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Optimal and Enterprise Ready: SQL Server 2008 with JD Edwards, PeopleSoft, and Siebel

**SQL Server Technical Article**

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**Introduction**: This white paper describes why Microsoft® SQL Server® is the optimal data platform to use with JD Edwards, PeopleSoft, and Siebel applications that run on the Microsoft® platform. The paper describes the new and enhanced features of SQL Server 2008 that enable Oracle application customers to reduce cost, optimize performance, improve availability and reliability, and simplify data management and security. It is assumed that the reader has a working knowledge of these Oracle applications and Microsoft SQL Server concepts and features.

**For the latest information**: See [Microsoft SQL Server 2008](http://www.microsoft.com/sqlserver/2008/en/us/default.aspx)

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# Executive Summary

As Oracle has released new versions of the JD Edwards, PeopleSoft, and Siebel business applications, many Oracle customers are evaluating their strategy for upgrading to these applications, and the future investment in maintaining their enabling technologies. Customers want to ensure that Oracle applications will enable their company to achieve a competitive advantage, improve business agility, and enable innovation.

For Oracle applications that run on the Microsoft® platform, customers want assurance that Microsoft Application Platform enabling technologies including Microsoft® SQL Server® are reliable, secure, manageable, economical, and fully integrate with Oracle applications.[[1]](#footnote-2)

In this regard, Microsoft is working with Oracle Corporation through its Applications Unlimited plan[[2]](#footnote-3) to ensure that SQL Server 2008 and Microsoft® Windows Server® 2008 are certified and fully compatible with the latest versions of the JD Edwards, PeopleSoft, and Siebel applications.[[3]](#footnote-4) In particular, this certification ensures that earlier versions of SQL Server can be easily upgraded to SQL Server 2008.

Table 1 shows the Oracle application versions that are certified with Microsoft SQL Server 2008.[[4]](#footnote-5)

|  |  |
| --- | --- |
| **Oracle application** | **SQL Server 2008 Oracle application versions** |
| JD Edwards EnterpriseOne | EnterpriseOne Tools version 8.98.1 |
| PeopleSoft Enterprise | PeopleSoft Enterprise applications versions 8.9, 9.0, and above  PeopleTools versions 8.49.13, 8.50, and above |
| Siebel | Siebel versions 7.8, 8.0, and 8.1 |

Table 1 SQL Server 2008 − Supported Oracle Applications

SQL Server 2008 is the optimal data platform for Oracle applications that run on Microsoft. It is an enterprise-ready data management and analysis platform that provides Oracle applications with the highest levels of scalability, reliability, and security. SQL Server 2008 supports large-scale Independent Software Vendor (ISV) applications, provides enhanced performance[[5]](#footnote-6), and takes full advantage of the latest hardware and software architectures.

SQL Server 2008 contains a compelling set of new features and capabilities that make it ideal for an enterprise environment. By upgrading from SQL Server 2000 or 2005 to SQL Server 2008, Oracle applications customers can receive many immediate business and technical benefits, without the need to make application changes.

SQL Server 2008 advanced features such as data compression and backup compression enable it to provide a strong, economical data platform for Oracle’s applications. For example, Table 2 below shows recent Microsoft data compression testing results.[[6]](#footnote-7)

|  |  |  |
| --- | --- | --- |
| **Compression type** | **Oracle application** | **Disk savings** |
| row | Siebel CRM application | 45 percent |
| row | JDE customer workload | 69 percent |
| row | Siebel Analytics | 48 percent |
| page | Siebel Analytics | 66 percent |

Table 2 Data Compression with Oracle Applications

Table 3 shows recent Microsoft backup compression testing results.[[7]](#footnote-8)

|  |  |  |  |
| --- | --- | --- | --- |
| **Oracle application** | **Compression ratio** | **Backup time reduction** | **Restore time improvement** |
| PeopleSoft applications | 1:10 | 50 percent | 20 to 30 percent |

Table 3 Backup Compression with Oracle Applications

SQL Server 2008 has excellent value and a lower total cost of ownership (TCO) as compared to competitor platforms. Many of the features that are simply included within SQL Server 2008 must be purchased as separate third-party products, or as add-ons in competitor platforms.

