

Infrastructure Consolidation

Business Challenge

For many years businesses have deployed application servers with a model of one application per server. Today, companies are finding that they have hundreds to thousands of small, often underutilized computers spread across their enterprise. Databases and applications have grown in number, size, and complexity. Issues of networking, data sharing, integration with corporate applications and databases, system management, backup and recovery – even floor space – have become top-of-mind for IT departments.

Along with simplifying management and reducing overall total cost of ownership (TCO), companies can also improve their ability to manage growth, deploy common enterprise-wide applications quickly, develop Web-based intranets and electronic commerce applications, and implement collaborative computing. Whether our customers look at consolidation at the project level or as part of an overall architectural strategy, usually more than a simple “consolidation” is underway. We have very clear advantages to offer our customers whether they are simply selecting a large server for a consolidation pilot project or unifying the entire organization by deploying a large suite of consolidated applications.

What is Server Consolidation

Consolidation is the bringing together of applications, databases, and services onto fewer, highly reliable servers and networked storage. Successful consolidation projects can result in improved manageability, lower TCO, more efficient utilization of computing resources, improved service levels and availability, effective skill utilization, and reduced need for floor space in corporate and divisional data centers.

Reducing Costs, Increasing Service Levels, Improving Manageability

An optimized data center helps you to deliver higher levels of service at lower costs. TrekLogic offers a suite of Consolidation services for companies who want to reduce IT costs, improve service levels, and improve IT manageability. We have the extensive knowledge, technologies, proven methodology, and a successful track record in helping customers consolidate to a standard platform with a common architecture.

Today's business conditions demand that enterprises get the most from their resources. Whether you are dealing with government regulations, security concerns or internal business ailments, Consolidation can drive significant Return on Investment and increase Return on Assets. The average Fortune 500 company has hundreds - if not thousands - of servers distributed throughout its enterprise. With a multiplicity of systems sometimes comes a conglomeration of operating systems. Add to that complexity the possibility of multiple, disparate storage systems, a variety of applications, as well as hundreds of desktop systems, and your IT environment can transform from highly sophisticated to unbearably complex. When these systems are not well-utilized, they drain valuable resources from your business. Consolidation is a solution customers are looking towards to solve these business challenges.

Key Business Drivers and Benefits

Reduce Costs

Almost all consolidation opportunities come down to cost as the lowest common denominator. Today, TCO is increasingly being viewed as a strategic IT issue. For most companies, true TCO is unknown. However, it is commonly understood that TCO is growing as the complexity of IT grows. The cost of supporting IT is increasing with people and management being the key elements:

- Historically, centralized data centers costs breakdown as capital at 80 percent and labor at 20 percent
- Today's costs have shifted with capital at 30 percent and labor at 70 percent, or direct costs have been decreasing while the indirect costs have been increasing. (Gartner Group 3/01)

Cost savings estimates range from 25% to 75% - resulting from better asset utilization and elimination of unnecessary systems, reduced staffing, lower maintenance costs, and fewer operating environments to support.

Consolidation helps you make more efficient use of your resources, thus lowering TCO, reducing costs and increasing ROA. A less complex IT environment frees up your expert staff to work on more strategic business objectives, and it also frees up valuable real estate. It helps reduce software license fees and associated maintenance costs, and reduce the costs of multiple, inefficient systems by consolidating to a standard platform running a common operating environment. Capacity planning surveys commonly show server utilization in the 25% to 35% range or less in many cases. In other words, many, if not most, server assets are underutilized; yet every server requires the same attention, administration, maintenance, etc. Existing networks are becoming overloaded; workloads are not truly understood and tools for managing them are not in place; finding qualified people to run servers, databases, and networks is difficult; IT salaries in most areas are skyrocketing with demand much greater than the supply. This provides more incentive to leverage existing resources by consolidating workloads. It also provides incentive to recentralize where the greater concentration of skills is located, usually in the data center.

