

Teamcenter on Oracle Platforms

Medium Configuration Up to 5,000 Concurrent Users

Companies rely on IT to increase agility, profitability, and their competitive edge more than ever before. Product lifecycle management (PLM) technologies optimize the value chain and bring winning products to market on time and at competitive price points. This solution from Oracle for Siemens PLM Software's Teamcenter software is a perfect match for your PLM needs.

A Complete Solution from Oracle for Teamcenter

Siemens PLM Software and Oracle worked closely together to optimize Teamcenter software on Oracle platforms for performance, reliability, and linear scalability, including significant improvements to the web tier. The Oracle solution for Teamcenter delivers everything you need in one quick and easy-to-install package from Oracle: hardware, OS, application server, web server, database server, and support.

The powerful combination of Teamcenter with Oracle hardware and software helps improve time to market by reducing latency in the value chain. The solution also helps lower data center total cost of ownership (TCO) and lowers risk by reducing the OpEx levels required to maintain the infrastructure, giving your IT staff more time to work on business-related projects.

Hardware Components

Oracle's mid-sized configuration for Teamcenter is designed to provide high reliability, excellent price/performance, and low TCO. Based on Oracle's SPARC T5-4 server, it delivers the fast, consistent response times required by today's PLM user communities. The SPARC T5-4 server is a high-performing, two- or four-socket server powered by the world's fastest processor—Oracle's SPARC T5 processor—and optimized for data-intensive and enterprise workloads. With up to 64 cores and 2 TB of system memory, the SPARC T5-4 server delivers exceptional single-thread and multithread performance to support more users on a single box than any other platform available today.

The mid-sized configuration was tested with the standard Teamcenter performance test suite on a SPARC T5-4 server that included four 3.6 GHz SPARC T5 processors capable of executing up to 512 threads per system; 2 TB of memory; and eight 600 GB SAS-2 disks. The SPARC T5-4 server supports a variety of external storage options based on the requirements for the PLM Vault and Oracle Database.



SOLUTION FROM ORACLE AND SIEMENS HELPS:

- Improve time to market
- Optimize the value chain
- Improve productivity
- Increase staff time for innovation
- Lower data center TCO and maintain a competitive edge and margins

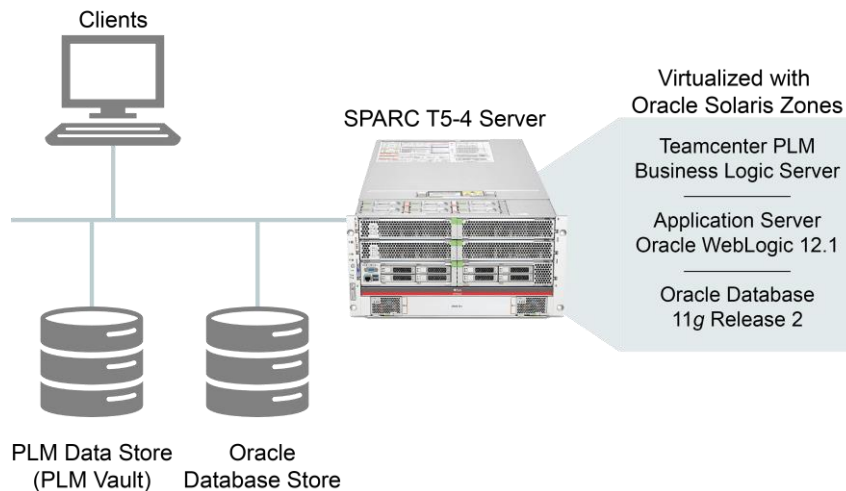
HARDWARE CONFIGURATION

- One SPARC T5-4 server from Oracle
- Four 3.6 GHz SPARC T5 processors from Oracle
- 2 TB memory
- Eight 600 GB SAS-2 disks

SOFTWARE CONFIGURATION

- Oracle WebLogic 12.1
- Oracle Database 11g Release 2
- Oracle Solaris 11
- Oracle Solaris Zones
- Oracle VM Server for SPARC

The SPARC T5-4 server also comes with integrated on-chip cryptographic acceleration, which provides high levels of security without sacrificing application performance. In addition, the SPARC T5-4 mid-range server is designed for the highest levels of mainframe-class reliability, availability, and serviceability (RAS) and includes built-in, zero-overhead virtualization and comprehensive systems management capabilities.



