



Microsoft SQL Server 2014 Licensing Guide

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Overview

This Licensing Guide is for people who want to gain a basic understanding of how Microsoft® SQL Server® 2014 database software is licensed through Microsoft Volume Licensing programs. This guide does not supersede or replace any of the legal documentation covering SQL Server 2014 use rights. Specific product license terms are defined in the product Software License Terms—or in the case of Microsoft Volume Licensing—in the Microsoft Volume Licensing agreement under which the software was acquired and/or the Microsoft Volume Licensing Product Use Rights (PUR). This licensing guide is not a legal use rights document. Program specifications and business rules are subject to change.

SQL Server 2014 Editions

SQL Server 2014 is offered in three main editions to accommodate the unique feature, performance and price requirements of organizations and individuals:

- **Enterprise Edition** is ideal for mission critical applications and large scale data warehousing.
- **Business Intelligence Edition** provides premium corporate and self-service business intelligence (BI).
- **Standard Edition** delivers basic database, reporting and analytics capabilities.

The editions are offered in a straightforward, tiered model that creates greater consistency across the product editions, features and licensing. Enterprise Edition includes all the capabilities available in SQL Server 2014. Business Intelligence Edition includes Standard Edition capabilities, plus all BI capabilities included in Enterprise Edition.

SQL Server 2014 Capabilities	SQL Server 2014 Editions		
	Standard	Business Intelligence	Enterprise
Licensing Options	Core-Based or Server+CAL	Server+CAL	Core-Based
Windows Server Core Edition Support	•	•	•
Basic OLTP	•	•	•
Basic Reporting & Analytics	•	•	•
Programmability & Developer Tools (T-SQL, CLR, Data Types, FileTable)	•	•	•
Manageability (Management Studio, Policy-Based Management)	•	•	•
Enterprise Data Management (Data Quality Services, Master Data Services)		•	•
Self-service Business Intelligence (Power View, PowerPivot)		•	•
Corporate Business Intelligence (Semantic Model, Advanced Analytics)		•	•

SQL Server 2014 Capabilities

SQL Server 2014 Editions

	Standard	Business Intelligence	Enterprise
Advanced Security (Advanced Auditing, Transparent Data Encryption)			•
In-memory ColumnStore			•
In-memory OLTP			•
AlwaysOn High Availability*	Basic	Basic	Advanced
StreamInsight	Standard	Standard	Premium

This table shows a comparison of key capabilities across the main SQL Server 2014 editions

**Basic includes 2-node Failover Clustering*

Other specialty editions of SQL Server 2014 include Developer editions licensed for non-production use, the freely downloadable and distributable Express edition, and the next generation SQL Server 2012 Parallel Data Warehouse, which is available as a component of the new Analytics Platform System integrated appliance offering.

- ➲ For general information on each of the SQL Server 2014 editions, visit: <http://www.microsoft.com/en-us/server-cloud/products/sql-server-editions/>
- ➲ For more information on the new Analytics Platform System and SQL Server 2012 Parallel Data Warehouse, visit: <http://www.microsoft.com/en-us/server-cloud/products/sql-server-parallel-data-warehouse/>
- ➲ For detailed product specifications and a full feature-by-feature comparison of the SQL Server 2014 editions, visit: [http://msdn.microsoft.com/en-us/library/ms143287\(v=sql.120\).aspx](http://msdn.microsoft.com/en-us/library/ms143287(v=sql.120).aspx)

SQL Server 2014 Edition	Database Engine (DBE) Capacity Limits			Analysis Services (AS) and Reporting Services (RS) Capacity Limits		
	Max Compute Capacity	Max Memory Utilization - DBE	Max DB Size	Max Compute Capacity	Max Memory Utilization - AS	Max Memory Utilization - RS
Enterprise per Core	OS Max	OS Max	524 PB	OS Max	OS Max	OS Max
Enterprise Server+CAL	20 core Limit	OS Max	524 PB	20 core Limit	OS Max	OS Max
Business Intelligence	Lesser of 4 sockets or 16 cores	128 GB	524 PB	OS Max	OS Max	OS Max
Standard	Lesser of 4 sockets or 16 cores	128 GB	524 PB	Lesser of 4 sockets or 16 cores	64 GB	64 GB
Web	Lesser of 4 sockets or 16 cores	64 GB	524 PB	Lesser of 4 sockets or 16 cores	N/A	64 GB
Express	Lesser of 1 socket or 4 cores	1 GB	10 GB	Lesser of 1 socket or 4 cores	N/A	4 GB (Advanced Services Ed.)

This table shows a comparison of the key capacity limits across the SQL Server 2014 editions

- ➲ For more information on the compute capacity limits for each edition of SQL Server 2014, visit: [http://msdn.microsoft.com/en-us/library/ms143760\(v=sql.120\).aspx](http://msdn.microsoft.com/en-us/library/ms143760(v=sql.120).aspx)

How SQL Server 2014 Licenses Are Sold

SQL Server 2014 software licenses are sold through channels designed to meet the unique needs of customers. These sales channels include online retailers offering full packaged product (FPP) licenses of SQL Server software, Original Equipment Manufacturers (OEMs) offering pre-installed licenses with their hardware systems, as well as Licensing Solutions Partners (LSPs) and Enterprise Software Advisors (ESAs) offering SQL Server software through Microsoft Volume Licensing programs for end-customer organizations.

For customers with as few as five users, Microsoft offers licensing programs to help reduce administrative overhead and software management costs, while enabling product licensing on an ongoing basis at a considerable discount. The various licensing options enable customers to choose the program that works best for their management and operational needs.

- Comprehensive programs that offer Software Assurance as a fixed benefit include the Open Value, Open Value Subscription, Enterprise Agreement (EA), Enterprise Subscription Agreement (EAS) and the Server and Cloud Enrollment (SCE).
- Transactional programs include Open and Select Plus.

Server and Cloud Enrollment

The Server and Cloud Enrollment (SCE) is an enrollment under the Microsoft Enterprise Agreement that enables highly committed customers to standardize broadly on one or more key server and cloud technologies from Microsoft. In exchange for making an installed base-wide commitment to one or more components of the Server and Cloud Enrollment, customers receive the best pricing and terms, plus other benefits, including cloud-optimized licensing options and simplified license management.

Microsoft also offers programs that can meet the specific needs of organizations that partner with Microsoft to provide additional software and services, such as the Microsoft Independent Software Vendor (ISV) Royalty Licensing Program and the Microsoft Services Provider License Agreement (SPLA).

SQL Server 2014 Editions	Retail (FPP)	Volume Licensing Programs			Third Party	
		OPEN	SELECT+	EA/EAS/SCE	ISVR	SPLA
Enterprise Edition		•	•	•	•	•
Business Intelligence Edition		•	•	•	•	•
Standard Edition	•	•	•	•	•	•
Parallel Data Warehouse Edition			•	•		
Parallel Data Warehouse for Developers				•		
Developer Edition	•	•	•			
Web Edition						•
Express Edition		Free download				

This table shows the primary channel availability for SQL Server 2014 software licenses. Every edition may not be available in all channels or licensing programs in all regions.

- For more information about Microsoft Volume Licensing Programs, download the Volume Licensing Reference Guide at: http://download.microsoft.com/download/a/7/0/a70853c1-a783-4d48-a7ad-f404abdb1e7d/Microsoft_Volume_Licensing_Reference_Guide.pdf
- For details on the Microsoft Server and Cloud Enrollment, visit: <http://www.microsoft.com/licensing/licensing-options/enterprise.aspx>

SQL Server 2014 Licensing Models

With SQL Server 2014, Microsoft offers a variety of licensing options aligned with how customers typically purchase specific workloads. The Server+CAL licensing model provides the option to license users and/or devices and then have low-cost access to incremental SQL Server deployments. For customers who cannot count users or require premium database capabilities, Microsoft licenses SQL Server in a core-based licensing model. Core-based licensing gives customers a more precise measure of computing power and a more consistent licensing metric, regardless of whether solutions are deployed on physical on-premises servers, or in virtual or cloud environments.

For details on licensing options for existing SQL Server Enterprise Edition customers licensed under the Server+CAL model, refer to the [Additional Product Information](#) section of this guide.

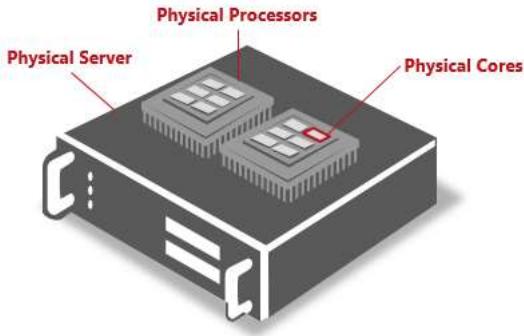
SQL Server 2014 Editions	Description	Licensing Options		
		Server+CAL	Core-based	Requirements
Enterprise	For mission critical applications and large scale data warehousing		●	
Business Intelligence	Premium corporate and self-service BI	●		SQL Server CALs required
Standard	Basic database, reporting and analytics capabilities	●	●	SQL Server CALs required when licensing Server+CAL
Parallel Data Warehouse	Available as a component of the new Analytics Platform System integrated appliance		●	

This table compares the licensing options for each of the main SQL Server 2014 editions

Core-Based Licensing

Under the Per Core licensing model, **each server** running SQL Server 2014 software or any of its components (such as Reporting Services or Integration Services) must be assigned an appropriate number of SQL Server 2014 core licenses. The number of core licenses needed depends on whether customers are licensing the physical server or individual virtual operating system environments (OSEs).

Unlike the Server+CAL licensing model, the Per Core model allows access for an unlimited number of users or devices to connect from either inside or outside an organization's firewall. With the Per Core model, customers do not need to purchase additional client access licenses (CALs) to access the SQL Server software.



This figure depicts a physical server with two physical processors, each containing six physical cores

Physical Server	A server is a physical hardware system capable of running server software. A hardware partition or blade is considered to be a separate physical hardware system.
Physical Processor	A processor is generally a physical chip that resides in a physical socket of the hardware partition and contains one or more cores.
Physical Core	Each physical processor contains smaller processing units called physical cores . Some processors have two cores, some four, some six or eight, and so on. The figure above shows an example of two physical processors with six cores each.
Hardware Thread	A hardware thread is either a physical core or a hyper-thread in a physical processor.
Physical Operating System Environment	A physical operating system environment (OSE) is configured to run directly on a physical hardware system and is all or part of an operating system instance.

