Copyright

This document is provided “as-is”. Information and views expressed in this document, including URL and other Internet Web site references, may change without notice. You bear the risk of using it.

This document does not provide you with any legal rights to any intellectual property in any Microsoft product. You may copy and use this document for your internal, reference purposes.

© 2011 Microsoft. All rights reserved.
Product Overview

SQL Server 2012 is a significant product release, providing **Mission Critical Confidence** with greater uptime, blazing-fast performance and enhanced security features for mission critical workloads; **Breakthrough Insight** with managed self-service data exploration and stunning interactive data visualization capabilities; **Cloud On Your Terms** by enabling the creation and extension of solutions across on-premises and public cloud. SQL Server 2012 is a **Cloud Ready Information Platform**.

Editions overview

The SQL Server 2012 Editions have been streamlined to better align with how customers are deploying applications and solutions. SQL Server 2012 will be released in 3 main editions*:

- **Enterprise** for mission critical applications and large scale data warehousing
- **Business Intelligence**, a new product edition, providing premium corporate and self-service BI
- **Standard** for basic database, reporting and analytics capabilities

The main editions are now offered in a consistent, tiered model which creates greater consistency across editions, features and licensing. Enterprise Edition will include all features available in SQL Server 2012. The Business Intelligence Edition will include premium BI features as well as all of the Standard Edition features.

*Note: SQL Server 2012 will continue to be available in Developer, Express and Compact editions. Web Edition will be offered in a Services Provider License Agreement (SPLA) model only. Datacenter Edition is being retired with all capabilities now available in Enterprise. Workgroup and Small business Editions are also being retired.

---

**SQL Server 2012 Licensing Options**

SQL Server 2012 will continue to offer two licensing options – one that is based on computing power, and one that is based on users or devices. In the computing power-based license model, however, the way we measure power will shift from processors to cores. Core-based licensing provides a more precise measure of computing power given high core-density server hardware. It also provides a more consistent licensing metric regardless of where the solution is deployed across on-premises to cloud.

- **Enterprise Edition (EE)** will be licensed based on compute capacity measured in cores
- **Business Intelligence (BI) Edition** will be available in the Server + CAL model, licensed by the number of users or devices
- **Standard Edition (SE)** will have the option of both licensing models to address a wide variety of basic database workloads

<table>
<thead>
<tr>
<th>SQL Server 2012 Editions</th>
<th>Description</th>
<th>Licensing Options</th>
<th>Pricing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Editions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enterprise</td>
<td>High end datacenter, data warehousing and BI capabilities</td>
<td>✓</td>
<td>$6,874 per Core</td>
</tr>
<tr>
<td>Business Intelligence</td>
<td>Enterprise BI and High Scale Analytics</td>
<td>✓</td>
<td>$8,592 per Server*</td>
</tr>
<tr>
<td>Standard</td>
<td>Basic database and BI capabilities</td>
<td>✓✓</td>
<td>$1,793 per Core, or $898 per Server*</td>
</tr>
<tr>
<td>Client Access License (CAL)</td>
<td>Access to SQL Server databases licensed per server</td>
<td></td>
<td>$209 per CAL</td>
</tr>
</tbody>
</table>

* Requires CALs, which are sold separately
Core-Based Licensing

- The Enterprise Edition and the Standard Edition of SQL Server 2012 will both be available under core-based licensing. Core-based licenses will be sold in two-core packs.
- To license a physical server properly, you must license all the cores in the server with a minimum of 4 core licenses required for each physical processor in the server.

How to license
1. License all of the physical cores on the hardware
2. A minimum of 4 core licenses are required per physical processor

| PHYSICAL CORES IN THE PROCESSOR: | 8 | 6 | 4 | 2 | 1 |
| CORE LICENSES REQUIRED: | 8 | 6 | 4 | 4 | 4 |

Server and Client Access License (CAL) Licensing

- The Business Intelligence and Standard Editions will be available under the Server and Client Access License (CAL) model.
- This licensing model can be used when the number of users can be readily counted (e.g., internal database applications).
- To access a licensed SQL Server, each user must have a SQL Server CAL that is the same version or newer (for example, to access a SQL Server 2008 SE server, a user would need a SQL Server 2008 or 2012 CAL).
- Each SQL Server CAL can provide access to multiple licensed SQL Servers, including the new Business Intelligence Edition as well as Standard Edition Servers and legacy Enterprise Edition Servers.

Virtualization Licensing - Cloud Optimized

SQL Server 2012 will offer expanded virtualization rights, options and benefits to provide greater flexibility for customers deploying in virtual environments. There will be two primary virtualization licensing options in SQL Server 2012: The ability to license individual virtual machines and the ability to license for maximum virtualization in highly virtualized and private cloud environments.

Individual Virtual Machines

- As server hardware gets more powerful, it will become more common for each database to use just a fraction of its server’s computing power.
- When deploying databases on Virtual Machines (VMs) that use just a fraction of a physical server, savings can be achieved by licensing individual VMs.
- To license a VM with core licenses, customers can simply buy a core license for each virtual core allocated to the virtual machine (minimum of 4 core licenses per VM).
• To license a VM with a server license (for Business Intelligence or Standard only), buy the server license and buy matching SQL Server CALs for each user.

• Each licensed VM that is covered with Software Assurance (SA) can be moved frequently within a server farm or to a third party hoster or cloud services provider without buying additional SQL Server licenses.

