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ROI Evaluation Report Microsoft SQL Server 2000

THE BOTTOM LINE

Microsoft SQL Server 2000's tight integration with Windows Server, automated self tuning and management tools, and the wide availability of developers and compatible business applications can help small to medium-sized businesses achieve a positive ROI. Cost savings and returns compared with competing solutions will depend on an organization's current database environment, and the company's IT staff experience and skill level.

KEY RETURN AREAS

- Reduced ongoing cost of ownership
- Reduced design and development costs
- Faster time to market
- Increased IT and end-user productivity
- Reduced hardware, software, and maintenance costs

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As small and medium-sized businesses begin to implement sophisticated software applications that only a few years ago were reserved for very large companies, the importance of databases continues to grow. Regardless of a business' size, in order to run a wide variety of applications — including enterprise resource planning (ERP), customer relationship management (CRM), supply chain management, product lifecycle management, and even basic e-commerce — it is necessary to use a relational database. The challenge for small and medium-sized companies is to find a database system that can be deployed with minimal cost and without the need to hire costly database administrators.

Many smaller companies utilize flat file systems such as Microsoft Access, FileMaker Pro, or even Word or Excel for their database needs. While these solutions are acceptable for small-scale databases, growing companies may wish to consider a more capable relational database system that can easily scale as business — and the amount of data — expands. More sophisticated database systems from vendors such as Microsoft, Oracle, and IBM offer a range of features, including back up and recovery, greater performance and scalability, more flexibility, and a higher level of security.

Some modern database management systems are becoming easier and less expensive to acquire, implement, and manage. Smaller businesses will find that if they choose the proper software, they can deploy fairly sophisticated relational databases with a minimum of technical knowledge or database experience. However, not all database systems are created equal. Certain database systems, such as Oracle's and IBM's, are better suited for larger organizations with dedicated database administrators (DBAs). Other systems, such as Microsoft SQL Server 2000, feature a familiar point-and-click interface and a high level of automation that allow smaller companies to deploy them without additional staff.

Major benefits of a relational database system to a small or medium-sized business are its flexibility to run as the foundation of any business application and its ability to grow with the business. However, be sure to evaluate the cost to the IT department of that flexibility by examining how easy the software is to implement and manage on an ongoing basis.

Some of the important advantages of a relational database include:

- Scalability. In the world of databases, scalability refers to both the maximum database size and the performance levels users can expect when adding, changing, or querying the database. Companies with heavy usage will want the performance levels and flexibility that a relational database management system (RDBMS) provides.

- Data protection. Protecting critical business data is the cornerstone of an advanced database system. Database software like SQL Server 2000 features built-in automated backup and recovery tools to ensure that information is protected in case of a system failure.
- Security. Unlike flat file systems, RDBMSs allow companies to specify security policies at a granular level, right down to who can see which column of data and under what circumstances.
- Data analysis and business intelligence (BI). As companies grow, gaining knowledge from data becomes increasingly important. Only RDBMSs are powerful enough to allow sophisticated analysis services such as data warehousing and OLAP.

SQL Server 2000 is Microsoft's RDBMS with online transaction processing (OLTP) capabilities to support business applications, BI functionality including online analytical processing (OLAP) and data warehousing, mobile (PDA) support, integration through Web services, and escalation/notification services. It is available in several editions:

- Enterprise Editions. These are designed for high availability and performance with very large databases operating in mission critical environments.
- Standard Edition. This is aimed at small and medium-sized businesses, and at departments within larger companies. These organizations may not require the scalability and availability of the Enterprise Edition. The Standard Edition contains a subset of functionality in the Enterprise Edition and also includes Business Intelligence capabilities. It is offered as a lower price point and supports up to four processors.
- Specialized Editions. Microsoft also produces several editions of SQL Server for specific situations. Examples include SQL Server CE, designed for mobile devices, and SQL Server Desktop Engine (MSDE), which is designed primarily to provide a low-cost option for developers who need a database server that can be easily distributed and installed.

This report explores the costs and benefits associated with a Microsoft SQL Server 2000 deployment in a small to medium-sized business. The accompanying Nucleus Research financial modeling tool can be used to calculate the ROI, TCO, payback period, and risk of a SQL Server 2000 deployment in a specific user environment.

