Building a shared services data center

Key Topics

Defining a shared services data center

Assessing costs and benefits

Readying the organization

Gauging requirements

Migrating to a shared services environment

Introduction

The philosophy behind an information technology (IT) shared services data center is to leverage the technology competencies of one organizational unit to deliver services across the enterprise. Traditionally, a corporate data center has been the default shared services center. However, with the proliferation of decentralized processing power and the development of function-specific offerings, individual business units and geographies within an enterprise have today amassed the resources to become candidates for the delivery of shared functions.

The desire to pursue a shared services approach is often driven by the potential for financial savings. Such savings are usually quantified in terms of the technical environment (e.g., asset leases and depreciation, third-party licenses, facilities, etc).

Technology is not the stumbling block on the road to shared services; it is the enabler. The challenge comes in changing infrastructure processes. The enterprise must recognize that establishing a shared services data center is not simply a matter of physically consolidating facilities and logically consolidating workload. Building a shared services organization forces significant changes in the customer-provider culture, management and delivery processes, and the mechanics of interdepartmental accounting. Such changes require careful initial assessment and planning, followed by coordinated execution and control.

The enterprise must recognize that establishing a shared services data center is not simply a matter of physically consolidating facilities and logically consolidating workload.

e-business

Shared services data center concepts

Shared services is not a new concept; however today's business dynamics shed new light on this idea. Technology and business functions are becoming increasingly integrated. Consequently, the technology organization must evolve from a provider of service to a business partner. A shared services data center is built on the foundation of business processes; technology is the means by which it delivers those functions.

Definition

Simply stated, a shared services environment is one in which a single organization or department provides an end-to-end set of IT services to the entire enterprise or to multiple enterprises. In the most traditional sense, a mainframe data center is often a shared services environment that delivers host-processing functions to all units within a company. In the age of e-commerce, a business unit (such as order fulfillment) may provide Web-based functions (such as electronic payment processing) for a variety of other business units.

What distinguishes a shared services environment is its mission and its scope. It is a self-sustained and self-contained business entity. The intent is not to offer everything to everyone; rather, the center provides selected services on selected technologies to selected business functions. Services are defined by the needs of the customers served; performance is measured by the delivery of those services, and the balance between fiscal responsibility and service quality gauges success.

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Evolution of the concept

The shared services concept was born of cost containment. When an enterprise made significant investments in a mainframe system for batch-intensive processes, it was cost-effective to leverage excess capacity to automate other transactions. Once that cycle of development and delivery began, it was rarely practical for another unit to emulate the same processing environment.

A natural progression of shared services is the growth of outsourcing providers. Instead of defining IT services in terms of a single enterprise, the outsourcer was able to leverage its own infrastructure to provide cost-effective processing solutions to multiple enterprises. A fundamental principle built into outsourcing arrangements is that IT is usually not a core competency of the outsourcing enterprise.

Over time, however, the definition of core competency began to change. As distributed processing capabilities became more commonplace and relatively inexpensive, technology was integrated with business processes. The ensuing explosion of e-business clearly demonstrated to many enterprises that IT has the potential to provide a distinct competitive advantage. Many companies realized that a carefully crafted set of IT functions can indeed enable fulfillment of corporate objectives. These organizations thus began looking for kernels of success in-house that could be nurtured and grown into shared services providers.

Practical application

Perhaps the most compelling validation of the shared services concept is found in the variety of companies who have pursued its deployment. Whether driven by reducing cost or increasing competitive advantage, these organizations shared a common vision: positioning a well-defined set of IT processing functions as a corporate asset enables business units across the enterprise to reap the benefits of those functions in support of their business objectives.

Case Study

An international restaurant chain enjoyed stellar growth in both corporate-owned properties and franchises. In support of the restaurants, small-scale data centers had proliferated all over the world, primarily as a function of the number of restaurants within a geography. Following a shared services model, the company is assessing the physical and logical consolidation of those data centers into geographic shared services centers. By selecting target locations strategically, the company anticipates fulfillment of a "follow-the-sun" vision. In addition to providing complete IT services to a geography, each target center becomes one component of truly international, around-the-clock support.

Potential costs and benefits

In most cases, deriving long-term benefits from a shared services environment requires short-term investments and ongoing maintenance expenditures. While the short-term investments may include capital costs to establish the technology infrastructure, far more significant are the costs of transition. Ongoing maintenance expenditures representing the time and effort necessary to institutionalize the culture of shared services are also required.

