CIO DECISIONS
ALIGNING IT AND BUSINESS IN THE MIDMARKET ENTERPRISE
ezine

VIRTUAL REVOLUTION

Server virtualization can save time, space and—perhaps most important—money. Experts and IT executives offer their insights and experience on the technology that's changing the data center. P.3

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The IT Media ROI Experts

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Virtual Realities

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→ **MICROSOFT RELEASED** Windows 7 to beta in January. While any confirmation of its desktop virtualization plans is still forthcoming (at least as of the time I am writing this), the buzz around it is just the latest confirmation that the "virtual" revolution is upon us.

At present, plans for desktop virtualization are still few and far between, especially in the midmarket. Early results of our latest survey research, conducted in December/January, say as much. Yet server virtualization is becoming almost mainstream, for development and testing if not production servers. Research last year from Forrester Research showed that 75% of midsized organizations had deployed some form of virtualization, even if nearly half that number (35%) had done so within the past year.

As our coverage beginning on page 4 shows, the benefits come just in time for companies looking to consolidate data centers, reduce their data center footprint and conserve energy. Virtualization is also a ready-made answer for flexibility and agility, given how quickly a virtualized server can be deployed (in minutes) vs. the purchasing cycle for procuring a box and setting it up. That bodes well for both IT and end-user initiatives that require a quick and/or temporary fix.

By now you also know terms like *virtual sprawl* and *management challenge* in conjunction with virtual servers. Because provisioning is so easy, you can end up with more than you can manage with the out-of-the-box management tools. One consultant I talked to said this happens when you hit about 35 servers. Meanwhile, other challenges include the cost of upgrading servers for virtualization, the fact that not all applications are conducive to virtualization and the dearth of staff with the right skill sets. Our articles inside address these (see our FAQ, page 9).

Another oft-cited priority for 2009 is collaboration. That's what Web 2.0 is great for—departmental wikis or RSS feeds, or external-facing tools that let your customers talk to each other or give you feedback. Our package starting on page 15 gives you plenty of peer examples and some tools advice.

And speaking of Web 2.0—if you haven't seen it, we at CIO Decisions have created an online community on LinkedIn. Please join us for vendor-free access to your peers. ■

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CIO DECISIONS
[PART 1]

VIRTUAL REVOLUTION

Here's what you need to know about the technology that's changing the data center.

Capacity Planning Eases Path to Virtualization

By figuring out what it had, one midmarket firm determined precisely what it needed. The result? A 16-to-1 server consolidation ratio. **BY ELISABETH HORWITT**

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→ **KRONOS INC. WAS** suffering from a serious case of server sprawl. Some 330 boxes had pretty much used up the space, power and cooling resources at the workforce management software company's Chelmsford, Mass., data center. The problem became acute around July 2006, when the company acquired another firm—and 80 more servers.

"We literally had nowhere to put them or plug them in," says IT manager Raymond DeMartini. "That pushed us over the edge," into taking the virtualization plunge.

By deploying multiple applications across virtual machines on a single server box, the company was able to significantly improve resource utilization and achieve a 16-to-1 server consolidation ratio. This, in turn, decreased power consumption by 20% and eliminated 25 racks from the data center. Virtualization has also reduced unplanned downtime by 88% and resulted in 97% faster server deployment, according to Michael Moran, senior IT systems manager at Kronos.

Moran credits the project's success in large part to a rigorous up-front capacity planning process his team performed with the help of Bedford, N.H.-based systems integrator Expert Server Group. First, his team used PowerRecon from Novell Inc. subsidiary PlateSpin to track application workloads on existing physical servers, over a complete activity cycle.

> **"We literally had nowhere to put them or plug them in. That pushed us over the edge."**
>
> **—RAYMOND DEMARTINI**
> IT Manager, Kronos Inc.

"We found that we had a lot of single-application systems in the data center, whose load utilization, even during peak times, wasn't more than 30% or 40%," Moran notes. About 150 servers were tapped as viable virtualization candidates. Data generat-

ed by PowerRecon also helped Kronos determine a server consolidation ratio of about 15-to-1, as well as storage allocations for the virtualized environment.

PLANNING PAYS OFF

Other midmarket companies would do well to take a page from Kronos' book, industry sources agree.

As midmarket IT budgets continue to tighten, "overprovisioning is a luxury midmarket companies can't afford," notes Audrey Rasmussen, a principal analyst at Ptak, Noel & Associates LLC. More and more CIOs are turning to virtualization as a means of getting more bang for their server bucks. Upfront capacity planning is critical to such projects, to ensure that efficiencies don't come at the expense of performance and reliability, she adds.

