Sector7

Server Consolidation Solutions

Sector7 is the clear choice for consolidating your servers, optimizing your IT and migrating your business-critical applications.

- The Case for Database, Application and Server Consolidation

- Critical Success Factors

- Six Steps to Success

- The Benefits of Consolidation

Sector7
APPLICATION MIGRATION EXPERTS
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The Case For Server Consolidation

From fifty servers to five

Running five servers is clearly easier and more cost effective than running 50 servers, but the best way to move from 50 servers to five is not always obvious. Further, the problem may not be just 50 servers. It may be 500, 1000 or 2000 servers across multiple architectures (UNIX, NT, S/390, NetWare, etc.) and multiple locations. How do you consolidate 2000 servers across five different architectures to fewer servers? By what processes do you arrive at that number?

Centralize your applications

The main issue is the 200 applications that run on those 2000 servers. Which of the 200 applications make sense to centralize, based on the business model you've decided to implement? Which applications don't make sense and why? How would you rank these applications — from highest to lowest — in terms of business return so you know which ones to optimize first?

These are the core questions and issues that customers considering server consolidation and IT optimization must address.

Sector7's methodology makes your server consolidation successful and efficient

A comprehensive server consolidation (SCON) study lays out a logical process for addressing these issues. Sector7 works closely with you to develop a unique plan that will successfully optimize your IT resources and enable you to realize your business goals with less risk, reduced costs, and greater efficiency.

Sector7's SCON methodology was developed through practical experience around a simple premise: You cannot do a server consolidation project merely by examining "inventory lists" of servers, storage devices and applications. The foundation is recognition of the complex relationship that exists between the corporate business model and technology. Simply stated, in order for IT solutions to work optimally, they must correlate strongly and directly to the underlying business model upon which your company is built.

The core of this relationship is understanding the individual application or business function. Each application can then be mapped to a unique server (or set of servers) where it runs. Further, each server/set can be mapped to a unique IT architecture with a discrete set of associated support costs. Combining these elements into a data model that reflects their core logical relationships allows Sector7 to profile your IT infrastructure in unique and insightful ways.

Having built that relational data model, Sector7 then applies a series of "intelligent filters" to that data. These filters, in combination with our consultancy specialists' skills and experience, enable us to build a conceptual framework for recommended changes that best address your particular business and infrastructure requirements.

Critical Success Factors

- Clear sponsorship at a very high level of management

- Rapid deployment to realize savings

- Absence of political "reservations" always associates with high savings

- Close coordination of changes

- Appropriate incentives strongly correlated with rapid deployment

- Intrinsic change in management dynamic may be required if current measurement involves number of personnel controlled

- Expect ongoing changes in IT process

Geographical Consolidation

- Reduce staff dramatically

- Optimize staff utilization

- Reduce facilities cost

- Reduce utilities cost

- Simplify network

- Manage fewer servers

- Dramatically reduce software licenses costs

- Increase CPU utilization

Physical Consolidation

- Reduce staff dramatically

- Optimize staff utilization

- Reduce facilities cost

- Reduce utilities cost

- Simplify network

- Manage fewer servers

- Dramatically reduce software licenses costs

- Increase CPU utilization

Database Consolidation

- Reduce staff dramatically

- Optimize staff utilization

- Dramatically reduce software licenses costs

- May be performed in tandem with physical consolidation

Six Steps to Success

A SCON study follows a six-step, logical process. The following outlines the six steps to success:

Step 1: Qualification

The goal of the qualification step is to identify the IT or business objectives that you would like to achieve through the infrastructure optimization effort. This step provides the foundation for the study and ensures that the end product ties directly to key business objectives. It is also important in this phase to document your current challenges and IT environment.

Once we have prioritized the key issues and goals, we can move on to describe and document the potential benefits — decreased total cost of ownership, improved application service levels, improved infrastructure as an application enabler, or improved access and use of your information assets. Further, we can begin to understand some of the organizational implications of your server consolidation project, such as the potential for reduced staffing and/or greater staff productivity.

From the information generated, we build a concise document outlining the project. Included will be statements regarding the scope of the study, the roles and responsibilities of the various parties, estimated benefits, and any cost estimates for billable services that are to be performed as part of the project. You will have all of the information that you need to decide whether server consolidation is the right strategy for your organization to pursue.