KEY BENEFIT AREAS

Nucleus Research has identified three key areas where Microsoft SQL Server can deliver better returns than an existing flat file system like Microsoft Access or other more complex databases:

- Reduced initial costs
- Reduced ongoing costs from improved technology management
- Increased returns from BI and analytics

IT decision makers who are evaluating SQL Server 2000 should enter specific calculations for the returns associated with each benefit into the accompanying financial modeling tool.

Reduced Initial Costs

Microsoft SQL Server 2000 can help companies achieve a positive ROI by cutting deployment costs and bringing enhanced business benefits to the IT department over those of an alternative system. Additionally, many companies running dispersed small-scale database solutions can realize cost savings simply by the server consolidation and resulting reduction in ongoing IT management needs that often accompanies a SQL Server implementation. Because SQL Server is part of the Windows Server System, companies can usually reduce the number of servers needed to run line-of-business (LOB) applications, helping to save hardware, server software, and ongoing maintenance costs.

On average, companies considering a relational database will find that initial deployment costs — which include software licenses, hardware, and personnel costs — for SQL Server are lower than for a similar solution from Oracle or IBM.

However, the increasing popularity of Linux brings an interesting element into the equation because open source databases are available free. Several SQL Server users noted that for small businesses running non-mission-critical applications, open source can be a low-cost alternative to SQL Server. Nucleus recommends that companies in that situation consider open source, but managers need to realize that the ROI impact of a lower initial acquisition cost can be offset by higher ongoing costs because of the technical staff needed to design, deploy, and troubleshoot open source systems. Also, many open source systems require fees for maintenance and support from open source vendors, and some licenses require fees to modify the source code. Finally, a limited number of developers, partners, and support resources for open source may create additional development expenses.

Nucleus Research analysts spoke with several users who were comparing SQL Server to MySQL. An IT manager at Doneckers, a Pennsylvania retail, food, and lodging complex, said that the major reason his company would not deploy mission critical data on open source was the lack of support compared with that for Microsoft SQL Server.

Companies considering RDBMS projects must take into account the costs associated with implementing the underlying servers as well. A large portion of the reduced acquisition costs associated with deploying SQL Server 2000 can be attributed to the low costs of the underlying OS it runs on: Windows 2000 or 2003. Hardware costs for Windows servers are constantly falling with relatively powerful servers designed for small businesses selling for less than \$1000.

For small businesses, Microsoft offers Small Business Server 2003 a specially designed product that includes Windows Server 2003, SQL Server 2000, and other server technologies such as Exchange 2003.

Lower deployment costs also hold true for the design and development of applications that run on top of SQL Server. Most organizations will find that the universe of developers who are well versed in programming applications for Windows servers and SQL Server is larger than that for competing databases from Oracle and IBM and that Microsoft's integrated development tools allow applications to be built without the need for dedicated database programmers. With tens of thousands of independent software vendors (ISVs) supporting SQL Server, this can lead to lower development costs and increased time to market compared with a competing database because Microsoft developers are plentiful and can be engaged for lower average costs.

Returns from lower deployment costs compared with competing databases include:

- Lower license costs
- Lower server software and hardware costs
- Lower training costs
- Lower IT personnel costs during deployment
- Lower developer hiring costs

Reduced Ongoing Costs from Improved Technology Management

Keeping a large database running optimally in a highly available environment can prove challenging with many database systems. SQL Server features automatic tuning and optimization routines that require little, if any, IT worker intervention, making the day-to-day tasks of maintaining the database less costly than with other systems. Moreover, because it features an interface familiar to IT workers experienced with Windows systems, most companies will find that they can assign workers with little specialized database experience to SQL Server management duties. Alternatively, organizations that are using flat file databases will find that the centralized management capabilities of SQL Server 2000 allow for greater control over all aspects of data management.

SQL Server's self-tuning and optimization routines help reduce the need for DBAs with specialized vendor-specific knowledge. Since database tuning is one of the most complex and time-consuming data administration tasks, SQL Server 2000's automated features can help increase IT worker productivity by allowing workers to focus on other issues and projects. Although it cannot necessarily be said that SQL Server "runs itself," most companies will find that once it is up and running, a SQL Server database requires a minimum of day-to-day maintenance and intervention.

Nucleus analysts spoke with several users who identified the ability to run SQL Server without dedicated DBAs as the

single most important benefit of the software. These companies were able to manage SQL Server without adding to their existing IT staffs.

