

NEW ENTERPRISE DATA WAREHOUSE REFERENCE ARCHITECTURE

FEATURING THE NEW SUN FIRE E6900 SERVERS USING UltraSPARC(tm) IV processors

proven on the World's Largest Data Warehouse

FACT SHEET

Next-Generation Technology Available Today

In response to the large adoption of the original Enterprise Data Warehouse Reference Architecture, Sun and Sybase have again joined forces to develop the new Enterprise Data Warehouse Reference Architecture. This Reference Architecture demonstrates the performance benefits that Sun and Sybase customers can expect from the the new dual-threaded UltraSPARC(tm) IV processor as well as addresses the need for simplicity, flexibility, scalability, manageability and investment protection.

The New Sun Fire E6900 server provided nearly 2x the throughput performance of loading, queries, and overall response time compared to a similarly configured Sun Fire 6800.

In addition to the performance benefit, the Reference Architecture implementation of Sun's new dual-threaded UltraSPARC(tm) IV processor proved it does not introduce any additional complexity, providing a seamless, transparent, and most importantly, stable platform for upgrading and deploying Sybase IQ.

Supporting the World's Largest Data Warehouse

The New Enterprise Data Warehouse Reference Architecture doesn't just stop at the CPU performance, but also once again pushes the limits of the Worlds Largest Data Warehouse implementations. The data volume for this test is 10x larger than the largest industry standard benchmark.

To support this Reference Architecture, input data volume of 100 TB was compressed into 44TB of storage, compared to conventional implementations which explode data as much as 8X. The disk/input to data ratio is 0.44x, compared to 5x to 23x for conventional DBMS models. This Enterprise Data Warehouse Reference Architecture puts Sun and Sybase in a very competitive position compared to conventional implementations which require large amounts of storage, due to the data explosion triggered by their architectures and technologies.

Raising The Bar for VLDW - Again

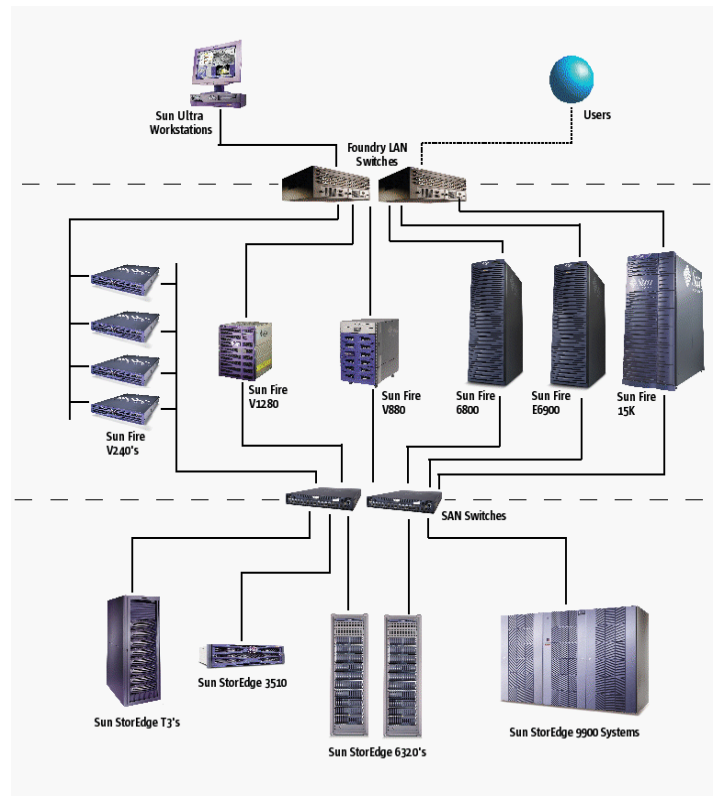
This new Reference Architecture for Very Large Data Warehousing (VLDW) continues the standards set in scalability, flexibility, manageability, availability, investment protection and TCO savings. As implemented, the Reference Architecture requires as much as:

- Requires 75-90% less storage
- Delivers query speeds up to 1,000 times faster
- Reduces installation and setup time by as much as 80%(compared to conventional implementations)
- Enables analysis of years of data instead of months

Tested, Proven Solution

Sun's new Enterprise Data Warehouse Reference Architecture has proven that the applications scale with intensive testing in the iForce Ready Centers Services. Since conventional databases always grow, knowing the architecture will grow and change with business needs reduces risk, decreases complexity and lowers overall TCO.

New Enterprise Data Warehouse RA



New Hardware Components

- 2 - SF 6800, 6 UIII uniboards (4 CPUs @1.2GHz, 16 GB memory each uniboard)
- 1 - SF E6900, 6 Ultra Sparc s400 uniboards (4 dual-core CPUs @ 1.2GHz, 16 GB memory each uniboard)
- 4 - V240, 2CPUs, 4GB memory
- 2 - StorEdge 6320 (each with 146 GB disks, each rack w/ max. 10 trays, 14 drives per tray = 2TB/tray). Each rack = 20TB
- 2 - SE3510 trays (12 * 146GB disks = 1,752GB per tray)
- Foundry Switches

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Software Components

- Solaris 8 PSR4
- Sybase IQ v12.5

Customer Benefits

- The Enterprise Data Warehouse Reference Architecture helps deliver real solutions for solving real problems in real time.
- The new Sun Fire E6900 server helps lower total cost of ownership by providing improved throughput, dependability and resource management while adhering to Sun's binary-compatible SPARC/Solaris architecture.
- The unique architecture of the system provides up to 75-90% storage savings vs. other conventional DW vendors who would require anywhere from 300-500 TB to process the same amount of input data.
- The data warehouse can be loaded in real time so businesses don't have to take DW off line from users to load new data. This means continuous access to data without having to maintain two copies of DW (requiring twice as much resources). Competitors have a great deal of difficulty doing this.
- Due to Sun's scalable system architecture and the Sybase software design, as more resources (server nodes, CPUs) are added, performance continues to scale linearly to process more workload (users, queries). These resources can be added without disrupting the application. This is very difficult for competitors.
- Sun's StorEdge 6320 system delivers the flexibility, availability, and performance of an advanced modular architecture with integrated system-wide manageability. The massively scalable, easy-to-deploy system grows with your business, scaling incrementally from 500 gigabytes (GB) to 45 terabytes (TB) to meet your changing needs, and its balanced approach to storage helps ensure that capacity and performance always scale in parallel.
- The Sun StorEdge 9980 system is a high performance, extremely scalable, continuously available storage system that is tailored to the demands of the high-end data center. It is the most available storage system on the market providing instant access of up to 147.5 TBs of continuously protected data. The Sun StorEdge 9980 system provides open systems and mainframe connectivity and is an excellent platform for storage consolidation, direct-attach storage, and storage area network (SAN) applications.
- The Enterprise Data Warehouse Reference Architecture is simple and easy to deploy and maintain because Sun and Sybase have already proven it works and developed detailed implementation and sizing guides for customers. This lowers complexity and reduces risk. It also lowers overall TCO due to decreased server and storage requirements.
- All of this translates into significant TCO savings and reduction in time-to-service for customers.



Complete Life Cycle Management

The Reference Architecture Life Cycle Management Program addresses the entire customer experience from proof-of-concepts to systems/software implementation to managed services that address the individual customer environment. It incorporates all the necessary steps and elements for long-term customer success and lower overall TCO.

Contact your local Sun or Sybase sales rep for further info.
URLs: <http://www.sybase.com/sunarchitecture>,
<http://www.sun.com/architectures-platforms/refarch/edw/>



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