

Data Center News:

DATA CENTER MANAGEMENT ADVISORY NEWSLETTER

Consolidate painlessly and save money

By Robert Stevenson, Technology Strategist
04 Apr 2005 | SearchDataCenter.com

Consolidation might seem like a painful refragmentation of your environment, but it's also an opportunity to refresh and renew technology -- and sometimes save money as well. There are three new technologies that hold out the promise of substantial total cost of ownership (TCO) reduction that you should consider if you are executing an enterprise consolidation: blade computing, storage aggregation and iSCSI.

It's possible that you just found out that management has committed to big savings with a consolidation program for 2005. (This likely happened just as you were starting to get your staff, policies and process in order, and catching up with the end of year business growth.) Or maybe you are initiating the program and are looking at some new technology to cut down on costs while increasing productivity in 2005. Either way, if you're like me, you're wondering why this keeps happening: Why do we have such low utilization, and how can we manage the risk of over-capacity more carefully? Or, even better, is there a way to shift the risk of over-capacity to our suppliers?

Based on my past experience in managing almost a dozen consolidation projects, I can tell you that there are a variety of capabilities and competencies that must be present for consolidation success that are storage specific, including:

1. Strong storage technology expertise
2. Storage lifecycle management approach
3. Storage tiering analysis
4. Storage quality of service assessment
5. Storage usage modeling
6. Storage TCO analysis

TCO analysis is the primary focus in consolidation strategies. Most consolidation approaches advocate using a derived metric such as #GB/TCO or #CPU/TCO as a way of tracking and forecasting your consolidation savings, while others look at the storage tiering allocation, server compressions and retirements to reduce TCO. Some of the more sophisticated approaches recommend deriving business measures for measuring success. For example, if your business is TV measurement, you would look at infrastructure TCO per TV rating sample. Each of the approaches is working toward crossing the business/IT language gap by using the money as a common denominator. Business-to-IT translation is essential, since one of the key success factors for a consolidation program is business support and involvement.

On the new technology front, as you pull together your consolidation program, get rid of older, higher maintenance stream technology gear and replace with lower cost new technology. This is where our three new technologies (blades, storage aggregation and iSCSI) come in.

Blade technology is predominately thought of as a server technology; however, blades also encourage a variety of centralization efforts. After all, you are buying a network switch, a SAN switch and server all at the same time. The overlap of technology components can alter your organization in a variety of positive ways. Business application provisioning can be centralized as well as cross-platform OS installation.

On the storage aggregation technology front, many virtualization technologies continue the abstraction of storage and increasingly shift the emphasis toward the quality of storage service. The key concept here is embedding service level agreement (SLA) attributes into the provisioning, measurement and delivery of the storage service. This is the first step toward true intelligent storage management. No longer are you managing SLA and technology independently. The SLA is contracted into the provisioning activity and enforced with the storage hardware.

iSCSI, on the other hand, is a back-end storage commoditizer that brings a company closer to individual disk cost points. Many people have been dismissive of iSCSI, seeing it as a less capable Fibre Channel solution, or are unsure of the technology reliability. However, the economics are too compelling to ignore. iSCSI is a very powerful archiving and nonbusiness-critical storage tier solution that may challenge Tier-2 storage vendors, as 10 Gbit Ethernet ports roll into the data center.

In summary, consider consolidation as an opportunity to refresh and renew your data center and quality of services to become more business driven at a lower cost.

About the author: Robert Stevenson is a technology strategist for a leading audience measurement company in Oldsmar, Fla., and a regular writer for our columns.