For detailed definitions of these and other key licensing terms, please refer to the Microsoft Volume Licensing PUR

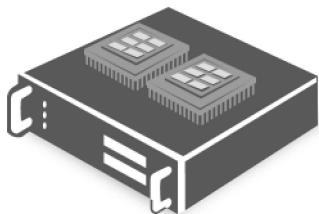
How to License SQL Server 2014 Using the Per Core Licensing Model

When running SQL Server in a **physical OSE**, all physical cores on the server must be licensed. Software partitioning does not reduce the number of core licenses required, except when licensing individual virtual machines (VMs). The minimum number of licenses required for each processor on the server still applies.

To determine and acquire the correct number of core licenses needed, customers must:

1. Count the total number of physical cores in the server.
2. Multiply the number of cores by the appropriate core factor to determine the total number of licenses required for the server. Note: The core factor used depends on the processor type deployed, and a minimum of four core licenses is required for each physical processor on a physical server.
3. Purchase the appropriate number of core licenses required for the server. **Core licenses are sold in packs of two**, so customers must divide the number of licenses required by two to determine the actual number of line items (licensing SKUs) to order.

2 Intel Xeon 6-core processors



Number of core licenses required:

$$\begin{array}{rcl} & \textbf{12} & (\text{total cores on the server}) \\ \times & \textbf{1} & (\text{core factor from the table below}) \\ \hline = & \textbf{12} & \text{core licenses required} \end{array}$$

Purchase 6 "2-Pack" SKUs of core licenses
(cores sold in 2-core packs)

SQL Server Core Factor Table*

Processor Type	Core Factor
All processors not mentioned below	1
AMD Processors 31XX, 32XX, 33XX, 41XX, 42XX, 43XX, 61XX, 62XX, 63XX Series Processors with 6 or more cores	0.75
Single-Core Processors	4
Dual-Core Processors	2

* This is an example of how to calculate core license requirements and the core factor table. The core factor table is subject to change. You can find the core factor table at any time, updated at the link below.

- ⦿ For more details on the Per Core licensing model, including key terms and licensing definitions, download the Introduction to Per Core Licensing Volume Licensing Brief: <http://www.microsoft.com/licensing/about-licensing/briefs/licensing-by-cores.aspx>
- ⦿ For more information on the SQL Server 2014 Core Factor Table, including how to determine and use the appropriate core factor when licensing SQL Server 2014 under the Per Core model, visit:
<http://go.microsoft.com/fwlink/?LinkID=229882>

The Per Core licensing model is appropriate when:

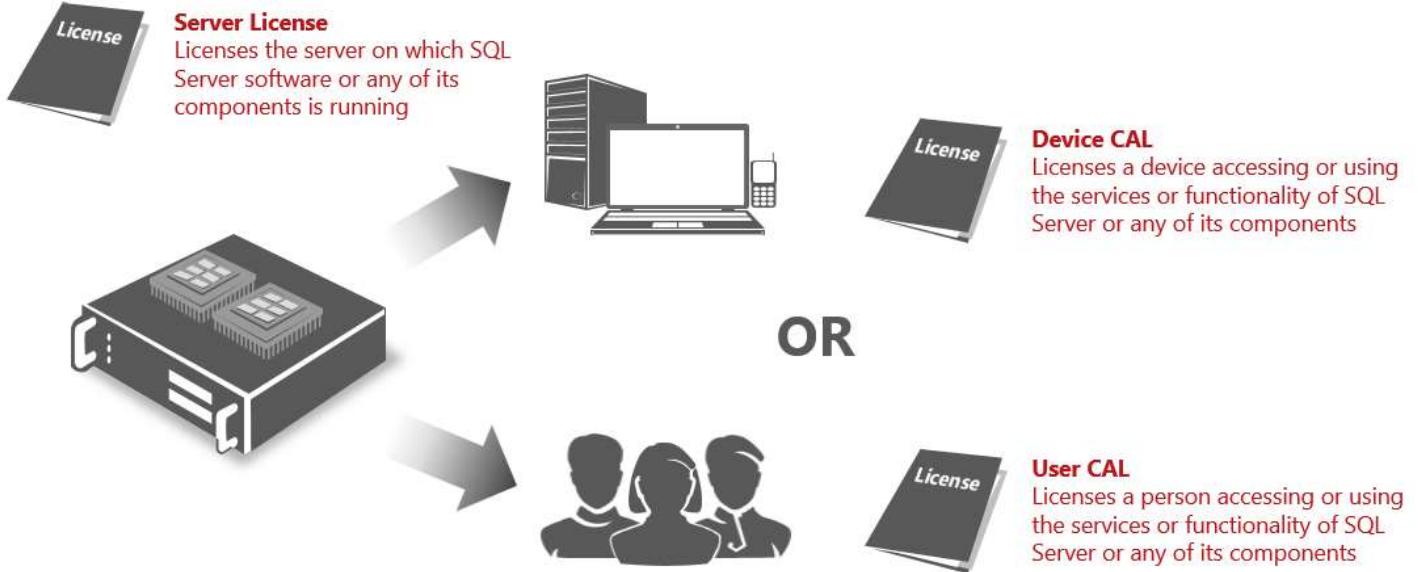
- Deploying the SQL Server 2014 Enterprise, SQL Server 2012 Parallel Data Warehouse or SQL Server 2014 Web editions.
- Deploying Internet or extranet workloads, systems that integrate with external-facing workloads (even if external data goes through one or more other systems), or when the number of users/devices cannot be counted easily.
- Implementing centralized deployments that span a large number of direct and/or indirect users/devices.
- The total licensing costs are lower than those incurred using the Server+CAL licensing model.

Note: The use of hyper-threading technology does not affect the number of core licenses required when running SQL Server software in a physical OSE.

For details on how to license virtual OSEs using the Per Core model, refer to the [Licensing SQL Server 2014 for Virtual Environments](#) section of this guide.

Server+CAL Licensing

When licensing SQL Server software under the Server+CAL model, customers purchase a server license for each server, and a client access license (CAL) for each device (Device CAL) and/or user (User CAL) accessing SQL Server or any of its components. A CAL is not software; it is a license granting users and devices access to the SQL Server software.



This figure illustrates the licenses used in the Server+CAL licensing model

How to License SQL Server 2014 Using the Server+CAL Licensing Model

Under the Server+CAL licensing model, each operating system environment (OSE) running SQL Server 2014 software or any of its components must have a SQL Server 2014 server license assigned to the physical server hosting the OSE. Each server license allows customers to run any number of SQL Server instances in a single OSE, either physical or virtual.

Note: Running SQL Server software on different hardware partitions or blades requires separate software licenses. Hardware partitions and blades are considered to be separate servers for licensing purposes and SQL Server software licenses cannot be assigned to more than one server at any time.

To access a licensed SQL Server, each user or device must have a SQL Server CAL that is the same version or newer than the SQL Server software version being accessed. For example, to access a server running SQL Server 2014 software, a user needs a SQL Server 2014 CAL.

Note: Devices not operated by humans require device CALs, even when connecting to SQL Server indirectly. For human operated devices such as PCs or hand-held terminals, a user CAL or device CAL can be used.

While being version-specific, each SQL Server 2014 CAL provides access to any number of current and/or prior version licensed SQL Server instances in a customer's organization, regardless of the platform (32-bit, 64-bit or IA64) or product edition, including legacy SQL Server Workgroup and SQL Server for Small Business edition servers.

Note: The use of hardware or software that reduces the number of devices or users that directly access or use the software (multiplexing/pooling) does not reduce the number of CALs required. For details on how to license SQL Server in a multiplexed application environment—including considerations when accessing Business Intelligence Edition—refer to the [Advanced Licensing Scenarios](#) section of this guide.

The Server+CAL licensing model is appropriate when:

- Deploying SQL Server Business Intelligence Edition.
- Deploying SQL Server Standard Edition in scenarios where customers can easily count users/devices and the total licensing costs are lower than using the Per Core licensing model.
- Accessing multiple SQL Server databases and/or planning to scale out the use of SQL Server by adding new servers over time. Once customers have purchased the necessary CALs, additional server licenses are only needed for new server system deployments.
- Accessing legacy Enterprise Edition servers in the Server+CAL licensing model. For more detailed information on this topic, refer to the [Additional Product Information](#) section of this guide.

Licensing SQL Server 2014 Components

SQL Server software includes a range of licensed server components, including the SQL Server Database Engine (DB), Master Data Services (MDS), Analysis Services (AS), Integration Services (IS), Reporting Services (RS), and Data Quality Services (DQS). In addition, a number of management components, such as client applications and tools used for creating or working with analytical data, are provided.

- ➲ For more details on the software components specifically included with SQL Server 2014, visit: [http://msdn.microsoft.com/en-us/library/ms144275\(v=sql.120\).aspx](http://msdn.microsoft.com/en-us/library/ms144275(v=sql.120).aspx)

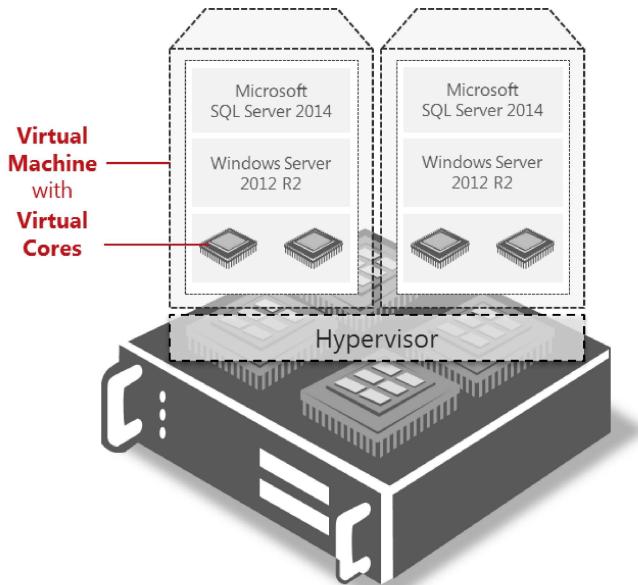
The software components of a single SQL Server 2014 license cannot be separated for use in more than one OSE. If these components are running on a server other than the main database server, then an additional license is required for each additional OSE in which they are installed. For example, if the SQL Server DB is deployed in one OSE and SQL Server RS is deployed in another, both OSEs must be fully licensed for SQL Server 2014 accordingly.

