a single, integrated view to the customer."

Alfred Low, Sr. Asst. Director, Enterprise Division Ministry of Trade & Industry

2) Sun Enterprise Resource Planning Reference Architecture for Usoft

Provides an Enterprise Resource Planning application on the leading ERP platform in the China Market.

"Guangsheng's selection of the NC-ERP system was due to USoft's powerful products, and the Usoft/Sun Reference Architecture. Each day more than 60 enterprises under Guangsheng's management use this system, and we find that the system is secure, stable, and fast. Thus far, feedback from our enterprises is quite positive."

Ma Jianhua
Chief of Information Department
Guangsheng Group

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Shandong WeiQiao Fang Zhi Group

"When deciding on a solution to meet our company needs for ERP, Ufsoft and Sun provided us with the results of the jointly-developed ERP Reference Architecture. The information that Ufsoft and Sun provided, gave us confidence that we were making the right decision to use this Reference Architecture as the foundation of our ERP solution"

Ma Fahong, Director, Shandong WeiQiao Fang Zhi Group

3) Sun Petrol Sales Information Systems Reference Architecture for NES

Based on Sun JES App Server, and built for PetroChina to support more than 15000 stations and 300 businesses in China. Enables country-wide coverage, growth scalability and system-wide consistency for maximum cost efficiency.

4) Sun Energy Management System Reference Architecture for IESLab

Supports an environment for the integrated management and automatic control of the electrical power supply network. Provides a methodology for upgrade of existing systems and management of the power supply grid.

5) Sun Next Generation OSS Reference Architecture for Digital China Limited

Provides the leading China Wireless Carriers with an open, extendable digital customer

services solution, based on Sun JES software suite.

6) Sun Real-Time Asset Management Reference Architecture for Savi Technologies

Provides an end-to-end real-time asset management platform for collecting and processing logistical information at any point across the supply chain. Based on Sun technology and Savi SmartChain™ software, the RA enables intelligent logistics management.

7) Sun Integrated Communications System Reference Architecture for WonderTEK:

Provides the foundation for various value-added features that support China e-Govt. Requirements, including messaging, calendar management, authentication, etc.

Hangzhou Gov't:

"We are now able to offer our citizens a cost-effective and highly available communications platform based on the Sun and Wondertek Integrated Communications System Reference Architecture. The joint-effort between Sun and Wondertek also gives us assurance that we will be able to scale this solution to meet our future needs"

Zhou Si Jiong
IT Director

Major League Baseball – Digital Asset Management Reference

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Architecture

"To deliver the excitement of Major League Baseball to fans worldwide, the infrastructure supporting MLB.com requires the highest levels of performance, scalability and reliability. In 2003, we delivered more than 44 million minutes of streaming media and 2,430 full-length games to over 650 million visitors. This season will be no different, as we expect to feature as many as 15 live games daily in-season through MLB.TV and more than 6,000 audio-streamed games on our Web site."

"Because it provides the complete content management functionality we need, Sun's Digital Asset Management Reference Architecture was a key factor in our decision to work with Sun to meet our fans' expectations. With the reduced system complexity, high scalability and reliability, and faster time-to-deployment enabled by the reference architecture and Sun's technologies, we've hit a grand slam in our quest to take the action from the fields to our fans anywhere on the go."

Joe Choti, Chief Technology Officer, Major League Baseball Advanced Media

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