



Windows Embedded  
Server Licensing  
Program

# Windows Embedded Server

## Enhancing the Competitiveness of Solutions

Information technology has provided many services and a great deal of convenience in our daily lives, including everything from buying tickets and paying bills at a convenience store kiosk, electronic highway toll systems, and even the entrance/exit gates of mass transit systems and passenger information systems. In addition to the front-end user equipment, the back-end servers that provide information and carry out transaction processing also play a very important role.

These servers have only served a single purpose from the day they first went online. Due to the specific purpose of these servers, we term them specialized servers. Microsoft has introduced a new model for software licensing tailor-made for these types of servers through Windows Embedded Server.

To give you a better understanding of the scope of Windows Embedded Server applications, in addition to the dedicated services mentioned above, the following may also be included:

- Video monitoring systems
- Collection of various types of monitoring data
- Telecommunications (PBX switchboard systems, call centers, IVR)
- Factory automation
- Medical and healthcare-related applications
- Other industry-specific services



# Windows Embedded Server Licensing Program

## ■ 15-year software licensing availability

Due to the specific purpose of a client solution when it is deployed, the client may continue to use this solution for five years, ten years, or even longer. Microsoft offers a software licensing availability for up to 15 years to ensure that your system continues to conduct sales and other operations adequately, as well as to provide your customers with valid software licenses.

## ■ Integrated installation discs

You can make your solution work even more closely with the Microsoft operating system. Your application may be factory preinstalled with the operating system and you may also make legal integrated copies of your solution on disc so that your client will have access to a more convenient deployment solution.

## ■ Licensing designed just for Windows Embedded Server

Due to the nature of their specific applications, Microsoft has provided an exclusive licensing scheme for these server applications, which enables you to provide competitive products and solutions. The redistribution rights allows you to customize and brand your own server appliances meeting your marketing and branding needs.

### Why is it called Windows Embedded Server?

The special licensing model is referred to as Windows Embedded Server because of the following two distinguishing features:

1. The application is an embedded system used as a special-purpose solution by an industry.
2. The solution is available through a worldwide network of Microsoft Authorized Embedded Distributors:  
[www.microsoft.com/windowseembedded/en-us/partners/distributors/search.aspx](http://www.microsoft.com/windowseembedded/en-us/partners/distributors/search.aspx)

### How can I qualify for purchase of a Windows Embedded Server?

Because Windows Embedded Server is a special licensing model for specialized applications, the following requirements must be met:

1. The application is for a specific purpose only and cannot be used in conjunction with general-purpose PCs. Nor can it be used with other commercial applications such as accounting, email, word processing, and CRM.
2. The embedded application must be preinstalled with the operating system on the server and shipped with the hardware.

For more detailed information refer to the software licensing document. For complete licensing terms and conditions, as well as the provisions in the special version, refer to the Microsoft Software License Terms and the Additional License Terms (ALT).

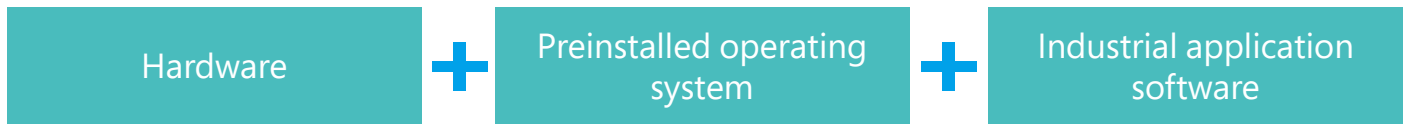
This licensing model is made available by Microsoft for Windows Embedded Server.  
Integrating with identical Windows Server technology provides a platform that enables competitive solutions.

