

# Extended Security Updates for SQL Server and Windows Server 2008/2008 R2

## Frequently Asked Questions

### Contents

General Questions .....	4
1. When is the End of Support for SQL Server and Windows Server 2008 and 2008 R2? .....	4
2. What does End of Support mean? .....	4
3. What End of Support options are available for SQL Server and Windows Server 2008 and 2008 R2? .....	4
4. When will the Extended Security Updates offer be available? .....	4
5. What do Extended Security Updates include? .....	5
6. Are customers required to cover <i>all on-premises</i> servers with active Software Assurance to get Extended Security Updates on-premises? .....	5
7. Why do Extended Security Updates for SQL Server 2008/R2 only offer “critical” updates? .....	5
8. How much will Extended Security Updates cost for Windows Server and SQL Server 2008 and 2008 R2? .....	5
9. What are the pricing details for Extended Security Updates on-premises? .....	6
10. What editions of SQL Server and Windows Server 2008/2008 R2 are eligible for Extended Security Updates? .....	6
11. Do SQL Server or Windows Server 2008 and 2008 R2 customers need to be running the most current Service Pack to benefit from Extended Security Updates? .....	6
12. Is Software Assurance required to take advantage of Extended Security Updates? .....	6
13. Is there a deadline for when servers need to be migrated to Azure, or can customers wait until the End of Support dates? .....	6
14. If a SQL Server 2008/R2 customer with Software Assurance purchased a number of cores for their on-premises environment, and is using Software Assurance to have a secondary passive server (e.g. for fail-over support) with the same number of cores, how can they calculate the price of Extended Security Updates? .....	7
15. Does this offer also apply to SQL Server 2005, Windows Server 2003, or older versions? .....	7
16. Is technical support included? .....	7

17. Can you get technical support on 2008 or 2008 R2 after the extended support date, without purchasing Extended Security Updates?.....	7
18. What are the support expectations when requesting support for a product utilizing Extended Security Updates?.....	7
19. Does Unified Support include Extended Security Updates? .....	8
20. What is the support expectation if a customer encounters an issue that requires a new feature? .....	8
21. If a customer deploys a brand-new SQL Server or Windows Server 2008 or 2008 R2 instance on Azure, do they get Extended Security Updates?.....	8
22. What are the options for SQL Server and Windows Server 2008 and 2008 R2 customers without Software Assurance? .....	8
23. Can customers buy Extended Security Updates for SQL Server 2008 R2 Express Edition? .....	8
24. Does this offer replace Premium Assurance?.....	8
25. Can customers cover non-production servers licensed under Visual Studio (MSDN) subscriptions with Premium Assurance or Extended Security Updates for on-premises environments?.....	8
Extended Security Updates on Azure and cloud/hosting environments .....	9
26. Can customers get free Extended Security Updates in Azure?.....	9
27. If a SQL Server 2008/R2 customer wants to bring their own license (BYOL), are they required to have Software Assurance coverage? .....	9
28. What options do customers have to run SQL Server in Azure?.....	9
29. Can customers leverage the Azure Hybrid Benefit for 2008 and 2008 R2 versions? .....	9
30. Can customers use Extended Security Updates on Azure Stack? .....	10
31. What versions of SQL Server and Windows Server will have access to Extended Security Updates in Azure Stack? .....	10
32. For customers with a 2008/2008 R2 SQL cluster using shared storage, what is the guidance for migrating to Azure? .....	10
33. What are the best practices for enhancing the performance of SQL Server in Azure Virtual Machines?...10	
34. Can I use Extended Security Updates on other cloud/hosting environments?.....	10
35. How do I get technical support for Extended Security Updates and my 2008/2008 R2 server workloads if I am running them on a hosted environment?.....	11
36. Can customers leverage Extended Security Updates for SQL Server with a third party hoster?.....	11
Product and Implementation Questions .....	11
37. How will Microsoft deliver Extended Security Updates? .....	11
38. Are there recommended tools to inventory my 2008 environment?.....	11
39. What are the options for migrating VMware-based workloads from on-premises to Azure? .....	11
40. How do customers know if an application currently running on or with Windows Server and SQL Server 2008 and 2008 R2 will run on Azure or on a newer version of Windows Server/SQL Server? .....	12
41. Is there a recommended upgrade path for Windows Server 2008 and 2008 R2? .....	12
42. Is there a recommended upgrade path for SQL Server 2008 and 2008 R2? .....	12