Even so, too many firms are still managing capacity by waiting until problems occur, "and then allocating

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Virtual Server Issues: Running the Numbers

Research suggests that as more IT executives implement virtual servers, they're learning that managing those virtualized environments is a lot more difficult and complex than they anticipated.

Consider an Enterprise Management Associates Inc. survey of 627 corporate IT decision makers, published last April. It found that:

24% **The number of respondents who said virtualization makes security administration easier—as compared with 42% in '06.**

32% **The number of respondents who said software control and distribution is easier in a virtualized environment, down from 58% two years ago.**

32% **Configuration management numbers plummeted from 58% to 32%.**

31% **The number of respondents who said they definitely have enough skills to manage virtualization deployment.**

The total percentage of respondents who said virtualized servers in the data center actually make management tasks more difficult was in the teens or single digits. However, EMA research director Andi Mann, who authored the survey report, suggested that respondents underestimate the difficulties, and are likely to change their tune in the next year or so.

—ELISABETH HORWITT

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more resources (and more, and more) until they go away," Enterprise Management Associates (EMA) noted in its April report "Virtualization and Management: Trends, Forecasts and Recommendations." The report goes on to state: "Enterprises ... need to look for sophisticated tools that understand resource allocation and usage across the physical and virtual ecosystems, and across the full range of the virtual environment (hosts, guests, hypervisors, clients, storage systems, network components, etc.)."

IT managers need to measure not just overall server performance during peak usage times, but also different applications' demands on specific resources, like I/O ports and memory, at different times of the day and month, says Andi Mann, research director at Boulder, Colo.-based EMA. This enables them to make optimal use of server resources by colocating, for example, a financial application that makes heavy use of the CPU during the day, with an I/O-intensive backup application that does its heavy work at night. It also ensures that "a server's CPU doesn't get instantaneously saturated by multiple workloads making calls simultaneously," Mann notes.

According to Rasmussen, companies also need to monitor performance and manage capacity on an ongoing basis. This is true of any data center installation, but particularly critical for a virtualized environment, where workloads keep shifting among virtual machines (VMs), and VMs among servers.

A MARKET FOR MANAGEMENT

The good news is vendors are stepping up to the plate. Leading management platform vendors like IBM, Hewlett-Packard Co. and BMC Software Inc. have aggressively targeted the virtualized space, often through acquisition. Cirba Inc., Novell/PlateSpin, Akorri Inc. and, of course, VMware Inc. offer virtualized capacity management tools.

The not-so-good news is the market remains highly fragmented. Ideally, software tools across key IT Infrastructure Library disciplines like performance and utilization monitoring and capacity and storage management would all feed into and access a common configuration management database, Mann says. However, an EMA study found that less than 50% of virtualization management tools support cross-discipline integration, he explains.

Still, savvy IT executives are figuring out ways to harness complementary management tools, often with the help of systems integrators and the vendors themselves. Kronos, for example, is using Akorri's BalancePoint to monitor utilization and proactively manage performance across a virtualized infrastructure. "When users start complaining about response time, it helps us pinpoint whether the problem is with the FC switch, storage array or VM processes," DeMartini says. ■

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CASE STUDY

Consolidation Via Virtualization Can Offer Quick ROI

Virtual servers and consolidated disaster recovery facilities mean better energy efficiency and payback in less than a year for one midmarket organization. **BY MICHAEL YBARRA**

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→ **WHEN VEECO INSTRUMENTS INC.** decided to consolidate its corporate office with a manufacturing facility about a mile away in Plainview, N.Y., senior IT director Linda Chan took the opportunity to do a little consolidating of her own: revamping the company's data center.

Since the midmarket company went public in 1994, Veeco had grown rapidly, with revenue jumping from $30 million to $402 million in 2007. There had been a dozen acquisitions, including five in a single year.

All of which made for a mishmash of IT systems and legacy data centers. The company, which makes equipment for high-tech manufacturing, runs plants in six states and maintains offices in 20 countries, from Europe to Japan. Each manufacturing locale had its own data center and at one point the company was running 10 enterprise resource planning (ERP) systems.

In 2008, Chan consolidated most data center functions to the new location—and at the same time reduced the number of servers. The size of the IT department has dropped from 34 people to 22.

"We've been able to do more with less," Chan says.

THE OBVIOUS CHOICE

The impetus for change came when the CEO decided to combine facilities.

"My first thought was 'just move the physical servers,'" Chan says. "Then virtualization occurred to me. I said, 'Let's think out of the box.' Dell did an ROI analysis for us. Not all servers can be virtualized."

