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DATA CENTER FUTURES

When I'm 64: Could 32-bit be tomorrow's data center dinosaur?

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What you will learn from this tip: Microsoft's commitment to 64-bit computing could thrust the technology into the mainstream sooner rather than later -- and that means data center managers need to get ready to "86" 32-bit.

Thirty-two bit just wasn't getting it done for Eric Tagliere.

The vice president of Schaumburg, Ill.-based credit report giant Experian Inc.'s MarketONE platform marketing division deals with a daily deluge of data. At first, he thought 32 bits would provide enough memory and processing power to handle the nearly 10 billion records his firm handles daily.

"It couldn't meet our needs," he said. About six months ago, Tagliere implemented Microsoft SQL Server 2005 on a 64-bit platform running Windows Server 2003 64-bit edition.

Now his needs will be met for the next three to five years. His IT department has doubled or even quadrupled the speed of response times and is now moving onto larger hardware. Moreover, the transition was seamless.

"We were 32-bit one week and 64 the next," he said. "Our database is now scaling up into the tens of terabytes -- that was unthinkable 10 years ago."

"The biggest improvement is that you can handle the RAM," said Michael Mettke, senior database administrator for San Francisco-based prime broker Merlin Securities LLC. He's running 64-bit on a Dell box with Red Hat Linux and Oracle 10g. In addition giving him direct linear access to limitless amounts of memory, the combination has also been kind to the bottom line.

["It's] a lot cheaper than Sun -- we've seen a dramatic cost advantage," he said.

Moving into 64-bit land seems like a no-brainer for many data center managers. More processing power, more memory, a learning curve that's nearly flat, the ability to run current applications and migrate future ones without buying all-new hardware platforms and licenses -- these are just the tip of the benefit iceberg. The technology also provides the sound many CFOs love to hear -- the "ch-ching" of cost savings. But moving from 32 to 64-bit servers isn't just about the pros; it's an IT trend that data center managers cannot ignore -- not for long, anyway.

As goes MS, so goes IT

Microsoft recently announced that several of its forthcoming platforms will run exclusively on the new 64-bit hardware. The company also announced that some of its server software expected next year and beyond (Exchange 12, Longhorn R2, Centro) will be optimized only for 64-bit hardware. With Microsoft headed this way, data center managers, particularly those who work at small- to medium-sized businesses that largely run Windows, will surely have to follow. One of these days, 32-bit might be as viable as Windows 95.

"You won't be able to get 32 bits in the next three to four years on the server side," said Tom Rizzo, SQL Server director for Microsoft. The company released the 64-bit version of its database last month, making the technology available with the standard edition (rather than just the enterprise edition). "We want to make it mainstream -- the economics will get so good it will be worth it," he added.

According to Rizzo, 64-bit can't jump into the mainstream soon enough. He said that the 64-bit SQL Server 2005 has been the largest program in SQL history. "The pent-up demand is huge," he said.

Chip and hardware manufacturers say they're seeing 64 take off too.

Officials with Austin, Texas-based chipmaker Advanced Micro Devices (AMD) have been surprised how fast the 64-bit migration has been. Commercial Marketing Strategist Margaret Lewis said that the market is ready for the technology, especially at the data center level. "They don't have to destroy their environment to migrate," she said. "They can live in both environments and migrate as they need to."

AMD is such a firm believer in 64, it doesn't even make 32-bit chips anymore.

"Microsoft's move to 64 shows that this isn't a niche or a high-end technology -- it really makes people wake up," Lewis added. "When a tried and true leader says [that it's] moving to 64, there's a certain validation to it."

John Fruehe, enterprise marketing manager at Dell Inc., said that his customers are excited about the greater database performance, the increased scalability and the backwards compatibility with 32. He thinks 32 eventually will be to 64 what dialup has become to high-speed.

"It's a universal truth that 64 is better than 32," he said. "The only area of debate is the timing with which data center managers move." Fruehe added that his customers are looking to spread 64 aggressively across the data center because

it provides opportunities for managers to do something they really like: consolidate their boxes.

Show me the apps!

The one thing that might turn off a data center manager to a 64-bit move is the fact that there's just so much other stuff to do, according to Joe Clabby, an analyst with Boston-based Summit Strategies Inc.

"If there's a high ROI and they can spare people [to implement and manage the technology] then 64 is a no brainer," he said. "But if they're out of capacity and overworked on other projects, it becomes a challenge."

Clabby believes that 64 will really take off once packaged applications for the environment start hitting the market in force next year. Those packaged apps had been missing up until recently.

"ISVs are starting to build apps now," Clabby said. "Tivoli, DB2, Symantec -- anyone who wants to play in a 64-bit Windows environment has products coming."

Mettke, who's been there and done that in 64 bit land, advises data center managers to do a planned, gradual transition of legacy apps to 64 -- and to get their act together ASAP.

"It's coming sooner or later, whether you want it or not," he said.