# What is New in SQL Server 2008

SQL Server 2008 contains many new and enhanced features including easy to use, self-tuning features that simplify data management, advanced database features that optimize performance, and high availability features that improve availability and reliability as described below.

**Easy to use, self-tuning features**

These features are used to simplify and centralize the management of SQL Server instances across the enterprise, dramatically reducing administration efforts. They include:

* **Policy-based management (new)**. Monitors system activity and enforces policy compliance consistently across the enterprise.
* **Management data warehouse (new)**. This centralized repository simplifies the management of performance data uploaded through the data collector including disk usage, query statistics, and server activity data.
* **Dynamic Management Views (DMVs) (enhanced)**. New DMVs and extensions of existing views expose additional information about SQL Server internals including database mirroring sessions.

**Advanced database features**

SQL Server 2008 advanced database features include:

* **Data compression (new)**. Reduces storage requirements, which significantly reduces costs and improves performance for large I/O bound workloads.
* **Backup compression (new)**. This new feature accelerates the backup procedure and significantly reduces the storage required to keep backups online. Backups run significantly faster since disk I/O is reduced.
* **Transparent Data Encryption (TDE) (new)**. Encrypts sensitive data stored on physical media without requiring applications to be rewritten or updated.
* **Data collector and management data warehouse (new)**. Simplifies performance data collection and management and provides tools for monitoring and reporting.
* **Plan freezing (new)**. Provides greater query performance stability and predictability by locking down query plans.
* **Resource governor (new)**. Manages workload resource utilization and performance for database applications by differentiating concurrent workloads.

**High availability features**

These features increase data protection in the event of a backup media failure, improve performance, and provide enhanced supportability in high availability environments. They include:

* **Database mirroring (enhanced)**. Contains additional database mirroring features, such as functionality that compresses the outgoing log stream to the mirror server to leverage network bandwidth more efficiently, in addition to other enhancements such as new DMVs and extensions of existing views.
* **Failover clustering (enhanced)**. SQL Server 2008, in conjunction with Windows Server 2008, enables failover clustering that provides for high availability in the event of an application failure, hardware failure, or operating system error.

# Microsoft and Oracle Applications Partnership

Through its Applications Unlimited plan, Oracle is enhancing and extending its support for the current and future releases of the JD Edwards, PeopleSoft, and Siebel applications and their enabling technologies including the Microsoft platform. Microsoft is working closely with Oracle to ensure that SQL Server and Microsoft Windows Server are certified and fully compatible with the latest versions of these Oracle applications. This certification ensures that earlier versions of SQL Server can be easily upgraded to SQL Server 2008 in support of these applications.

# SQL Server 2008 and Oracle Applications

For many customers, the primary challenge is how to manage Oracle applications more efficiently, and how to reduce costs through automation. SQL Server 2008 has a lower TCO than competitor platforms. It enables Oracle applications to run better and it reduces the amount of time needed to manage them. By leveraging the Microsoft platform, SQL Server 2008 enables customers to do more, with less.

In addition, the Microsoft Application Platform enables Oracle application customers to benefit from the close integration of Microsoft applications, development tools, and server infrastructure. Together, the integrated capabilities of the Microsoft Application Platform result in a more dynamic IT environment.

Another key challenge for Oracle application customers involves upgrading from instances of SQL Server 2000 or SQL Server 2005 to SQL Server 2008. In order to support this effort, SQL Server 2008 contains features that simplify upgrading such as the Upgrade Advisor tool that analyzes instances of earlier versions of SQL Server to identify known upgrade issues. Microsoft also provides a best practices roadmap to assist Oracle customers to successfully upgrade to SQL Server 2008.