The Plainview plant already had a data center, but it was too small to accommodate all of the company's servers. The room would have to be physically expanded and a new air conditioning system installed. But dozens of servers could be virtualized onto two, which to Chan became the

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obvious choice. The new data center runs 50 servers, including the virtualized ones.

"We were able to prove that it made sense," Chan says. "It wasn't a hard sell. We were really planning to invest more than we did. We didn't have to put in a 10-ton air conditioning unit. We're expecting payback in less than a year."

Veeco decided to remake the data center in two phases. The first, which involved virtualizing less important servers, took place in March. Veeco purchased equipment from Dell Inc. and hired consultants to run the first week of the changeover.

"The biggest challenge was just the time [it took] to move the servers," Chan says. "We were bringing Japan live with SAP at the same time. We had a 12-hour window to move the servers. Everything worked out well. I've built data centers from scratch and moved servers around before, but this had a lot more involved."

Chan is now working on an ROI assessment for a second phase that would virtualize mission-critical servers this year. All ERP, financial and sales applications will be located at Plainview, while a few remote servers will handle local tasks. Email servers will also be virtualized.

ADDITIONAL BENEFITS

Veeco has also consolidated its disaster recovery facilities, turning a legacy data center in Tucson, Ariz., into a full-scale failover site.

"We've made it much more redundant," Chan says. "We really needed to create a 24-by-7 operation. We're supporting apps for sites worldwide."

Consolidating the data center also allowed the company to make it more green.

"My first thought was 'just move the physical servers.' Then virtualization occurred to me. I said, 'Let's think out of the box.'"

—LINDA CHAN,
Senior IT Director,
Veeco Instruments Inc.

"We did an airflow study using a Dell model," Chan says. "The old system we were using just pushed hot and cold air around. The study helped with the proper placement of the ducts and where the servers are situated."

For the next round of data center improvements, Chan is looking at deploying Riverbed Technology Inc.'s wide-area data services product as another way to avoid having to purchase more servers.

"Our overall goal is to centralize as much as possible," she says. ■

MICHAEL YBARRA is a columnist for SearchCIO-Midmarket.com. Write to him at editor@searchcio-midmarket.com.

FAQ: Data Center Virtualization

You know virtualization can help you make room in the data center—but what else is there to know?

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→ WHAT IS VIRTUALIZATION?

At its most basic, virtualization makes a single resource, including servers, operating systems, applications and storage devices, appear as multiple physical resources. It can also be used to make multiple physical resources such as storage servers appear as a single logical resource on the network.

WHAT ARE THE BENEFITS OF VIRTUALIZATION?

Virtualization helps companies stretch storage resources, consolidate physical hardware servers and lower hardware costs. It can also lower software licensing costs and provide better, less expensive access to disaster recovery and business continuity capabilities. In an independent, CA Inc.-sponsored survey of 300 top IT executives, 53% percent of U.S. companies and 34% of companies worldwide reported that virtualization had enabled them to lower total cost of ownership.

WHO IS USING VIRTUALIZATION?

While enterprise-sized companies have jumped on the virtualization bandwagon, midmarket companies have been slower to adopt the technology. A Forrester Research Inc. study released in May revealed that 40% of 73 small and medium-sized business IT decision makers surveyed had been using server virtualization for less than a year, vs. 35% that were using it for a year or longer. In comparison, 27% of 138 enterprise companies reported two years of usage in the same study, compared with 15% of midsized firms.

HOW MANY SERVERS DO YOU NEED TO HAVE TO MAKE VIRTUALIZATION WORTHWHILE?

Estimates vary. "For a company with a dozen or a couple of dozen servers, the benefits are definitely less significant than they would be for a company with a much larger number," says Charles King, principal analyst at Pund-IT Inc. "It's not for everybody." Remember, if your boxes are old, you'll have to upgrade to enable virtualization.

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WHAT ARE SOME OF THE DRAWBACKS?

Because virtualization makes it so easy to commission a server, it's easy to end up with virtual server sprawl. Then it becomes increasingly difficult to keep track of which applications are running on which virtual servers, which can affect patching.

"It becomes a patch-level reliability nightmare," says James Staten, a principal analyst at Cambridge, Mass.-based Forrester.

One application may need a particular version of an operating system with a particular patch level to run correctly—if there's a problem, tracking it down can be difficult, he adds. Tools that can recognize, monitor and fix patch levels depending on the application and its operating parameters aren't available yet, but they will be this year, he says.

The ease of setting up a virtual machine can also strain resources. During six months last year, Gartner Inc. received more than 1,700 inquiries from CIOs and other IT managers asking how to deal with the abundance of virtual servers in terms of churning through IT resources, says Tom Bittman, vice president and chief of research for the infrastructure and operations practice at the Stamford, Conn.-based, research firm. The issue is charge-back—that is, how to get business units to bear their share of the resource costs of virtualization.

