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SQL Server 2008 *Upgrade Series*

BUSINESS STRATEGIES

It isn't always easy to know when to upgrade to the latest hardware or software release. In the case of Microsoft SQL Server 2008, there are many compelling reasons to make the move, including: Enhanced business intelligence; improved business continuity features; better performance and better management capabilities. Beyond that, the upgrade path from SQL Server 2005 is relatively simple and the upgrade path from SQL Server 2000 is absolutely necessary. So what are you waiting for?

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SQL Server 2008 *Upgrade Series*

BUSINESS STRATEGIES

Seven Really Good Reasons For Upgrading to SQL Server 2008

A guide for small and mid-sized businesses

When do we take the plunge?

It's always a balancing act, isn't it, trying to figure out when to upgrade to new hardware or software. On the one hand is the promise of what can be: Improved ROI, reduced costs, exciting innovations to make the business more competitive. On the other hand is the reality of making a move: Spending money, learning new IT skills, getting users up and running.

In the world of database software, many small and mid-sized businesses are grappling with the horns of this particular dilemma: Is it time to upgrade to SQL Server 2008?

SQL Server 2008 is the current state-of-the-art in database software from Microsoft, the leader in delivering database solutions to small and mid-sized businesses. Although it is the latest advance for Microsoft, SQL Server 2008 has been around for more than a year and has a proven track record of success.

In fact, many small and mid-sized businesses have already taken the plunge to SQL Server 2008 and are reaping the rewards of improved performance, enhanced business intelligence, stronger business continuity and scalability.

When to make the move is a question each business will have to answer on its own, based on a variety of factors. If you're thinking about it, here are seven compelling reasons to take the plunge. If you haven't yet thought about it, this is why you should.

▶ REASON ONE: YOUR BUSINESS WILL BE MORE INTELLIGENT

If you think business intelligence is just for large enter-

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prises, think again. All of the major BI software companies are targeting the SMB market and companies of all sizes are taking advantage of tools that enable them to act upon current, accurate information in real time. SQL Server 2008 provides a significant upgrade in business intelligence capabilities versus previous versions of SQL Server, including a scalable BI infrastructure that enables the creation of complex reports and analyses of any size.

"If you want to do reporting of any kind or any kind of drill-down on the data, there are a ton of new tools," says Grant Fritchey, a principal database administrator at a large insurance and engineering company in the Northeast. "They've improved on the existing tools and added new ones that really change the game."

Among the BI enhancements in SQL Server 2008 are: A new Report Designer, which allows reports of any structure with new enhancements to look and appearance; an Enterprise Reporting Engine; an end-user tool called Report Builder; and new visualization tools such as charts and gauges, which are designed to make reports

READY TO UPGRADE? HERE ARE SOME HELPFUL TIPS

1. USE UPGRADE ADVISOR. "You absolutely have to run it," says Grant Fritchey, a principal database administrator. "No matter how sure you are, run the Upgrade Advisor." Rick Heiges of Scalability Experts agrees. "SQL Server Uprade Advisor is a free tool and you can run that against your current database. It will give you a report of what will break and it will tell you what is not syntactically correct."

2. GET A NEW SERVER. "I like to do side-by-side upgrades instead of in-place upgrades. If you can, instead of upgrading the server, install a new server and move your databases to it," says Fritchey. "For us, most of the servers running 2000 are old, so we're upgrading them anyway and this actually makes it easier."

3. DON'T BE AFRAID TO ASK FOR HELP. "When in doubt contact a database professional to help you with the process," Rick Heiges. At the very least, seek help online or in person at industry events. "There are a lot of user groups across the nation and around the world that focus on SQL Server," Heiges adds. "You can get involved with the community, through PASS (Professional Association for SQL Server), for example. There are great resources for you on that Web site."

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more accessible and understandable.

"SQL Server 2008 just has a lot more business intelligence tools," says Rick Heiges, a senior solutions consultant with Scalability Experts. "There are real charting tools for report writing and other tools for helping with data analysis and other ways to leverage data assets. BI is one of the reasons companies should be looking to upgrade."

▶ REASON TWO: YOUR MISSION-CRITICAL DATA CAN BE BETTER PROTECTED

Business continuity is another one of the areas in which SQL Server 2008 offers significant improvements upon earlier versions. For small and mid-sized businesses this can mean valuable reductions in downtime for mission-critical data and greater protection of important data assets for disaster recovery or other unplanned disruptions. Small and mid-sized businesses that have made the move to SQL Server 2008 have reported instances where they have been able to reduce planned downtime for maintenance and upgrades from several hours to several seconds.

For disaster recovery and high availability, SQL Server 2008 offers data mirroring as a feature in both the Standard Edition as well as the Enterprise Edition. Database mirroring gives small and mid-sized businesses the ability to back up their databases to a separate server on a real-time basis, and to locate the mirrored server in a location that is geographically removed from the principal database server. This ensures a stable, up-to-date backup that can be turned on immediately if the principal database server goes down for any reason.

▶ REASON THREE: YOUR ENTIRE BUSINESS WILL PERFORM MORE EFFICIENTLY

Upgrading to SQL Server 2008 can improve the performance of your database, and thus enable your business to operate more efficiently and cost-effectively. For example, you can save money on storage because SQL Server 2008 offers data compression at both the data and backup levels. Compression also reduces the I/O workload, resulting in faster performance. You may need a faster server, but if you are upgrading your database it generally makes sense to upgrade the server as well.

