

# Deployment architecture and infrastructure review

Using best practices to validate and optimize your hardware plan

## Benefits

- Identify ill-considered areas of proposed deployment architecture solution
- Reduce total cost of ownership by avoiding unnecessary deployment infrastructure investment
- Avoid undersized infrastructure that will cause performance issues
- Assist management in keeping the infrastructure investment within budget
- Reduce new hardware costs by re-using existing resources

## Summary

Implementing Teamcenter® software requires comprehensive architecture knowledge, technical expertise and experience so you can plan for deployment infrastructure sizing and performance expectations, fulfill company information technology (IT) policy and meet end user functional and integration requirements. Project stakeholders and managers must decide on a variety of issues, including the hardware platform, the needs of country-wide or global product lifecycle management (PLM) deployment, system availability and scalability, ease of maintenance, the constraint of capital investment and the possibility of re-using hardware. The deployment architecture and infrastructure review (DAIR), which is an Advanced Technical Services (ATS) offering, validates and confirms the proposed

architecture and infrastructure solution with the project team. DAIR identifies ill-considered areas, incorrect assumptions and issues, and confirms that the proposed deployment infrastructure solution is adequate. The Siemens PLM Software experts will report findings and issues, and provide recommendations for improvement with a closing summary meeting presentation and a detailed DAIR report. DAIR should be conducted early in the project design phase before any hardware and other third party software confirmations and purchases occur so any recommendation for improvement can be implemented.

## Overview

DAIR services cover architecture design assumptions, Teamcenter usage characteristics, performance expectations and a thorough review of the planned

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- Ensure every technical aspect of Teamcenter infrastructure requirements are well examined
- Remove risk of future performance issues due to incorrect architecture or insufficient resources
- Leverage Siemens PLM Software's best practices in Teamcenter architecture and infrastructure approach

deployment architecture and corresponding infrastructure design for servers, storage, networks and client configuration. DAIR can be applied to customer project scenarios, such as new Teamcenter implementations, new deployment sites, version upgrades, new Teamcenter modules, switching hardware/software platforms, migrating from legacy systems or Teamcenter Enterprise and consolidating multiple sites.

## Scope

### Deployment architecture

We review and confirm production system deployment architecture that will meet customer implementation requirements and Siemens PLM Software's best practices. If there is any potential issue or risk, the Siemens PLM Software expert will report and explain it, and then suggest changes. The following key reviews will cover:

- Site architecture, which includes deciding on a single site versus multi sites, hub architecture versus point-to-point architecture and global multi sites versus classic multi sites

- All tiers of server architecture configurations for Teamcenter, including quantity and usage, connection and location for different components
- Deploy client type (two-tier and/or four-tier), client-server connection and the distribution of client hardware
- Teamcenter file management system (FMS) architecture, including data-access routing
- Global and cross-system deployment architecture
  - Multiple Teamcenter version coexistence and integration
  - Legacy/third party systems integration architecture
  - Data exchange system architecture
  - Site consolidation/separation consideration

### Deployment infrastructure

We verify and confirm production system deployment infrastructure. If there is any potential issue or risk, the expert will report and explain the issues and suggest changes. The following key reviews will be covered:

- Compute, validate and recommend the infrastructure sizing and capacity for the intended usage frequency and transactions loading plan. These cover the resource tiers, enterprise tiers, web tiers and FMS servers. Resource review covers central processing unit (CPU) (SPECint2006\_rate), memory and disk
- Confirm network performance characteristics (bandwidth and latency)

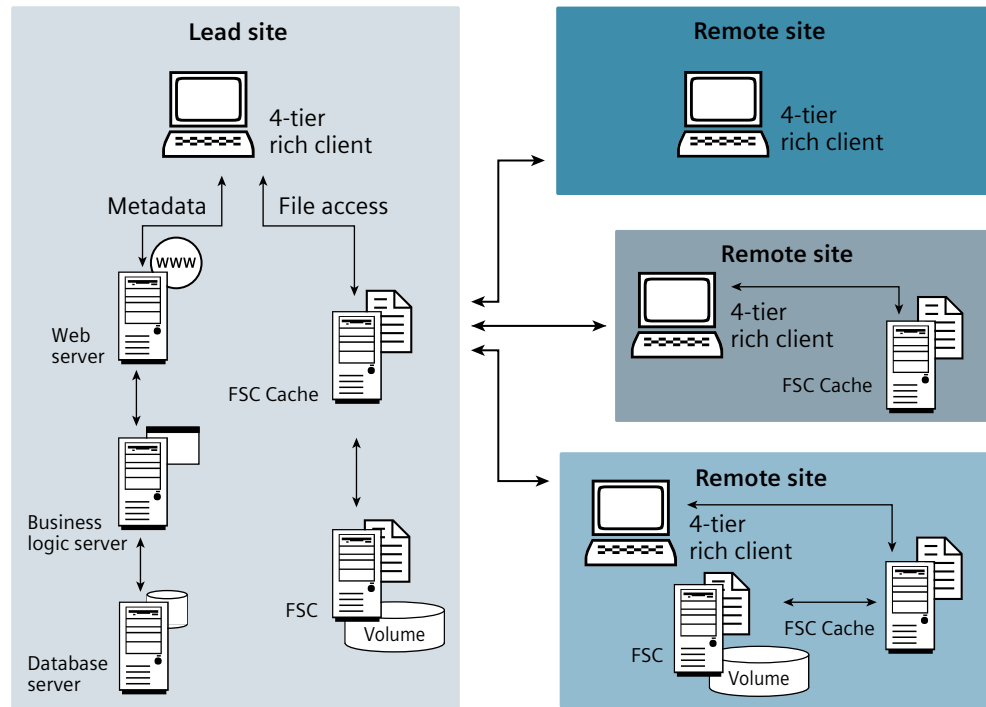


- Identify any potential issue and make recommendations to rectify, considering:
  - Performance-related practices
  - Application components and data sharing
  - Software and hardware matches and certification
  - Vertical and horizontal scalability
  - Computer-aided design (CAD) and other application integrations
  - Local-area network (LAN) and wide-area network (WAN) performance, acceleration, hosting model and private cloud deployment
  - FMS and storage system design
  - Future growth and upgrade needs
- Teamcenter high availability requirements and design
- Disaster recovery architecture and plan, if applicable
- IT infrastructure security requirements and plan:
  - Firewall plan
  - Single sign-on lightweight access directory protocol (LDAP) integration
- Four tiers over-the-web (OTW) deployment architecture and/or other setup for massive deployment automation
- Other noncore Teamcenter components architecture and infrastructure plan, if applicable:
  - Community collaboration
  - Supplier integration
  - Portfolio, program and project management
  - Report and analytics
  - Platform Extensibility Services

**Prerequisites**

DAIR requires the following:

- Customer to provide all the necessary information requested by Siemens PLM Software’s Advanced Technical Services prior to the start of the onsite services, including:
  - Complete answers to a standard questionnaire
  - Teamcenter architecture and infrastructure assumptions, facts and details
- Customer IT personnel and system architect responsible for the Teamcenter deployment architecture and infrastructure plan





### Duration

Typically, requires two to four weeks duration, including:

- One week offsite preparation
- One week offsite and/or onsite for the review
- One week to complete the report

### Deliverables

DAIR provides the following deliverables:

- Onsite or offsite conference call presentation that summarizes Teamcenter architecture and infrastructure issues, and provides explanations and recommendations
- DAIR report that provides the findings, issues, explanations and recommendations for deployment architecture and infrastructure

For more information please contact [ATS.plm@siemens.com](mailto:ATS.plm@siemens.com) or the services manager in your country.

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