

Monday Morning, Business as Usual: Best Practices in Data Center Relocation

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“Did that move happen, or was it cancelled?”

That question is music to the ears of any IT professional involved in a data center relocation. The best possible result is a seamless cutover—a non-event.

However, a data center relocation is a complex initiative that crosses every aspect of IT and the business. Preparing for its success requires an in-depth understanding and proper documentation of all facets of the interrelationships between the technology infrastructure and the business operations they support.

Data center relocation projects typically involve a broad spectrum of internal and external stakeholders. Each stakeholder views the data center relocation project uniquely, based on his or her charter. Typically, the CFO views it as a cost, while the CIO considers it a business challenge. The data center manager perceives it as a logistical nightmare; the systems administrator views it as a technical challenge; and the business units see it as a potential outage, and a threat to the revenue stream. Most important, it represents a potential inconvenience to customers, and perhaps even a reason for them to go elsewhere. It is incumbent upon the project sponsor to address each key stakeholder’s concerns and work with them to design and implement a plan with the least impact upon customers.

Most organizations make significant investments in their new data center facilities, resulting in a state of the art physical plant. High security and redundancy of the facility and utilities are common. A frequent oversight, however, is carrying over 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. A data center relocation is a good time to clean up the sins of the past and clear out the clutter—from outdated systems and maintenance contracts to outdated processes and documentation.

Organizational Readiness Determines Scope

In order to understand the scope and investment required,

an organization must first determine its readiness to undertake a data center relocation initiative. The maturity of the organization’s IT infrastructure processes, procedures, and documentation has a direct correlation to the complexity of the undertaking; and the degree of complexity is a major factor in the 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 already 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 ready themselves.

Conversely, gaps in an organization’s infrastructure management processes and documentation must be addressed prior or in conjunction to the data center relocation project. Failure to address these gaps will introduce a high degree of risk to the project and could lead to outages that negatively impact the business.

The Five Steps to Successful Data Center Relocation

Step 1—Perform a Readiness Assessment

Performing a check-up of best practices for infrastructure management provides a baseline of your organization’s readiness to undertake this initiative. The objective is to score the accuracy and completeness of processes, procedures, and documentation. Areas to focus on include:

Support Structure—This includes problem management, notification, and escalation. Are these 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 the related portfolio information?

Maintenance Contracts—Are these consolidated into a

single data source, preferably the asset management system? Do the maintenance contracts reflect the level of service commensurate with the criticality and usage of the assets? Are contract expirations proactively managed?

Financial Management—Does all information related to the lifecycle costs of the environment 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 that tracks the baseline and deltas in usage in the environment at a component level?

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

Monitoring and Management—Does an automated system exist that tracks 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 data center relocation project timeline?

Industry Regulations—Are the compliance ramifications of the data center relocation 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 timeline for the initiative? 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? Disaster recovery is the most pertinent area to the success of the data center relocation

project. A data center relocation is essentially a managed disaster recovery event for which the IT environment will be reestablished at a different location. A thorough disaster recovery plan will provide all of the 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, gather all pertinent information

This phase of the project involves gathering, combining and correlating information about the 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 of the project is the asset repository that reflects the current inventory, technical and business interrelationships, and supporting asset lifecycle information. Best practices here include automated asset discovery and tracking, and the use of an industry standard repository such as a configuration management database (CMDB) that is extensible to provide a comprehensive view of all aspects of each asset.

Step 3—Design, validate and plan the project, resources, timeline, contingencies and budget

Building upon input from the assessment, each asset is correlated to the business function it supports. This step parallels the disaster recovery process of defining recovery groups; for the sake of this project they 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. Common assets across move groups are identified such as SAN's, tape libraries, DNS servers, etc.

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 will

detail the timing of move events in relation to business initiatives and cycles. A communication plan and command center structure will be documented and validated with all stakeholders.

Step 4—Implement the plan

This phase is where all of the detailed analysis and planning pays off. Each stakeholder should understand their role and tasks. Decisions regarding contingencies and timelines have been established. The command center coordinates the activities and tracks and communicates progress, performs problem management and escalation coordination.

Successes and failures are documented and utilized post-relocation event to improve the process for the subsequent events.

Step 5—Manage the environment post-relocation incorporating knowledge gained and updated processes, procedures, and documentation into the core support structure

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 data center relocation project will have validated or generated current information about the IT infrastructure. This information will have a limited shelf life as change is constant in information technology. All too often in the normal course of business these processes, procedures, and documentation become a low priority compared to the demands of the business on IT organizations. By quickly incorporating this information and implementing a process to continually refresh the processes, procedures and documentation you will achieve a far greater long term result than the relocation of assets.

The Long-term Benefits of a Successful Data Center Relocation

The benefits of a carefully planned and executed data center relocation go well beyond what meets the eye of the user or customer on Monday morning. Done right, 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 the organization's disaster recovery and business continuity planning—as well as its 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, a 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 its day-to-day operational efficiencies.

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