## Windows Embedded Server licensing covers the following products

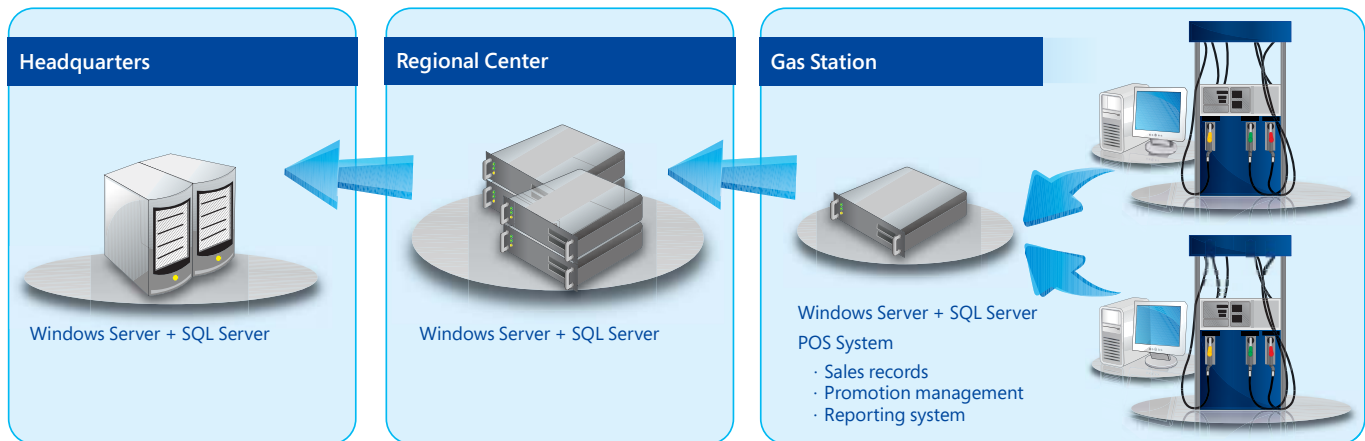
Server operating system	Windows Server 2012 R2 for Embedded Systems Windows Server 2012 for Embedded Systems Windows Server 2008 R2 for Embedded Systems Windows Server 2008 for Embedded Systems Windows Server 2003 R2 for Embedded Systems Windows Server 2003 for Embedded Systems
Database	SQL Server 2014 for Embedded Systems SQL Server 2012 for Embedded Systems SQL Server 2008 R2 for Embedded Systems SQL server 2008 for Embedded Systems SQL Server 2005 for Embedded Systems SQL Server 2000 for Embedded Systems

Please contact an embedded distributor to obtain the latest list of licensed products.