Management tools and other software identified as additional or supplemental software—such as product documentation, client connectivity tools, software add-ins, and Software Development Kits (SDKs)—can generally be distributed and run on any number of devices for use with a licensed instance of SQL Server software. Refer to the Volume Licensing PUR for a list of additional software components provided with SQL Server 2014.

Licensing SQL Server 2014 in a Virtualized Environment

Microsoft SQL Server is increasingly being deployed in virtualized environments, which enable running instances of SQL Server concurrently in separate virtual OSEs (or virtual machines).

SQL Server 2014 offers expanded virtualization rights, options and benefits to provide greater flexibility for customers deploying in virtual environments. When deploying SQL Server 2014 software in virtualized environments, customers have the choice to license either individual virtual machines as needed, or to license for maximum virtualization in highly virtualized, private cloud, or dynamic environments. Maximum virtualization can be achieved by licensing the entire physical server with Enterprise Edition core licenses and covering those licenses with Software Assurance (SA).



This figure depicts two virtual machines, each containing two virtual cores

Licensing Individual Virtual Machines

As customers consolidate existing workloads and refresh hardware, they may find that a SQL Server instance uses only a fraction of available system computing power. When deploying databases in virtual environments that require just a fraction of a physical server, savings can be achieved by licensing individual virtual machines (VMs).

How to License Individual Virtual Machines Using the Per Core Licensing Model

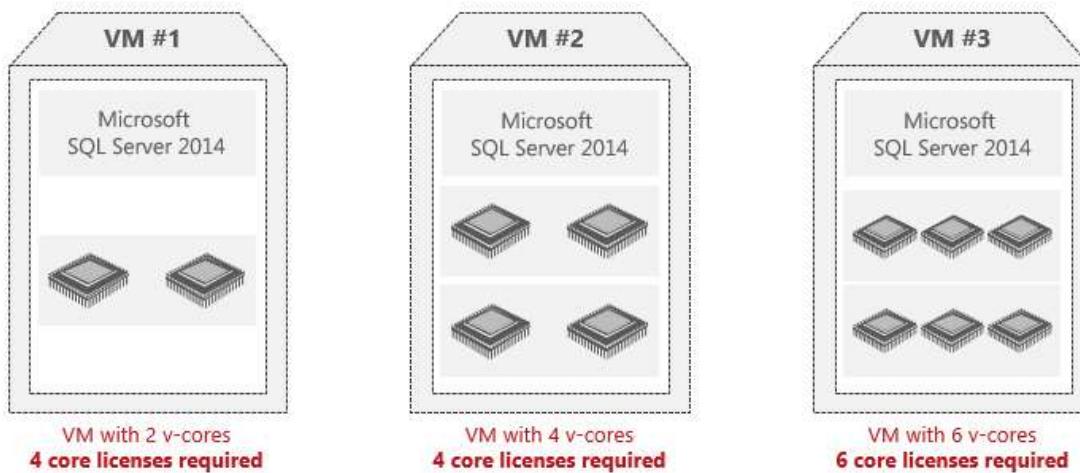
Similar to the Per Core licensing model in physical OSEs, all virtual cores (v-cores) supporting virtual OSEs that are running instances of SQL Server 2014 software must be licensed accordingly.

To license individual VMs using the Per Core model, customers must purchase a core license for each v-core (or virtual processor, virtual CPU, virtual thread) allocated to the VM, subject to a four core license minimum per VM. For licensing purposes, a v-core maps to a hardware thread. **When licensing individual VMs, core factors do not apply.**

Note: Licensing individual VMs is the only licensing option available for SQL Server 2014 Standard Edition customers who are running the software in a virtualized environment under the Per Core model.

For customers with highly virtualized environments who want to move VMs dynamically across servers to reallocate resources as needed, Microsoft permits License Mobility as an exclusive SA benefit available for all SQL Server editions. For more information on licensing for application mobility, refer to the [Advanced Licensing Scenarios](#) section of this guide.

- 1 License the virtual cores in each virtual machine
- 2 There is a minimum of four core licenses required for each virtual machine



This figure illustrates the licensing requirements for three different virtual machines under the Per Core licensing model

Additional licenses are required when:

- A single hardware thread is supporting multiple virtual cores. (A core license is required for each v-core.)
- Multiple hardware threads are supporting a single virtual core simultaneously. (A core license allows a single v-core to be supported by a single hardware thread.)

How to License Individual Virtual Machines Using the Server+CAL Licensing Model

To license individual VMs using the Server+CAL model (available for SQL Server 2014 Standard and Business Intelligence editions only) customers simply purchase one server license for each VM running SQL Server software, regardless of the number of virtual processors allocated to the VM.

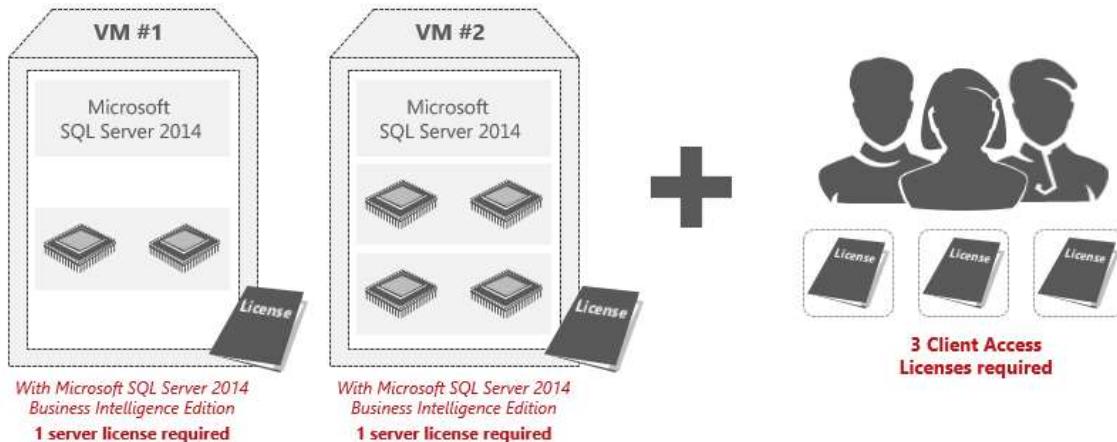
For example, a customer who wants to deploy Business Intelligence Edition running in six VMs, each allocated with four v-cores, would need to assign six SQL Server 2014 Business Intelligence server licenses to that server.

Note: Each user or device accessing SQL Server 2014 software, regardless of a virtual or physical deployment, requires a SQL Server 2014 CAL.

For details on how to license individual VMs with legacy SQL Server Enterprise Edition server licenses, please refer to the [Additional Product Information](#) section of this guide.

1 License each virtual machine with a server license

2 License each user or device with a CAL



This figure shows an example of licensing virtual machines under the Server+CAL licensing model

Licensing for Maximum Virtualization

With SQL Server 2014 Enterprise Edition, customers who have **licensed all physical cores on the server** can run an unlimited number of instances of the software in a number of OSEs (physical and/or virtual) equal to the number of core licenses assigned to the server. For example, a four processor server with four cores per processor—fully licensed with sixteen core licenses—can run SQL Server software in up to sixteen VMs, regardless of the number of virtual cores allocated to each VM.

- Customers who have licensed all the physical cores on the server and want to run SQL Server 2014 software in more VMs than are permitted, can assign additional core licenses to the licensed server.
- Each additional core license allows deployment of SQL Server software in an additional VM, so in the previous example, a customer who wants to run SQL Server Enterprise Edition in eighteen VMs would simply acquire and assign eighteen core licenses to that server.

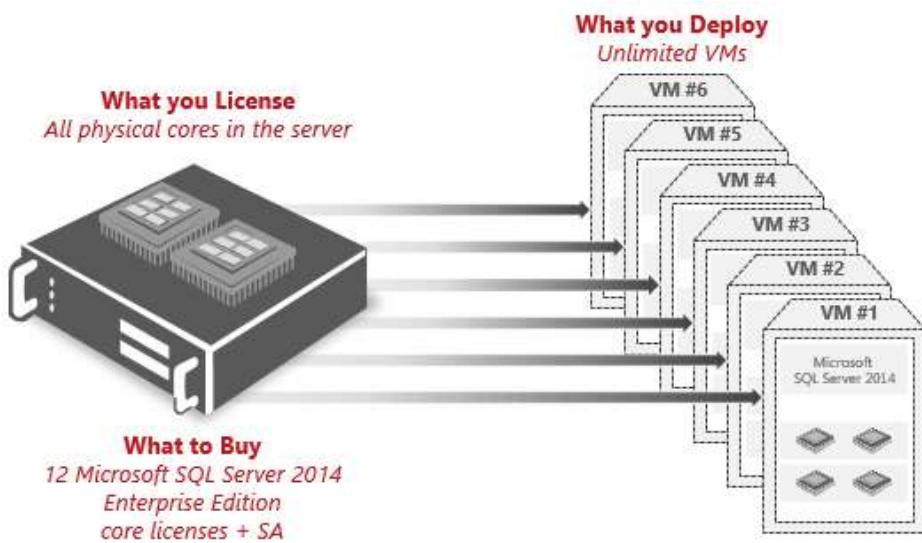
With the addition of Software Assurance (SA) coverage on all Enterprise Edition core licenses (for a fully licensed server), customers' use rights are expanded to allow any number of instances of the software to run in any number of OSEs (physical or virtual). This valuable SA benefit enables customers to deploy an unlimited number of VMs to handle dynamic workloads and fully utilize hardware computing capacity.

Note: This benefit ends when SA coverage expires.

Licensing for maximum virtualization can be an ideal solution when:

- Deploying SQL Server private cloud scenarios with high VM density.
- Hyper-threading is being used.
- Using dynamic provisioning and de-provisioning of VM resources.

- 1** Fully license the server with SQL Server 2014 Enterprise Edition core licenses and Software Assurance
- 2** Deploy an unlimited number of virtual machines



Shown is an example of licensing for unlimited VMs with Enterprise Edition core licenses and SA (assuming a core factor of 1)

- ⦿ For additional details on licensing SQL Server in virtualized environments, download the SQL Server Virtualization Licensing Guide at: <http://go.microsoft.com/fwlink/?LinkId=396790>.