Before virtualization, user departments knew it took a long time to get approval for a new server, so they didn't ask for one unless they really needed it. "Now, the business side knows that it takes just two days to get a virtual machine up, so they don't even think about it," Bittman says. "You have to introduce friction into the process. We have to move toward a charge-back system, and we will. We need to treat IT like any other business unit in a company. You have to be able to say, 'This business unit, which isn't making any money, is using an inordinate number of IT resources.'"

"For a company with a dozen or a couple of dozen servers, the benefits are definitely less significant than they would be for a company with a much larger number. It's not for everybody."

—CHARLES KING
Principal Analyst, Pund-IT Inc.

It can also be difficult to find people with the right skill sets. Only 31% of respondents to an Enterprise Management Associates Inc. survey of 627 corporate IT decision makers said they definitely have enough skills to manage virtualization deployment. The survey was published in April 2008.

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Finally, don't forget process improvements.
"The problem is that companies have introduced virtualization, but they haven't changed their change management processes," Bittman says. He recommends that prior to beginning a virtualization project, users revamp performance management and capacity management processes to keep up with the new data center environment.

HOW ARE VENDORS HELPING COMPANIES MANAGE VIRTUALIZATION?

VMware Inc., IBM, Microsoft, Citrix Systems Inc. and others offer virtualization management packages for their virtual machine (VM) offerings. But according to analysts, most of these management packages fall short when it comes to the nitty-gritty of traditional systems management.

There are some companies that address this specifically. Cirba Inc., Novell/PlateSpin, and Akorri Inc. offer virtualized capacity management tools.

Fluke Networks Inc. in Everett, Wash., is easing into the virtual management space from the networking side with its wide area network (WAN) optimization strategy. Jason Landers, product manager for the company's NetFlow Tracker, says WAN optimization can improve application performance with more efficient bandwidth utilization for data centers. The company is quickly adding more granular application-monitoring capabilities to allow IT to track the efficiency of VM usage as well. "You have to know where your resources are going, or you don't get the payback you want," Landers says.

> **"Virtualization unlocks cloud computing. Under virtualization, everything in IT becomes a variable resource pool."**
>
> **—TOM BITTMAN**
> Vice President, Gartner Inc.

WHAT'S NEXT FOR DATA CENTER VIRTUALIZATION?

Network, storage and desktop virtualization are starting to take hold at some larger companies, and analysts see the technologies underpinning the "cloud computing" concept. "Virtualization unlocks cloud computing," Bittman says. "Under virtualization, everything in IT becomes a variable resource pool. The business units can no longer be 'service huggers.'"

For many midmarket companies, moving the data center to a "virtual cloud" either internally or via a third party will become more enticing. "For SMBs, virtual data centers may provide higher quality of service at a lower cost," Bittman says. ■

Compiled by reports from contributing writers **SARAH VARNEY**, **ELISABETH HORWITT** and **ZACH CHURCH**. To comment on this FAQ, email editor@searchcio-midmarket.com.

Virtualization Offers No Escape from Security Concerns

The work doesn't end once you've virtualized servers. Virtual machine escape attacks, server sprawl and server portability await your security attention. **BY BRIEN M. POSEY**

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→ **WITHOUT A DOUBT,** the hottest trend in IT today is data center consolidation through virtualization. Although virtualization can help an organization lower its operating costs significantly and often makes information systems management easier, there are some underlying security concerns that need to be addressed.

By far, the biggest concern related to virtual machine security is the threat of a virtual machine escape. A virtual machine escape is a theoretical type of attack in which a vulnerability within a virtual machine is used to take control of either the underlying host operating system or the hypervisor itself. The attacker could then potentially gain control of the other virtual machines hosted on the server.

Why is a virtual machine escape such a threat? It's the fear of the unknown, that eventually someone will be able to do it.

To the best of my knowledge, nobody has successfully performed a virtual machine escape attack yet—even as a proof of concept. Many security experts believe it will probably be only a matter of time before someone figures out how to perform this type of attack, though.

BEWARE THE DEMILITARIZED ZONE

I recently wrote a magazine article on virtualizing Exchange Server 2007. One of the statements I made in the article was that I would not recommend virtualizing an edge transport server because it sits in the network's demilitarized zone (DMZ). The editors of the publication would not allow me to print that statement, citing that Microsoft runs its own edge servers in a DMZ.

I have absolutely no idea whether or not Microsoft uses virtual servers in the DMZ. If it does, and it's comfortable with that decision, then that's

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fine. Personally, I would not be able to sleep at night if I recommended that a client use a virtualized server in the DMZ.

