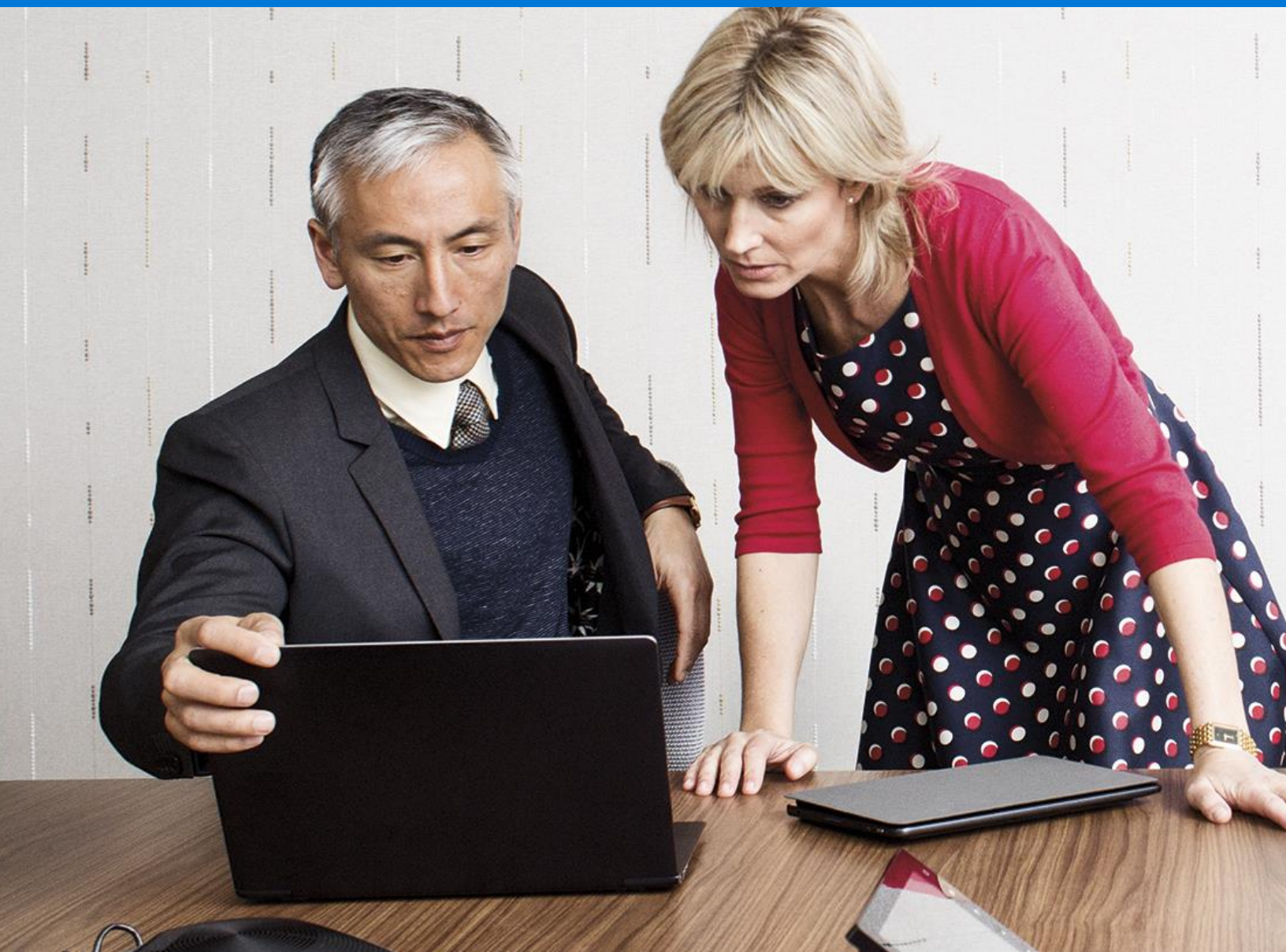
Microsoft

Azure Arc-enabled SQL Managed Instance

Licensing Guide



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Overview

This licensing guide is for people who want to gain a basic understanding of Azure Arc-enabled SQL Managed Instance. This guide does not supersede or replace any of the legal documentation covering Azure Arc-enabled SQL Managed Instance use rights. Specific product license terms are defined in the Online Service Terms. This licensing guide is not a legal use rights document. Program specifications and business rules are subject to change.