# Enterprise-Ready and Scalable for Oracle Applications

“*SQL Server 2008 offers a robust, scalable, and secure database platform to support critical business applications. Large multi-terabyte databases with SQL Server have become common for both transactional applications and data warehouses, as enterprises build larger and complex databases.” [[8]](#footnote-9)*

Noel Yuhanna, Research Senior Analyst, Forrester Research

SQL Server 2008 provides the highest levels of performance, scalability, reliability, and security to JD Edwards, PeopleSoft, and Siebel business applications.[[9]](#footnote-10) SQL Server 2008 supports large scale ISV applications and it delivers enhanced performance as compared to competitor platforms. It scales to some of the world’s largest workloads, as evidenced by strong industry standard benchmark results.[[10]](#footnote-11)

SQL Server 2008 builds on the advancements in SQL Server 2005. It contains many new features and enhanced functionality that fully optimize the power of the underlying database for large scale Oracle applications, while keeping their code database agnostic. This includes ease of use and self-tuning features, advanced database features, and high availability features, as described below.

SQL Server 2008 security features meet stringent Oracle application security requirements for protecting data and network resources. Its customizable security architecture provides full event handling, secure storage, transparent data encryption, consolidated enterprise encryption, and security key management.

In addition, the SQL Server 2008 Enterprise Edition 64-bit platforms (x64 and IA64) are available for large scale Oracle applications. For example, Siebel Customer Relationship Management (CRM) consists of a complex workload that demands a sophisticated query processing database engine. Siebel workload tests on SQL Server 2008 proved that SQL Server can take full advantage of the newest hardware and software architectures.

In fact, the benchmarks for Siebel on SQL Server demonstrate the scalability of the Microsoft platform. Siebel supports both the 32-bit and 64-bit Microsoft platforms. When Siebel 8.0 runs the 64-bit edition of SQL Server 2008 as the data platform with Windows Server 2008, it offers superior performance at a compelling TCO.

For more information, see:

<http://www.oracle.com/apps_benchmark/doc/hp-siebel8-12000-pspp-on-windows-white-paper.pdf>

# Ease of Use and Self-Tuning Features

“*Microsoft’s latest version of SQL Server delivers greatly improved manageability, business intelligence, security, integration, and availability, making database administrators (DBAs) more productive and databases more optimized.”[[11]](#footnote-12)*

Noel Yuhanna, Research Senior Analyst, Forrester Research

SQL Server 2008 provides features that can dramatically reduce administration efforts. SQL Server 2008 separates the installation of the hardware from the installation, setup, and configuration of the SQL Server software, thereby enabling organizations and software partners to provide specific installation configurations. This makes it easy to deploy and manage Oracle applications.

These ease of use and self-tuning features include:

* **Policy-based management**. Automated, policy-based management can efficiently manage multiple SQL Server instances from a single location. It is used to monitor system activity and prevent system changes that violate application best practices and IT business rules. In addition, policy-based management reduces the TCO by simplifying administration tasks.

For example, customers can use SQL Server 2008 policy-based management to develop best practices or configuration guidelines for specific Oracle applications to assist in managing their deployment. Customers can validate and control policies across hundreds of servers. For example, it can be used to ensure that all Siebel CRM database servers follow best practices to have the maximum degree of parallelism set to one.

For policy-based management, SQL Server policy administrators use SQL Server Management Studio to create policies that manage entities on the server, such as the instance of SQL Server, databases, and other SQL Server objects.

* **Management data warehouse**. This is a centralized repository that is used to simplify the management of performance data uploaded through the data collector including disk usage, query statistics, and server activity data. The data warehouse is a relational database that manages the data collection by setting retention periods for the different collection sets as defined by the data administrator. See the Data Collector and Management Data Warehouse section below for more information.

The management data warehouse enables the performance data collection to be easily configured and reviewed in one place in SQL Server Management Studio (SSMS) or by using third party tools.

* **Dynamic Management Views (DMVs)**. New Dynamic Management Views and extensions of existing views expose additional information about SQL Server internals including database mirroring sessions.

# Advanced Database Features

The SQL Server 2008 advanced database features include:

* Database compression
* Backup compression
* Transparent data encryption
* Data collector and management data warehouse
* Plan freezing
* Resource governor

Each of these features is described in the following sections of this paper.