The tangible benefits of shared services is typically measured against business performance. On the revenue side, the functions delivered by the center should show a direct correlation with increased sales or decreased costs of doing business. On the cost side, the center should demonstrate cost avoidance through economies of scale and critical mass.

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The intangible benefits can be just as significant, including the professional talents needed to staff the organization and the organization's ability to accommodate business growth. With a limited pool of IT resources, the establishment of a shared services data center may be an advantage in attracting and retaining skilled resources. IT professionals tend to look for companies with a clear vision of growth for their technology units.

Historically, growth in IT organizations has been poorly managed. The desire to add to the customer base is compounded by the proliferation of incompatible technologies. The result is often a vertically segregated organization whose only consistent point of reference is the lowest common denominator across the customer sets. On the other hand, a shared services center is clearly scoped in terms of its mission, technology and services. It is more likely to manage growth in an organized manner, within the boundaries that define its existence.

Organizational readiness

The cultural changes involved in deploying a shared services environment are significant. The IT provider organization must shift its approach to service delivery from providing generic utilities to delivering customized business functions. What is delivered can no longer be a one-size-fits-all set of technologies selected by IT; instead, solutions must be based on customer requirements and align with IT capabilities. Underlying management principles and support processes must also be redefined to be customer-centric rather than IT-focused.

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Business units interfacing with a shared services organization must also change their philosophy. In many instances, there are several shared services providers within an enterprise, based on competencies and technologies. Business units must actively participate in selection of the appropriate provider. For example, a customer looking for Web-hosted applications will typically turn to a UNIX® server-farm center instead of an MVS® mainframe center. After selecting the appropriate provider, the business unit must continue its participation in crafting the right solution.

An analogy is useful in describing this process. Consider the process of building a custom home. Different builders (providers) offer different competencies and platforms. One may specialize in prefabricated, concrete steel-frame structures; another may be expert in building high-end log homes. Similar to a shared services center, each builder clearly scopes the services offered around established competencies and platforms. A customer needs to select the appropriate provider based on style and materials. Consequently, the structure—jointly envisioned with the builder—is bound by the constraints of requirements and the provider's capabilities.

The cultural impact on the customer-provider relationship can be a major hurdle in the success of deploying a shared services strategy. Before embarking on such a strategy, the customer must carefully assess the readiness of the enterprise to embrace the anticipated changes.

Assessing the appropriateness of shared services

The first challenge is to determine if a shared services center is the right solution for the enterprise. This determination should be based on three factors: the cultural bias for or against shared services; the ability of existing business processes to adapt to shared services and the anticipated growth in demand for the shared services offerings.

Cultural bias may be the most difficult factor to overcome; however, it is also relatively easy to determine. At one extreme, there are enterprises comprised of vertically isolated business units (e.g., multiproduct conglomerates) that do not cross organizational boundaries for any significant level of support. Such enterprises tend to have a strong bias against shared services. At the other extreme, there are enterprises with core support organizations (e.g., accounting, IT, procurement, etc.) that provide services to multiple business units – especially when these services are viewed favorably and show a stronger bias for shared services.

The next factor pertains to *basic internal business processes,* such as budgetary practices, interdepartmental asset transfers and management measurements. Often, the inability or difficulty of synchronizing business practices across organizational boundaries becomes the gating factor when considering shared services. Indicators of practices that are consistent with shared services may include: a clear and concise charge-back system for IT services; asset management reporting that cascades down to the departmental level; and management metrics reflective of cross-functional objectives. The lack of practices that lend themselves to shared services does not imply that implementation is impossible. It simply may indicate a longer, harder and more expensive journey.

A final factor to consider is the *expected demand of the shared services* being offered. Once again, the focus is on the linkage between technology offerings and enterprise business requirements. The efforts required to establish the environment are worthwhile only when business demands support it in the long term; that is, what a shared services center offers should be tied tightly to business strategy. Conversely, if the enterprise is looking at a shared services center to consolidate functions that will at some point go out of business, the effort is not justified, and other options should be considered.

Assessing the appropriateness of a shared services strategy really means assessing the probability of long-term success. Are the ingredients for success in place? Is the enterprise accustomed to deploying and receiving services across functional organizations? Do the underlying internal business practices lend themselves to interfunctional and intrafunctional support? Are the desired services aligned with the enterprise business strategy?