Azure Arc-Enabled SQL Managed Instance service tiers

Overview

Azure Arc-enabled SQL Managed Instance (SQL MI – Azure Arc) is a hybrid data service that brings Azure innovation and cloud benefits to on-premises and multicloud environment. It has near 100% compatibility with the latest SQL Server database engine and enables existing SQL Server customers to lift and shift their applications to Azure Arc-enabled data services with minimal application and database changes while maintaining data sovereignty. At the same time, it includes built-in database management capabilities that drastically reduce management overhead.

Table 1 below shows the comparison on management capabilities across deploying SQL Managed Instance in Azure and on Azure Arc, and the cloud database manageability provided versus traditional SQL Server.

Table 1. Azure Arc brings cloud management to any infrastructure

Management capabilities comparison by deployment model

Built-in Capabilities	Deployment Model		
	Customer Infrastructure		Azure
	SQL Server / PostgreSQL	Arc-enabled SQL MI / PostgreSQL	Azure SQL MI / PostgreSQL
Database security features	✓	✓	✓
Elastic / "Limitless" scalability	✗	✓ Limited by the capacity of customer infrastructure	✓
Automatic HA/DR	✗	✓ Customer responsible for underlying HW/K8s availability	✓
Auto upgrade, patching	✗	✓	✓
Auto backup-restore	✗	✓	✓
Monitoring	✗	✓	✓
Compliance certifications	✗ Customer responsible for compliance certification	✗ Customer responsible for compliance certification	✓ 90+ certifications
Data sovereignty	✓	✓	✓ Azure regions not available in all countries yet
Customer control	✓	✓	✓ Pre-defined HW options No control over HW/OS
Fully managed by Microsoft	✗ Customer-managed	✗ Customer-managed using software provided by Microsoft	✓
Guaranteed availability SLA	✗ Customer-managed	✗ Customer-managed using software provided by Microsoft	✓

The Azure Arc-enabled SQL Managed Instance General Purpose service tier is a budget-friendly tier designed for most workloads with common performance and availability requirements, and the Business-Critical tier is designed for mission critical data workloads for most demanding requirements on performance, high availability and security.

Table 2 below shows a comparison of key capabilities across Azure SQL MI – Azure Arc service tiers. Find detailed feature parity and comparison in Azure Arc data services documentation.

Choose the right service tier for your workloads

	General Purpose	Business Critical
Feature Set	Parity with SQL Server **Standard** Edition	Parity with SQL Server **Enterprise** Edition
CPU limit/instance	24 cores	Unlimited and flexible
Memory limit/instance	128 GB	Unlimited and flexible
HA/DR	Single instance	Always On. 1 passive replica for free
Read scale out	None	1st active replica for free
Developer edition	Provided	Provided

For Development and Test environments, we offer Azure Arc-enabled SQL Managed Instance Developer, which provides all the features that are available in both General Purpose and Business Critical service tiers.

Azure Arc-enabled SQL Managed Instance Billing

Licensing individual containers

Azure Arc-enabled SQL Managed Instance (SQL MI – Azure Arc) can be deployed on Linux-based Kubernetes clusters. This allows customers to not only choose their platform, but also deploy the database in containers using container-management technology.

