

Best Practices in Data Center Relocation

By Fred Latala, Forsythe

Data center relocations are complex initiatives that cross every aspect of IT and the business. Preparing for success requires an in-depth understanding and proper documentation of all facets of the interrelationships between the technology infrastructure and the supported business operations.

Many organizations make significant investments in new data center facilities, resulting in a state of the art physical plant. A frequent oversight, however, is carrying poor processes, procedures, architecture and documentation into the new site. In order to achieve the desired availability of applications and data, the maturity level of the IT infrastructure and processes must meet or exceed the design criteria of the facility.

Organizational Readiness Determines Scope

In order to understand the scope of preparations and investment required for a smooth relocation, an organization must first evaluate its readiness to undertake the initiative. The maturity of an organization's IT infrastructure processes, procedures and documentation has a direct correlation to the complexity of the undertaking, and the level of complexity is a major factor in an initiative's cost and risk to the business.

Organizations with well-documented, actively-managed asset management, disaster recovery, monitoring and management, and change control programs have the essential elements required to successfully complete the data center relocation. They will not have to invest in the discovery, validation or development of information and processes in order to prepare.

Conversely, gaps in these processes and documentation must be addressed prior to or in conjunction with the project. Failure to address gaps will introduce a high degree of risk to the project and could lead to outages that negatively impact the business.

Five Steps to a Successful Data Center Relocation

Step 1—Perform a readiness assessment

Performing a best practices check-up for infrastructure management provides a baseline of the organization readiness to undertake this initiative. The objective is to

evaluate the accuracy and completeness of processes, procedures and documentation. Focus areas include:

Support Structure—Are problem management, notification and escalation? processes current and documented?

Service Level Agreements—Do they exist? Are they documented? Are they? current?

Documentation—Do the five basic documents (configuration, startup,? shutdown, backup, recovery) exist for each asset? Is there a central repository? Is there a document control system? Is the documentation current?

Asset Management—Does a current system exist that reflects all assets and? related portfolio information?

Maintenance Contracts—Are these consolidated into a single data source,? preferably the asset management system? Do the maintenance contracts reflect service levels proportionate to criticality and usage of the assets? Are contract expirations proactively managed?

Financial Management—Does all information related to environment? lifecycle costs exist in a central repository (asset management system)? Does a total cost of ownership (TCO) model exist for each asset?

Change Control—Is there an actively managed process that tracks and? audits all changes to the environment, including facilities, hardware, software, applications and data structures?

Architecture—Is the IT architecture well defined and documented? Is the? architecture team involved in the design and validation of initiatives?

Capacity Planning—Does an automated system exist to track the usage? baseline and deltas in the environment at a component level?

Performance Management—Does an automated system exist to track the? baseline and deltas of the environment's performance to a component level?

Monitoring and Management—Does an automated system exist to track the? availability and service levels of the IT environment? Are support and escalation procedures automated and current?

Business Initiatives—Is there an overall perspective on the parallel? initiatives that will be undertaken by IT and

the business during the life of the data center relocation project? Are the impacts and resource requirements understood and documented?

Stakeholder Management—Have the basic requirements and value proposition for the data center relocation project been communicated to the business and internal/external partners? Has a communication plan been established and implemented?

Resource Availability—Is there a commitment of resources from each of the stakeholder groups in direct relation to the project timeline?

Industry Regulations—Are the compliance ramifications of the project understood and overseen by a certified organization?

Logistics—Have the decisions related to the location of the destination facility been finalized? Is there a strategy for the location of assets by class by facility?

Relocation Project—Has the project executive defined the basic initiative timeline? Is there a dedicated project manager? Does a corporate project management office (PMO) exist and has this initiative been registered with the PMO?

Disaster Recovery Plans—Do current validated plans exist for each environment? Because a data center relocation is essentially a managed disaster recovery event for which the IT environment will be reestablished at a different location, disaster recovery is the most pertinent area to the success of the project. A thorough disaster recovery plan provides key information about the interrelationships between the infrastructure and the business, the criticality of applications and data, and the mechanisms to mitigate risk.

Based on the project timeline, a determination needs to be made for each gap area on whether to implement a long-term or interim solution.

Step 2—Assess the environment

This phase of the project involves gathering, combining and correlating information about assets and their use in support of the business. Analogous to a disaster recovery plan, this step baselines the environment and begins the process of asset classification. Each asset must be identified and the portfolio of information regarding its use and interrelationship to the whole environment must be established and documented. The output of this phase is the asset repository that reflects the current inventory, technical and business interrelationships, and supporting asset lifecycle information. Best practices include automated asset discovery and tracking, and the use of an industry standard repository such as a configuration management database (CMDB) that is capable of providing a comprehensive view of all aspects of each asset.

Step 3—Design, validate and plan the project

Building upon the assessment, each asset must be correlated to the business function it supports. This step parallels the disaster recovery process of defining recovery groups; for the sake of this project, these groups will be referred to as “move groups.” Each move group represents a consolidated collection of assets that support a key business function or IT support function.

Each move group is analyzed for its criticality to the business and assigned a corresponding ranking. The disaster recovery plan for each move group is consulted, along with the technical architecture employed for availability and recovery. The result is a relocation methodology tailored for each move group based on the service level agreement, risk mitigation capabilities that currently exist and an approved business case for additional investment required to support availability or limit risk during the relocation.

The output of this project phase will be an overall project plan that includes detailed task plans, time budgets, and resource and contingency plans. A relocation calendar should detail the timing of move events in relation to business initiatives and cycles. A communication plan and command center structure should be documented and validated with all stakeholders.

Step 4—Implement the plan

This phase is where the detailed analysis and planning pays off. Each stakeholder should understand his or her role and tasks. Decisions regarding contingencies and timelines have been established. The command center coordinates the activities, tracks and communicates progress, and performs problem management and escalation coordination. Successes and failures are documented and utilized post-relocation to improve the process for subsequent events.

Step 5—Manage the environment post-relocation

Upon completion of the data center relocation, it is imperative to take one additional step: the incorporation of knowledge, updated processes, procedures and documentation into the normal support structure of the IT infrastructure. The relocation project will have validated or generated current information about the IT infrastructure. As change is constant in information technology, this information will have a limited shelf life. In the normal course of business, these processes, procedures and documentation all too often become a low priority for compared to the demands of the business on IT organizations. Quickly incorporating this information and implementing a process to continually refresh it will achieve a far greater long-term result than solely the relocation of assets.

The Long-term Benefits of a Successful Data Center Relocation

The benefits of carefully planned and executed data center relocation go well beyond what meets the eye of the user or customer. Done correctly, the end result is not only a seamless transition for the business, but also the creation of a set of business continuity disciplines that can validate or provide groundwork for disaster recovery and business continuity planning—as well as IT and physical security, asset management, systems documentation, change control, operating standards and processes, capacity planning, maintenance and license management, service and operating level agreements, business alignment and data center facility management.

In other words, successful data center relocation can completely transform the overall operating environment—its processes, procedures, documentation and personnel—in a way that has significant, lasting benefits for an organization's disaster recovery readiness as well as day-to-day operational efficiencies.

Published in The Data Center Journal, June 20th, 2006.

As the director of Forsythe's data center relocation services practice, Fred Latala is responsible for the company's overall data center relocation strategy, vision, best-practice models, and the quality of solutions delivered. Latala has more than 20 years of experience in internal and external IT management roles.