Selecting candidate units to accept the shared services role

The next challenge is to identify candidates who may be capable of providing the shared services. Candidates may be units within the existing IT organization, units from other parts of the enterprise or external service providers. The level of preparedness to accept a shared services role directly impacts the level of investment required to achieve the strategy. In selecting a candidate unit, the focus is on two key factors: *scalability* of the existing environment and *customer service orientation.*

Scalability applies equally to the organization, the technology infrastructure and the physical facilities. Assessment of the candidate organization begins with its practical ability to grow, attract and retain the necessary human resources to support a shared services model. The internal career path structure and the market conditions for pertinent talents contribute to the equation. The human resource consideration

also extends to the management structure. The strength of the management team and the coordination of management responsibilities should provide a strong support foundation. In short, a loosely managed unit in a geography with limited availability of technical skills is not a strong candidate.

The technology infrastructure and physical facilities should also be equipped to grow. The more an enterprise can leverage and build on a core set of existing technologies (i.e., systems, applications and networks), the less costly and complicated the shared services solution will be. Upgrading facilities and the environment to accommodate additional resources (i.e., human and technology) can also be costly. Selection of a candidate unit may depend in part on the construction and acquisition expenses needed to bring the physical environment up to specifications and standards.

Customer service orientation is perhaps the key to success in a shared services environment. A strong candidate unit should demonstrate tangible evidence of managing customer relationships and satisfaction. In addition to survey results and other forms of customer feedback, it is important to assess each unit's standard operating procedures. The information required for such an assessment focuses on formal interactions (e.g., the help desk); documented commitments (e.g., service level agreements); management processes (e.g., problem management); and the overarching guiding principles of the unit.

Case Study

A national managed health care provider recognized the need to centralize the management of information and data, both from the perspective of regulatory requirements and cross-regional patient care. However, the evolution of the company had led to disparate systems across the regions. After analyzing the functions currently served by those systems and the anticipated growth in transactions, the company built a mainframe shared services center on one coast and a midrange shared services center on the other. This configuration allowed the company to leverage existing technical resources and technologies on both coasts. Furthermore, each shared services center was positioned to concentrate on the business functions resident on its respective platform.

Critical success factors

A final test of organizational readiness comes in the form of a reality check. Critical success factors (CSF) for the shared services endeavor must be defined and achieved if success is to occur. CSFs should be developed from the perspective of the enterprise, the IT shared services provider and customers. Once the scope of the CSFs is known, it is important to assess the probability of success. If the CSFs are balanced across the three entities, and it appears the likelihood of success is high, then shared services should be developed. On the other hand, if confidence is concentrated only on the CSFs for IT, then it may be unwise to go forward at this time.

Minimum requirements for effective implementation

A set of minimum requirements for effective implementation can be identified from the experience gained by organizations that have completed or embarked on a shared services solution. These requirements represent a core set of management capabilities that must be in place from the outset. The maturity level of the candidate unit or target provider tends to correlate with the degree to which requirements are met. A newly formed or informally managed organization implies up-front investments in establishing management capabilities; a more established organization may only require tuning and enhancements.

An understanding and assessment of requirements helps determine the scope of evolution from current state to a shared services environment. The decision point is not whether the minimum requirements are already met; rather, it is based on the amount of time and effort needed to meet them.

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Service level management

Perhaps the most important–but often overlooked–management process for a shared services center is *service level management.* The discipline for managing service levels involves far more than the traditional view of service level agreements. In a shared services center, the requirements of a heterogeneous customer population must be met. Service level management entails a dual-path approach, where service offerings are being defined at the same time as each customer's specific expectations for those services are also being determined.

Problem management

A shared services center provides multiple services to multiple customers in a common environment. The potential for a problem to present cross-customer impact is great. A problem handling approach that is based on bypassing isolated incidents is not adequate. The *problem management* methods must facilitate analysis of related problems, resolution at the root-cause level and proactive prevention of potential problems. Furthermore, the problem management tool suite must support the objectives of the process.

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Change management

The ability to manage the introduction of changes can have a direct impact on the stability and availability of the infrastructure. In today's highly dynamic environment, the rate of technology changes in client-server installations and the rate of application changes in Web-based offerings require even closer coordination and tighter control of production changes. To assess the potential impact and manage the limited opportunities for implementation, the *change management* discipline must provide a holistic view of the shared services environment. Change processes must be deployed across IT operations, application development and customers.