Containers provide operating system level virtualization that allows multiple isolated applications to be run on a single system. Containers make it easy to enable:

- Rapid deployment scenarios
- Separation of application services through microservices deployments
- Rapid scale up and scale down of application services

Containers differ from virtual machines in that they provide operating system-level virtualization and all containers running on a host share the operating system. This provides application isolation, but not operating system-level isolation. However, containers are less resource intensive, require much less overhead to run, can be started and scaled rapidly, and provide a high degree of portability.

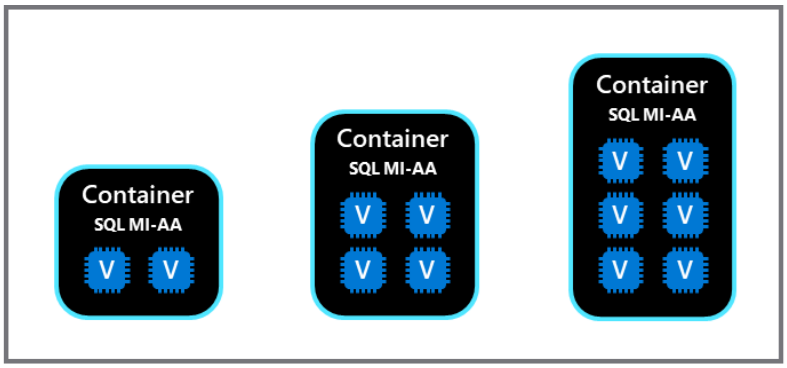
Virtual machines provide hardware-level virtualization, with each virtual machine having its own operating system environment, virtual memory and virtual cores. This provides full isolation from other virtual machines and allows for unique settings for the operating system within each virtual machine.

SQL MI-Azure Arc is available in Azure Portal (aka.ms/portal). More details on procurement and deployment can be found at aka.ms/ArcSQLDeployment.

For each instance of SQL MI – Azure Arc installed, customers will be billed for each hour of usage. All virtual cores (v-cores) supporting containers running instances of SQL MI – Azure Arc software will be billed. Customers will need to specify the number of v-cores supporting those containers in a "Cores Limit" parameter when setting up their environment.

Customers will be billed for all instances of SQL MI-Azure Arc regardless of the deployment infrastructure – Azure, customer's own hardware, public clouds or Authorized Outsourcers.

So in the below illustration, if a customer has 3 SQL MI-Azure Arc containers deployed, for each hour of usage, customers will be billed for 12 vCores hours.



v-core Limit	2	4	6	
v-cores billed	2	4	6	**12**

SQL MI-Azure Arc General Purpose and Business Critical vCore hour pricing is available at aka.ms/ArcSQLpricing.

Billing under different connectivity modes

Customers can choose to run their Arc-enabled SQL Managed Instance in various connectivity modes and get billing automatically set up.

When customers deploy SQL MI-Azure Arc in directly connected mode, i.e. customers are constantly connected to Azure via the Azure Arc-enabled Kubernetes service, uploading of usage (billing) data is automatically done in the same way as services running in Azure.

However, when running this service in indirectly connected mode, billing setup will require additional steps. Because there is no direct connection to Azure, customers need to send data to Azure through an export/upload process.

- Go through prerequisites for uploading usage/billing/logs data to Azure Monitor
- Create service principal and assign roles
- Export usage data and upload from an environment that allows connection to Azure

Customers can create a script and automate this process if they want to upload metrics and logs on a scheduled basis.

More details on billing and automating uploads can be found at aka.ms/ArcSQLBIlling.

Using SQL Server Azure Hybrid Benefit

Azure Hybrid Benefit for SQL Server is a Software Assurance benefit that enables customers to use SQL Server licenses with Software Assurance to pay a reduced rate ("AHB rate". See Azure Hybrid Benefit - Azure SQL Database & SQL Managed Instance | Microsoft Docs) on Azure SQL databases vCore-based options, such as Azure SQL Managed Instance, vCore-based Single Database, and vCore-based Elastic Pool; on Azure Arc-enabled SQL Managed Instance (SQL MI-Azure Arc); on SQL Server in Azure Virtual Machines (including, but not limited to, Azure Dedicated Host); and on SQL Server Integration Services.