## Data Compression

SQL Server 2008 data compression is used to store data more efficiently, reduce storage requirements, and reduce the cost of storage. It provides significant performance improvements for large I/O bound workloads. Data compression selectively compresses tables, table partitions, and indexes, resulting in a smaller on-disk footprint, smaller memory working set size, and reduced I/O.

A recent Forrester study concluded that data compression can decrease IT storage needs by an average of 50 percent.[[12]](#footnote-13)

For example, data compression can significantly reduce the on-disk footprint for these Oracle applications tables:

* JD Edwards tables such as F0911 and F4111
* PeopleSoft tables such as PS\_JRNL\_LN and PS\_LEDGER
* Siebel Analytics tables

Data compression is fully controlled at the database level and it does not require application changes.

SQL Server 2008 provides two methods of data compression including row compression and page level dictionary compression as described below:

* **Row compression**. This feature compresses the individual columns of a table. It results in lower overhead on application throughput by providing large space savings.
* **Page compression**. This feature compresses data pages using row, prefix, and dictionary compression. Page compression can provide larger space savings, but it can have higher impact on application throughput and processor utilization.

Both row and page compression can be applied to a table or index in an online mode without any interruption to application availability. However, the partitions of a partitioned table cannot be compressed or uncompressed online.

For Oracle applications, the general recommendation is use row compression for an online transaction processing (OLTP) workload such as Siebel CRM, and use page compression for a data warehousing workload such as Siebel analytics.

SQL Server 2008 data compression delivers significant compression ratio and query performance improvements. Data compression savings is highly dependent on the type and size of the workload being compressed and the actual results can vary. The savings is also dependent on the type of hardware used in testing and production.

For example, recent Microsoft testing using row compression with the Siebel CRM application revealed a 45 percent savings in the on-disk footprint. In addition, testing using row compression with a selected JDE customer workload showed a 69 percent savings in the on-disk footprint. For Siebel Analytics, testing using row compression showed a 48 percent savings and with page compression it showed a 66 percent reduction.[[13]](#footnote-14)

The SQL Server 2008 sp\_estimate\_data\_compression\_savings system stored procedure can be used to determine the current size of tables and to estimate the table size for the requested compression state.

## Backup Compression

SQL Server 2008 backup compression speeds up the backup procedure and reduces the amount of storage required to keep backups online. In addition, backups run significantly faster since disk I/O is reduced.

For example, recent Microsoft testing with PeopleSoft applications showed a 1:10 compression ratio, a reduction in the backup time by 50 percent, and improvements in the restore time by 20 to 30 percent.[[14]](#footnote-15)

Backup compression backs up the data within the database only. With backup compression, the backup file is compressed as it is written out. It utilizes less network bandwidth for backups that are written to a remote server. However, the additional processing for data compression results in higher processor utilization.

Backup compression is provided with SQL Server 2008 as a standard feature. It does not require Oracle customers to purchase third party backup software.

Backup compression is available for all types of SQL Server backups triggered by the native T-SQL backup command, and for all third party vendors that provide backup software for SQL Server 2008.

## Transparent Data Encryption

SQL Server 2008 transparent data encryption (TDE) enables organizations to meet the demands of regulatory compliance and data privacy. TDE automatically encrypts sensitive data stored on physical media such as backups on tape or disk, without requiring applications to be re-written or updated.

TDE enables the encryption of an entire application database, and the data stored in data and log files (.mdf, .ndf, and .ldf files). It can be used to encrypt a database backup, even backups that are already encrypted. For example, when mobile users carry a copy of a database backup or have a database resident on their laptop, TDE can be used encrypt the database to protect the data from being stolen or lost, and to prevent it from being breached or copied.

Encrypting a database is a one-time process that can be initiated through a T-SQL command. It is executed as a background thread. TDE performs encryption and decryption using a database encryption key (DEK) and it protects the keys that are used to encrypt the data with a certificate.

TDE entails a performance impact during the initial encryption of a database which can be performed online or offline, and during encryption and decryption operations. The overhead of using TDE is dictated largely by the application workload.