# Windows Embedded Server

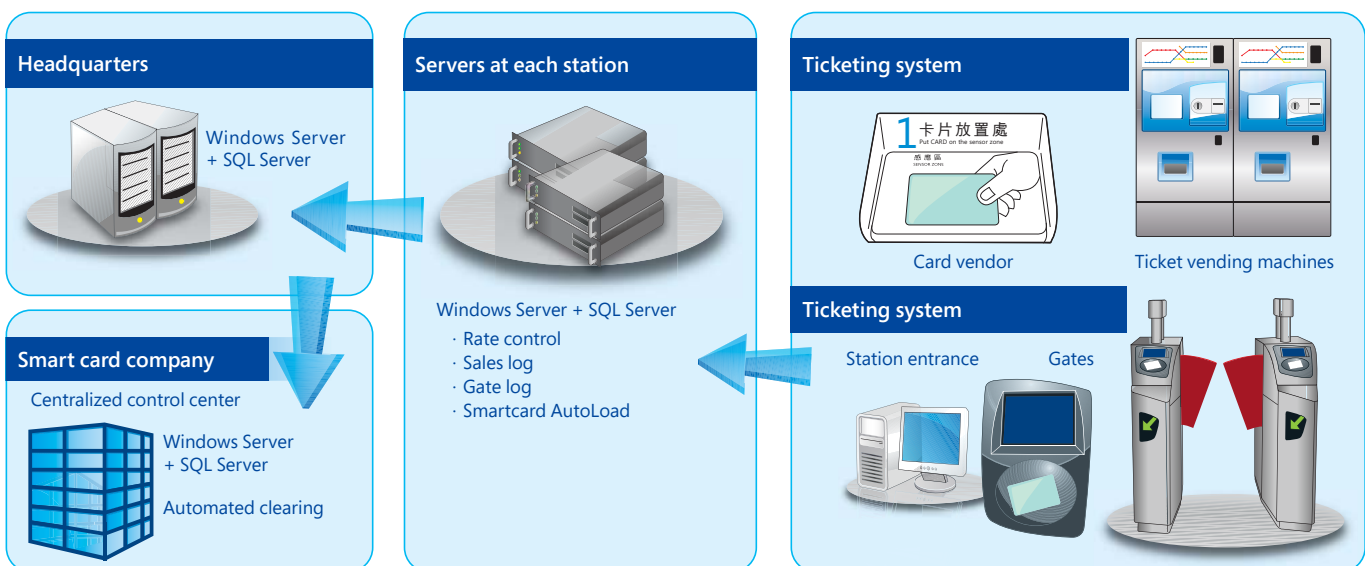


## Architecture Case 1: Gas Station



We use a gas station POS system as an example. Each station requires a data collection and transaction processing database, while the regional centers and the headquarters are also equipped with corresponding database servers to process data collected from each station. This is a single database server application specific to POS solutions, and therefore the Windows Embedded Server licensing program for Windows Server and Microsoft SQL Server applies.

## Architecture Case 2: Public Transportation



In a public transportation system, there are a variety of different server applications. Here we use a ticketing system as an example. When using a smartcard or even a credit card to enter or exit a metro station, a large amount of information is in fact being recorded, including the time of accessing the gate, card number, or even the automatic value-added features of credit cards. As the data is being recorded, it will be stored centrally on servers located at both the station and the headquarters, and the transaction will be settled with the bank using mechanisms at the back-end. Ordinary ticket sales records will, of course, be kept as well for the purposes of traffic volume analysis. This public transportation case represents a typical application scenario of Windows Embedded Server.

<b>Case Study</b>	
<b>Unable to obtain Windows Server 2003</b>	<p>In a public works project that a customer was evaluating, initially Windows Server 2003 was proposed as the server platform. If it was necessary to change the platform, all applications and deployed products would have to be redesigned, which would result in a sharp increase in platform migration costs. Because OEM Embedded is the only channel through which Windows Server 2003 for Embedded Systems can be purchased, the sales representatives with the distributor for this project recommended Windows Server 2003 for Embedded Systems to the customer, which provided a comprehensive solution to the customer's problem.</p> <p>Take Windows Server 2003 as an example. You may license the software via an Embedded Distributor until the year 2018. The current software supply cycle for Windows Embedded Server is the longest among all sales channels. Up to 15 years from the product's RTM, the customer will be able to obtain licenses for Windows Embedded Server products via Embedded Distributors, ensuring that the solutions will remain legally licensed in large-scale projects.</p>
<b>Using Windows Embedded Server allows the customer to take the lead and win bids.</b>	<p>An SI customer in the transportation industry was planning an application solution intended for use on a public transportation system. Due to the fact that it is necessary to deploy a server at each station, the customer found using Windows Embedded Server could reduce the licensing costs of the project. Therefore, with the interests of the customer in mind, we recommended that the Windows Embedded Server solution be used, which allowed the customer to win the tender without modifying the original system.</p> <p>Windows Embedded Server is one of the channels through which Microsoft products can be legally obtained. Since this server product is used by the public transportation system for a specific application, it satisfies specific-purpose licensing requirements. When the product is shipped, applications such as ticketing systems or traffic control systems are preinstalled in order to comply with the licensing requirements.</p>
<b>Data collection and analysis</b>	<p>For a freeway ramp and traffic control system, sales representatives were able to recommend the SQL Server solution in conjunction with hardware systems. The database server is used to collect the enormous amount of data taken from toll stations. SQL Server is used to build a highly reliable, high-productivity and intelligent database platform. Through the built-in data transfer mechanism the information is transmitted back to the center for subsequent analysis. A single database platform helps provide security, reliability, and scalability.</p> <p>SQL Server for Embedded Systems is licensed based on the number of CPUs, or on the basis of users or devices connected to the server (in addition to the server license). In addition, designed for specific-purpose solutions, a special licensing model is also introduced. This model provides unlimited connections from any number of devices for one CPU. It is designed for use with applications such as production lines or device connection solutions for data collection.</p>
<b>Convenience</b>	<p>When compared with other channels where Windows Server 2012 Standard and Datacenter editions are available only in a two-CPU SKU, the embedded distribution channel provides Windows Server 2012 for Embedded Systems Standard as well as Windows Server 2012 for Embedded Systems Datacenter in a two-CPU SKU and a four-CPU SKU, providing better convenience for OEMs.</p>