43. What versions of SQL Server are supported on Windows Server 2019?.....	12
44. Does Azure Site Recovery support Gen-2 Hyper-V or VMware virtual machines running UEFI (Unified Extensible Firmware Interface) when migrating a Windows Server 2008/R2 VM to Azure? .....	12
45. Can customers continue to use System Center to manage 2008 and 2008 R2 server environments? .....	13
Azure Hybrid Benefit for SQL Server and Windows Server.....	14
46. What is the Azure Hybrid Benefit for SQL Server? .....	14
47. What is the Azure Hybrid Benefit for Windows Server? .....	14
48. How do SQL Server Integration Services (SSIS) users in Azure benefit from Azure Hybrid Benefit?.....	14
49. What are the specific rights of the Azure Hybrid Benefit for SQL Server? .....	14
50. How is Azure Hybrid Benefit for SQL Server different in Azure Virtual Machines vs. Azure SQL Database? Is the virtualization benefit available for SQL Server in Azure Virtual Machines? .....	15
51. What happens if an Azure Hybrid Benefit for SQL Server customer’s Software Assurance expires? .....	15
52. What products are eligible for the Azure Hybrid Benefit for SQL Server? .....	15
53. Can I apply this benefit retroactively? .....	15
54. Is the Azure Hybrid Benefit for SQL Server available in my region? .....	15
55. Can I combine Azure Hybrid Benefit for Windows Server and Azure Hybrid Benefit for SQL Server for maximum savings?.....	15
56. Does the 90-day license reassignment rule in the Product Terms apply to the Azure Hybrid Benefit for SQL Server? .....	15
57. How does Azure Hybrid Benefit for SQL Server differ from license mobility?.....	16
Additional Resources.....	16
Datasheets.....	16
Other Customer-facing Product FAQs for Extended Security Updates .....	16

# General Questions

---

## 1. When is the End of Support for SQL Server and Windows Server 2008 and 2008 R2?

- End of Support for SQL Server 2008 and 2008 R2 is July 9, 2019.
- End of Support for Windows Server 2008 and 2008 R2 is January 14, 2020.

## 2. What does End of Support mean?

[Microsoft Lifecycle Policy](#) offers 10 years of support (5 years for Mainstream Support and 5 years for Extended Support) for Business and Developer products (such as SQL Server and Windows Server). As per the policy, after the end of the Extended Support period there will be no patches or security updates, which may cause security and compliance issues, and expose customers' applications and business to serious security risks.

## 3. What End of Support options are available for SQL Server and Windows Server 2008 and 2008 R2?

We recommend upgrading to the latest versions of our software, leveraging Software Assurance benefits to modernize on-premises or on Azure (i.e. Azure Hybrid Benefit), to help reduce security risks and continue to get regular security updates. However, for customers that are not able to transition before the End of Support date, we are announcing offers to help protect data and applications during the End of Support transition:

**Extended Security Updates in Azure:** Customers who move 2008 and 2008 R2 workloads to Azure Virtual Machines (IaaS) "as-is" will have access to Extended Security Updates for both SQL Server and Windows Server 2008 and 2008 R2 for three years after the End of Support dates for free. Those that decide to move to Azure SQL Database Managed Instance (PaaS) will have access to continuous security updates, as this is a fully managed solution. Eligible customers can use the **Azure Hybrid Benefit** (available to customers with active Software Assurance or Server Subscriptions) to obtain discounts on the license of Azure Virtual Machines (IaaS) or Azure SQL Database Managed Instance (PaaS).

**Extended Security Updates for on-premises or hosted environments:** Extended Security Updates will also be available for workloads running on-premises or in a hosting environment. Customers running SQL Server or Windows Server under licenses with active Software Assurance under an Enterprise Agreement (EA), Enterprise Subscription Agreement (EAS), or a Server & Cloud Enrollment (SCE), can purchase Extended Security Updates annually for three years after End of Support date. Customers can purchase Extended Security Updates only for the servers they need to cover. Extended Security Updates can be purchased directly from Microsoft or a Microsoft licensing partner.

## 4. When will the Extended Security Updates offer be available?

**In Azure:** Customers can begin migrating workloads to Azure Virtual Machines immediately and apply regular security updates until the End of Support date, at which time Extended Security Updates will become available, ensuring continuous coverage.

**On-premises or hosted environments:** Extended Security Updates will be available for purchase beginning on March 1, 2019 and can be purchased from Microsoft or a Microsoft licensing partner. The delivery of Extended Security Updates will begin immediately after the End of Support date.

## 5. What do Extended Security Updates include?

**For SQL Server 2008 and 2008 R2:** Extended Security Updates include provision of Security Updates and Bulletins rated "critical" for a maximum of three years after July 9, 2019.