Azure Hybrid Benefit can be used to pay a reduced rate on Azure Arc-enabled SQL Managed Instance.

For each core of a qualified SQL Server Enterprise core license, customer can use,

- 4 vcores of SQL MI – Azure Arc General Purpose at AHB rate, or
- 1 vcores of SQL MI – Azure Arc Business Critical at AHB rate

For each core of a qualified SQL Server Standard core license, customer can use,

- 1 vcore of SQL MI – Azure Arc General Purpose at AHB rate

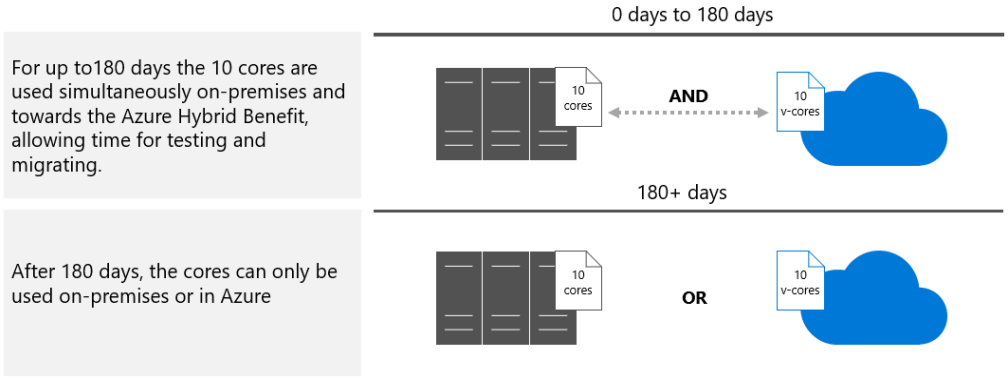
For four cores of qualified SQL Server Standard core licenses, customer can use,

- 1 vcore of SQL MI – Azure Arc Business Critical at AHB rate

Customers can use Azure Hybrid Benefit to get the "AHB rate" for SQL MI-Azure Arc General Purpose and Business Critical instances running in

- Azure Cloud,
- Customers' own servers or
- Servers under the day-to-day management of Authorized Outsourcers.

Azure Hybrid Benefit also provides 180 days of dual-use rights to apply to current deployment (on-premises or on third-party cloud) and in Azure to allow for data migration.



For more information on Azure Hybrid Benefit refer to: https://aka.ms/Azure_Hybrid_Benefit

Licensing Azure Arc-enabled SQL Managed Instance 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 Azure Arc-enabled SQL Managed Instance software for use in non-production environments.

Azure Arc-enabled SQL Managed Instance Developer

Azure Arc-enabled SQL Managed Instance Developer (SQL MI-Azure Arc Developer) is a fully featured version of Azure Arc-enabled SQL Managed Instance for development, test and demonstration purposes only. It may not be used in a production environment or with commercial data. Any test data that was used for design, development or test purposes must be removed prior to deploying the software for production use.

Customers may install and run the SQL MI – Azure Arc Developer software on any number of devices. 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.

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

Visual Studio subscriptions

Customers can also choose to license SQL MI – Azure Arc software for non-production use through certain Visual Studio subscription offerings, including the Visual Studio Professional and Enterprise subscription levels. Visual Studio subscriptions are licensed on a per user basis and the software cannot be used in a production environment.

→ For more information on Visual Studio subscriptions that include access to SQL MI – Azure Arc software, visit https://www.visualstudio.com/subscriptions/

→ For more information on Visual Studio licensing scenarios, download the Visual Studio Licensing White Paper at https://www.visualstudio.com/wp-content/uploads/2019/05/Visual-Studio-2019-Licensing-Whitepaper-March-2019.pdf