Granted, no virtual machine escape hacks exist today, but if the IT security experts are right and this type of attack is eventually developed, then virtualized servers in the DMZ are basically sitting ducks. My personal recommendation would be to avoid virtualizing anything that resides in the DMZ.

ADDITIONAL SECURITY CONCERNS

Although the IT security concerns I have already mentioned are the primary issues to think about when consolidating your data center, it is important to consider the impact that the virtualization process will have on day-to-day security management.

One good example of this is the patching process. Imagine, for instance, that you maintain three physical servers. Obviously, all three of those servers need to be patched as new patches are released. If you virtualize those servers then you have *four* servers to patch: your three existing servers, which have now been virtualized, and the host operating system that the three virtual servers reside on.

Adding one operating system probably doesn't sound like a big deal but keep in mind: Most enterprise-class organizations have far more servers than this. Furthermore, my experience has been that virtualization is almost too easy. Once a company adopts virtualization, it tends to create additional virtual machines far more frequently than it had previously acquired new physical servers, because the company is no longer bound by hardware costs. To some extent, even some licensing costs go away in a virtualized environment, so it makes sense that "virtual server sprawl" often becomes an issue.

The other issue that tends to affect security management in virtualized environments is server portability. It is a common practice for virtual machines to be moved from one host server to another. This allows organizations to group virtual machines on host servers in a way that makes the most sense from a performance standpoint.

This is important because virtual machine security works on multiple levels. The virtual machine itself must obviously be secured, but so, too, must the host operating system.

As you can see, virtualization tends to complicate the subject of securing your servers. As long as you adhere to the various industry best practices for security, though, and are diligent about keeping your security up to date and consistent across the organization, virtualization should not cause any security issues. ■

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WEB 2.0: JUST DO IT

Midmarket CIOs, once reluctant to embrace Web 2.0 technologies because of bandwidth and security concerns, are joining the social networking revolution. Here's how to put wikis, blogs and social networking sites to work for the business.

The Business Benefits Of Web 2.0 Projects

Midmarket CIOs say SharePoint and LinkedIn, among other sites, enable communication that improves business.

BY MICHAEL YBARRA

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→ **WEB 2.0 TECHNOLOGIES** that support social networking sites, wikis and RSS feeds are quickly migrating from the consumer realm into the business world—which means opportunities as well as challenges for CIOs, especially in the midmarket.

You don't have to go big. Your use of Web 2.0 can be as simple as finding a vendor reference on a social networking site or using Microsoft SharePoint to support a wiki for 5,000 users.

Jeffrey T. Greenaway, CIO of Bargreen Ellingson Inc., needed to increase the data bandwidth at the food service supplier's headquarters in Tacoma, Wash., but he wasn't sure what the best solution would be. Then Greenaway saw an update from LinkedIn, the business social networking site. One of his contacts had joined a fiber optic provider. The CIO contacted him for advice.

"I already knew him so we didn't have to go through so much of the 'Who are you? Can I trust you?' thing," Greenaway says. "We could just get down to, 'Is this a good fit?' We were able to get the solution in place much faster. It cut the time in at least half."

Gartner Inc. in Stamford, Conn., estimates that the size of the enterprise social software market will triple in five years, growing from $318 million in worldwide sales in 2007 to $939 million in 2012.

"It's really been rapid cycle improvement. Everyone is engaged and informed."

—DR. JOHN D. HALAMKA, CIO, CareGroup Inc. and Harvard Medical School

"Adoption is high, but a lot of it is rogue or under the radar," Gartner analyst Jeff Mann says. "The number of sanctioned, paid-for social networking projects isn't real high, but the number of people using these tools is."

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Some midmarket users are using the tools to jump corporate firewalls and interact with suppliers, partners and customers—which raises security and compliance concerns for CIOs.

"A lot of messaging isn't audited and retrievable," notes John D. Halamka, CIO of both CareGroup Inc. in Boston and Harvard Medical School. "What do you do if an attorney requests records? Employees might find good ways to coordinate care, but if we have servers at an external location with patient information it could break the law with HIPA [the Health Information Privacy Act]." It's a matter of being able to own the data and audit access—the sort of things you can't do if information goes outside the firewall to a third-party server.

Halamka says CareGroup executives are working on a Web 2.0 tools policy.

"The notion that you can ban social networking is unreasonable," he says. "The worst option is don't ask, don't tell, do what you will. That will get us into trouble. Information that's inappropriate will get posted. Another option is to come up with your own managed service, institutionalized IM system, audit and persist every message. But with a closed social network, will there be a value proposition that people will use?"