**For Windows Server 2008 and 2008 R2:** Extended Security Updates include provision of Security Updates and Bulletins rated "critical" and "important," for a maximum of three years after January 14, 2020.

- This offer does not include technical support, but you may use other Microsoft support plans to get assistance on your 2008 and 2008 R2 questions on workloads covered by Extended Security Updates.
- This offer does not include new features, customer-requested non-security hotfixes, or design change requests. However, Microsoft may include non-security fixes as we deem necessary.
- There is no retroactive effect for any update that the engineering teams declined in the past.

For more information on what is considered "critical" or "important," [please visit the MSRC site](#).

## 6. Are customers required to cover *all on-premises servers with active Software Assurance to get Extended Security Updates on-premises?*

No, customers can choose to cover as many 2008 on-premises servers with Software Assurance as they need for Extended Security Updates.

## 7. Why do Extended Security Updates for SQL Server 2008/R2 only offer "critical" updates?

For End of Support events in the past, SQL Server provided only Critical Security Updates, which meets the compliance criteria of our enterprise customers. SQL Server does not ship a general monthly security update. Microsoft only provides on-demand SQL Server security updates (GDRs) for MSRC bulletins where SQL Server is identified as an affected product.

If there are situations where new SQL Server important updates will not be provided and it is deemed critical by the customer but not by MSRC, we will work with the customer on a case-to-case basis to suggest appropriate mitigation.

## 8. How much will Extended Security Updates cost for Windows Server and SQL Server 2008 and 2008 R2?

**In Azure:** Customers running Windows Server or SQL Server 2008 and 2008 R2 in an Azure Virtual Machine will get Extended Security Updates for no additional charges above the cost of running the virtual machine. Customers moving to Azure SQL Database Managed Instance (PaaS) do not need Extended Security Updates, as this is a fully managed solution, and is always updated and patched by Microsoft.

**On-premises:** Customers with active Software Assurance or subscription licenses can purchase Extended Security Updates for 75% of the EA, EAS, or SCE license. Customers pay for only the servers they need to cover, so they can reduce costs each year as they upgrade parts of their environment. Contact your Microsoft partner or account team for more details.

**Hosted environments:** Customers who purchased Windows Server or SQL Server 2008 or 2008 R2 from a hoster will need to purchase Extended Security Updates directly from Microsoft or a Microsoft licensing partner for 75% of the full on-premises license cost annually for use in the hosted environment. Contact your Microsoft partner or account team for more details.

## 9. What are the pricing details for Extended Security Updates on-premises?

- Customers with active Software Assurance or subscription licenses for their servers are eligible to purchase Extended Security Updates on-premises.
- Customers can choose which servers to be covered.
- Pricing for Extended Security Updates will follow the license model for the server. For example, coverage on Windows Server is licensed by core and is required for all physical cores on each server.
- Extended Security Updates pricing will be 75% (annually) of the EA or SCE license prices of the latest version of SQL Server or Windows Server.
- Coverage will be available in three consecutive 12-month increments following End of Support. Customers cannot buy partial periods (e.g. only 6 months). The customer EA renewal does not need to align to the Extended Security Update annual period.
- Customers must pay starting with year 1 of Extended Security Updates. Customers can buy-back on prior years to get coverage for subsequent years (ex: a customer must purchase year 1 and year 2 if they need coverage for year 2 but missed year 1).
- Extended Security Updates are transacted per year (12-month period), commencing with the End of Support date. For example, if customer purchases the offer in the 10th month of the cycle, they still must pay for the full year, but will only get updates for the remaining 2 months of the cycle.
- Premier Support is not a base requirement, but an additional support contract is recommended if technical support will be required.
- Customers moving to PaaS do not need to purchase Extended Security Updates, as solutions are fully managed and updated by Microsoft (e.g., Azure SQL Database Managed Instance).

## 10. What editions of SQL Server and Windows Server 2008/2008 R2 are eligible for Extended Security Updates?

The Enterprise and Standard editions of SQL Server 2008/2008 R2 and the Datacenter and Standard editions of Windows Server 2008/2008 R2 are eligible for Extended Security Updates, for both x86 and x64 versions.

## 11. Do SQL Server or Windows Server 2008 and 2008 R2 customers need to be running the most current Service Pack to benefit from Extended Security Updates?