This medium configuration is one in a series that scales Teamcenter platforms from small, to medium, to large configurations.

Figure 1: Mid-sized Teamcenter configuration from Oracle.

Software Components

The mid-sized configuration was tested using the Teamcenter 10.1¹ with the Oracle WebLogic 12.1 web and application server, Oracle Database 11g Release 2, Oracle Solaris 11, and Oracle Solaris Zones.

Teamcenter provides cross-domain product design and simulation management through integrations with MCAD, ECAD, and software development, as well as simulation tools and processes that design teams use every day. Teamcenter integrates previously disconnected, multidomain design tools into a single product design and simulation management environment that helps lower costs, improve quality, and increase design productivity.

Oracle WebLogic is a secure, ultrahigh-performance web server tuned to run with Teamcenter on Oracle hardware and OS. Its powerful, integrated management tools simplify operations and reduce costs.

Oracle Database delivers industry-leading performance, scalability, security, and reliability on a choice of clustered or single servers. It provides comprehensive features to help you easily manage the most demanding transaction processing, business intelligence, and content management applications.

¹

Prior versions of Teamcenter have been tested. Testing of future versions is planned.

Oracle Solaris Zones and Oracle VM Server for SPARC (formally Sun Logical Domains) enable no compromise virtualization, allowing Teamcenter tiers to run in a virtual environment with no performance cost. Finally, Oracle Solaris 11 is a reliable, enterprise-class, scalable 64-bit operating environment designed to increase service levels and decrease cost and risks.

Performance and Scalability with Investment Protection

Oracle and Siemens PLM Software engineers work closely together to build fully integrated configurations that are engineered to achieve optimal Teamcenter performance. The result is faster application response times and service availability that vastly improves end-user productivity. The mid-sized configuration scales linearly up to 5,000 users, delivering consistent, predictable performance. When you are ready to grow, the solution can be scaled horizontally by using multiple instances of the configuration, or it can be scaled vertically by deploying a larger Oracle configuration. With 100 percent binary compatibility across previous versions, the Oracle Solaris OS makes it easy to scale to larger servers as your business needs grow—no porting is necessary.

Reliability and Security

The solution delivers mission-critical availability with near-zero downtime. Oracle Solaris virtualization and management tools enable redundancy configuration for the failover of the Teamcenter tiers. Oracle Solaris 11 offers the highest level of availability in single systems thanks to its numerous reliability features in server, networking, and storage fault management. In addition, like all Oracle systems and software, the solution for Teamcenter is designed from the ground up with security in mind. Oracle Solaris combines the power of industry standard security features, unique security and anti-malware capabilities, and compliance management tools for low risk application deployments and cloud infrastructure. Oracle SPARC servers have integrated on-chip cryptographic acceleration that provides high levels of security without sacrificing application performance.

Integrated No-Cost, No-Overhead Virtualization

With the built-in virtualization of Oracle Solaris 11, you can consolidate all of the Teamcenter tiers onto a single platform, allowing enterprise-scale PLM workloads to run within a virtual environment with no performance overhead or additional cost.

Conclusion

Whether you have 5,000 concurrent PLM users or you want to have headroom to grow, the Oracle solution for Teamcenter medium configuration has the scalability and performance you need to support the increasing role that PLM plays in optimizing your value chain. The solution gives your user community the tools and application performance it needs so you can maintain both your competitive edge and margins—today and tomorrow.

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