## Windows Server 2012 and Windows Server 2012 R2 Products

	General licensing		Windows Embedded Server-specific licensing	
	Windows Server 2012 R2 Standard	Windows Server 2012 R2 Datacenter	Windows Server 2012 R2 for Embedded Systems Standard	Windows Server 2012 R2 for Embedded Systems Datacenter
License terms				
Memory	4 terabytes	4 terabytes	4 terabytes	4 terabytes
Processor supported	1-2	1-2	1-4	1-4
Operating system preinstalled	Optional		Required	
Commercial applications	Optional		Not allowed	
Embedded applications	Optional		Required	
Remote management interface	Optional			
Firewall, VPN, web caching	Optional			
Messaging and corporate email	X			
Local area network file server	X			
Authentication service	X			
Network infrastructure services	X			
Network load balancing functions	X			
Failover cluster	X	X	X	X
Virtualization technology	1 to 2 virtual license instances	unlimited virtual license instances	2 to 4 virtual license instances	unlimited virtual license instances
Printing	X			
CAL license requirement	CAL license required			

## Windows Server 2008 R2

	General licensing		Windows Embedded Server-specific licensing	
	Windows Server 2008 Standard	Windows Server 2008 R2 Enterprise	Windows Server 2008 R2 for Embedded Server Standard	Windows Server 2008 for Embedded Server Enterprise
License terms				
Memory	32 GB	2 terabytes	32 GB	2 terabytes
Processor supported	1-4	1-8	1-4	1-8
Operating system preinstalled	Optional		Required	
Commercial applications	Optional		Not allowed	
Embedded applications	Optional		Required	
Remote management interface	Optional			
Firewall, VPN, web caching	Optional			
Messaging and corporate email	X			
Local area network file server	X			
Authentication service	X			
Network infrastructure services	X			
Network load balancing functions	X			
Failover cluster	—	X	—	X
Virtualization technology	1 virtual license instance	4 virtual license instances	2 virtual license instances	4 virtual license instances
Printing	X			
CAL license requirement	CAL license required			



This is a new and exclusive server licensing model made available to industries by Microsoft.  
The same Windows Server technology provides a platform that enables more competitive solutions.

SQL Server 2014 Editions			
SQL Server Capabilities	SQL Server Editions		
	Standard	Business Intelligence	Enterprise
Maximum Number of Cores	16 cores	16 cores – DB	OS Max*
		OS Max – BI	
Windows Server Core Edition Support	X	X	X
Basic OLTP	X	X	X
Basic Reporting & Analytics	X	X	X
Programmability & Developer Tools (T-SQL, CLR, data types, FileTable)	X	X	X
Manageability (Management studio, policy based management)	X	X	X
Enterprise Data Management (Data quality, master data services)		X	X
Self-service Business Intelligence (Power View, Power Pivot)		X	X
Corporate Business Intelligence (Semantic model, advanced analytics)		X	X
Advanced Security (Advanced auditing, transparent data encryption)			X
In-memory ColumnStore			X
In-memory OLTP			X
StreamInsight	Standard	Standard	Premium
AlwaysOn High Availability**	Basic	Basic	Advanced

\*Enterprise legacy servers licensed under Server/CAL licensing are subject to a 20-core per server limit.

\*\*Basic includes 2 node Failover Clustering

## SQL Server 2012

	Standard	Business Intelligence	Enterprise
Maximum compute capacity used by a single instance (SQL Server Database Engine)	Limited to the lesser of 4 sockets or 16 cores	Limited to the lesser of 4 sockets or 16 cores	Operating System Maximum *
Maximum number of cores	16 cores	16 cores – DB	Operating System Maximum
		OS Max – BI	
Maximum memory utilized (SQL Server Database Engine)	64 GB	64 GB	Operating System Maximum*
Virtual machines	1	1	4
Server core support (SQL Server Database Engine)	Yes	Yes	Yes
Failover clustering	Yes (Node Support: 2)	Yes (Node Support: 2)	Yes (Node Support: 2)
Basic OLTP	X	X	X
Basic reporting and analytics	X	X	X
Programmability and Developer Tools (T-SQL, CLR, data types, FileTable)	X	X	X
Manageability (Management studio, policy-based management)	X	X	X
Enterprise data management (Data quality, master data services)	—	X	X
Self-service business intelligence (Power View, PowerPivot for SPS)	—	X	X
Corporate business intelligence (Semantic model, advanced analytics)	—	X	X
Advanced security (Advanced auditing, transparent data encryption)	—	—	X
Data warehousing (Column store index, compression, partitioning)	—	—	X
StreamInsight	Basic	Basic	Advanced
AlwaysOn High Availability**	Basic	Basic	Advanced
AlwaysOn Availability Groups			X