Yes, customers need to run SQL Server or Windows Server 2008 and 2008 R2 with the latest Service Pack to get Extended Security Updates. Microsoft will only produce updates which can be applied on the latest Service Pack. Here are the links to the latest service packs:

[Windows Server 2008 R2](#)

[Windows Server 2008](#)

[SQL Server 2008 R2](#)

[SQL Server 2008](#)

## 12. Is Software Assurance required to take advantage of Extended Security Updates?

Software Assurance is required for customers to purchase Extended Security Updates on-premises.

On Azure, customers do not need Software Assurance to get free Extended Security Updates, but Software Assurance or Server Subscription is required to take advantage of the Azure Hybrid Benefit.

## 13. Is there a deadline for when servers need to be migrated to Azure, or can customers wait until the End of Support dates?

There is no deadline for migration of the Windows Server or SQL Server 2008 workloads to Azure. However, we recommend customers complete migration before the End of Support date (July 9, 2019 for SQL Server and January 14, 2020 for Windows Server) so that they do not miss any Extended Security Updates.

**14. If a SQL Server 2008/R2 customer with Software Assurance purchased a number of cores for their on-premises environment, and is using Software Assurance to have a secondary passive server (e.g. for fail-over support) with the same number of cores, how can they calculate the price of Extended Security Updates?**

The price of Extended Security Updates will be calculated based on the number of cores purchased for a customer's on-premises environment. If they purchased 8 cores for SQL Server on-premises and use Software Assurance benefits to have a secondary passive server of 8 cores, that customer will purchase Extended Security Updates based on the 8 cores for SQL Server. Customers can then apply updates to the entire environment, including the secondary passive server.

**15. Does this offer also apply to SQL Server 2005, Windows Server 2003, or older versions?**

No. For these older versions, we recommend upgrading to the most current versions, but customers could upgrade to 2008 or 2008 R2 versions to take advantage of this offer.

**16. Is technical support included?**

No, but customers can use an active support contract such as Software Assurance or Premier/Unified Support on the relevant on-premises product(s) to get technical support if they choose to stay on-premises. Alternatively, if hosting on Azure, customers can use a relevant [Azure Support](#) plan to get technical support.

**17. Can you get technical support on 2008 or 2008 R2 after the extended support date, without purchasing Extended Security Updates?**

No, customers must purchase Extended Security Updates and a relevant support plan to get technical support on a product that has moved beyond the extended support date.

**18. What are the support expectations when requesting support for a product utilizing Extended Security Updates?**

When customers have an existing support plan:

Scenario	Response
Customer can open a support ticket	Yes
Support Team will work to troubleshoot customer issue	Yes
Support Team will do a root cause analysis	No
Support Team will file a bug or a Design Change Request (DCR)	No*

\*If the issue is related to a security update, the Support Team will file a bug on the customers behalf to solve the issue.

Microsoft is committed to helping customers upgrade or migrate to the cloud, and will provide best effort support to troubleshoot an issue for SQL Server and Windows Server 2008 and 2008 R2 covered under Extended Security Updates after the End of Support dates for those products.

**19. Does Unified Support include Extended Security Updates?**

No, customers must purchase Extended Security Updates separately. The cost of Extended Security Updates is not included in the price calculation of the Unified Support contract. However, they can use Unified Support to get technical support for 2008 or 2008 R2 servers covered by Extended Security Updates. Onsite or proactive support will only be available to a customer if it is part of their Unified Support agreement.

**20. What is the support expectation if a customer encounters an issue that requires a new feature?**

If an investigation determines that resolution requires product enhancement available in a recent release, then a request will be made to the customer to upgrade to a more recent release where the capability is already available.

**21. If a customer deploys a brand-new SQL Server or Windows Server 2008 or 2008 R2 instance on Azure, do they get Extended Security Updates?**

Yes, customers can start a new 2008 or 2008 R2 instance on Azure and have access to Extended Security Updates.

**22. What are the options for SQL Server and Windows Server 2008 and 2008 R2 customers without Software Assurance?**

For SQL Server or Windows Server 2008 and 2008 R2 customers who do not have Software Assurance, one option is to migrate to Azure and get Extended Security Updates for free.

For customers who need to stay on-premises, they can obtain a new license with Software Assurance and then they will be eligible to purchase Extended Security Updates.

**23. Can customers buy Extended Security Updates for SQL Server 2008 R2 Express Edition?**

No. Customers cannot buy Extended Security Updates for SQL Server 2008 R2 Express Edition. However, they can move their workloads to Azure and get the Extended Security Updates for no additional cost.

**24. Does this offer replace Premium Assurance?**

Yes, Extended Security Updates replaces the Premium Assurance offer, but we will honor the terms of Premium Assurance for customers who already purchased it.