Licensing SQL Server 2012 Parallel Data Warehouse

SQL Server 2012 Parallel Data Warehouse (PDW) is a specialized edition of SQL Server software which is only available as a component of the Analytics Platform System (APS) appliance. APS appliances provide data warehouse solutions that are offered through preferred hardware partners.

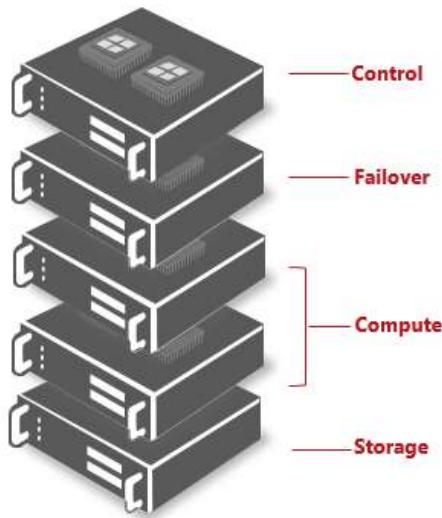
Simple to deploy, SQL Server 2012 PDW is delivered as a component of a pre-built APS appliance with software, hardware, and networking components already pre-installed and configured to maximize data warehouse performance. Designed to grow with a customer's data warehousing needs, APS appliances can scale from a quarter rack configuration to a multiple rack solution supporting petabytes of data.

Licensed exclusively under the **Per Core** licensing model, the number of SQL Server 2012 PDW core licenses required for an APS appliance will depend on the total number of physical SQL Server 2012 PDW **compute servers** configured in the appliance.

Note: an APS appliance is defined to be a single unit made up of two or more active compute servers (also called compute nodes) that are controlled by a single PDW control VM (virtual OSE).

When licensing an APS appliance, all physical cores on all active SQL Server 2012 PDW compute servers must be fully licensed for SQL Server 2012 PDW software. For example, a quarter rack appliance configured with two active SQL Server 2012 PDW compute servers—each with two 8-core processors—would require a total of 32 SQL Server 2012 PDW core licenses (assuming a processor core factor of "1").

As with other SQL Server software editions licensed under the Per Core model, SQL Server 2012 PDW core licenses are sold in packs of two. For more information on how to determine the number of license SKUs to order, including how to account for processor core factors when determining license requirements, refer to the [Core-Based Licensing](#) section of this guide.



This figure depicts the architecture of a representative quarter rack Parallel Data Warehousing server

Additional Considerations when Licensing APS Appliances:

- Windows Server 2012 Standard Edition software is acquired with the appliance hardware through an OEM license. Software Assurance (SA) coverage for Windows Server must be added through an applicable Microsoft Volume Licensing program.
 - Windows Server CALs are also required for all users accessing the PDW appliance.
- Customers must additionally acquire software licenses with SA coverage for the SQL Server 2012 PDW and requisite System Center 2012 software components through a Volume Licensing program.
- While SQL Server 2012 PDW licenses are only required for the active compute nodes in an appliance, all servers—including the control server and passive failover servers configured in the appliance—must be fully licensed for both Windows Server 2012 and System Center 2012 Standard Edition software.
- Licensing by individual OSE is not applicable to SQL Server 2012 PDW software. As noted above, all physical cores on all active compute servers in the PDW appliance must be fully licensed for SQL Server 2012 PDW.
- SQL Server software running on the PDW appliance control server is considered Additional Server Software and does not need to be separately licensed when all active compute servers are fully licensed as defined above.

Advanced Licensing Scenarios and Detailed Examples

Licensing SQL Server for High Availability

This section introduces a few advanced SQL Server 2014 licensing scenarios to help illustrate how customers can apply some of the key licensing principles covered in this guide. For detailed licensing terms and additional licensing guidance applicable to more specific software deployment scenarios, refer to the Microsoft Volume Licensing Product Use Rights (PUR).

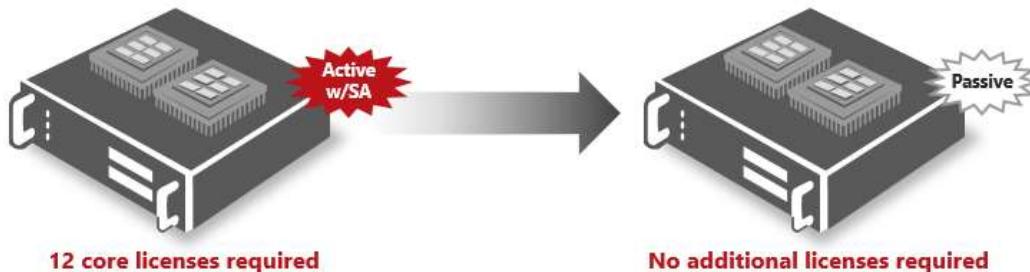
SQL Server software can be configured so that if one server fails, its processing will be picked up, recovered and continued by another server. All editions of SQL Server 2014 provide basic high availability features including backup log shipping, database mirroring and two-node failover clustering. Advanced (AlwaysOn) high availability features in SQL Server 2014 Enterprise Edition include enhanced support for multiple, active (readable) secondary servers and support for multi-site failover clustering.

Log shipping and database mirroring take place at the database level, whereas failover clustering takes place at the SQL Server instance level.

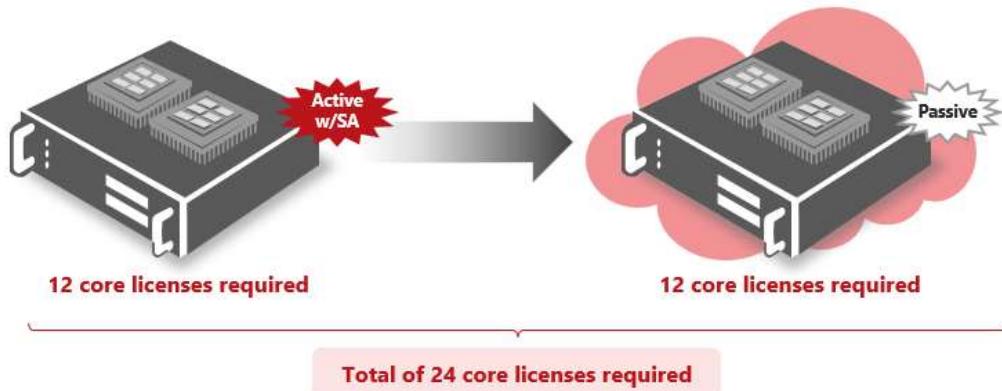
Failover Basics

For each server licensed with SQL Server 2014 and covered by active SA, customers can run up to the same number of passive failover instances in a separate, on-premises OSE to support failover events. **A passive SQL Server instance is one that is not serving SQL Server data to clients or running active SQL Server workloads.** The passive failover instances can run on a separate server. These may only be used to synchronize with the primary server and otherwise maintain the passive database instance in a warm standby state in order to minimize downtime due to hardware or software failure.

- The secondary server used for failover support does not need to be separately licensed for SQL Server as long as it is truly passive, and the primary SQL Server is covered with active SA. If it is serving data, such as reports to clients running active SQL Server workloads, or performing any “work”, such as additional backups being made from secondary servers, then it must be licensed for SQL Server.

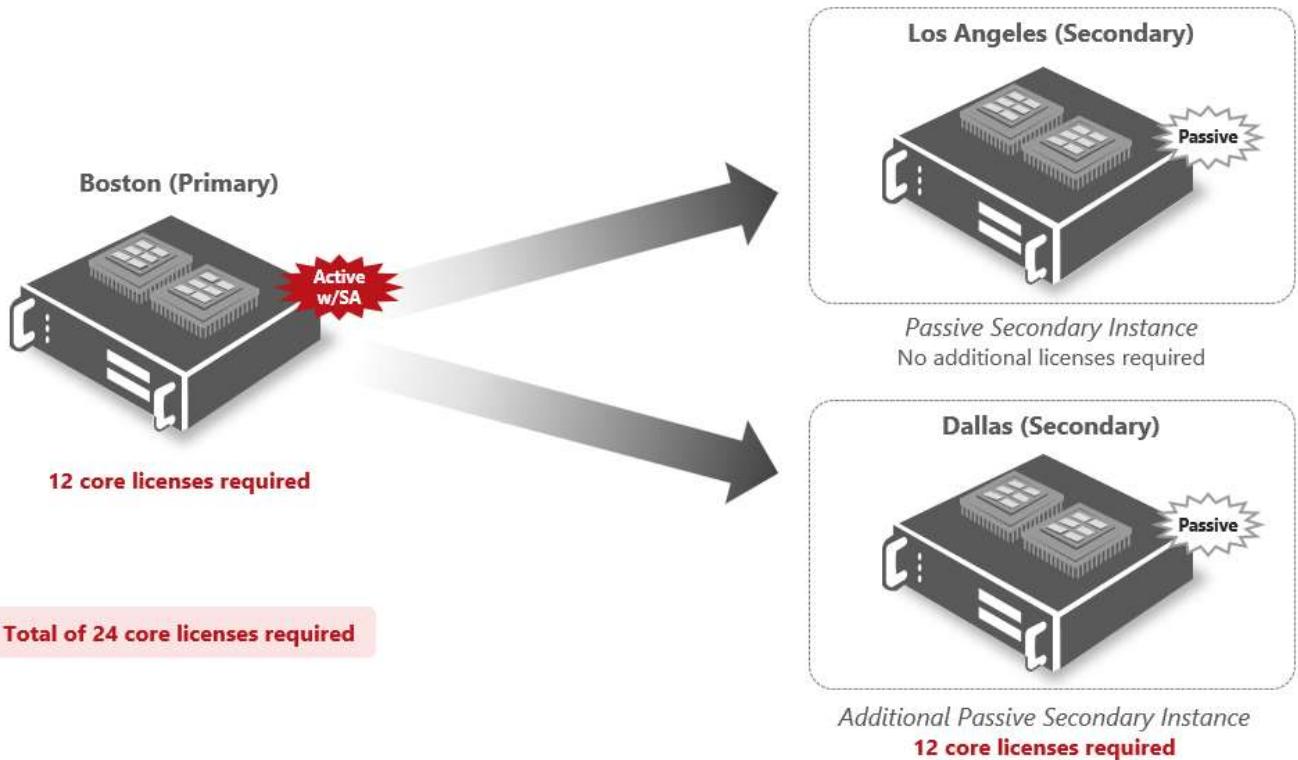


This figure shows an example of licensing an active primary SQL Server 2014 database with Software Assurance and a passive secondary database hosted on-premises (assuming a core factor of 1)



This figure shows an example of licensing an active primary SQL Server 2014 database with Software Assurance and a passive secondary database hosted in the cloud (assuming a core factor of 1)

- Primary server licenses covered with SA include support for one secondary server only, and any additional secondary servers must be licensed for SQL Server. Note: The rights to run a passive instance of SQL Server for failover support are not transferable to other licensed servers for purposes of providing multiple passive secondary servers to a single primary server.