In the meantime, Halamka says Web 2.0 tools are already contributing to business improvements. Last year, for example, one hospital in the group created a wiki forum open to all 5,000 employees to identify and solve problems.

Called the Spirit Portal, the project was created on a tight time frame and at low cost. Halamka originally considered Salesforce.com Inc.'s Software as a Service platform, but he needed tighter integration with existing applications.

The IT requirements: a toolkit that integrated with Active Directory for authentication; compatibility with all browsers/operating systems; and the ability to leverage the talents of existing developers.

"We don't want people wasting time ... on Facebook, but as an organization we use YouTube to market some of the things we offer. It comes down to good judgment."

—JEFFREY T. GREENAWAY
CIO, Bargreen Ellingson Inc.

He picked Windows SharePoint Services 3.0, which is integrated in Windows Server 2003 and didn't require additional licensing fees.

The portal went live after two weeks and since has been used to log and track about a thousand problems, including confusion over how nurses can reach the correct doctor for patients during periods of heavy admissions.

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"It's very democratic," he says. "You can be the person cleaning the floors and you have access to the CEO. It's really been rapid cycle improvement. Everyone is engaged and informed. The challenge is, it's too easy. Maybe sometimes you'd solve a problem by going through the normal business process, talking to your manager. It should be for solving problems that haven't been solved by traditional means."

At Bargreen Ellingson, a $170 million business with 17 offices and 430 employees, CIO Greenaway says the company expects employees to use Web 2.0 tools "appropriately" but shies away from a detailed policy. "By the time you get IT polices published, they're out of date," Greenaway says.

"We don't want people wasting time chatting with friends on Facebook," he adds, "but as an organization we use YouTube to market some of the things we offer. It comes down to good judgment."

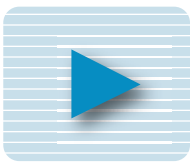
Just as he used LinkedIn to find a bandwidth solution, Greenaway says he uses social networking tools to research potential vendors and consultants.

"It gives me an idea of their stability and churn," he says. "If I'm looking at the organization and a ton of people move through in six months, that's a potential red flag. With consultants I vet their qualifications. How extensive is their support network, are they hopping from place to place?"

Greenaway also finds technical expertise beyond his own IT staff. Recently, for example, he wanted to add a security feature to corporate laptops. He reached out to his network and quickly learned that the idea would require custom written code.

"It made it a much quicker research process," he says. "The people responding aren't necessarily trying to sell me something, so I have a higher inherent trust. I'm impressed how willing people are to help out others just because they need help." ■

MICHAEL YBARRA is a columnist for SearchCIO-Midmarket.com. Write to him at editor@searchcio-midmarket.com.



VIDEO

Web 2.0: Making Its Way Into the Midmarket

Web 2.0 is growing increasingly popular across the board—but what are the business benefits? In this video from SearchCIO-Midmarket.com, Gil Yehuda, senior analyst at Forrester Research Inc., shines some light on the different aspects of Web 2.0 and how it incorporates into the midmarket.

To Build or Buy: Creating a Social Networking Platform

You could use free Web 2.0 tools or piece together a solution. But experts suggest you look at packaged platforms.

BY ELISABETH HORWITT

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→ **AS MIDMARKET COMPANIES** seek to create social networks that bring together customers, prospects and other constituents, CIOs have a variety of technology options, from free online communities to robust software platforms that offer built-in infrastructures and tools for managing, monitoring and moderating online communities.

On the free side are established social networking websites such as LinkedIn and Facebook. The benefit: Employees and customers are likely already familiar with these providers, which are growing more versatile.

Another approach involves putting together your own platform from various tools. A number of companies have created support communities using Confluence, Atlassian Software Systems Pty Ltd.'s wiki platform, in combination with discussion threads, says Mike Cannon Brookes, the social networking software firm's CEO. The wiki serves as a regularly updated, permanent knowledge base, while the discussions provide a more dynamic question-and-answer format.

However, Gartner Inc.'s Anthony Bradley, a managing vice president at the research firm, recommends that CIOs at midmarket organizations consider packaged social network platforms. A Gartner magic quadrant of social software providers shows more than 30 providers in this space, and classifies most of them as niche providers.

One of the most important features of such platforms is the ability to sort through hundreds or even thousands of group exchanges.

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of group exchanges and zero in on the valuable ideas, feedback and comments in order to propagate them—to other members of the community, or to the sponsoring company's sales, marketing or research and development (R&D) staffs.