**25. Can customers cover non-production servers licensed under Visual Studio (MSDN) subscriptions with Premium Assurance or Extended Security Updates for on-premises environments?**

Customers who purchase Extended Security Updates or Premium Assurance for production servers may also apply those security updates to servers licensed under Visual Studio (MSDN) subscriptions at no additional cost. Premium Assurance and Extended Security Updates for on-premises environments are not available to purchase for servers licensed under Visual Studio (MSDN) subscriptions.

## Extended Security Updates on Azure and cloud/hosting environments

---

### **26. Can customers get free Extended Security Updates in Azure?**

Extended Security Updates for Windows Server and SQL Server 2008 and 2008 R2 will be offered on Azure IaaS at no additional charge above the cost of the virtual machine. For customers that migrate workloads to Azure Virtual Machines, we will offer Security Updates and Bulletins rated "Critical" and "Important" for Windows Server 2008 and 2008 R2, and those rated "Critical" for SQL Server 2008 and 2008 R2.

### **27. If a SQL Server 2008/R2 customer wants to bring their own license (BYOL), are they required to have Software Assurance coverage?**

Yes, customers need to have Software Assurance to take advantage of the BYOL program for SQL Server on Azure Virtual Machines as part of the License Mobility program. For customers without Software Assurance, we recommend customers move to Azure SQL Database Managed Instance for their 2008 environments.

Azure SQL Database Managed Instance is a new service in Azure providing near 100% compatibility with SQL Server on-premises. Managed Instance provides built-in high availability/disaster recovery capabilities plus intelligent performance features and the ability to scale on the fly. Managed Instance also provides a version-less experience that takes away the need for manual security patching and upgrades.

See the Azure pricing guidance page for [more information on the BYOL program](#).

### **28. What options do customers have to run SQL Server in Azure?**

Customers can move legacy SQL Server environments to Azure SQL Database Managed Instance, a fully-managed data platform service (PaaS) that offers a "version-free" option to eliminate concerns with End of Support dates, or to Azure Virtual Machines to have access to Security Updates. Extended Security Updates will be available for SQL Server 2008 and 2008 R2 in Azure Virtual Machines after the End of Support date of July 9<sup>th</sup>, 2019, for the next three years. For customers looking to upgrade, all versions of SQL Server from 2008 onwards will be supported (2008, 2008 R2, 2012, 2014, 2016, 2017, and 2019) on the latest Service Packs.

Azure SQL Database Managed Instance is an instance-scoped deployment option in SQL Database that provides the broadest SQL Server engine compatibility and native virtual network (VNET) support, so you can migrate SQL Server databases to Managed Instance without changing apps. It combines the rich SQL Server surface area with the operational and financial benefits of an intelligent, fully managed service. Leverage the new [Azure Database Migration Service](#) to move SQL Server 2008 and 2008 R2 to Azure SQL Database Managed Instance with few or no application code changes.

### **29. Can customers leverage the Azure Hybrid Benefit for 2008 and 2008 R2 versions?**

Yes, customers with active Software Assurance can leverage the [Azure Hybrid Benefit](#):

- **SQL Server:** Customers can leverage existing on-premises license investments for discounted pricing on SQL Server running on Azure SQL Database and Azure Virtual Machines.
- **Windows Server:** Customers can leverage existing on-premises license investments to save on Azure Virtual Machines.

Customers choosing to move to Azure IaaS can combine Azure Hybrid Benefit savings for SQL Server and Windows Server for increased cost savings.

**30. Can customers use Extended Security Updates on Azure Stack?**

Yes, customers can migrate SQL Server and Windows Server 2008 and 2008 R2 to Azure Stack and receive free Extended Security Updates after the End of Support date.

**31. What versions of SQL Server and Windows Server will have access to Extended Security Updates in Azure Stack?**

SQL Server 2008 SP3 and 2008 R2 SP2, and Windows Server 2008 SP2 and 2008 R2 SP1 will be supported on Azure Stack.

**32. For customers with a 2008/2008 R2 SQL cluster using shared storage, what is the guidance for migrating to Azure?**

Azure does not currently support shared storage clustering. For advice on how to configure a highly available SQL Server instance on Azure, refer to this guide on SQL Server [High Availability](#).

**33. What are the best practices for enhancing the performance of SQL Server in Azure Virtual Machines?**

For advice on how to optimize SQL Server performance on Azure Virtual Machines, refer to this guide on [SQL Server performance](#).