Business resumption provision

In many cases, the functions provided by a shared services center are considered to be business-critical. As such, the continuity of those functions in the face of natural disasters (e.g., earthquakes and floods) and environmental calamities (e.g., protracted power outages and damaging explosions) becomes the responsibility of the center. A traditional disaster recovery model may not be adequate, since it tends to focus on large systems and limited points of connectivity. While addressing the needs of the shared services center as a standalone entity, the *business resumption provision* must also address the unique interactions with each customer set.

Customer liaison role

One of the factors used in assessing candidate units is customer orientation. Regardless of the strength of that orientation, the explicit assignment and fulfillment of *the customer liaison role* becomes a critical path to deploying shared services. The concept is to align a single point of management contact from the shared services center with a management representative from each customer set. The customer liaison develops a one-on-one relationship with the customer and a thorough understanding of the customer's business. The liaison then interprets and represents IT's capabilities to the customer in business terms, while interpreting and representing the customer's interests back to IT.

Management metrics

The adage that "you can't manage if you can't measure" applies in particular to a shared services organization. Establishing a *management metrics* system allows for the tracking of performance and delivery. In part, this need is driven by what customers expect to measure. Similar to service-level management, a successful metrics system must look at the organization and ask questions from two perspectives: First, as an IT service provider, are we functioning effectively and efficiently? Second, from what the customers see, are we delivering the level and quality of service that they expect? Metrics are also important when managing multiple customers, since the value of a metric may vary by customer.

Technology currency maintenance

A shared services organization must be able to manage the technology base on which services are delivered. This is especially true in e-business environments, where each customer may require a specific platform. In these cases, being able to determine readily what is in-house and what is on the market becomes a critical consideration. Therefore, *technology currency maintenance* begins with a functionally complete asset and configuration management process. It then expands to the capability of monitoring and understanding market trends. In the end, it must include ready access to new technologies and managed implementation of the same on a timely basis.

Skills and staffing continuity

When a shared services organization manages and maintains customer-specific content, human resource considerations become paramount. Currency of existing skills is mandatory; but new talent must be obtained to meet customers' demands. Managing *skills and staffing continuity* requires a balance of education, recruitment and retention. In addition to staffing the organization with the appropriate skills to support current demands, a management system must be in place that can expand and adapt that skill mix seamlessly.

Summary of a migration process towards shared services

Is a shared services organization the right strategy or model for the enterprise? If so, how does the enterprise get there? Achieving the desired end state requires a carefully orchestrated approach. By integrating the concepts discussed above, and following the principles of project management, you should consider a shared services endeavor as a comprehensive, pervasive and long-term project. For a "typical" large enterprise, assessment and analysis takes four to six months; planning takes three to four months. Eight to twelve months is then devoted to execution. Of course, the time estimates must be adjusted according to the resources available and the scope of services involved.

Understand the business drivers

The first step toward pursuing a shared services strategy is to understand clearly why it will be good for the enterprise. Whether the driver is financial savings, faster speed to market, transformation to e-business or some other factor, it must prove to exert direct impact on the bottom line. If the driver is not obvious and persuasive, the strategy becomes another IT "blue sky" exercise. A way to demonstrate understanding of the business drivers is to solicit the buy-in of the business units. The goal from this initial step is the development and acceptance of a business case that is substantive in content and can be substantiated by facts.

Case Study

A large regional bank embraced e-commerce as a core business strategy. The traditional mainframe data center staff did not possess the expertise or experience to fulfill that strategy. The bank looked to a branch office support unit from a recently acquired entity that had been aggressive in deploying Web-based functions internally. The unit received a charter to enable the bank's e-commerce strategy. From the humble beginning of providing Web pages to branch personnel, the unit is maturing into a key player in the bank's multimillion-dollar e-commerce initiatives.

Assess readiness of the enterprise

Just because such a strategy may present compelling benefits for the enterprise, this does not mean that the enterprise is ready for the strategy. Cultural biases and structural barriers may stand in the way of successful implementation. It's also important to look at the anticipated demand for the proposed shared services and understand how the demand curve relates to the business strategy of the enterprise. A shared services approach to IT reaches beyond the boundaries of the service provider. In many cases, it changes the fundamental mode of how business is conducted. A comprehensive assessment could include components of business process reengineering, organizational change management and IT effectiveness. The results should be clearly documented and carefully reviewed by all stakeholders.

Assess readiness of the target provider

Selection of a candidate provider or candidate location is now made, based on a critical mass of technology or skills. A default candidate may be presented because of availability of raised floor space, or it may be decided that the candidate should be a newly created entity. Whatever the case, an assessment must be made of the current state of the candidate from the perspectives of scalability and customer services. The degree to which a target provider currently meets those criteria determines the time it will take to evolve to shared services provider.