An IT manager at Arnstein and Lehr, a Chicago-based national law firm, said that a major reason for the company to use SQL Server was that IT workers and consulting partners with Microsoft server experience can play the role of a DBA at lower costs than the dedicated DBAs who would be needed to run comparable systems.

The business systems manager at candy maker Jelly Belly said that managing SQL Server is simple enough that IT staff need only to check in on the system when they need to create new or alter existing databases. Otherwise, they said, SQL Server requires no additional ongoing performance tuning or optimization.

An IT director at Robert Mondavi, a major West Coast winery, said that managing SQL Server requires little, if any, day-to-day intervention, allowing him to focus instead on business needs, yet it provides the same level of performance as Oracle's solution. Several others noted no major challenges with the software, saying that it just "does its job," without workers needing to monitor the system on a regular basis.

SQL Server 2000 customers will also find that the software features a variety of query, view, and stored procedure creation tools. These tools range from point-and-click interfaces designed to allow end users to build simple queries to powerful SQL development environments for experienced DBAs. This level of flexibility allows companies to utilize IT workers with a range of skill levels to manage database queries and procedures.

Administering data access and security policies is also simplified through SQL Server's familiar interface for users with Windows experience. Administrators can create user groups and roles that are tailored to specific security policies. SQL Server allows a granular level of security, right down to column-level security. SQL Server security administrators are able to increase productivity, more so than with competing solutions, by quickly setting up complex security policies, using the software's roles and user groups functionality.

Reliability and Data Security

Increased stability features in the SQL Server 2000-Windows Server combination, including failover clustering capabilities, will help companies that are transitioning from a small-scale solution to increase their uptime. Companies can objectively measure uptime in a number of different ways, including recording minutes (or

hours) of downtime per month or recording the number of necessary server reboots.

Users who are migrating from small-scale solutions such as Microsoft Access or who are shopping against competing solutions will also see benefits from SQL Server's built-in backup and restore capabilities. Using these features, DBAs can schedule regular backups with a number of configuration options designed to maximize both uptime and continuous user access. SQL Server features a differential back option that quickly backs up only the database pages that have been changed since the last backup, thus reducing backup times and the resulting performance impact. This also allows DBAs to increase the number and frequency of backups to improve data security.

Robert Mondavi's IT director said that scalability with SQL Server is as simple as adding new hardware, without any need for further software tuning or optimization, making it a low-cost proposition to expand the use of SQL Server throughout the organization.

Interoperability

SQL Server 2000 offers integrated support for creating Web services from stored procedures or server-side XML templates. Built-in support for industry standards such as XML and SOAP reduce the time and effort required to develop and use Web services. Companies are able to leverage Web services as a foundation for integrating their business applications, helping to reduce integration costs.

Return areas from SQL Server's lower ongoing costs include:

- Increased IT and developer productivity
- Reduced downtime
- Increased end-user productivity
- Decreased integration costs

Increased Returns from Business Intelligence and Analytics

Database management systems are, of course, infrastructure technologies that support other applications providing business value. Though this report covers returns from only the database itself, SQL Server contains built-in BI and data mining features that can help businesses realize real value from their data almost immediately.

SQL Server 2000 helps users analyze data through a BI platform that automates the process of creating online and paper-based reports. Chief among SQL Server's BI features is OLAP, otherwise known as Analysis Services, which allows users to build reports analyzing large amounts of customer or other types of data. Such analysis can lead to unpredicted insights into areas such as customer profitability, supply chain metrics, and hidden business

opportunities. Additionally, through a feature called OLAP Actions, companies can link data analysis to certain business processes, such as low inventory levels triggering a parts order.

The value of the reports from the data mining function is critical to achieving positive returns from an analytic application. Unlike other tools such as Oracle's, whose data mining capabilities need to be separately licensed, SQL Server includes data mining functionality. Improved access to critical business data locked into enterprise applications can enable employees to pinpoint delinquencies in performance or profitability and implement corrective changes, which lead to cost reductions as well as increases in profits. The savings from improved information access will be greater for companies with high-volume processes. Management decisions that cause even minor improvements in a single business process can have a significant impact on the working capital and the size of revenues.

For a more detailed analysis of the returns from SQL Server 2000's business intelligence capabilities, see Nucleus Evaluation Report D14: *Microsoft Business Intelligence*.