**34. Can I use Extended Security Updates on other cloud/hosting environments?**

Windows Server: When paying the hoster for the underlying Windows Server license, customers can purchase Extended Security Updates from Microsoft for use on their hosted instances. Pricing is based on Windows Server Standard per core pricing, at a minimum of 16 cores per instance.

SQL Server: Customers with License Mobility through Software Assurance may also purchase Extended Security Updates from Microsoft to use in virtual machines properly licensed to run in an authorized License Mobility partner’s data center. See the [Microsoft Licensing site](#) for availability and use rights for the End of Support Offering.

The following table describes pricing for Extended Security Updates in various hosted scenarios.

	On-premises	Azure	Hosted environment — Windows Server	Hosted environment — SQL
<b>Extended Security Updates Pricing</b>	75% of full license price annually	Free. Included in standard VM rate	Same as on-premises  Minimum 16 cores/instance	Same as on-premises  4 core minimum purchase requirement
<b>Software Assurance (SA) or subscription requirement</b>	Required for covered licenses	Not required, although SA provides Azure Hybrid Benefit	Not required when licenses purchased from hoster  License Mobility not available	Not required when licenses purchased from hoster  Required for License Mobility

### **35. How do I get technical support for Extended Security Updates and my 2008/2008 R2 server workloads if I am running them on a hosted environment?**

The Extended Security Updates offer does not include technical support. Customers can use existing support agreements for questions.

### **36. Can customers leverage Extended Security Updates for SQL Server with a third party hoster?**

Customers cannot leverage Extended Security Updates if they move their SQL Server 2008 environment to a PaaS implementation on other cloud offerings.

If customers are looking to move to virtual machines (IaaS), they can leverage License Mobility for SQL Server via Software Assurance to make the move, and purchase Extended Security Updates from Microsoft to manually apply patches to the SQL Server 2008 instances running in a VM (IaaS) at another cloud provider. However, free updates in Azure is the more attractive offer.

## **Product and Implementation Questions**

---

### **37. How will Microsoft deliver Extended Security Updates?**

**Windows Server 2008/R2 instance running on-premises:** Customers will receive an add-on Multiple Activation Key (MAK) through the volume licensing portal. Customers can then deploy both the new MAK key and any pre-requisite servicing stack updates, then continue with their current update/servicing strategy to deploy Extended Security Updates through Windows Update, Windows Server Update Services (WSUS), or whatever patch management solution the customer prefers.

**Windows Server 2008/R2 instance running on Azure Virtual Machines:** Windows Server will automatically detect the VM that it is running on Azure and enable Extended Security Updates to be downloaded and installed using Windows Update or whatever patch management solution the customer is using. Pre-patched Windows Server 2008 R2 images will also be available from the Azure gallery.

**SQL Server 2008/R2 running on Windows Server 2008/2008 R2 on Azure VMs:** Customers will receive updates automatically through existing SQL update channels.

**SQL Server 2008/R2 running on Windows Server 2008/2008 R2 on-premises:** Customers will be able to download the update from a private website to deploy to their on-premise environments. This is available to customers only if they buy Extended Security Updates.

### **38. Are there recommended tools to inventory my 2008 environment?**

Customers may use their preferred tools for software and hardware inventory. Find links to inventory tools from Microsoft and our partners on the [Azure migration assessment](#) site.

### **39. What are the options for migrating VMware-based workloads from on-premises to Azure?**

Customers can migrate workloads from a VMware-based virtual machine on-premises to Azure Virtual Machines using Azure Site Recovery or use many partner tools. Another option is the new [VMware on Azure](#) solution, for a dedicated hosting experience.

**40. How do customers know if an application currently running on or with Windows Server and SQL Server 2008 and 2008 R2 will run on Azure or on a newer version of Windows Server/SQL Server?**

Apps running with or on SQL Server and Windows Server 2008 or 2008 R2 can be rehosted to Azure with no application code change. Customers that are ready to upgrade, either in Azure or on-premises, can review the [Windows Server Catalog](#) as well as consult with their software vendor for the matrix of Windows Server and SQL Server version support.

Customers should assess their application infrastructure before migrating any server applications. They can learn more about the recommended process in the [Azure Migration Center](#) where you will learn how to leverage services like [Azure Migrate](#) to complete a readiness assessment including a cost estimate to run the application infrastructure in Azure. For further questions, work with your Microsoft partner, Microsoft Services, or your Account team to evaluate application readiness.

**41. Is there a recommended upgrade path for Windows Server 2008 and 2008 R2?**

Customers can find links to upgrade guidance at our [End of Support Resource Center](#) or in our [Windows Server upgrade documentation](#).