\*Enterprise servers licensed per core. \*\* SQL Server Database Engine

## Consistent Server Appliance Licensing

Editions	License Type	Features	Virtualization Rights	
			Two OR four virtual instances	Unlimited
Windows Server 2012 for Embedded Systems offered in two editions (Standard, Datacenter) differentiated only by virtualization rights	Each license covers up to two or four physical processors	Provide all the capabilities to enable any server appliance		
<b>Standard</b> Low density or no virtualization Windows Server 2012 R2 for Embedded Systems Standard	✓	✓	✓	
<b>Datacenter</b> High density virtualization Windows Server 2012 R2 for Embedded Systems Datacenter	✓	✓		✓

## Microsoft SQL Server 2014 for Embedded Systems

### SKUs and Licensing

Principal Editions	Licensing Options	
	Server+CAL	Core-based
Enterprise		✓
Business Intelligence <span style="float: right;">★ New!</span>	✓	
Standard	✓	✓

## Microsoft Reference Websites

- **Windows Embedded Server:** [www.microsoft.com/windowseembedded/en-us/evaluate/windows-embedded-server.aspx](http://www.microsoft.com/windowseembedded/en-us/evaluate/windows-embedded-server.aspx)
- **Windows Server 2012 R2:** [www.microsoft.com/en-us/server-cloud/windows-server/windows-server-2012-r2.aspx](http://www.microsoft.com/en-us/server-cloud/windows-server/windows-server-2012-r2.aspx)
- **Windows Server 2012 R2 Technical Resources:** <http://technet.microsoft.com/en-us/windowsserver>
- **SQL Server:** [www.microsoft.com/windowseembedded/en-us/evaluate/Microsoft-sql-server-for-embedded-systems.aspx](http://www.microsoft.com/windowseembedded/en-us/evaluate/Microsoft-sql-server-for-embedded-systems.aspx)
- **SQL Server Editions:** [www.microsoft.com/sqlserver/en/us/editions.aspx](http://www.microsoft.com/sqlserver/en/us/editions.aspx)

## Frequently Asked Questions

### ■ **Is Windows Embedded Server a new product from Microsoft?**

Windows Embedded Server is not a new product. It is identical to the versions of Windows Server available on the market in terms of versions and features. The difference lies in the licensing and limitations to customers. You can readily obtain relevant technical information regarding Windows Server via the Microsoft website.

### ■ **How do I obtain a Windows Embedded Server license?**

Windows Embedded Server is available only through a Microsoft Authorized Embedded Distributor. To obtain the latest distributor information, please visit:

[www.microsoft.com/windowseembedded/en-us/partners/distributors/search.aspx](http://www.microsoft.com/windowseembedded/en-us/partners/distributors/search.aspx)

### ■ **What are the licensing terms of Windows Embedded Server?**

The application is for a specific purpose only and cannot be used in conjunction with general-purpose PCs. Nor can it be used with other commercial applications such as accounting, email, word processing, and CRM. The Embedded Application must be preinstalled with the operating system on the server and shipped with the hardware. For more detailed information, refer to the software licensing document.

### ■ **What is the difference between Windows Embedded Server and other Microsoft licensing models (such as Microsoft Open License Programs and Open Value Subscription)?**

The most important difference is that there are no specific-purpose requirements with other types of Microsoft licenses. However, Windows Embedded Server is a licensing model introduced for specific-purpose solutions. Therefore an embedded software application is required to provide the primary functionality of such solutions.

### ■ **How can you provide proof that the products provided to the customer are genuine Microsoft products?**

The same way Microsoft software on a laptop computer is licensed through labels affixed to the bottom of the unit, all Windows Embedded Server products come with Microsoft Certificate of Authenticity (COA) labels.

Please contact a Microsoft Authorized Embedded Distributor



For more information on Windows Embedded Server products, please visit:  
[www.microsoft.com/windowseembedded/en-us/products/server/default.aspx](http://www.microsoft.com/windowseembedded/en-us/products/server/default.aspx)