# Top 5 Reasons to use SQL Server 2008 R2 Enterprise for your SharePoint Deployments

SQL Server 2008 R2 Enterprise can help enable a business-critical environment for your Microsoft Office SharePoint Server installments. It is widely known that SharePoint adoption grows exponentially across an organization – quickly gaining momentum and taking root as a critical part of an organization’s ecosystem. To help protect data, ensure availability, and keep costs down, customers choose SQL Server Enterprise during initial deployment for the following key reasons.

1. **Ensure SharePoint data availability and reduce downtime**

With built-in high-availability technologies like server clustering and database mirroring, you can rely on SQL Server to help drastically reduce planned and unplanned downtime and to maximize SharePoint continuity. This in turn helps reduce loss of SharePoint, data, productivity, and access across the organization. Native database mirroring in SharePoint 2010 Administration makes it even easier for administrators to ensure data availability with SQL Server Enterprise.

1. **Help protect the security of your SharePoint data**

SQL Server 2008 provides a robust authentication and authorization model, as well as native support for transparent data encryption that can be implemented without changes to your SharePoint applications. For SharePoint, TDE is ideal for content databases where data security is a top concern. Enabling TDE helps reduce the risk of unauthorized access to vital SharePoint information.

1. **Scale easily as SharePoint grows**

SQL Server 2008 Enterprise is designed to scale to meet the needs of very large organizations. With capabilities such as scale to 2 TB memory support, table partitioning, and Hot-Add CPU,   
you can be sure that as SharePoint grows, SQL Server 2008 Enterprise can help accommodate growth and ensure great performance.

1. **Reduce costs through compression, storage and virtualization**

Help make the most effective use of your available storage hardware through compression, remote blob storage and virtualization. With SQL Server 2008 R2 Enterprise, you can compress SharePoint lists and all SharePoint backups in order to significantly reduce your storage requirements. Remote Blob Storage integration with SharePoint in R2 allows you to store SharePoint blob data, or documents, on less expensive hardware and manage it via SQL Server using the same data management techniques you use today. Furthermore, SQL Server supports a wide range of options for server consolidation, including the ability to host multiple databases in the same instance, to install multiple instances on the same database server, and to install multiple virtual database servers on the same physical server. This ability to consolidate servers helps to reduce your energy, real estate, cooling, and administrative costs. Customers can cost-effectively utilize SQL Server Enterprise in their SharePoint development and test environments versus “skimping” in these critical areas to save costs.

1. **Improve business insight through collaboration with SharePoint**

SQL Server and SharePoint offer a close integration between the business intelligence capabilities for a robust and seamless BI solution. Customers can seamlessly enable managed self-service BI across their organization through SQL Server Reporting Services, a SharePoint 2010 based operations dashboard to ensure data security, and PowerPivot for SharePoint which enables business users to do powerful analytics and share the results with thousands of users, as necessary, across SharePoint.

**For more information:**

http://www.microsoft.com/sqlserver/2008/en/us/sharepoint.aspx

# Supporting Evidence

1. **Ensure SharePoint data availability and reduce downtime**

* **Database Clustering:**

Database clustering is one of the most mature technologies for providing high availability   
in SQL server. Failover clustering works with the database engine, analysis services, and   
full text indexing. With SQL Server 2008 Enterprise Edition the cluster can have up to 16 nodes.

* **Database Mirroring:**

SQL Server 2008 R2 and SharePoint 2010 deliver native database mirroring from SharePoint administration which easily enables high availability, automatic page repair, and fast recovery.

1. **Help reduce security risks with your SharePoint data**

* **Transparent Data Encryption:**

Implementing encryption in a database traditionally involves complicated application   
changes such as modifying table schemas, removing functionality, and significant performance degradations. TDE solves these problems by simply encrypting everything without requiring changes to the application.

1. **Scale easily as SharePoint grows**

* **Higher OS Support:**

In Standard edition there is a limit of 4 processors. In Enterprise edition you can configure SQL server to use up to 8 CPUs as supported by the OS. The expanded capabilities in SharePoint 2010 also come with an increase in needed databases—up to 5x the number of DBs are created per SharePoint site as compared to SharePoint 2007 which is better supported by Enterprise.

* **Hot-Add CPU and RAM:**

Dynamically add memory and processors to servers without incurring downtime. This requires hardware support for either physical or virtual hardware.

1. **Compress data and virtualize your SharePoint environment to reduce costs**

* **Data Compression:**

Data compression reduces the amount of storage space needed to store tables and indexes, which enables more efficient storage of data. Data Compression does not require changes be made to applications in order to be enabled.

* **Remote Blob Storage:**

Store SharePoint blob data, or documents, on less expensive hardware and manage it via SQL Server Enterprise using the same data management techniques you use today.

* **Virtualization:**

Many organizations are using virtualization to increase server utilization and provide greater server availability. Because all of the resources and attributes associated with the SQL Server   
are contained within the virtual server, the virtual machine can be moved between different physical machines without having to change anything in the applications that access that   
SQL server.

1. **Improve business insight through collaboration with SharePoint**

* **Enterprise-Scale Reporting:**

Through tight integration, publish reports to a Microsoft Office SharePoint report library   
or embed reports directly into portals. SQL Server Enterprise offers scale-out to hundreds   
to thousands of users.

* **PowerPivot for SharePoint:**

Use the strength of PowerPivot for Excel to create compelling self-service BI solutions, then host and manage those PowerPivot applications seamlessly across SharePoint.