K12.com, which provides online education software and classes to some 55,000 full-time students around the globe, launched an online social networking site four months ago to connect its students, parents and teachers, who lack the traditional ways to socialize available in a physical educational setting. "One of our biggest challenges was social disconnection," says Celia Stokes, chief marketing officer at the Herndon, Va.-based company.

The organization "knew we wanted Web 2.0 capabilities like chatting, IM, friending and widgets that allow us to plug in profiling and discussion boards," Stokes says. However, with a customer base growing about 40% per year, "we also wanted a platform that was reliable and scalable."

It chose Jive Software's Clearspace Community and now offers discussion boards, video and writing contests and other fun group activities. The site also provides a "faculty lounge," where about a thousand teachers can share ideas, solve problems, provide mutual support and "blow off steam," Stokes says.

"The hunger for this was beyond our wildest expectations," she says. Participation is now close to 100%.

The K12.com community has also generated creative and useful ideas and feedback, resulting in more competitive products, improved teacher performance and enhanced customer satisfaction, Stokes says. "We have a student panel and a parent panel that give us feedback on curriculum, the teaching tools we roll out and our intervention programs," she says.

Video game maker Electronic Arts Inc. (EA) used Jive's packaged social network platform to remodel its online community, creating virtual subspaces with the same look and feel as each EA game brand. Nine months later, the community had grown by 1,600%, representing a huge boost in brand loyalty.

"The most important administrative features [of Jive's Clearspace], no question, have been multilevel security, easy account management and the ability to highlight messages and great stats," former EA senior community manager Nathan Fahrenthold explains in a recent interview published on Jive's website.

In sum, online social networks that are properly managed and endowed with a specific purpose can become invaluable sources of ideas, feedback and expertise, says Gartner's Bradley. "It's the concept of turning an online community into an extension of your sales force, or your marketing or R&D team." And midmarket companies must embrace the concept "in order to compete with the big guys." ■

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Vendors Have Answers For Companies Shunning SharePoint

The Microsoft offering has plenty of fans, but alternatives are available from IBM, Oracle, Open Text and others. **BY CHRISTINA TORODE**

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→ **WHEN IT COMES** to departmental file sharing or collaborative workspaces, Microsoft's SharePoint has legions of fans in midsized companies. But for those not interested in paying for SharePoint (the basic version is free), or who find some features immature in the latest version, there are SharePoint alternatives.

The reason for SharePoint adoption is clear: Many organizations (and non-IT departments) began grassroots deployments after they upgraded to Windows Server and got a basic SharePoint feature set for free. There were also products in the SharePoint family available for a fee, including SharePoint Portal Server 2003, which many organizations used as a stepping stone to Microsoft Office SharePoint 2007 (MOSS 2007). MOSS 2007 is a major upgrade from SharePoint Server 2003, with a lot more functionality.

The move to MOSS 2007 seems to be natural once users install Office 2007. A Forrester Research Inc. survey conducted in March 2008 of 233 IT decision makers using Office 2007 showed that 24% had immediate plans to move to MOSS 2007 and 41% expected to install it within six months.

Microsoft estimates MOSS pricing at $4,424 for a server license and $94 per client access license in the U.S.

Microsoft's strategy with SharePoint is to undercut competing enterprise content management (ECM) products that are perceived as complex and expensive, with a product that promises ease of use, flexibility and a less costly enterprise-scale feature set. One key benefit is its tight integration with other Microsoft products such as Exchange Server, Office Communications Server, Office Live Meeting and Live Workspace. Simplicity allows business departments to create their own team workspaces.

"Basic functions like workspaces typically come first and getting gover-

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nance around that, then people tend to explore other areas [of SharePoint] based on pain points or risk factors," says Rob Koplowitz, an analyst at Cambridge, Mass.-based Forrester.

MOSS' capabilities range from basic collaboration to portal creation and business intelligence content management. Yet MOSS' breadth is both too much and not enough for some midmarket users.

For example, the portal capabilities in MOSS are mature, but some companies are holding off on what they perceive as less-developed features in the suite, such as social networking, enterprise search and Web content management capabilities.

Other potential drawbacks are a dearth in skill sets, as well as a lack of SharePoint documentation, says John Bissa, a partner and Web development team leader at accounting firm Plante & Moran PLLC in Southfield, Mich. On the surface, SharePoint is easy to get off the ground, but he says he's finding that people quickly get in over their heads.

"There's a lot of bad SharePoint [deployments] out there because there are more people deploying it than those who know how to use it," he says.

THE ALTERNATIVES

Although SharePoint appears to be on a lot of CIOs' agendas, midmarket businesses have plenty of other choices.