Return areas for SQL Server's BI and data warehousing features include:

- Reduced or managed time to market
- Reduced logistics costs
- Reduced product rework
- Profit on increased revenue
- Reduced customer care costs
- Increased customer retention
- Reduced administrative overhead
- Improved working capital
- Improved inventory management

KEY COST AREAS

Deploying SQL Server 2000 entails a number of one-time and ongoing costs that organizations need to consider when evaluating the potential impact of an investment. Specific calculations for the expenses associated with each cost area should be entered into the financial modeling tool associated with this report. IT buyers should note that each company's costs will depend on negotiated prices; review teams should not rely on list prices when calculating the estimated financial impact of a project.

Software

Companies deploying SQL Server 2000 will need to consider the combined cost of SQL Server licenses, optional client access licenses (CALs), and licenses for supporting server software.

Microsoft offers three types of licensing schemes for SQL Server 2000: processor licenses, server plus device CALs, and server plus user CALs. Each license is tailored to a specific environment type,

so companies will need to carefully evaluate both current and future usage plans. The license types are described below:

- Processor license. The most straightforward of the license types, the processor license is ideal for companies that will have large numbers of users accessing the database. With this type, customers pay a flat fee per processor.
- Server plus device CALs. When a relatively small number of devices inside the firewall will be accessing the database, the server plus device CALs license type is best. A device is defined as a PC, laptop, PDA, or mobile phone.
- Server plus user CALs. This license type is best for companies with a relatively small number of users who access the database using multiple devices.

In addition to choosing a licensing scheme, customers need to select a version of SQL Server 2000 to purchase. The different editions of SQL Server are described in the introduction of this report.

Finally, SQL Server must be run on a Windows Server platform, so the cost of that software must be taken into account as well. In cases where a company's investment in Windows Server 2000 or 2003 is driven in part by other projects, only an appropriate fraction of the additional software should be figured into the ROI calculations. If Windows Server has already been purchased for other purposes, the cost should be omitted altogether, though most companies typically run SQL Server on a standalone Windows server.

Hardware

The number of CPUs and physical servers needed to support a SQL Server 2000 deployment will depend on the number of users, performance and uptime goals, and the type of hardware chosen to support the database.

At the very least, it will be necessary to purchase a basic Windows server to run SQL Server on. All organizations, no matter how small, should also strongly consider a hardware backup system, such as a tape drive, to ensure the preservation of critical data. As databases grow larger and more complex, hardware requirements can escalate from there. Companies with large, mission-critical databases that are accessed by many users must consider investments in multiple-CPU servers, failover clustering systems, backup and replication systems, and storage area network (SAN) devices.

For organizations evaluating which hardware investments to enter into the ROI workbook, it is important to consider all of the hardware that will support SQL Server as well as any additional hardware necessary to run applications built to access the database. Organizations that are able to use hardware already on hand or those that will reduce their total number of servers through

a SQL Server deployment should not enter any costs into the hardware section of the accompanying ROI tool.

Consulting

An organization's spending on consulting will depend on the deployment scenario, the level of internal expertise, and regional variations in consultants' hourly rates. In most cases, consulting engagements should be less extensive than for competing products because Microsoft-skilled IT workers are available at lower costs and because SQL Server 2000 can be installed with relative ease. However, because consulting has the potential to become a substantial portion of the total budget, decision makers should not make a purchase decision until they have gathered firm estimates from at least two potential contractors.

Personnel

In addition to the IT staff time devoted to deployment, SQL Server 2000 — like any other database — will require an ongoing administrative commitment. The exact commitment will depend most on the size and complexity of the databases as well as the number of users accessing the information contained therein. As noted several times in this report, SQL Server features a number of automated self-tuning capabilities that can help companies forgo the need to hire dedicated DBAs. Nevertheless, companies considering an investment in SQL Server should carefully evaluate how complex they expect their databases to be when they are predicting DBA personnel costs.

Training

How much training IT personnel and DBAs will potentially need depends largely on two factors: how much general database programming and administration experience they have and how much Microsoft-specific database experience they have. Though SQL is the semi-standard language of all databases and though users of one database system can often transfer their skills to another, each vendor's system has its own quirks and customized features. Thus, IT personnel with database experience on systems other than Microsoft SQL Server will require less training than those with no database experience whatsoever but more than those with Microsoft-centric knowledge. As mentioned earlier, DBAs with Microsoft experience are plentiful, and hiring experienced, certified SQL Server programmers and managers should not pose a major challenge.

