DATABASE TRENDS AND APPLICATIONS
The Journal of Information Integration and Management
February 2008
TRENDS AND APPLICATIONS

Enterprise Tools for the Data Center - and Beyond

By John Tugman

The overseers of today's data centers are under siege. They have to ensure that their centers meet four key "ilities" - survivability, reliability, accessibility and maintainability - and seamlessly accommodate the burgeoning demand for IT services. Moreover, IT managers and CIOs face pressure from the constant drumbeat for data center and server consolidations. In today's dynamic business environment, data center managers must have access to a holistic repository of the entire technical "infostructure" - the collection of components and processes in an IT ecosystem. Access to this information gives managers the ability to determine not only the number and types of servers within the data center but where the miles of fiber connections are going, what services are being delivered where, and what capacity problems may arise.

Until recently, it was sufficient to document the extensive infostructure in disparate systems, such as Visio and Excel. But this approach fails to give IT managers the correlation and relationship intelligence needed to gain "big picture" insight. The vast complexity of these Infostructures requires the use of enterprise tools and business processes that provide the manager the so-called "total situational awareness" of the physical environment to facilitate trouble-shooting problems, planning for expansion and change, and gaining a better understanding of service delivery needs. Otherwise, data center managers are severely handicapped in their ability to meet customer requirements.

Most IT infrastructures were created in a fragmented manner with individual business units establishing pseudo IT departments (shadow CIOs), requisitioning their own components and attempting to manage a non-core business function. This, of course, leads to considerable waste, inefficiency and unreliability. Thus, many organizations are moving to consolidate and bring everything under the management of the professional IT staff within the CIO organization. However, the mere task of identifying the thousands of heterogeneous components, fiber optic networks, LANs, WANs, etc., can be overwhelming.

It could take at least two weeks of dedicated resources just to document the IT infrastructure of an average-sized business. With enterprise tools in place, the organization could within hours determine infostructure scope based on reliable real-time data and build business cases for initiatives such as data center and server consolidation, refresh of products nearing the end of their lifecycle, or asset relocation.

A Comprehensive Approach is Necessary

Enterprise tools, once implemented along with sound business processes, will pay huge dividends, particularly when evaluating the need for upgrades or preparing disaster recovery plans. Understanding the relationship between the assets at hand gives data center managers the intelligence required to understand the interdependencies of the technologies supporting various business functions. This comprehensive approach helps managers

determine the system, space and utility requirements and the service level needs of the various Lines of Business (LOB's) to effectively provision the data center. Without enterprise tools, it becomes costly and time-consuming to gather this information and keep it current and accurate. .

Bottom line: Data centers are no longer static entities. They've become dynamic organisms, with continuous change from new services and new infrastructures. Thus, ensuring the accuracy of the data as changes are made is a business imperative. A well-documented infrastructure utilizing enterprise tools enables organizations to manage this chaos.

There are a host of enterprise tools available on the market today. Some lend themselves to capacity planning, others to release management. Others sense the network and alert managers to potential problems. By complementing infrastructure management tools with an enterprise infrastructure management capability, data center managers can easily call up the details they need to be proactive about system and services management.

As IT infrastructures have become more complex, keeping track of processes and Infostructure inventory has become even more difficult. By documenting the entire Infostructure to gain a holistic view, organizations can deliver actionable intelligence about both the data center and the extensive cabling throughout the entire facility. Organizations striving to be ITIL-compliant can also leverage these tools to streamline their change management, release management, capacity management and incident management processes. Without enterprise tools, they'd have little chance of achieving their ITIL plans.

Realizing the value of visualizing, analyzing and managing their critical infrastructure, many organizations are utilizing interactive tools that map the entire enterprise - providing a foundation for daily operations such as change, problem, service-level, and continuity management. Providing centralized management of all aspects of critical infrastructure allows for better controls, increased uptime, cost containment, and more potential for data consolidation.

About the Author

John (Jack) Tugman is vice president, Infrastructure Innovation and Technology Deployment, at Planet Associates of Neptune, N.J. Planet provides software tools that enable an organization to gain insight into and control over critical infrastructure facets, including its data centers. Before joining Planet, Tugman served as the director of information technology services and CTO for the U.S. Army Communications Electronics Life Cycle Management Command in Fort Monmouth, N.J. He has experience creating disaster recovery and business continuity plans, and developing business processes based on CMMI & ITIL principles. **www.planetassoc.com**