With TDE, data is encrypted on disk, and it is decrypted when it is read in memory. Since the data is unencrypted in memory, TDE is completely transparent to the application.

From the application perspective, operations such as search and data manipulation are the same.

## Data Collector and Management Data Warehouse

Troubleshooting, tuning, and monitoring SQL Server 2008 instances across the enterprise are time consuming tasks for the database administrator. The SQL Server 2008 data collection platform simplifies performance data collection and management, and provides tools for monitoring and reporting.

As a core component of this platform, data collector provides a convenient way to collect, assimilate, store, and view performance data automatically. The data collector:

* Defines what data is collected and organizes the collection into collection sets.
* Starts, stops, and manipulates collection sets programmatically.
* Defines where the data is stored in a relational database.
* Views data through reports in SQL Server Management Studio.
* Provides a platform for plugging in more data collectors in the future.

Data collector collects different sets of data from multiple sources in SQL Server and Windows Server such as DMVs, Perfmon, T-SQL queries, and so on. Data collector is fully extensible to any measurable attribute of an application. For example, Oracle customers can configure a custom collection set to provide data for specific Oracle applications.

A collection set is run either in non-cached mode or cached mode. In non-cached mode, data collection and upload are performed on the same schedule. In cached mode, data collection and upload are on different schedules.

The data collector stores and manages the performance data collection using the management data warehouse. See the Ease of Use and Self-Tuning Features section for more information.

The data collector contains a reporting tool that provides built-in performance analysis reports. This tool generates historical reports for each of the system data collection sets including disk usage, query statistics, and server activity data that show SQL Server processing over the data collection period. These reports provide access to the details of a particular query or operation to enable DBAs to review, detect, and resolve performance issues.

In addition, the reporting tool can also be used to create custom reports. Collection set reports can be viewed and analyzed in SQL Server Management Studio or by using third party tools.

For example, performance data can be used to conduct a historical analysis of application performance issues. Trending can be used to compare the current situation with a good baseline or to plan future growth by analyzing trends over a predictable period such three months, six months, or one year.

## Plan Freezing

SQL Server 2008 plan freezing provides greater query performance stability and predictability by locking down query plans. It enables organizations to promote stable query plans across hardware server replacements, server upgrades, and production deployments. Plan freezing can optimize query performance, copy query plans between servers, and prevent the plan cache from growing excessively with large compiled plans that are not reused.

For example, when Oracle application queries are dynamically created by the application and there are performance issues, the database administrator cannot make changes to the queries or influence their construction or execution. In this case, plan freezing gives the database administrator more control over query execution, without requiring application changes. Plan freezing can be used with dynamic SQL.

In addition, plan freezing allows a database administrator to perform more extensive query tuning in a test environment, prior to moving the execution plan into production. The administrator can also determine the effect the query will have on performance before it is deployed to production.

In SQL Server 2008, plan freezing creates plan guides easily by referencing the plan in the plan cache. SQL Server 2008 also provides improved support for plan guides to cover all DML statements such as INSERT, UPDATE, DELETE, and MERGE.

## Resource Governor

In SQL Server 2008, the resource governor manages workload resource utilization. It provides consistent performance by allocating resource limits and priorities to differentiate concurrent workloads. For example, the resource governor can be used to manage the utilization of resources, such as when an online user workload is running concurrently with a batch workload. In this case, the resource governor can be used to allocate more resources and give priority to the online user workload during the day, and then to the batch processing workload during the night, when fewer online users are active.

For the following Oracle applications, the resource governor can be used to:

* JD Edwards: Effectively manage system resources between the JD Edwards Universal Batch Engine (UBE) workload and an online interactive user workload. This effort can be accomplished by database users or by the host name depending on the customer’s setup and preference.
* PeopleSoft: Separate the heavy duty, more complex PeopleSoft workloads such as nVision, PS\_Query, and so on, from the high priority, light weight online workload.
* Siebel: Effectively manage system resources between batch workloads such as EIM and an online user workload such as Call Center.

Resource governor allocates resources by specifying limits on resource consumption from incoming requests such as to prevent runaway queries. It can adjust the workload resource allowance for different hours of the day according to business requirements.