Companies that plan to develop applications in-house need to also consider the training costs associated with a database system's development environment. Managers should consider the cost of hiring developers with database-specific development experience. As noted earlier, SQL Server applications can often be developed by programmers with more generalized Microsoft experience.

DEPLOYMENT STRATEGIES

The method for deploying SQL Server will vary from company to company, depending on current environment and future requirements. When considering a SQL Server deployment, companies need to carefully plan out a deployment strategy specific to their needs and then evaluate costs associated with that strategy.

New Installation

Without a need to migrate existing data, small companies may plan a SQL Server project thinking that a fresh installation can be undertaken fairly quickly. However, database projects created from scratch can greatly benefit from careful planning and strategizing before installation. If the organization does not employ experienced DBAs, it should consider hiring some or engaging consulting services to map out business processes, create underlying data structures, and program the database. Before moving forward with a SQL Server project, companies need to evaluate the potential cost of hiring DBAs or, at the very least, programmers to get the database up and running. The included ROI tool includes features to facilitate these calculations.

Upgrading from Flat File Database

Small companies that are upgrading from a flat file database such as Microsoft Access will need to put varying levels of effort into deployment, depending on the nature of their current systems and their current investment in a Microsoft-centric infrastructure. SQL Server 2000 can facilitate the process of transferring data from a host of flat file databases to SQL Server. Nevertheless, this is not a process to be taken lightly. IT administrators need to thoroughly plan out a migration strategy before moving mission-critical data, being particularly careful to evaluate how data types will translate from their original system to SQL Server.

The time and effort required to migrate to SQL Server can have a significant impact on a project's ROI, so it is important to estimate the internal personnel commitment as well as any consulting services that will be needed. The accompanying ROI tool allows these estimations to be entered into the ROI equation.

Switching from IBM DB2 Express, Oracle, or Open Source

Many of the same issues discussed in the previous subsection about migrating from flat file systems apply here as well. In addition, however, companies migrating from a full-fledged RDBMS such as IBM DB2 Express or Oracle will also need to consider how to migrate objects such as stored procedures, indexes, and optimized queries. Again, the potential cost of the internal and external resources needed to conduct a migration must be calculated by an organization evaluating ROI.

CONCLUSION

Microsoft SQL Server 2000 enables small to medium-sized business to realize a positive ROI because of its lower deployment costs, improved technology management, and potential to deliver increased returns from BI. Unlike database management systems of the past, SQL Server is relatively easy to deploy and use, even for smaller organizations without dedicated database developers and managers.

Organizations of all kinds considering an investment in SQL Server 2000 should use the associated financial modeling tool to quantify the potential costs and returns from a deployment in their environment.

APPENDIX: CASE STUDIES

Arnstein & Lehr LLP

In early 2003, Chicago law firm Arnstein & Lehr LLP was considering upgrading its document management (DM) system along with the SQL Server 7 database it was running on. Acting partially on advice from the company's DM software vendor, Arnstein's managers decided to upgrade the company's database to SQL Server 2000.

Arnstein made the upgrade decision for a number of reasons. First, SQL Server 2000 was the only database that enabled the most up-to-date and advanced features of the DM system. Second, Arnstein's IT staff was familiar with the previous version of SQL Server and knew that the fastest way to a positive ROI on an upgrade would be to utilize their existing knowledge. Finally, the IT managers were aware of SQL Server 2000's enhanced stability and automated management features that would help make the new system run without the need to hire or train additional staff.

In order to make the upgrade process as smooth as possible, Arnstein brought in an outside consulting firm to manage the transition, which took less than a week. All of the existing DM data, along with information from the firm's proprietary attorney evaluation system, was transferred over to the new SQL Server 2000 system without incident.

With business-critical legal data stored in SQL Server, Arnstein cannot afford any system crashes. With the upgraded system in place for the past year, Arnstein's IT managers have found that SQL Server is meeting the firm's stringent reliability and scalability requirements.

For Arnstein, another SQL Server 2000's feature that is helping the firm reach a positive ROI is its ease of manageability. Because the system requires little day-to-day intervention, Arnstein is able to expand its reliance on SQL Server 2000 without hiring additional IT staff to manage it. Arnstein's IT managers report that managing SQL Server 2000 is a problem-free experience and one that helps the firm reach payback as quickly as possible.