This figure shows an example of licensing an active primary SQL Server 2014 database with Software Assurance and multiple passive secondary databases (assuming a core factor of 1)

- When licensing SQL Server 2014 under the Per Core model, the number of core licenses must be based on the server that requires the higher number of licenses. This way, when the failover server takes over, it will be adequately licensed. For a passive instance of SQL Server to be properly licensed, it cannot require more core licenses than the licensed primary system.
- In the event that a passive instance of SQL Server becomes active for any reason, the primary SQL Server 2014 license is dynamically reassigned to the newly active server via the License Mobility within Server Farms SA Benefit, and now assumes all active workloads.

Failover Support for APS Appliances

- High availability support for SQL Server 2012 PDW differs from traditional SQL Server software offerings and instead, is managed entirely within the single appliance. If any of the control and/or compute server VMs fail, then the services provided by the failed VM(s) are automatically picked up by one of the passive servers configured within the appliance. This process is managed by technology within the APS appliance.
- Failover clustering between two or more appliance systems is not generally supported and running an additional appliance for redundant back-up purposes would require the back-up appliance to be fully licensed accordingly.

AlwaysOn Availability Groups

Enhanced for SQL Server 2014 Enterprise Edition, AlwaysOn Availability Groups enable customers to configure multiple databases that will failover as a unit, with support for up to eight active secondary servers and two synchronous secondary servers. The ability to use secondary servers for more than just passive failover support can improve the performance of primary, reporting and backup workloads due to better balancing of workloads across instances, helping to provide better return on hardware investment.

Note: When secondary servers are actively used to support these additional workload scenarios—that is, when the servers used for failover purposes are no longer truly passive—they must be fully licensed accordingly.



This figure shows an example of licensing an active primary SQL Server 2014 database with Software Assurance and an active secondary database (assuming a core factor of 1)

Licensing SQL Server for Non-production Use

Customers are required to license every Microsoft software product they install, configure, and use, including all physical and virtual instances. As such, licensing a development and test environment can be expensive and challenging to manage as new servers are set up and others are torn down. Microsoft offers multiple, cost- effective options for licensing SQL Server 2014 software for use in non-production environments.

SQL Server Developer Edition

SQL Server 2014 Developer Edition is a full-function version of SQL Server software—including all of the features and capabilities of Enterprise Edition—licensed under the Developer Tools model, which is a “per user” model. One license is required for **each person** that accesses or uses the software. Customers licensing APS appliances for non-production use are also able to license the included SQL Server 2012 PDW software under the Developer Tools model.

When using SQL Server under the Developer Tools license model, the software may only be used for development, test or demonstration purposes. Each licensed user may install and run the SQL Server software on any number of devices, and an additional SQL Server license for the actual server systems running SQL Server software is not required. This is significant, because it allows customers to run the software on multiple devices (for testing purposes, for example) without having to license each non-production server system.

- Before using SQL Server software under the Developer Tools model, customers must assign one license to each user accessing the software.
- Once licensed, customers can install the SQL Server software on any number of server systems, and all licensed users can use copies to design, develop, test and/or demonstrate programs.
- Customers cannot use the software in a production environment, and any test data that was used for design, development or test purposes must be removed prior to deploying the software for production use.

Note: A production environment is defined as an environment that is accessed by end-users of an application (such as an Internet website) and that is used for more than gathering feedback or acceptance testing of that application. Other scenarios that constitute production environments include:

- Environments that connect to a production database.
- Environments that support disaster-recovery or backup for a production environment.
- Environments that are used for production at least some of the time, such as a server that is rotated into production during peak periods of activity.

It is rare that someone whose primary role is designing, developing, or testing software would also qualify as an "end user" of the software.

MSDN Subscriptions

Customers can also choose to license SQL Server software for non-production use through certain MSDN subscription offerings, including the Visual Studio Professional, Premium and Ultimate subscription levels. Similar to the standalone SQL Server Developer editions, MSDN subscriptions are licensed on a per user basis and the software cannot be used in a production environment.

- ➲ For more information on MSDN subscriptions that include access to SQL Server software, visit: <http://www.visualstudio.com/products/visual-studio-with-msdn-overview-vs>
- ➲ For more information on MSDN licensing scenarios, download the Visual Studio 2013 and MSDN Licensing White Paper at: <http://go.microsoft.com/fwlink/?LinkId=328071>

Product Evaluations

SQL Server 2014 Evaluation Edition is a fully functional trial version of SQL Server 2014 software that automatically expires after 180 days. Microsoft Volume Licensing customers can also install and evaluate non-expiring software versions of any of the SQL Server 2014 products for 60 days before requiring a purchase.

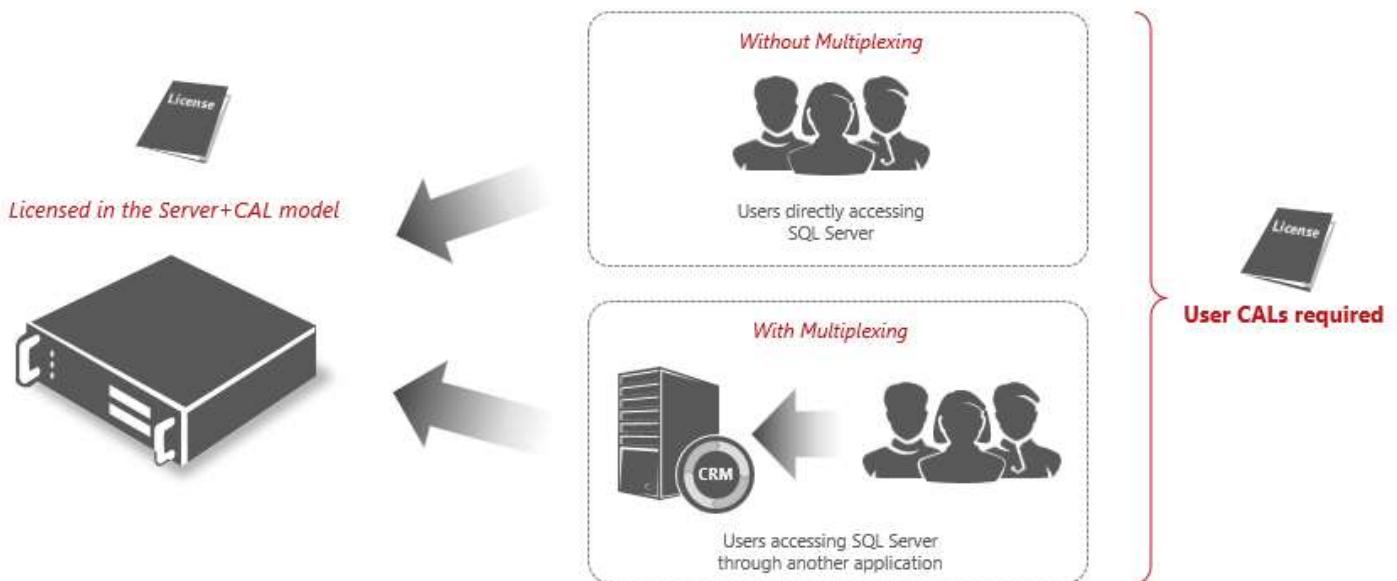
- ➲ To discover the power of SQL Server 2014, download the free SQL Server 2014 Evaluation at: <http://www.microsoft.com/sqlserver/en/us/get-sql-server/try-it.aspx>

Licensing SQL Server in a Multiplexed Application Environment

“Multiplexing” refers to the use of hardware or software to pool connections, reroute information, or reduce the number of devices or users that directly access or use SQL Server. Multiplexing can also include reducing the number of devices or users SQL Server directly manages.

When licensing SQL Server software under the Server+CAL licensing model, users and devices that indirectly access SQL Server data through another application or hardware device still require SQL Server CALs.

- Multiplexing does not reduce the number of Microsoft licenses required. Users are required to have the appropriate licenses, regardless of their direct or indirect connection to SQL Server.
- Any user or device that accesses the server, files, data or content provided by the server that is made available through an automated process requires a SQL Server CAL.
- The number of tiers of hardware or software between the SQL Server and the user or devices that ultimately use its data, services, or functionality does not affect the number of CALs required.
- Manual transfer of data from employee to employee does not necessitate the requirement of a CAL for the receiving employee. For example, if an employee sends a Microsoft Office Excel® version of a report to another employee, the receiving employee does not require a CAL (as long as the report does not access a server running SQL Server in some way).



This figure illustrates the licenses used in the Server+CAL licensing model via multiplexing

SQL Server CALs are required for users or devices that directly input into, query, or view data from a SQL Server database. Similarly, SQL Server CALs are required for users or devices that input data into, query, or view data from a SQL Server database through a pooling device (such as the CRM Server in the figure above). This includes users who view data through web-based applications or enter information into a database through an intermediary product.

