

Home > Data Center

# The incredible shrinking data center

Some IT managers are saying 'smaller is better' when it comes to data-center size.

By John Edwards

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Computerworld - Tom Gonzales is planning to shrink his company's data center footprint from 45 feet by 15 feet to a mere 12 feet by 12 feet -- and he couldn't be happier. "We're using more space than we need," he says. "We're going to return some of that to the company."

Gonzales, senior network administrator for Denver-based Credit Union of Colorado, says smaller is better when it comes to data center size -- now more than ever given the tight economy. "It's time to do more with less," he says.

Other IT managers are repeating that mantra, helping their companies cope with hard times by shrinking their data center's physical footprint to become smaller and more compact. IT managers have gotten to these more productive footprints by using virtualization, increasingly dense and multifunction hardware, alternative energy sources and modular design techniques. For their part, the savings accrue from lower energy bills, reduced property costs and less costly site and technology maintenance.

At the credit union, for example, server virtualization helped lower data center space requirements while making IT leaner and more efficient. "We used to have 40 boxes, now we're down to just a couple and a lot of virtualization. We have 12 racks right now, and we're going to consolidate that down to just four," Gonzales says.

The steady consolidation of servers and related resources over the past few years has left the credit union's old data center with plenty of excess room. "We've been trying to talk them into giving us a foosball table or a pool table in there because there's more than enough empty floor space," he jokes.

Actually, the freed-up space will be put to good use by the 80,000-member credit union. "We're in downtown Denver in our own building, but real estate here is expensive," Gonzales says. "We're trying to give some of our space to departments that [provide] member-facing services."



Yet data center size shouldn't be the sole focus of cost-savings attempts, warns Steve Sams, vice president of site and facilities services for IBM Global Technology Services in Armonk, N.Y. "The physical footprint is not where the cost of the data center is," he says. "The physical footprint typically represents, in traditional data center builds, 7 to 10 percent of the cost."

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If space-conscious managers focus on systems and the accompanying support infrastructure, a footprint reduction will be the logical outcome, Sams says. About 60% of a data center's cost is from the power and cooling infrastructure -- the air conditioning systems, the chillers, the generators, the uninterruptible power supplies (UPS), the power distribution units and so on, he says.

For the credit union, shrinking the data center cut out about 33 power ports and two circuits, Gonzales says. However, he adds, the organization doesn't have power measurement tools, so he can't specify power savings in dollars.

1 2 3 4 Next page ▶

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