Resource governor can also set priorities for key workloads to ensure that critical database workloads are not adversely affected by other database activity. The allocation of the workload to a resource pool is configurable at the connection level and the process is completely transparent to the application.

## Other Advanced Database Features

SQL Server 2008 contains many other advanced features including:

* **Auditing**. SQL Server audit enables DBAs to meet regulatory compliance and internal auditing requirements, to manage security risks, and for troubleshooting. This auditing feature is used to enable, store, and view audits of an instance of SQL Server and/or a SQL Server database, and its components. It provides a simple, automated way to monitor and log system events including logons, password changes, data access and modification, and many others. The audits can be saved to a file, or to Windows Security or Application logs for later analysis and archiving.
* **xEvents**. SQL Server xEvents (extended events) is a general event handling system for server systems. The xEvents infrastructure supports the correlation of data from SQL Server, and under certain conditions, the correlation of data from the operating system and database applications. In the latter case, xEvents output must be directed to Event Tracing for Windows (ETW) in order to correlate the event data with the operating system or the application event data.
* **Online data reorganization**. Online index maintenance and online BLOB/CLOB reorganization can eliminate the need for data reorganization activities that require application downtime. SQL Server 2008 online data reorganization enhances the existing online functionality, which combines the content of thinly populated database pages after activities such as Oracle application archiving. Free-space administration requires very low maintenance.

# High Availability Features

SQL Server 2008 high availability features increase data protection in the event of a backup media failure, improve performance, and provide enhanced supportability in high availability environments, all at a lower cost. These high availability features include database mirroring, failover clustering, log shipping, and replication.

These features are complementary and Oracle customers can use them in combination as needed to achieve the best result, depending on the Oracle application and its deployment.

For more information, see:

<http://www.microsoft.com/sqlserver/2008/en/us/high-availability.aspx>

## Database Mirroring

SQL Server database mirroring enables a concurrent backup of a database or its transaction log records to be transferred directly from the server to one or more standby servers. This provides for quick, automated failover in the event of an outage of the storage backend. It resolves the issue of the disk backend being a single point of failure.

In SQL Server 2008, enhanced database mirroring improves performance by compressing the outgoing log stream that is sent to the mirror server in order to use network bandwidth more efficiently.

SQL Server 2008 also provides self-healing functionality, in combination with synchronous database mirroring. It enables physically corrupt pages to be recovered automatically by requesting a fresh copy of the corrupted page from the mirrored server or vice versa.

In addition, SQL Server 2008 enhanced database mirroring can use:

* Additional performance counters to enable more granular accounting of the time spent across the different stages of the database management system log processing.
* New DMVs and extensions of existing views to expose additional information about mirroring sessions.
* A database audit specification to check database activity using SQL Server Audit.

Database mirroring is a lower cost solution for achieving high availability because mirroring can be performed using just two commodity servers. It does not require Windows certified hardware.

SQL Server 2008 provides database mirroring for the license of the principal server only, without additional charges. Passive SQL Server mirror instances do not require a license when no queries are being executed against them.

For more information, see:

<http://www.microsoft.com/sqlserver/2008/en/us/how-to-buy.aspx>

Database mirroring does not require shared storage such as a Storage Area Network (SAN) when running Oracle applications with direct-attached storage or on SAN/NAS devices without storage replication.

## Failover Clustering

In failover clustering, SQL Server 2008 is used in conjunction with Windows Server 2008 to enable high availability in the event of an application failure, hardware failure, or operating-system error. It provides server level redundancy through a configuration that transfers critical resources from a failing server to another equally configured server automatically. Failover clustering requires Windows certified hardware.

With enhanced failover clustering, SQL Server 2008 and Windows Server can be configured to support geographically dispersed, multi-site clusters, combined with SAN replication. In this case, Windows Server 2008 enables the “time to live” between the nodes to be extended to meet the recovery requirements. SQL Server 2008 improvements make failover clustering easier to manage and to support additional nodes.

