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Retiring IT Equipment

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Decommissioning The Old To Make Room For The New

The smallest misstep while decommissioning equipment in the data center can have a significant ripple effect that can lead to production application slowdowns or even downtime. To avoid potential disaster, some IT managers choose to leave antiquated equipment on the racks (and the network) doing little more than collecting dust.

Unfortunately, by not properly decommissioning equipment past its prime, data centers are needlessly spending money on power, cooling, and rack space while also increasing the risk of having a neglected system attached to the network.

Steve Yellen, vice president of product/ market strategy for Aperture Technologies (www.aperture.com), a company specializing in software for the management of the physical infrastructure of data centers, believes that developing a decommission process is one place data centers can potentially gain quick improvements with efficiency as well as reduce energy consumption. As more organizations become aware of their power consumption and the increasing popularity of “greener” data centers, more and more companies are instituting processes for the reclamation of space and power resources.

While freeing up rack space and power resources is a priority for sending equipment to retirement, Bill Davis, vice president and CIO for administration, finance, and technology at Bridgewater State College, cites security as his primary reason for properly decommissioning technology: "By far the greatest concern is that ‘old' servers and desktops, if left online, may no longer be actively managed or patched and over time may represent a significant security risk.”

Making A Plan

The first step in building a successful decommissioning plan for equipment in the data center is to document all the current processes. Organizations need to have a comprehensive understanding about how their currently deployed technologies touch their operations. Yellen suggests interviewing all the constituents, including the business units, finance, and all IT functions, to determine any gaps in the processes. A good decommissioning process will have three types of requirements: business requirements (approvals, chargebacks), IT requirements (physically decommissioning, disposing of equipment), and financial (depreciation/tax implications, contract termination).

Davis and his team incorporate decommissioning directly into asset management and life cycle management. By documenting where systems are located, who manages them, what services they provide, and how they are secured physically and virtually, Davis can better determine which machines are replaced on what schedule and decide if the systems will have an extended life for a lower priority application as they are retired from their primary purpose. Once assets have reached the end of their life cycle, Davis' decommissioning plan also determines the method of disposition. "We pursue a range of options, including using technology recycling firms, occasionally trading assets to buyers/resellers of used equipment, sometimes loaning or donating older equipment to charitable organizations in our community. Because we are a public institution, we also offer retired equipment to other state agencies and schools when it is too old to serve its intended purpose here," says Davis.

Challenges

But there is more to decommissioning equipment than just pulling the plug and carting it off to the recycling center. Many servers such as Domino (www.ibm.com) and Exchange (www.microsoft.com) have specialized utilities that aid IT staff in the decommissioning process. These tools help to ensure that the dependencies and data are properly transferred to the new server before the old asset is taken offline.

According to Yellen, implementing a decommissioning process is all about communication and understanding your organizations requirements. "Organizations should approach this the same way they build any other business process--get buy-in from management, build consensus, and roll out the new process incrementally to build a step-by-step history of success," he advises.

However, widely decentralized enterprises may face significant challenges with decommissioning. When ownership and management of desktops and servers is broadly distributed, central IT shops may need network management and inspection tools simply to get a full inventory of assets across the enterprise. A clear policy that establishes the value of decommissioning can be important, and a simple decommissioning process for system managers across the enterprise is essential.

"We are fortunate here to have centralized processes for management and purchasing of technology assets, so we can build decommissioning into the asset life cycle," says Davis, "Our approach has been to recognize that business information is the critical resource we are safeguarding, not the box that holds it, and to build our policy with that in mind."

Looking Ahead

Physical servers have been the primary focus because of their large numbers in enterprises and data centers. They represent the highest rate of change as new applications, and more powerful systems are constantly being introduced. However, many organizations are looking to virtualization to improve efficiency and to reduce the number of physical servers within the data center.

Yellen predicts that the decommissioning of virtual servers will become just as big of a problem as with physical servers. "Processes for decommissioning virtual servers are, in most cases, less mature than those for physical servers," he notes, "Virtual server sprawl is something that IT organizations will be talking about in the not so distant future." The added bonus of decommissioning virtual assets, however, will be nothing to cart away to the trash bin.