



Teamwork in Data Centers

By Sean Nicholson

In recent years, standards for data center technology have been refined to deliver 99.999 percent uptime for servers and storage systems. Yet, increasing data center complexity and human challenges can be a hindrance to optimum performance.

IT vs. Facilities

The division of teams that runs the data center exacerbates the challenges in maintaining reliability. General accounting rules specify that the facilities department is responsible for the data center's physical space; however, the IT department, with its focus on engineering disciplines, retains the knowledge of the equipment installed in the data center.

The cultural differences between teams, as well as the attention paid by upper management, can cause separation and conflict. Often, upper management is attracted by the possibilities that high technology brings. They have energy and focus on IT to produce advances, and make the business more competitive—often leaving those in facilities feeling less valued. With these overarching culture clashes, having teams work together for the sake of efficiency and quality can be difficult.

The objectives of the teams can be in conflict as well. Fueled by government regulations like Sarbanes-Oxley, businesses are providing IT with incentives to keep servers running at all costs, while facilities is measured on the integrity of the buildings and its assets. If a fire breaks out in the data center space, the IT guys may be trying to determine which specific servers can be shut down to put out the fire, whereas the facilities guys will be looking to shut down all power to the floor.

Challenges Ahead

Added to this are management's objectives, which center around strategic management of IT services to achieve and align with business goals. This IT service management (ITSM) approach encompasses the definition and management of associated service level agreements, maintenance requirements, and in some cases, definition of services that directly impact the level of revenue for the business.

Businesses taking this approach are becoming increasingly dependent on IT to deliver expansive data storage and computing services, from typical finance and communications support and critical manufacturing applications, to systems used directly by customers, as in the case of online entertainment and content providers.

This puts immense pressure on IT leadership to deliver more services within the data center.

Managing Culture and Integrating Tools

Team integration can be important to achieving the future goals of the data center. The emergence of a data center team, where goals, objectives, and incentives are properly aligned with the goals of the business, is a promising trend, and one that aligns with ITSM. Industry experts agree that bringing together colleagues from different disciplines to collaborate and plan is a move in the right direction.

Tools that support and enforce the process for change and the accurate communication

of the state of the configuration are absolutely necessary to run an efficient data center. The complexity that exists in data centers today, and the promise of more complexity in the future, indeed call for more than the latest version of Visio or Excel.

The data center team needs to know, not only what changes are occurring, but who reviewed and approved the change, and how long it took for the change to take place—how can the process be refined or tuned? They need to know what the current infrastructure looks like, not only for the purposes of asset inventories, but also to find the devices that fail—who else will be affected by this hardware failure? They need to know what the business requirements are for IT, and how to plan for infrastructure expansion—how do I justify future infrastructure needs to management?

With the right tools and organizational structure, IT, facilities, and management can eliminate cultural barriers and obstacles that impede efficiency. Alignment of these goals and their underlying infrastructure paves the way to maximum productivity across the organization.

Sean Nicholson has worked in the software industry for 21 years, serving in a variety of positions with IBM, the National Institute of Standards and Technology, and Aperture Technologies. Sean joined Aperture in 1991 as a developer working on the first Windows version of the Aperture Client product. He worked on Aperture's development staff on a number of product efforts, and became director of development operations in 2000. In 2005, Sean joined marketing as director of product management. Sean is currently responsible for the governance process for product development and for facilitating the formation of product strategies and direction.