There's integration with enterprise content management systems. IBM offers integration between FileNet ECM and MOSS 2007, for example. Fellow competitor Oracle Corp. has made it possible for users to access Oracle Universal Content Management files from the SharePoint interface.

Lotus Notes and Domino's collaboration and content management capabilities are often stacked up as a SharePoint alternative, as are Lotus Quickr and Novell's SiteScape for workspaces. There is also Oracle's WebCenter suite for portals and Web application development and its Beehive online workplace.

Open Text Corp., with its ECM suite, is another company that both competes and integrates with SharePoint.

Competing products and vendors in the Web 2.0 space include Jive Software's Clearspace business social community software, which has customers in the midsized market, and Atlassian Software Systems Pty Ltd. and Socialtext Inc.

For open source alternatives, Alfresco Software Inc. has its ECM platform and Drupal lets you build community workspaces and portals.

Yet for all these options, SharePoint may be the 800-pound gorilla—at least for now.

"Competitors are trying to do similar things [as SharePoint], but they really only have point solutions in comparison," says Peter O'Kelly, a Boston-based independent industry analyst. ■

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ONE CIO

Web 2.0 Stories From the Trenches

The Real Niel explores the world of Web 2.0 and finds no dearth of usage. **BY NIEL NICKOLAISEN**

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→ **AS I.T. LEADERS,** what are we to make of social networking for our businesses? Is social networking just a new name for the collaboration we have spent the last 20 years enabling? Is it the next silver bullet that is going to validate IT's value to the business? Or is it simply another set of applications we will have to design, implement and support—one more brick on the pile?

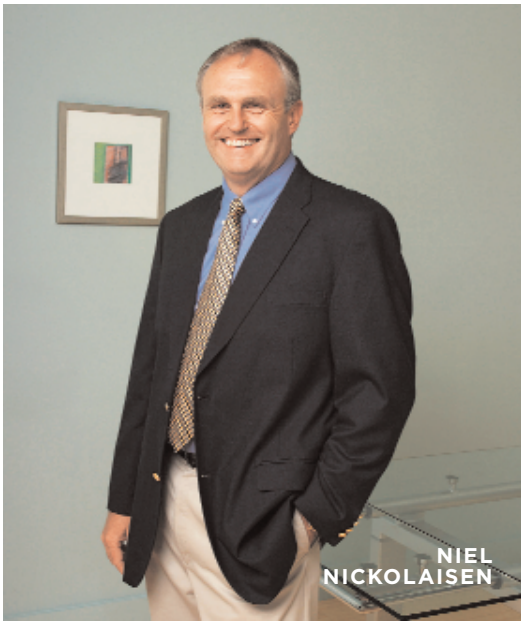
Before I could make my own conclusions, I had to do some research into what other CIOs are doing with social networking technologies in their businesses. For example, one of my good friends started a company blog. A blog? For what? As a way for employees to communicate with each other and their leadership, and to make suggestions for improvements.

My CIO peer quickly discovered that opening the blog required him to make a series of decisions about how the blog would be managed:

Should employee posts be anonymous?
He felt yes.

Who would respond to questions about policy and ensure that suggestions were considered?
He distributed the suggestions at executive team meetings.

What would happen if employees turned the blog into a gripe site?
He was patient with questions like "Why does the CEO make 30 times more than I do?" Eventually, the employee community started to police itself. Six months into his blog-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ging experiment, he feels the blog has created value and so is ready to expand by creating departmental blogs.

At a large engineering firm, the CIO has created his own, internal version of Facebook. Engineers create and publish profiles that include their experience and expertise. With this social network in place, project teams from around the company can shop for specific skills they need to answer problems they are facing.

Suppose a team needs to perform a Wigner-Ville Transform but has no experience with such transforms. Rather than spending time to learn about what Wigner and Ville developed, the team searches the social network for engineers who can help them do the calculations. The CIO says this approach has improved project results and shortened cycle times, adding even "old-dog engineers" love the internal Facebook.

The CIO is now thinking of adding two features to the system:

■ First, a **feedback system**—like seller ratings on eBay—so people know what they are getting when they read an engineer's profile.

■ Second, a **willingness factor** so engineers can tell the company how willing they are to respond to requests for their expertise.

I am working on a little social networking skunkworks project of my own. My idea is to build a community for our customers. I want to provide a way for our customers to learn about best practices and tools not just from us but also from their peers. My goal is to link community and commerce. If a customer has a question, he can access a network of peers who have likely already faced and solved the problem. The commerce comes when we mine the community for new product ideas.

These all seem like very pragmatic, potentially valuable uses of social networking to improve the business. As such, I do not fear social networks because I really do want to tap into the vast brainpower that exists among our employees, my peers and our customers. ■

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