A study by Forrester Consulting, commissioned by Microsoft, identified eight ways

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in which a customer benefited by making the move from SQL Server 2000 or SQL Server 2005 to SQL Server 2008. These were:

1. **License and hardware savings**
2. **Storage savings**
3. **Eliminating third-party software**
4. **Not hiring additional IT employees**
5. **Increases in productivity for both IT and business users**
6. **Improved database performance**
7. **Improved data security**
8. **Improved working experience for the database administration team**

▶ REASON FOUR: YOUR DATABASE WILL BE MANAGED CENTRALLY

One of the new features of SQL Server 2008 that is proving to be invaluable to small and mid-sized businesses is called Policy-Based Management. It is a feature that is available in both the Standard Edition as well as the Enterprise Edition and it enables the business to centrally create policies that manage all SQL Server 2008 database servers within the organization. This means, for example, that the business can create standard organization-wide policies for security. This helps in meeting compliance requirements and it prevents any unauthorized changes to the servers.

"Policy-Based Management is huge," says Allan Hirt, owner of Megahirtz, a database consulting company based in Boston. "It's compelling because it supports virtualization and consolidation. Things that support standardization in your business environment tend to be very beneficial."

In addition, Policy-Based Management simplifies management of the corporate database. "The administration is different," says Fritchey. "There are more tools and capabilities. You can monitor servers in a way that you could not before. I also like the Database Snapshot feature for production rollouts. It locks the state of the database and you can track any changes you make after that. We always run a Snapshot before we roll out a production server."

▶ REASON FIVE: IT'S GOOD TO BE CURRENT

As one SQL Server 2008 user put it: "It never hurts to have the current edition. This way, nobody can say you're behind." That may be true, but, in reality, the advantages of having the current edition go way beyond what looks

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good or what other people may say. There are significant product integration benefits to having the current edition of SQL Server if you are working with any other Microsoft product, such as Office, SharePoint or Windows Server 2008.

For example, Windows Server 2008 has Hyper V built into it for virtualization. "If you're upgrading to Windows Server 2008, it makes sense to upgrade to SQL Server 2008 as well," says Heiges. In its product literature, Microsoft makes a similar point: "SQL Server 2008 Reporting Services offers deep integration with Microsoft Office, SharePoint Server 2007 and Microsoft SharePoint Services – providing central delivery of management and enterprise reports and other business insights."

SQL Server 2008 and Windows Server 2008 are designed to work together for functions such as security, authentication, data protection, compliance, management and total cost of ownership.

Hirt, of Megahirtz, points to the support of Windows PowerShell on SQL Server 2008 as a compelling reason to think about making an upgrade. PowerShell is a scripting language that is common across all current Microsoft products. "This means you can have one common language to write all of your scripts in. That's a pretty compelling story," Hirt says. "PowerShell is very cool and it's so easy to use. To me, that's a pretty compelling reason to go to both versions, SQL Server 2008 and Windows Server 2008."

▶ REASON SIX: IF YOU STILL HAVE SQL SERVER 2000, WHAT ARE YOU WAITING FOR?

If your business is still running on SQL Server 2000, you are now officially running the risk of losing competitive advantage. Listen to the experts:

"Upgrading from 2000 is a no-brainer at this point," Hirt says. "SQL Server 2000 is out of support, which means they haven't implemented anything new in six or seven years. If you have 2000 you should upgrade to 2008 even if it's just for supportability."

"For any of my servers that are still on SQL Server 2000, I'm pushing for 2008 in a major way," says Fritchey. "The win here is beyond measure."

"If you're on SQL Server 2000, you really need to

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get to 2008," says Heiges. "That's really a no-brainer. SQL Server 2000 was a great platform, but 2005 and 2008 are just so much better. Plus, support for 2000 has been discontinued."

▶ REASON SEVEN: IF YOU HAVE SQL SERVER 2005, WHY WAIT AT ALL?

For those small and mid-sized businesses that have already made the move from SQL Server 2005 to SQL Server 2008, the process has been quite simple. "It's one of the easiest upgrades I've seen, perhaps because there are so few changes," says Fritchey. "They didn't make that many extensive changes to the low-level engine. Moving from 2005 to 2008 is pretty seamless."

Glenn Berry, database architect at NewsGator Technologies, agrees: "It's just not that big of a jump from 2005 to 2008." Also, says Allan Hirt: "If you're already on 2005, your team won't have to upgrade its database administrator skills. It's not that big a deal."

While the upgrade may be relatively minor, the benefits to making the move could be significant, depending upon the features your organization can use. "Some of the features, such as data compression and the Resource Governor, are compelling," Heiges says.

"If you're already on SQL Server 2005, your team won't have to upgrade its database administrator skills. Moving from 2005 to 2008 is pretty seamless."

In addition to those features, Policy-Based Management is another key advantage in upgrading. Then there are all the other aforementioned reasons – better performance, business intelligence, business continuity and tighter integration with other Microsoft products. Then there is the reality that sometimes change is inevitable.

"SQL Server 2005 at some point will not be supported," says Heiges. "So the sooner you get to 2008, the better." ▼