# Lower Total Cost of Ownership

SQL Server 2008 offers a compelling, lower total cost of ownership (TCO) to Oracle application customers. It dramatically reduces administration efforts and it reduces the costs associated with database administration and services. SQL Server 2008 automates, streamlines, or eliminates many routine database management tasks, and provides time saving administration tools and wizard driven features.

In addition, SQL Server 2008 is provided at a lower cost than competitor platforms. Many of the features that are simply included within SQL Server 2008 must be purchased as separate products or add-ins in competitor platforms.

SQL Server 2008 licensing fees are lower. For more information, see:

<http://www.microsoft.com/sqlserver/2008/en/us/licensing-faq.aspx>

It offers better pricing. For more information, see:

<http://www.microsoft.com/sqlserver/2008/en/us/pricing.aspx>

SQL Server 2008 delivers the best price to performance ratio in the initial phase of the investment. It contains a comprehensive suite of tools, which reduce acquisition costs and immediately improves the productivity of technical resources. It has both the lowest investment costs and the lowest costs associated with maintaining the configuration.

# Conclusion

For Oracle applications that run on the Microsoft platform including JD Edwards, PeopleSoft, and Siebel, customers want assurance that Microsoft Application Platform technologies including Microsoft SQL Server are reliable, secure, manageable, economical, and fully integrated with Oracle applications.

**Windows platform compatibility**

In this regard, Microsoft is working through Oracle’s Applications Unlimited plan to ensure that SQL Server 2008 and Microsoft Windows Server 2008 are certified and fully compatible with all current versions of the JD Edwards, PeopleSoft, and Siebel applications.

**Optimal, enterprise-ready data platform**

Simply stated, SQL Server 2008 is the optimal data platform for Oracle applications that run on the Microsoft platform. SQL Server 2008 is an enterprise-ready data management and analysis platform that provides Oracle applications with the highest levels of scalability, reliability, and security. SQL Server 2008 supports large-scale ISV applications, and it enables enhanced performance.

**Simplified upgrades to SQL Server 2008**

By upgrading from SQL Server 2000 or 2005 to SQL Server 2008, Oracle application customers can receive many immediate business and technical benefits without the need to make application changes. SQL Server 2008 simplifies the upgrade process using tools such as the Upgrade Advisor. Microsoft also provides a best practices roadmap to assist Oracle customers to successfully upgrade to SQL Server 2008.

**New advanced features and enhancements**

SQL Server 2008 contains a compelling set of new capabilities that make it ideal for an enterprise environment. It enables customers to optimize performance, improve availability and reliability, and simplify data management and security for Oracle applications. These advanced new and enhanced features include:

* Ease of use, self-tuning, and monitoring features that make the management of Oracle databases easier.
* Advanced database features include database compression, backup compression, transparent data encryption, data collector and management data warehouse, plan freezing, resource governor, and many others.
* Enterprise-class high-availability features including enhanced database mirroring and failover clustering.

**Optimal Integration with Windows Server**

With SQL Server 2008, Oracle application customers receive the benefits of its optimal, native integration and compatibility with the Windows Server platform. Oracle application hardening and patch management security measures are fully addressed.

**Lower Total Cost of Ownership**

The SQL Server 2008 TCO is lower and it is an inexpensive data platform for Oracle enterprise applications as compared to competitor platforms. It does not require additional SQL Server licenses and related hardware or third party software, and it improves employee productivity.

# Links and References

**Microsoft and Oracle Applications Partnership**

<http://www.oracle.com/applications/applications-unlimited.html>

<http://www.microsoft.com/isv/oracle/>

<http://www.oracle.com/applications/technology.html>

<http://www.oracleisv.com/Portals/13/mvsp-datasheet.pdf>

**SQL Server 2008 and Oracle Applications**

<http://www.microsoft.com/sqlserver/2008/en/us/upgrade.aspx>

<http://www.microsoft.com/sqlserver/2008/en/us/migration.aspx>

<http://www.microsoft.com/sqlserver/2008/en/us/application-platform.aspx>

<http://www.microsoft.com/business/peopleready/default.mspx>

**Enterprise-Ready and Scalable for Oracle Applications**

<http://www.microsoft.com/sqlserver/2008/en/us/news-reviews.aspx>

<http://www.microsoft.com/sqlserver/2008/en/us/overview.aspx>

<http://www.oracle.com/applications/crm/siebel/resources/siebel-resource-library.html#reports>