Step 2: Customer Environment Profile

Building the profile of your IT environment may be the most important and challenging step in an SCON study. In this step we will build the critically important profile and relational data model reflecting your organization's IT environment. This is a mandatory prerequisite to formulating high-quality and meaningful server consolidation recommendations.

The data required certainly includes the architectures that have been embraced within your organization, as well as the servers on which those architectures are deployed and the support structure, which is in place to manage the architectures. More significantly, however, is the information that we will gather about the applications that support your business and the attributes required of those applications. Characteristics such as required service levels and mission criticality of your applications will all be derived through a series of structured questions. These questions are designed to be extremely intuitive and multiple choice whenever possible.

Wherever possible, we will use existing sources of information, which will then be enhanced and enriched via further data gathering. An array of tools can be deployed to support this step of the process. Still, a committed Project Focal Point is key to successful completion.

Step 3: Island Analysis

In this step of the methodology, the "islands" of opportunity for infrastructure optimization and server consolidation will be identified and prioritized based on the business requirements identified in the Qualification step. The islands themselves are merely logical or physical groups of servers, along with their applications and data, which lend them to consolidation.

Island analysis is an iterative activity. The analysis, which can be performed using our tool set, is only half of the story. The other half is the discussions with your organization, which are facilitated by the tools. Via these discussions you will gain valuable insights into the nature of your IT infrastructure, which have distinct value even if you never touch any of the servers, which you have deployed. Ultimately, we will agree on where we can best offer your organization additional value before proceeding to Detailed Analysis and Solution Design.

Six Steps to Success (continued)

Step 4a: Solution Design

After islands have been identified and agreed upon by all parties, then solutions must be designed to address them. Until this point, the engagement has been performed almost entirely by trained server consolidation solution specialists. At this point, however, the team will begin to draw upon many other solution resources. Depending on the nature of the recommendation, the team could expand to include technical and/or sales specialists, which have expertise in any affected arena, such as servers, software, networks, storage, systems management, or operating practices and procedures.

Step 4b: Detailed Analysis and Transition Planning

Depending upon the difficulty of the solution and/or the desire to move ahead toward implementation, much further analysis could be warranted. Some examples are:

- Application and data analysis: affinities, dependencies, and interrelations
- Porting assessments for data integration and mixed application workload consolidations
- Skills deployment analysis including education and training needs
- Capacity planning
- Network design analysis and workshop

- Comprehensive Total Cost of Ownership (TCO) studies
- Implementation Planning (project plan/tasks/resources/schedule/cost estimates)

Ultimately, you will receive comprehensive solution implementation recommendations, along with benefit analysis and cost justification analysis. Furthermore, these recommendations won't surprise you — as you will have participated in their development from beginning to end. These will be answers to the tough questions that you have asked yourself.

Step 5: Implementation

Implementation is exactly what its name implies. The solutions identified and outlined in solution design must first be implemented to begin generating value. Whether it is hardware, software, services, or merely modifications to your procedures in order to move closer to a "best practices" ideal, the plan developed in solution design — augmented by the implementation plan developed through detailed analysis and transition planning — is executed.

Typically, at the conclusion of this step you will find yourself with fewer architectures, fewer servers, and modified processes. Regardless of which solutions you implement first, you will likely find yourself back at this step again. That's your business is dynamic. Your infrastructure must be flexible for your organization to operate at peak effectiveness. So server consolidation, or IT optimization, is an iterative process. Even when done very well, it is rarely (if ever) finished.

Step 6: Validation

A project is never complete until it meets your needs and expectations. The validation phase is where we ensure that is the case. We will take the time to assess the performance and/or the efficiency of the selected solutions. We will gather feedback from you to determine whether your business objectives have been achieved. Based on your evaluation, we will make any needed adjustments to make sure that you are getting the results, which you expected.

THE BENEFITS OF CONSOLIDATION

Data Integration/Storage Consolidation

- Improve access to data
- Ease RDBMS deployment
- Reduce staff
- Simplify network

Application Integration

- Increase performance
- Reduce staff
- Reduce facilities cost
- Reduce utilities cost
- Simplify network
- Manage fewer servers
- Increase CPU utilization

Application Centralization

- Reduce staff
- Reduce facilities cost
- Reduce utilities cost
- Simplify network
- Manage fewer servers
- Increase CPU utilization

Network Protocol Consolidation

- Reduce staff
- Reduce facilities cost
- Reduce utilities cost
- Simplify network
- Manage fewer servers
- Increase CPU utilization

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