Analyze obstacles preventing success

At this point in the migration process, the temptation to rush ahead is overwhelming. Not only is there excitement about the real opportunity of offering shared services, there is confidence in the choice of a service provider. Instead of rushing into implementation, now is the time to determine the probability of success by looking at the critical success factors of this endeavor from three perspectives: enterprise, IT and customer. Next, realistically analyze the obstacles ahead (and the baggage to be left behind) in achieving those objectives.

A shared services organization must be able to manage the technology base on which services are delivered. This is especially true in e-business environments, where each customer may require a specific platform.

Analyze gaps in management processes

A final analysis effort is focused on meeting the minimum requirements for a shared services provider. Once assignment of a target provider occurs, the scope of effort involved in implementing a basic set of management disciplines is determined. While putting in place the necessary technology infrastructure is mostly a function of procurement and contract negotiation, establishing the necessary management infrastructure is a function of culture and competency. Sometimes, the gaps inherent in management processes may prevent realization of a shared services model as aggressively as desired. Those processes, however, are vital to success.

Build a transition plan with prioritized actions

A detailed transition plan includes both sequential and concurrent activities. These activities must address the gaps identified in the preceding steps (i.e., gaps in readiness of the enterprise or the provider, and gaps in critical success factors and minimum requirements). Based on enterprise priorities, relative importance of implementation success and order of precedence in managing dependencies, activities are structured into logical phases.

Execute transition plan

Typically, a transition plan begins with the *design* phase, in which the detailed models for processes, organization and technology are built and validated. Next is the *preparation* phase, during which the infrastructure is set in place, along with supporting documentation, training and migration timelines. The crux of the transition occurs during the *migration* phase, when the environment moves from a current to a target state. The final phase is *validation*, when confirmation of achievement of the target state takes place and performance is measured against stated objectives. Once validation is complete, the shared services environment is complete.

Manage and measure steady-state

On initial implementation of a shared services environment, expect a "settling in" period, during which the core infrastructure (i.e., for processes, organization and technology) continues to be refined and improved. To ensure accomplishment of objectives, measure – with disciplined frequency – the results yielded by the new infrastructure. Ultimately, management and measurement practices should provide insights into the enterprise's ability to operate a shared services environment:

- How well does the environment support the business objectives of the enterprise?
- How well does the environment deliver services to customers?
- How well is the stability of the environment managed?

Key considerations for a transition plan

In developing and executing a transition plan, a variety of activities occur that are specific to the environment. However, experience provides insights into a few activities that should be considered for inclusion. These activities, if planned and followed, are likely to make the migration path a smoother journey.

For the overall project:

- Communicate proactively and frequently to impacted customers, involving them in key design points and decisions throughout the endeavor
- Ensure continuity in project management to avoid gaps in knowledge, experience and commitment
- Ensure objectivity in assessment activities, thereby balancing the viewpoints of the different stakeholders.

During the design phase:

- Define service-level commitments up front, engaging the appropriate decision makers from the customer's business units and the IT functions
- Assign a single point of contact into the IT organization and require customers to identify counterparts–positioning those individuals as the core requirements team for the design.

During the preparation phase:

- Negotiate charge-back and cost-allocation algorithms with customers to help ensure the ability of accounting practices and metrics to support them
- Identify financial risks and accountability for the project, clearly demonstrating a business partnership between IT and the customers.

During the migration phase:

- Determine and optimize the total cost of computing attributable to a specific customer or specific environment, so that a baseline can be established for the in-scope service and technology components
- Establish customer satisfaction management practices that the customers themselves recognize as adequate and beneficial, making sure that people and tools are in place to execute.

During the validation phase:

- Assess the newly established environment against the original analysis criteria, including organizational readiness, critical success factors and minimum requirements
- Review the management metrics system to determine whether performance objectives are being met and to ensure adequacy of the metrics system to support the environment.

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Summary

The decision to pursue a shared services strategy is ultimately a business—not an IT—decision. For such a strategy to be fulfilled successfully, business units and IT functions must work in tandem. Because enabling technology can be readily acquired and implemented, the challenge of the migration path is found in establishing the necessary management practices and process interfaces. The full life cycle of migrating from the current state to the desired end state must navigate constantly between the needs of the business and the capabilities of IT.

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