Doneckers

Several years ago, Doneckers, a retail and restaurant complex outside Philadelphia, was using Microsoft Access as the back-end database for its Web applications. As the company grew in both sales and technological sophistication, it became clear that a more scalable and higher-performing database would be necessary for the company to implement advanced retail and CRM applications. Specifically, Doneckers' IT managers were looking for a system that wouldn't require extensive coding for Web access and that would be highly secure. They also wanted a database that would require minimal day-to-day intervention by the IT staff.

Doneckers deployed Microsoft SQL Server 2000 as part of a larger Microsoft back-office software project. The company then used SQL Server as the back-end database for its new MarketWorks CRM system and as the cornerstone of its Web applications for sales reporting, inventory, and performance measurement.

Doneckers reports that its IT employees spend only a small amount of their time managing the database, helping the company quickly reach a positive ROI. Essentially, the IT employees need to directly manage the database only when the company adds new programs or creates new databases. Doneckers does not employ a full-time DBA for its SQL Server databases.

Doneckers' IT department also reports an increase in uptime since the upgrade to SQL Server, with no crashes since the database went online.

Jelly Belly

In late 2001, executives at the Jelly Belly candy company set out to update the company's data warehouse and BI capabilities. For sales reporting, the company was using a customized Web application built on a flat file transactional database. Though the system was easy to use, it was inflexible and did not allow advanced users to create customized reports. Because the reports were hard-coded into the system by an outside consulting team, Jelly Belly's IT staff was unable to change the system to meet the company's growing need for sophisticated reporting capabilities.

Jelly Belly's IT managers knew that the company would need a more advanced relational database system to meet the project's goals. Jelly Belly chose Microsoft SQL Server 2000 for a number of reasons. First were the strength of Microsoft's partners and the ecosystem of developers available to customize SQL Server's reporting capabilities. Second, Microsoft was able to offer Jelly Belly a lower license cost than Oracle could. And finally, Jelly Belly chose Microsoft because of its existing in-house SQL Server experience and because the IT managers felt that integrating SQL Server with Jelly Belly's existing Microsoft systems, including Microsoft Office, would lead to lower ongoing costs than with Oracle.

With the system in full production for over 18 months, Jelly Belly is seeing a number of benefits. End users are accessing SQL Server through Microsoft Access and Excel using OLAP cubes and are able to create highly customized reports to fit their specific needs. Because end users are now empowered to create reports on their own, the company is realizing returns in several areas:

- Reduced support costs. The IT department has seen a 40 percent reduction in support calls from users who needed customized reports. This has allowed the IT department to reassign 0.5 full-time equivalent (FTE) who had previously been working on developing reports.

- Reduced printing and delivery costs. Before using SQL Server, the IT department printed 11 six-inch-thick sales reports each month. Most of that printing has been eliminated, reducing the cost of paper and shipping. The new system also reduced what had been a two-day job for one FTE to a half-day job.
- Increased administrative productivity. Jelly Belly's power users are members of the administrative staff who create reports for executives. The new system allows them to increase productivity because they are able to more quickly generate reports and find the right information at the right time.
- Reduced DBA costs. Because of SQL Server's automated management features, Jelly Belly is able to run the system without a dedicated DBA.

Robert Mondavi

California winemaker Robert Mondavi has been using Microsoft SQL Server in various capacities for over seven years. Today, Mondavi is using SQL Server 2000 for a wide range of applications, including its Web applications and some legacy client/server applications. According to Mondavi's IT manager, all employees access SQL Server, whether they know it or not.

This highlights one of the major benefits of SQL Server: its transparency. Mondavi's IT manager indicates that even though the company runs a large number of SQL Server databases across a wide variety of applications, it does not need a dedicated DBA to manage the database system. This helps lead to a positive ROI because competing solutions would require a dedicated employee to manage the database. Thus, one of the major reasons Mondavi has stuck with SQL Server through the years is its easy manageability with performance levels that rival Oracle's.

Mondavi has also found that other management issues are easier with SQL Server, again helping lead to a positive ROI. As the company has grown, Mondavi's IT managers have been able to scale up the company's databases without a need to reoptimize the database. The company has simply needed to add server hardware without having to dedicate staff to altering the databases themselves.

Mondavi's IT staff are also able to remain more productive because of SQL Server's integration with Active Directory, which allows them to easily add and change user roles in a secure manner. Companies with Microsoft infrastructures can more quickly reach a positive ROI with SQL Server because it works hand in hand with the rest of the Microsoft Server family of products.

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