**Windows Platform Support**

<http://www.microsoft.com/windowsserver2008/en/us/default.aspx>

<http://www.microsoft.com/windowsserver2003/evaluation/news/analystreports/default.mspx>

**Ease of Use and Self-Tuning Features**

<http://www.microsoft.com/sqlserver/2008/en/us/news-reviews.aspx>

Management Data Warehouse.

<http://msdn.microsoft.com/en-us/library/bb677306.aspx>

Database Engine Tuning Advisor.

<http://msdn.microsoft.com/en-us/library/ms178095.aspx>

**Advanced Database Features**

<http://msdn.microsoft.com/en-us/library/bb418491.aspx>

Data Compression

<http://www.microsoft.com/sqlserver/2008/en/us/news-reviews.aspx>

<http://msdn.microsoft.com/en-us/library/cc280449.aspx>

<http://msdn.microsoft.com/en-us/library/cc280574.aspx>

Transparent Data Encryption

<http://msdn.microsoft.com/en-us/library/bb934049.aspx>

Data Collector

<http://msdn.microsoft.com/en-us/library/bb677248.aspx>

Resource Governor

<http://msdn.microsoft.com/en-us/library/bb895232.aspx>

**High Availability Features**

<http://msdn.microsoft.com/en-us/library/ms190202.aspx>

<http://www.microsoft.com/windowsserver2008/en/us/clustering-multisite.aspx>

**Lower Total Cost of Ownership**

<http://www.microsoft.com/sqlserver/2008/en/us/benchmarks.aspx>

**For more information:**

<http://www.microsoft.com/sqlserver/>: SQL Server Web site

<http://technet.microsoft.com/en-us/sqlserver/>: SQL Server TechCenter

<http://msdn.microsoft.com/en-us/sqlserver/>: SQL Server DevCenter

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1. <http://www.microsoft.com/sqlserver/2008/en/us/application-platform.aspx> [↑](#footnote-ref-2)
2. <http://www.oracle.com/applications/applications-unlimited.html> [↑](#footnote-ref-3)
3. The latest versions of all Oracle applications (JD Edwards, PeopleSoft, Siebel) are, or shortly will be, certified on SQL Server 2008 (JD Edwards by early 2009). [↑](#footnote-ref-4)
4. PeopleTools 8.49.13 requires SQL Server 2008 cumulative update 1 (CU1 ). [↑](#footnote-ref-5)
5. <http://www.microsoft.com/isv/oracle/> [↑](#footnote-ref-6)
6. Actual customer results will vary according to the Oracle application, the hardware being tested, and the application’s specific data and workload requirements. [↑](#footnote-ref-7)
7. See footnote 5. [↑](#footnote-ref-8)
8. For more information, see (Forrester Research, September 22, 2008).

   <http://www.microsoft.com/sqlserver/2008/en/us/news-reviews.aspx> [↑](#footnote-ref-9)
9. <http://www.microsoft.com/sqlserver/2008/en/us/default.aspx> [↑](#footnote-ref-10)
10. <http://www.microsoft.com/sqlserver/2008/en/us/benchmarks.aspx> [↑](#footnote-ref-11)
11. For more information, see (Forrester Research, September 22, 2008).

    <http://www.microsoft.com/sqlserver/2008/en/us/news-reviews.aspx> [↑](#footnote-ref-12)
12. For more information, see (Forrester Research, September 2008),

    <http://www.microsoft.com/sqlserver/2008/en/us/news-reviews.aspx> [↑](#footnote-ref-13)
13. Actual customer results will vary according to the Oracle application, the hardware being tested, and

    the application’s specific data and workload requirements. [↑](#footnote-ref-14)
14. See footnote 13. [↑](#footnote-ref-15)