Increase Service Levels

Data growth and management has exploded for many companies, many of which are still using a distributed storage infrastructure. Consolidation enables customers to consolidate to a consistent architecture for increased availability and manageability, dynamically reallocating system resources on the fly to meet changing workload demands.

Improve Manageability

By standardizing your data center, we can help you reduce complexity, significantly improve efficiencies, and increase utilization of resources in the data center. Architectural consistency simplifies management and maintenance, and having a standardized infrastructure simplifies staff and end-user training. Consolidation leverages staff and simplifies implementation of management best practices. Consolidation helps minimize complexity. It is becoming more and more difficult to effectively manage the constantly increasing number of servers required to run a company's business. The tendency toward "server sprawl" supporting development, testing,

production, disaster recovery, and training continues to build as more servers for e-commerce and other dot-com initiatives have to be deployed.

Fewer business interruptions

Consolidation can help you to increase overall security by implementing highly secure operating environments, and moving assets into controlled data centers. Simplifying business continuity plans and enabling disaster recovery can also help ensure that your systems are up and running and reduce interruptions to your business.

Consolidation enables your IT infrastructure to be more efficient and agile. In order to respond to the increased rate of change in the IT environment, an agile and streamlined infrastructure is key. Most analysts agree today that the strategic advantages of consolidation can even outweigh TCO considerations. In order to provide an architecture that is truly service-driven, consolidation of resources and platforms is essential.

TrekLogic's Infrastructure Consolidation Service Offerings

Infrastructure Consolidation Pre-Assessment Service

Service Overview

The Pre-Assessment Service comprises a high level analysis and initial feasibility study of the customer architecture, dependencies and environment, and provides a budgetary scope for the consolidation of the customer's infrastructure.

The Pre-Assessment Service is a fixed scope, fixed duration service at no cost to the customer.

Benefits

- Provides a high-level assessment of your IT environment – allows informed decisions to be made.
- Presents a non-partisan overview of your readiness for consolidation.
- Identifies major risk areas at the earliest possible stage.
- No charge – the Pre-Assessment Service is free of charge.
- No risk – the Pre-Assessment Service is performed with no customer obligations.

Infrastructure Consolidation Readiness Assessment

Service Overview

TrekLogic's Infrastructure Consolidation Readiness Assessment assists customers in determining the viability, necessity and value of moving to a consolidated server infrastructure.

Drawing from many years of experience, TrekLogic consultants utilize proven methodology and project management expertise to provide an efficient and effective readiness assessment in a timely manner. The Assessment Service includes an in-depth examination of the current

infrastructure in order to provide a consolidation plan and detailed proposal for the consolidation implementation.

Through a combination of tools-based and consultative discovery and analysis, TrekLogic provides clients with a detailed report that assesses risks and client impact recommendations related to a migration. Also provided is a sample consolidation architecture that is based on initial performance analysis and capacity modeling or a specific enterprise service and an assessment of financial impact including a consolidation cost analysis. An Infrastructure Consolidation Readiness Assessment generally consists of the following stages:

- Discovery of the data center environment
 - Analysis of existing networking infrastructure, operational practices and technical readiness to support a consolidated environment
 - Identification of risks, issues and barriers associated with moving to a consolidated environment
 - Automated discovery of server infrastructure, including Domain or Directory deployment and associated server configuration
- Establish current and future resource utilization requirements
 - Create a baseline sample of current resource utilization requirements by analyzing application usage, storage utilization, processor utilization
 - Based on client growth projections, determine capacity requirements for 12, 24 and 36 months
- Determine opportunities for greater Return on Investment (ROI)
 - Utilizing analysis tools and actual customer data, identify the ROI benefits of conducting a consolidation
 - Provide sample consolidated architecture based on modeling and best practices
- Engagement closure, propose appropriate services mix
 - Presentation of current environment findings
 - Server consolidation design and transformation including next steps

TrekLogic consultants will work with you to understand your company's functional, technical, operational, and business requirements to design a customer-oriented solution that is right for your particular environment.