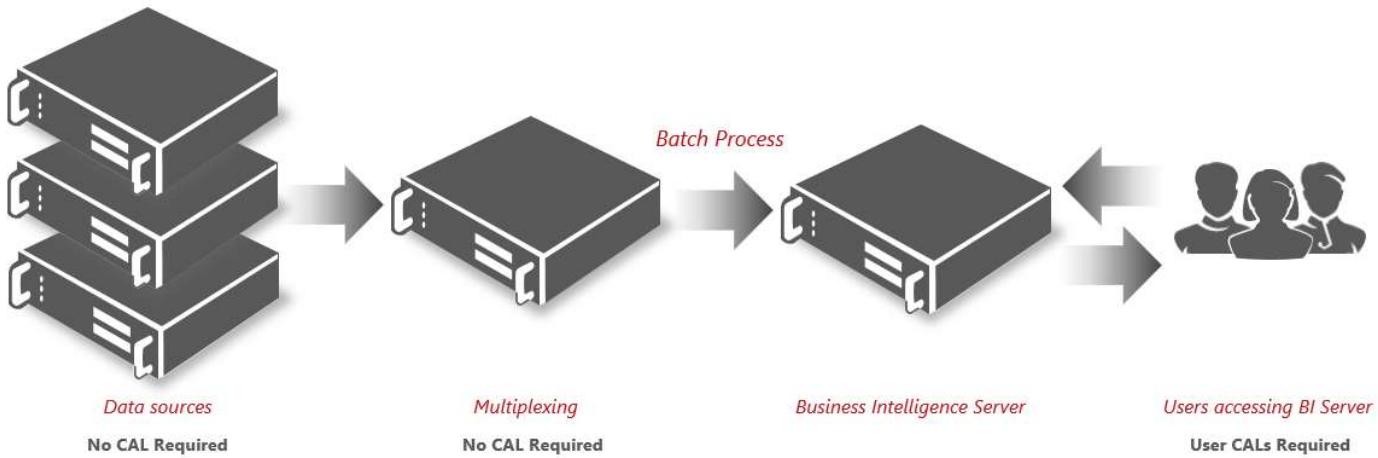
When users actively send SQL Server data by email or other messaging technology, recipient users do not require a SQL Server CAL. With multiplexing, these rules do not change. Likewise, the paper distribution of data does not require SQL Server CALs for the recipients of the paper report. Users who receive data directly or

indirectly from SQL Server require CALs, but if these users print the data, recipient users do not require a SQL Server CAL.

Additional Considerations when licensing SQL Server Business Intelligence Edition:

For SQL Server 2014 BI Edition only, the multiplexing policy has been relaxed to allow for batch processing access to the server software, without requiring CALs for those users or devices.

- Batch processing is defined as a number of tasks that happen at different times, but are processed at the same time.
- Note that the multiplexing policy has also been relaxed for SQL Server 2012 BI servers via a Product List note.
- All access to SQL Server Standard and SQL Server Enterprise servers licensed in the Server+CAL model requires CALs, and the general multiplexing policy applies.



This figure shows an example of licensing SQL Server 2014 Business Intelligence Edition with batch processing

- ⦿ For more details on how multiplexing affects the licensing of SQL Server 2014 products under the Server+CAL model, download the Volume Licensing Brief at: <http://www.microsoft.com/licensing/about-licensing/briefs/multiplexing.aspx>
- ⦿ For full details regarding the multiplexing changes applicable to SQL Server Business Intelligence Edition, refer to the April 2014 publications of the Microsoft PUR and Product List for Volume Licensing available at: <http://www.microsoft.com/licensing/about-licensing/product-licensing.aspx>

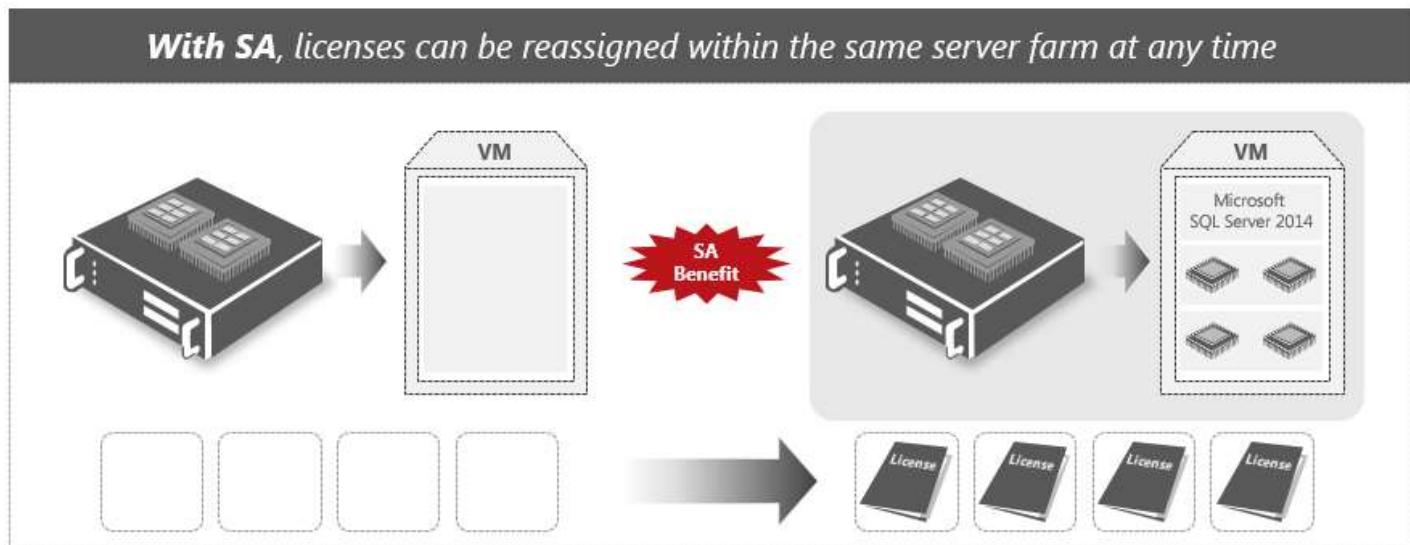
Licensing SQL Server for Application Mobility

License Mobility is a use right that is available for all editions of SQL Server 2014 software licenses with active Software Assurance (SA) coverage. With this SA benefit, customers can reassign SQL Server licenses to different servers within a server farm as often as needed. Customers can also reassign licenses to third party shared servers. License Mobility is available for licenses under both the Per Core and Server+CAL license models.

- SQL Server licenses that are **not covered** with active SA can only be reassigned to a different server within a server farm once every 90 days, and they cannot be reassigned to a third party web hoster or non-private cloud at any time. (In the event of permanent hardware failure, the 90-day reassignment limit is waived.)
- All SQL Server licenses with active SA can be reassigned to another server within the server farm as often as needed; however, they can only be reassigned to another server in another server farm, or to a non-private cloud, once every 90 days.
 - A server farm may consist of up to two data centers located in time zones that are within four hours of one another and/or with the European Union (EU) and/or European Free Trade Association (EFTA).
 - A given data center may only be part of one server farm.
- License Mobility use rights do not apply to SQL Server 2012 PDW software.

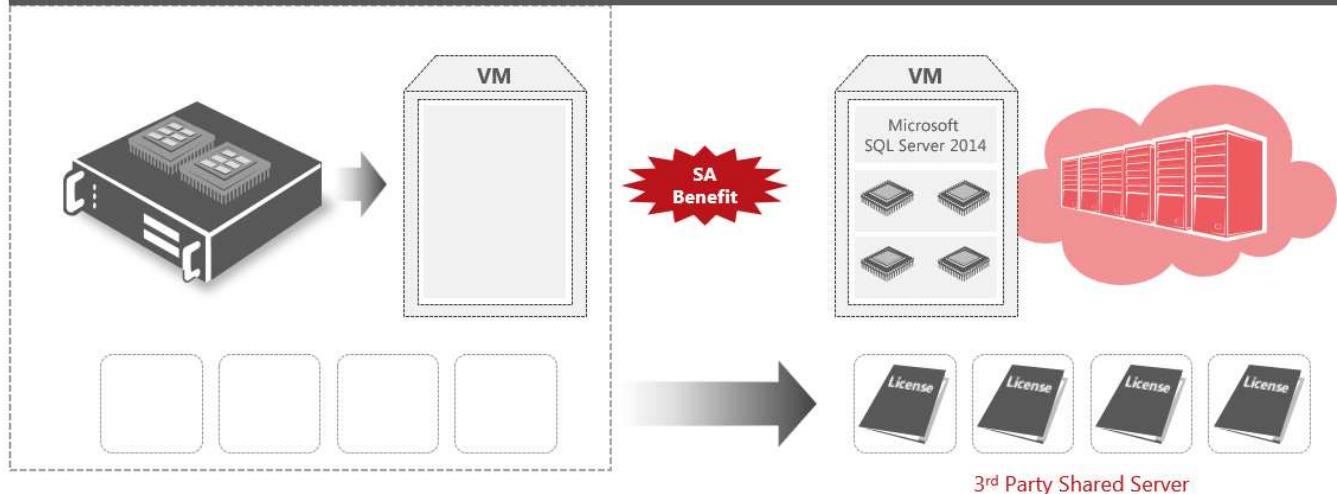
License Mobility can benefit customers who license individual virtual machines (VMs) and then want to reassign those licenses to different servers within a server farm—as workloads move dynamically—or to VMs in cloud environments.

Note: License Mobility applies only to the reassignment of software *licenses* and is not applicable to the reassignment of running instances of SQL Server software.



In this figure, core licenses are being reassigned within the same server farm through License Mobility

With SA, licenses can be reassigned to a third party hoster or the cloud, once every 90 days



In this figure, core licenses are reassigned to a 3rd party shared server through License Mobility. Note that unlike License Mobility within a server farm, licenses can only be reassigned to 3rd party only once every 90 days.

- For more information on how to use License Mobility to extend the value of SQL Servers licenses, visit: <http://www.microsoft.com/licensing/software-assurance/license-mobility.asp>

Additional Product Information

Upgrades, Downgrades and Step-Ups

When licensing SQL Server 2014 software, several deployment options are available to support a variety of customer upgrade scenarios.

- Version Upgrade Rights** are offered as a Software Assurance (SA) benefit for qualified licenses and allow customers access to upgrade their deployments at no additional cost. Existing SQL Server 2012 software licenses covered by SA are automatically upgraded to licenses for the corresponding SQL Server 2014 edition.
- Cross Edition Rights** are currently available for certain SQL Server products only and allow customers to deploy an alternate (usually lower) edition in place of the currently licensed edition. SQL Server cross edition rights can be combined with the version downgrade rights (available for all products offered under a Volume Licensing Agreement) that allow customers to deploy prior versions of the software in place of the currently licensed version. In some cases, rights to deploy prior versions of product editions other than the edition currently licensed may also be allowed.

Note: When using version downgrade or cross edition deployment rights, the product use rights for the originally licensed version and edition still apply. Cross edition rights and edition step-ups do not apply to SQL Server Parallel Data Warehouse software.