**42. Is there a recommended upgrade path for SQL Server 2008 and 2008 R2?**

Customers can find links to upgrade guidance at our [End of Support Resource Center](#) and in the [Database Migration Guide](#).

**43. What versions of SQL Server are supported on Windows Server 2019?**

SQL Server 2016 and SQL Server 2017 will be supported on Windows Server 2019. Earlier versions (SQL Server 2012 and SQL Server 2014) are not. Find additional details on the [Windows Server 2019 App Compatibility Docs](#) page.

**44. Does Azure Site Recovery support Gen-2 Hyper-V or VMware virtual machines running UEFI (Unified Extensible Firmware Interface) when migrating a Windows Server 2008/R2 VM to Azure?**

Azure Site Recovery can migrate these VMs to Azure but will convert them to an Azure IaaS Gen-1 virtual machine. Gen-2 is not supported at this time.

**45. Can customers continue to use System Center to manage 2008 and 2008 R2 server environments?**

We recommend using an in-market supported version of System Center. For Windows Server 2008 and 2008 R2, the following System Center versions are supported:

Product	System Center 2012/R2	System Center 2016	Semi-annual Channel version 1801
<b>SCOM (System Center Operations Manager) (Guest and Host)</b>	Yes	Yes	Yes
<b>VMM (Virtual Machine Manager) (WS2008/R2 as Host)</b>	Yes	No	No
<b>VMM (Virtual Machine Manager) (WS2008/R2 as Guest)</b>	Yes	Yes	Yes
<b>Orchestrator*</b>	No	No	No
<b>Service Manager**</b>	No	No	No
<b>DPM (Data Protection Manager)</b>	Yes	Yes	Yes
<b>SCCM (System Center Configuration Manager)</b>	No	No	No

\*For Orchestrator, the response in table indicates the components of Orchestrator running on Windows Server 2008 and 2008 R2. The automation tasks in an Orchestrator runbook can run against a Windows Server 2008 Server.

\*\*For Service Manager, the response in table indicates the components of Service Manager running on Windows Server 2008 R2

For SQL Server 2008 and 2008 R2, the following System Center versions are supported:

Component	System Center 2012/R2	System Center 2016	Semi-annual Channel Version 1801
<b>SCOM (System Center Operations Manager)</b>	Yes	Yes	Yes
<b>DPM (Data Protection Manager)</b>	Yes	Yes	Yes

# Azure Hybrid Benefit for SQL Server and Windows Server

## 46. What is the Azure Hybrid Benefit for SQL Server?

The Azure Hybrid Benefit for SQL Server lets customers use their existing licenses to save on Azure Virtual Machine rates. Customers with Software Assurance can use the Azure Hybrid Benefit to pay a reduced base rate on SQL Database vCore-based options (i.e. Managed Instance, vCore-based Single Database, vCore-based Elastic Pool), SQL Server in Azure Virtual Machines and SQL Server Integration Services (SSIS). You may apply this benefit even if the SKU is active but note the base rate will be applied from the time you select it in the portal. No credit will be issued retroactively.

## 47. What is the Azure Hybrid Benefit for Windows Server?

The Azure Hybrid Benefit lets customers use existing Windows Server licenses to save on Azure Virtual Machine rates. You can use the benefit with Windows Server Datacenter and Standard edition licenses covered with Software Assurance or Windows Server Subscriptions. [Learn more about the Azure Hybrid Benefit.](#)

## 48. How do SQL Server Integration Services (SSIS) users in Azure benefit from Azure Hybrid Benefit?

The Azure Hybrid Benefit for SQL Server helps you get more value from your SQL Server licenses and save up to 55 percent on [SQL Server Integration Services](#). You can use the benefit with SQL Server Enterprise Edition and Standard edition licenses covered with Software Assurance. You can benefit from your SQL server licenses to run SQL Server Integration Services packages on Azure and pay a lower base rate.

## 49. What are the specific rights of the Azure Hybrid Benefit for SQL Server?

Customers will have the following rights associated with Azure Hybrid Benefit for SQL Server:

License Footprint	What does the Azure Hybrid Benefit for SQL Server Provide?
<b>SQL Server Enterprise Edition core customers with SA</b>	<ul style="list-style-type: none"><li>vCore-based SQL Database options</li><li>Can pay Base Rate on either General Purpose or Business Critical</li><li><b>1</b> core on-premises = <b>4</b> cores in General Purpose</li><li><b>1</b> core on-premises = <b>1</b> core in Business Critical</li><li>SQL Server in Azure Virtual Machines</li><li>1 core on-premises = 1 core Enterprise Edition in Azure Virtual Machine</li></ul>
<b>SQL Server Standard Edition core customers with SA</b>	<ul style="list-style-type: none"><li>vCore-based SQL Database options</li><li>Can pay Base Rate on General Purpose only</li><li><b>1</b> core on-premises = <b>1</b> core in General Purpose</li><li>SQL Server in Azure Virtual Machines</li><li>1 core on-premises = 1 core Standard Edition in Azure Virtual Machine</li></ul>