The Consolidation Assessment Service is a fixed price, fixed duration service depending upon the complexity of the customer's environment and any relevant software dependencies.

Benefits

- Comprehensive inventory - Provides a complete account of the current server infrastructure.
- Baseline Assessment - Yields performance characteristics of the assessed environment.
- Return on Investment: Delivers a Return on Investment analysis based on the potential system consolidation.
- Peace of mind - Prepares you to move forward confidently with an optimized design for consolidation. Risks are mitigated as experienced TrekLogic professionals outline challenges you might face and the strategies to avoid them.
- Rapid Implementation – our services are designed to enable a quick assessment, a careful design and provide rapid implementation along with the appropriate amount of information to consider next steps.

Infrastructure Consolidation Planning and Verification

Service Overview

Most companies are considering server consolidation including a consolidation strategy that eliminates unnecessary hardware, software and applications successfully. Diminishing the number of servers may be a priority, putting your data at risk is not. Consolidation decreases issues associated with data replication and often provides for a smoother implementation of disaster recovery initiatives. This allows your data to be available as fast as you need it. Not only can it reduce cost of ownership, it can simplify administration through system standardization.

TrekLogic's consolidation and planning solution can simplify enterprise management, help boost productivity and enhance data integrity. The business drivers leading to a consolidation effort are:

- Increased network management challenges
- Increased or unmeasured total cost of ownership across the enterprise
- Need for greater performance
- Concern with physical security
- Problems or lag time for new technology changes
- Concern over risk and dealing with risk and risk mitigation
- Scarcity of IT resources and performance issues
- Need to implement or concern over disaster recovery solutions

The Planning and Validation stage of our services lifecycle culminates in the development of a detailed deployment plan as well as a validated and refined solution design. In order to provide our customer with a complete and robust deployment plan, solution or technical architecture, it may be necessary to execute one or more pilot, proof of concept or integration testing projects.

TrekLogic combines affordability with an in-depth understanding and expertise in implementing standards-based systems. Our planning and validation services, which frequently follow the completion of an Infrastructure Consolidation Readiness Assessment, focuses on:

- Establishing a consolidation strategy
- Lab build-out for all testing
- Representation of customer's current and future application solutions
- Promoting rigid change control standards
- Validating sizing and performance assumptions
- Integrating your consolidation plans with your support teams

TrekLogic consultants will work with you to develop an infrastructure solution to meet your needs, demonstrating a clear path to consolidation through this next phase of planning and validation.

Benefits

TrekLogic uses well-defined and field tested processes and best practices to validate the solutions we design to ensure predictable deployment, performance, and enterprise compatibility. Deliverables include engineering documentation at solution component level, detailed build documentation, master project plans and comprehensive technical specification documents.

TrekLogic's Proof of Concept and Pilot activities provide customer assurance that their new environment will scale effectively. The Planning and Validation stage requires TrekLogic to

assume much of the responsibility for a successful deployment of the new proposed solution.

Benefits include:

- Standardization streamlines the purchasing process, decreases costs, and lowers server management costs
- Implementation using best practices, standard tools and methodologies
- Systems are modular and scalable reducing implementation times
- Proper sizing of the consolidation to protect data, time and money
- Improved scalability and responsiveness
- Stricter policies and tools provide greater security against internal and external threats
- Expand server capacity quickly as business grows and evolves
- Reduced growth and support contract costs as vendors stop supporting end-of-life products
- Decreased planned and unplanned downtime
- Enterprise Consolidation Planning and Validation services allow organizations to take disparate systems and bring them together with business process to meet business needs.
- Documented consolidation plan
- Recommendations for hardware, software, services, training and support for proof-of-concept lab and consolidation execution
- Validation of plan through pilots and proof-of-concept efforts