Software Deployment options for SQL Server 2014		
Customers Licensed for:	Can choose to deploy:	Customers Licensed for:
	Software Edition	Software Version
SQL Server 2014 Standard Edition Server	SQL Server Standard Server	2014 or earlier
	SQL Server Workgroup	2008 R2 or earlier
	SQL Server for Small Business	2008 R2 or earlier
SQL Server 2014 Standard Edition Core	SQL Server Standard Core	2014 or earlier
	SQL Server Web (non-SPLA only)	2008 R2 or earlier
	SQL Server Workgroup	2008 R2 or earlier
SQL Server 2014 Business Intelligence Edition	SQL Server Business Intelligence	2014 or earlier
	SQL Server Standard Server	2014 or earlier
	SQL Server Enterprise Core	2014 or earlier
SQL Server 2014 Enterprise Edition Core	SQL Server Business Intelligence	2014 or earlier
	SQL Server Standard Core	2014 or earlier
	SQL Server Datacenter	2008 R2 or earlier

This table shows deployment options available to customers with SQL Server licenses. **SQL Server 2014 use rights apply.**

- **Edition Step-Ups** are offered as a Software Assurance (SA) benefit in certain Volume Licensing programs only and allow customers to move from a lower product edition. SQL Server 2014 Standard Edition server licenses can step-up to SQL Server 2014 Business Intelligence Edition and SQL Server 2014 Standard Edition core licenses can step-up to SQL Server 2014 Enterprise Edition. And new for SQL Server 2014, SQL Server 2012 PDW core licenses are now eligible to step-up to SQL Server 2014 Enterprise core licenses. To be eligible to step-up to a higher edition, the lower edition license must be covered by SA. Step-Ups between licensing models are not allowed.

SQL Server 2014 Migration Options for Software Assurance Customers

To facilitate a smooth transition to the product edition and licensing model changes introduced with SQL Server 2012, Microsoft continues to offer several migration options to help customers who have invested in Software Assurance benefits to protect their current software investments.

- For full details on the migration options and additional license grants available to current SA customers with eligible SQL Server licenses, refer to the April 2012 publication of the Microsoft Product List for Volume Licensing at:
<http://www.microsoft.com/licensing/about-licensing/product-licensing.aspx>

For SQL Server Processor Licenses with Software Assurance

SQL Server 2008 R2 was the last version of SQL Server software to be licensed under the Per Processor licensing model. Customers with active SA coverage on qualifying SQL Server 2008 R2 processor licenses are eligible to run SQL Server 2012 during their agreement term under processor use rights, and to renew into core licenses at their first subsequent SA expiration. For these customers who continue to have active SA coverage as of April 1, 2014—and who are still in their first renewal term since April 1, 2012—the right to run SQL Server 2014 software under processor use rights also applies.

During Current Agreement Term: During the current term of SA coverage (effective on or before April 1, 2012), customers who are licensing SQL Server under the processor licensing model can, for a given deployment, upgrade to and use the equivalent edition of SQL Server 2014 core-based software (in place of the licensed SQL Server 2008 R2 edition), subject to current SQL Server 2008 R2 processor license product use rights.

SQL Server Datacenter Edition customers can run the SQL Server 2014 Enterprise Edition core-based software. SQL Server Workgroup and (non-SPLA) Web Edition customers can run SQL Server 2014 Standard Edition core based software.

Customers with Enterprise Agreements effective on or before April 1, 2012 can also continue to acquire additional SQL Server 2008 R2 processor licenses—and upgrade those licenses to SQL Server 2014—through the end of their enrollment.

Renewing Processor Licenses into Cores: The number of core licenses a customer is eligible to renew is based on the edition of SQL Server currently licensed and the number of cores in use when SA coverage expires:

Renewing Processor Licenses into Core Licenses at the End of the SA Term	
Qualified perpetual license under SA as of April 1st, 2012	Eligible to renew into minimum number of core licenses
SQL Server Datacenter Edition processor license	8 SQL Server Enterprise Edition core licenses
SQL Server Enterprise Edition processor license	4 SQL Server Enterprise Edition core licenses
SQL Server Standard Edition processor license	4 SQL Server Standard Edition core licenses
SQL Server Workgroup Edition processor licenses	4 SQL Server Standard Edition core licenses
SQL Server Web Edition (non-SPLA) processor licenses	4 SQL Server Standard Edition core licenses
SQL Server Parallel Data Warehouse processor licenses	8 SQL Server Parallel Data Warehouse core licenses

This table shows the renewal of SQL Server licenses by edition

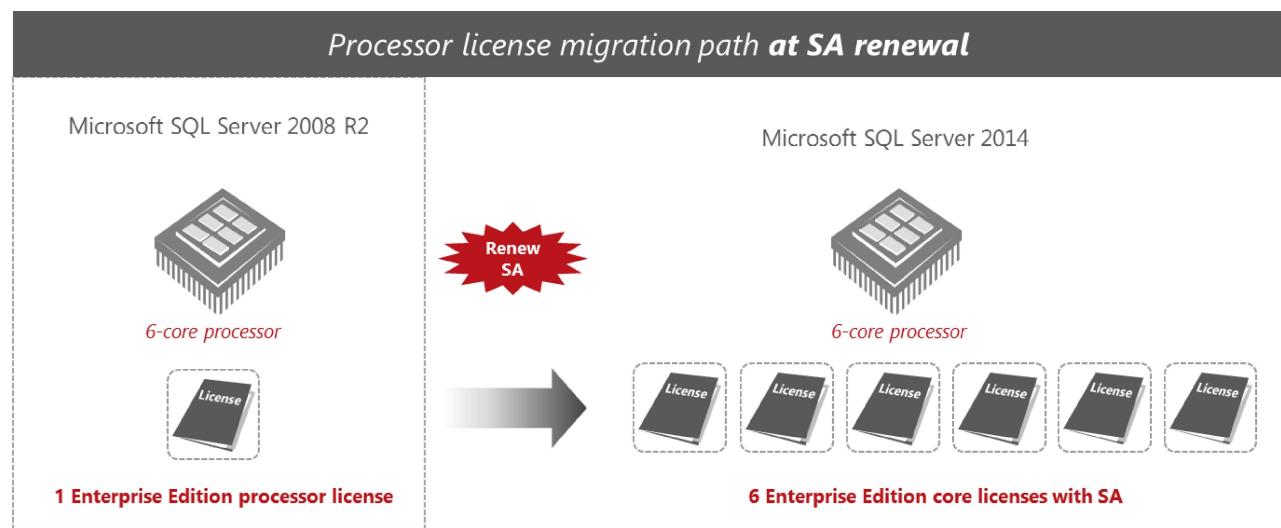
If the number of core licenses required exceeds the minimum eligibility defined above, the customer can take an inventory to document their actual core license needs. (Core license needs are equivalent to the cores in a physical server multiplied by the core factor for that server).

As part of an SA renewal, customers exchange eligible processor licenses into an appropriate number of SQL Server 2014 core licenses based on the above inventory and eligibility criteria. (See the Microsoft Product List for Volume Licensing for full details and restrictions.)

These Restrictions Apply: When processor licenses are renewed into core licenses, they are exchanged. This exchange process supports customers' eligibility to renew into a number of core licenses based on actual need at the time of renewal.

- To exchange a SQL Server processor license for core licenses, SA coverage must be renewed based on the number of core licenses required to license all of the physical cores in the server.
- To be eligible for more than the minimum exchange, the total number of processor licenses assigned to a given server cannot exceed the total number of physical processors in the server.
- An inventory performed by the end of the first SA term ending after April 1, 2012 must be recorded to demonstrate core license needs. Customers who do not maintain a record will receive a core equivalence for only the minimum number of core licenses noted for each edition in the figure above.

- Customers are encouraged to use the Microsoft Assessment and Planning (MAP) Toolkit or other equivalent software to acquire their record of configuration. For more information on the MAP Toolkit, visit: <http://www.microsoft.com/download/en/details.aspx?displaylang=en&id=7826>



In this figure, a SQL Server 2008 R2 processor license is exchanged for 6 SQL Server 2014 core licenses at SA renewal.

For SQL Server 2008 R2 Parallel Data Warehouse (PDW) appliance customers: The above migration options for customers with eligible SQL Server processor licenses generally apply to SQL Server PDW appliance customers with active SA coverage as of **March 1, 2013**.

For Customers Who Do Not Renew Software Assurance Benefits

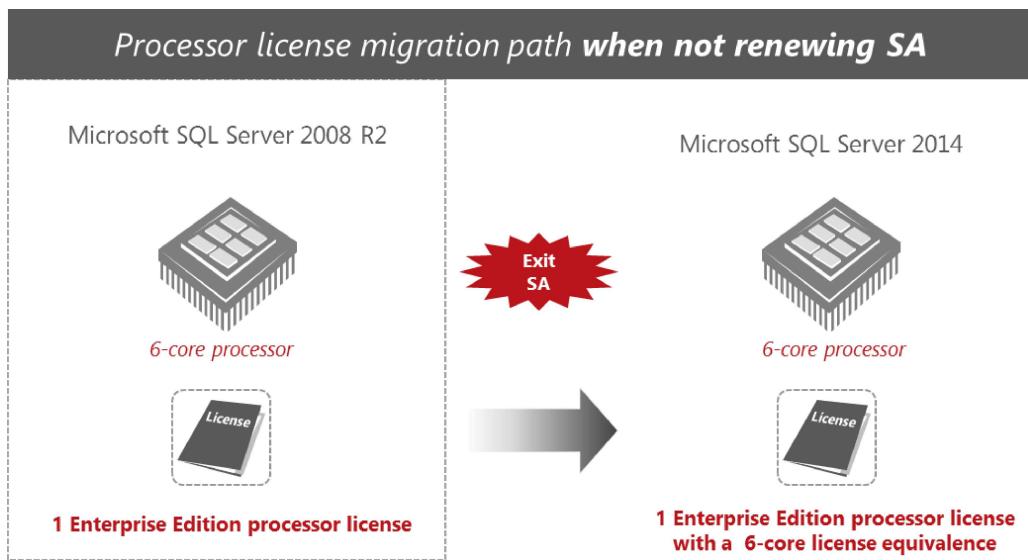
SQL Server 2008 R2 processor-based customers with active SA coverage in effect as of April 1, 2014 are eligible to upgrade to SQL Server 2012 or SQL Server 2014 software during their current agreement term. Customers with perpetual use rights who choose not to renew coverage on existing processor licenses at the end of their agreement term, can continue to run SQL Server 2012 or SQL Server 2014 core-based software (including prior versions), subject to the following restrictions:

- Customers must follow SQL Server 2008 R2 processor use rights. Customers who do not renew SA coverage for their existing processor licenses are no longer eligible for applicable SA-only benefits such as Unlimited Virtualization, License Mobility and Fail-Over Servers. For more information on these and other benefits, refer to the [Software Assurance Benefits](#) section of this guide.
- When reassigning licenses to different server, the use rights for SQL Server 2014 core-based license terms will apply. Customers who do not renew SA coverage on their processor-based licenses will no longer be eligible for SA-only benefits once their agreement term expires.