**50. How is Azure Hybrid Benefit for SQL Server different in Azure Virtual Machines vs. Azure SQL Database? Is the virtualization benefit available for SQL Server in Azure Virtual Machines?**

The primary difference in Azure Hybrid Benefit for SQL Server between Azure Virtual Machines and Azure SQL Database is that the virtualization benefit is only available on Azure SQL database. You can leverage this benefit when migrating from SQL Server Enterprise edition on-premises to Azure SQL Database General Purpose service tier. To learn more about the differences between SQL Server in Azure Virtual Machines vs. Azure SQL Database, please check the [Cloud SQL Options documentation](#).

**51. What happens if an Azure Hybrid Benefit for SQL Server customer's Software Assurance expires?**

If an existing Azure Hybrid Benefit for SQL Server customer's SA expires, they will be moved to a License-included option. This depends on the implementation of license and SA validation.

**52. What products are eligible for the Azure Hybrid Benefit for SQL Server?**

This hybrid benefit is only available for use with:

- SQL Database vCore-based service tiers: Managed Instance, Single Database and Elastic Pool
- SQL Server in Azure Virtual Machines  
SQL Server Integration Services (SSIS)

**53. Can I apply this benefit retroactively?**

This benefit may be applied even if the SKU is active but note the base rate will be applied from the time the customer selects it in the portal. No credit will be issued retroactively.

**54. Is the Azure Hybrid Benefit for SQL Server available in my region?**

The Azure Hybrid Benefit for SQL Server will be available in all regions that vCore-based SQL Database options are available.

**55. Can I combine Azure Hybrid Benefit for Windows Server and Azure Hybrid Benefit for SQL Server for maximum savings?**

The Azure Hybrid Benefit for SQL Server and Windows Server can be used together when you use SQL Server in Azure Virtual Machines. The [recommended approach](#) is to use Azure Virtual Machines with [Microsoft-certified BYOL SQL Server gallery images](#). On the Azure Portal, deploy Azure Virtual Machines with [Microsoft-certified BYOL SQL Server gallery images](#). Then, use [PowerShell commands to activate Azure Hybrid Benefit for Windows Server](#).

In Azure SQL Database, you only need to use the Azure Hybrid Benefit for SQL Server, as the operating system is abstracted from the user. You can activate the Azure Hybrid Benefit via the Azure Portal by attesting you have sufficient active licenses with Software Assurance.

**56. Does the 90-day license reassignment rule in the Product Terms apply to the Azure Hybrid Benefit for SQL Server?**

No. The 90-day license reassignment rule in the Product Terms applies to License Mobility on hosted/VM instances. That scenario is not applicable for Managed Instance, which is a fully-managed database service.

### **57. How does Azure Hybrid Benefit for SQL Server differ from license mobility?**

Today, we offer SQL Server customers with Software Assurance license mobility benefits which allows re-assignment of their licenses to third party shared servers. This benefit can be used on unmanaged offerings in the cloud (i.e., VM/hosted), and the customer must bring their own media, and fill out all the compliance forms with the third-party cloud providers. Customers only get one core in the cloud for every core they own on-premises, and can only run in their specified edition, i.e. Standard can only run in Standard Edition in the cloud.

Azure Hybrid Benefit allows for:

- Moving your licenses to a fully managed PaaS product. We are the only cloud that has this. AWS RDS license mobility is now prohibited.
- 4 cores in the cloud for every core on-premises for Enterprise Edition customers in General Purpose
- 180 days of dual use rights on-premises and in the cloud
- No requirement for submission of licensing compliance papers, just a check box in the portal

For customers that want a hosted solution, they should combine Azure Hybrid Benefit for SQL Server + Azure Hybrid Benefit for WS for the best savings - you can only do this on Azure.

## **Additional Resources**

---

### **Datasheets**

[Azure Hybrid Benefit Datasheet](#)

[Server 2008 and 2008 R2 End of Support Datasheet](#)

### **Other Customer-facing Product FAQs for Extended Security Updates**

[Azure Hybrid Benefit FAQ](#)

[Windows 7 End of Support](#)