How to License VMs with Core Licenses
1. License the virtual cores in each virtual machine
2. There is a minimum of 4 core licenses required for each virtual machine

VM1
VM with 4 Virtual Cores
4 Core licenses required

VM2
VM with 6 Virtual Cores
6 Core licenses required

How to License Maximum Virtualization
1. License all the physical cores on the server with Enterprise Edition core licenses and SA
2. Deploy an unlimited number of VMs

Transition to the New Licensing Models

In order to facilitate a smooth transition to the new editions and licensing, Microsoft is offering several options. These are designed to help enable customers to plan for the future while protecting their current investments.

Enterprise Edition
• New server licenses for EE will only be available for purchase through 6/30/2012. Additional EE server licenses in the Server and CAL license model will not be sold thereafter. EA/EAP customers will have until their next EA/EAP renewal after 6/30/2012 to purchase additional server licenses for EE to complete currently planned projects. After that, all new EE licenses must be purchased per core.

Maximum Virtualization
• Further savings can be achieved by operating a database server utility or SQL Server private cloud. This is a great option for customers who want to take advantage of the full computing power of their physical servers and have very dynamic provisioning and de-provisioning of virtual resources.

• Customers will be able to deploy an unlimited number of virtual machines on the server and utilize the full capacity of the licensed hardware.

• They can do so by fully licensing the server (or server farm) with Enterprise Edition core licenses and Software Assurance based on the total number of physical cores on the servers. This allows customers the ability to run an unlimited number of virtual machines to handle their dynamic workloads and fully utilize the hardware’s computing power.
All existing EE licenses under the Server and CAL model with Software Assurance can be upgraded to SQL Server 2012 at no additional cost, and EE server SA can be maintained to provide access to future software updates.

Both newly purchased server licenses for SQL Server EE 2012 or EE server licenses with SA upgraded to SQL Server EE 2012 will be limited to server deployments with 20 cores or less. If you purchased SQL Server 2008 R2 Enterprise Edition in the Server + CAL model with Software Assurance and at the launch of SQL Server 2012 are running on a server with > 20 physical cores, contact your Microsoft representative for help transitioning to the new licensing model.

Moving forward, customers who would have purchased new EE server licenses can: purchase SQL BI server licenses for business intelligence, purchase SQL EE per core for high-scale database or data warehouse, or maintain legacy EE server licenses for existing projects.

**Moving to Core-based Licensing**

- Customers with processor licenses under SA can upgrade to SQL Server 2012 at no additional cost. At the end of the SA term, processor licenses will be exchanged for core licenses and customers can renew their SA on core licenses.

- SQL Enterprise and Standard processor licenses under SA will be exchanged for a minimum of 4 core licenses per processor or for the actual number of cores in use. SQL Server Datacenter processor licenses will be exchanged for a minimum of 8 EE core licenses per processor or for the actual number of cores in use.

- At the end of the current agreement term, customers should do a self-inventory, documenting the number of cores in each processor in use with a SQL Server processor license covered with Software Assurance. This will enable customers to receive the appropriate number of core licenses based on SQL Server 2012 to continue their current deployments.

- Customers should do this self-inventory using the Microsoft Assessment and Planning (MAP) Toolkit or other inventory tools and processes to accurately archive a time/date stamped inventory of hardware tied to SQL Server installations.

- If customers do not perform the self-inventory, they will receive 4 core licenses for each Standard and Enterprise Edition processor and 8 EE core licenses per Datacenter Edition processor.

### Enterprise Agreements

- Customers in existing Enterprise Agreements, EAPs and EASs will be able to continue to purchase Enterprise Edition server and processor licenses through the end of their term.

- Customers purchasing processor based licenses through the end of their term will continue to need to calculate the number of licenses required for a deployment based on the 2008 R2 processor use rights.
• Customers with an EA or EAP do have the option to add core licenses mid-term to their agreement for future purchases and should contact their reseller or Microsoft account team for more information.

• All servers licensed with SQL Server 2012 Enterprise Edition server licenses will be subject to the 20 core server limitation.

• The same process as outlined above will be followed at the end of term.

Planning for SQL Server 2012

Customers planning to deploy SQL Server 2012, either through upgrades or new licenses, should remember:

• Renewing Software Assurance (SA) is the best way to protect investments and provide access to new versions as well as Deployment Planning Services and technical assistance.

• EAP will continue to offer customers the best value, including discounts of up to 40% on new EE and BI server licenses.

• Customers should select the right edition depending on usage:
  o **Enterprise** for mission critical applications and large scale data warehousing
  o **Business Intelligence** for premium corporate and self-service BI
  o **Standard** for basic database, reporting and analytics capabilities

• Consolidation and virtualization are the best ways to maximize efficiency of hardware and control the size, computing power and more granularly manage cost of your deployments.

For additional information on Microsoft SQL Server 2012, go to the SQL Server website at:


This document was developed prior to the product’s release to manufacturing, and as such, we cannot guarantee that all details included herein will be exactly as what is found in the shipping product. The information contained in this document represents the current view of Microsoft Corporation on the issues discussed as of the date of publication. Because Microsoft must respond to changing market conditions, it should not be interpreted to be a commitment on the part of Microsoft, and Microsoft cannot guarantee the accuracy of any information presented after the date of publication. The information represents the product at the time this document was printed and should be used for planning purposes only. Information subject to change at any time without prior notice.

© 2011 Microsoft. All rights reserved.