These Additional Restrictions Apply: For purposes of calculating on-going use rights, customers who upgrade to SQL Server core-based software will receive a fixed (perpetual) SQL Server 2014 "core equivalence value" for each existing SQL Server 2008 R2 processor license with expiring SA. This core equivalence value is equal to either:

- The minimum number of core licenses defined in the license renewal section above; or
- The actual number of physical processor cores in the licensed server, multiplied by the applicable core factor for that processor type. Customers must record an inventory of the actual number of cores in use to document core license needs.
- The total number of processor licenses eligible to receive more than the minimum core equivalency cannot exceed the total number of physical processors in the licensed server.

- Processor licenses with fixed SQL Server 2014 core equivalence values can be combined with SQL Server 2014 core licenses of the same edition to support deployment on servers that require additional core licenses. They cannot be combined with SQL Server 2012 core licenses that were not under active SA on April 1st 2014.



In this figure, a processor license is retained when migrating to SQL Server 2014 without SA renewal

SQL Server Enterprise Edition Customers Licensed Under the Server+CAL Model

As of July 1, 2012, Microsoft no longer offers SQL Server Enterprise Edition under the Server+CAL license model. Current customers with active SA coverage for existing SQL Server 2008 R2 Enterprise Edition server licenses should consider the following when transitioning to SQL Server 2014 software:

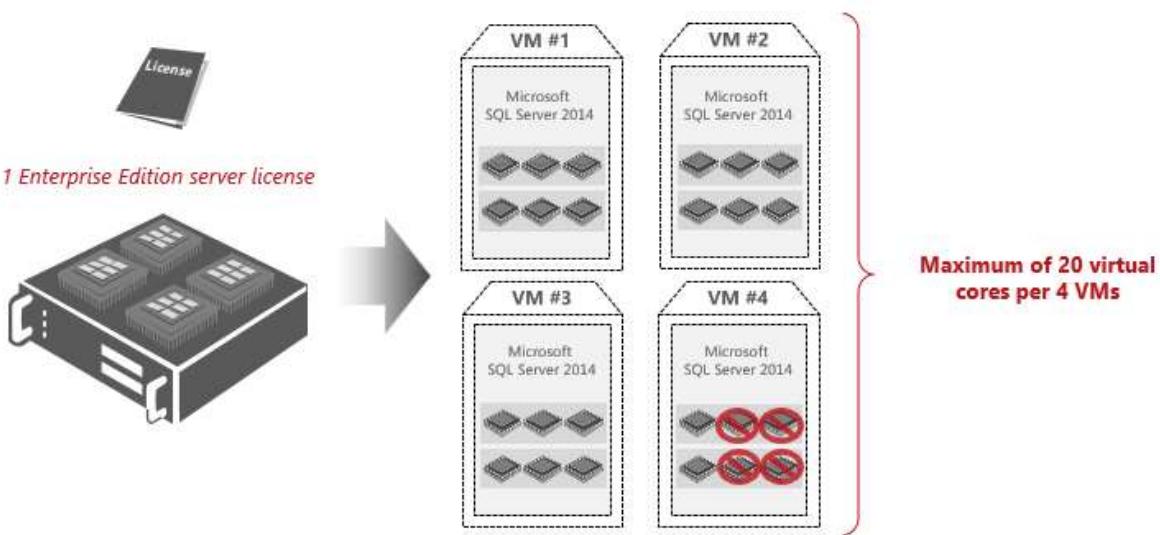
- SQL Server 2012 Enterprise Edition server licenses ceased to be available on price lists after June 30, 2012. Enterprise Agreement (EA) customers with active enrollments on that date can continue purchasing new licenses until the end of their current agreement term.
- After their current term expires, SA coverage can be renewed and maintained on SQL Server Enterprise Edition server licenses to provide continued access to SA benefits, including License Mobility rights, Failover Server rights, and access to future releases.
- SQL Server 2014 Enterprise Edition software licensed under the Server+CAL model is intended and physically limited to only run on servers with a total of twenty cores or less:
 - There are **two versions of SQL Server 2014 Enterprise Edition software**: a server-based version and a core-based version. Customers must run the software version for which they are licensed.
 - For customers running SQL Server 2014 Enterprise Edition server-based software instances in a physical environment, that OSE is only permitted to access a maximum of twenty physical cores. A per instance technical limit is also enforced.
 - For customers running SQL Server 2014 Enterprise Edition server licenses in virtual environments, each set of VMs associated with a single server license (up to four per server license) can only access up to twenty hardware threads of combined power at any time.
- Existing SQL Server 2014 Enterprise Edition server licenses continue to have tremendous value, and with the availability of ongoing SA coverage, customers licensed under the Server+CAL model can retain access to the latest product enhancements and advanced capabilities of Enterprise Edition. As such, there are no programmatic conversions to core licenses.

Additional Considerations When Licensing Virtual Environments:

Each SQL Server 2014 Enterprise Edition server license allows customers the ability to run instances of the software in up to four VMs on the licensed server.

- SQL Server Enterprise Edition server licenses—with or without SA coverage—do not have unlimited virtualization rights. This applies to new SQL Server 2014 software deployments, as well as all SQL 2008 R2 and SQL Server 2012 deployments.
- If needed, customers can assign additional SQL Server Enterprise Edition server licenses to a physical server to license additional VMs on that server.
- Note: Each group of four VMs is subject to the 20-thread technical limit noted above.
- License Mobility and Failover Server rights are allowed for SQL Server 2014 Enterprise Edition server licenses with active SA coverage only.

Note: When reassigning a server license, all VMs associated with that server license (up to four per license) must move to another server together.



This figure depicts the deployment of four virtual machines with an Enterprise Edition server license. The four VMs can use a maximum of 20 virtual cores of computing power.

- ➲ For more information on migration options for customers affected by the edition and licensing changes introduced in April 2012 with the release of SQL Server 2012, download the Determining SQL Server 2014 Core Licensing Requirements at SA Renewal guide at: <http://go.microsoft.com/fwlink/?LinkId=396789>.

Software Assurance Benefits

Software Assurance (SA) for Volume Licensing helps boost IT productivity by enabling customers to get the most from Microsoft software products. SA benefits—including 24x7 support, deployment planning services, user and technical training, and the latest software releases and unique technologies—are combined in one cost-effective program.

Using these benefits can help customers improve productivity and help IT efficiently deploy and manage SQL Server software. As hardware capacity and licensing needs expand, SQL Server customers with SA coverage can enjoy the benefit of adding incremental licenses without regard to the software version licensed. Software licenses and use rights are version-specific and as such, licenses for different software versions cannot be combined when licensing a single operating system environment. As a benefit of having access to—and therefore always being licensed for—the latest version of SQL Server software, SA customers licensed under the core licensing model (for example) can easily combine current version core licenses with future version core licenses, without the need to track or otherwise reassign covered licenses based on software version alone.

Note: All licenses must be covered with SA and product use rights do not change when using downgrade rights to deploy prior software versions.

SQL Server customers with active SA coverage for their SQL Server 2014 software licenses can enjoy these additional benefits:

Software Assurance Benefits Overview	
Benefit	Description
Unlimited Virtualization	Allows customers to run any number of instances of SQL Server 2014 Enterprise Edition software in an unlimited number of VMs. Applicable under the core licensing model only.
Failover Servers	Allows customers to install and run passive SQL Server 2014 instances in a separate OSE or server for high availability in anticipation of a failover event.
License Mobility within a Server Farm	Allows reassignment of SQL Server 2014 licenses within a server farm more than once every 90 days. Does not apply to SQL Server PDW.
License Mobility through SA	Allows license reassignment of SQL Server 2014 to third party shared servers. Does not apply to SQL Server PDW.
Disaster Recovery Rights	Allows backup instances of SQL Server 2014 software for temporary use in a server dedicated to disaster recovery.
Special Migration Offers	Provides license grants and additional use terms for legacy SQL Server 2008 R2 customers who are still migrating to current SQL Server 2014 product editions and license models.
SQL Server Appliance Updates	Allows access to new product features and functionality between major appliance software releases. Applies to SQL Server PDW only.
Additional Benefits for SCE Customers	In addition to the benefits noted above, Server Cloud Enrollment (SCE) customers may also qualify for premium benefits, including Unlimited Problem Resolution Support.

This table provides an overview of the benefits of Software Assurance

Refer to the PUR and Product List for more details on these benefits and additional license grants available to SQL Server customers with SA, including any additional terms and conditions that may apply.

- For more information on the full set of Software Assurance benefits available to help customers deploy, manage, and maximize their SQL Server volume licensing purchases, visit: <http://www.microsoft.com/licensing/software-assurance/default.aspx>

Additional Product Licensing Resources

For more information about licensing SQL Server 2014, including what is new with this version, please visit the following websites:

- ➲ For detailed SQL Server product licensing information, including new version features, edition comparisons, benchmarks, competitive comparisons and more, visit:
<http://www.microsoft.com/sqlserver/en/us/default.aspx>
- ➲ For SQL Server Product Use Rights, Product List details, licensing briefs and other information on Microsoft Volume Licensing topics, visit: <http://www.microsoft.com/licensing/about-licensing/product-licensing.aspx>
- ➲ For a list of dependent licenses required for SQL Server under the terms of Volume Licensing Programs, download the Software Dependency Guide at: <http://www.microsoft.com/licensing/about-licensing/briefs/software-dependency.aspx>
- ➲ For more information on licensing options for Windows Server 2012 R2 and System Center 2012 R2, visit: <http://www.microsoft.com/en-us/server-cloud/buy/pricing-licensing.aspx>
- ➲ To download a current copy of this SQL Server 2014 Licensing Guide and to get more information on how to acquire SQL Server software licenses, visit: <http://www.microsoft.com/sqlserver/en/us/get-sql-server/licensing.aspx>