Public Cloud

IBM's 'Bring Your Own Software License' policy

Licensing Guide

IBM

Version History

Version	Updates
February 2022	– Initial version
April 2022	– Added additional detail to the counting of number of vCPUs section to explain that the PVU tables must be consulted in certain situations. Also, clarified that ILMT Virtual Manager must be correctly configured to report license requirements accurately for some eligible virtualization technologies.
February 2024	– Update to align to IBM Passport Advantage Agreement version 11 made available in February 2023. Added more clarifications on contractual capacity (aka Full Capacity) and configured capacity (aka Sub-Capacity) with a real case sample under the Scenario 1 of the Scenarios section of the guide.
August 2024	– Update to align to IBM Passport Advantage Agreement version 12 made available in August 2024.

Contents
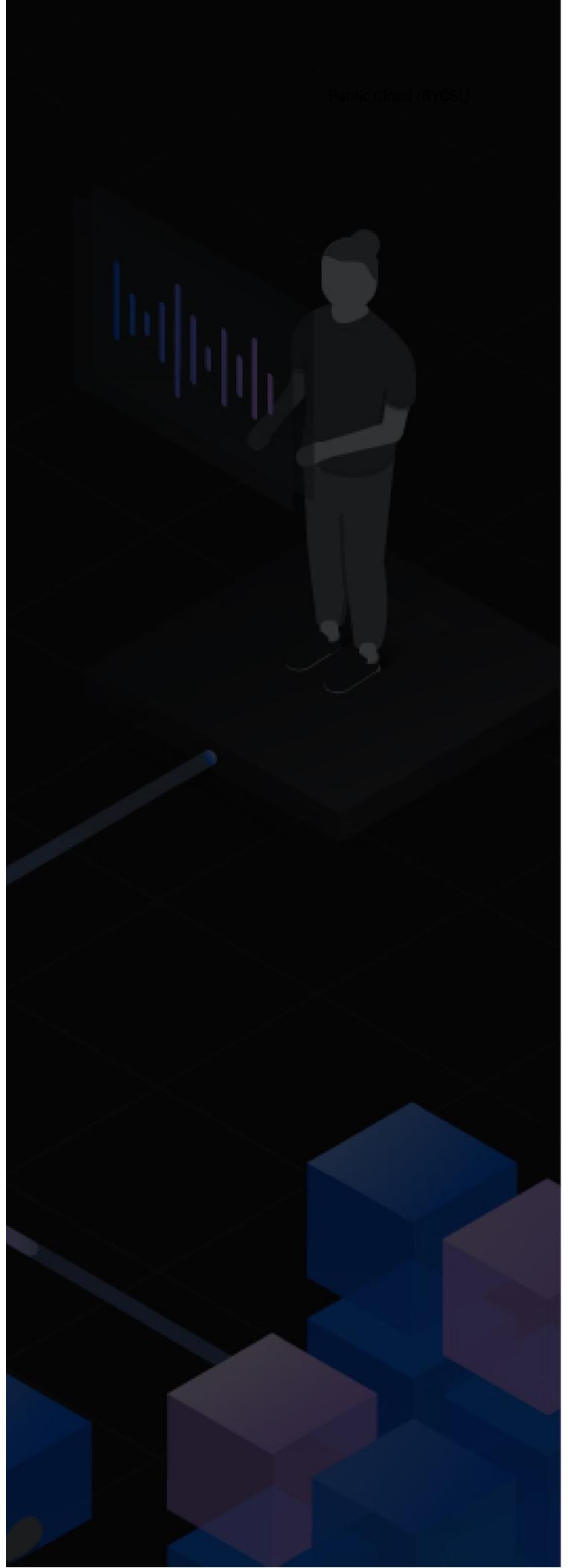
Overview

IBM's Bring Your Own Software License ("BYOSL") policy allows you to run certain IBM software on approved public cloud environments. It gives IBM's clients freedom to choose how they want to structure their IT provision and ensures that they can get the most out of their existing IBM investment while taking advantage of the latest innovations.

This guide discusses the public cloud offerings which are eligible for BYOSL, and how to measure deployments of IBM software in each.

This guide is intended as a general licensing knowledge resource. While it may explore scenarios and discuss the licensing implications of hardware configurations, it is not intended to provide advice for specific client circumstances. Always consult your IBM representative should you have any questions or concerns about BYOSL and Eligible Public Clouds in your IBM estate.

Key Terms

The following terms are used throughout this document and are fundamental to understanding its contents. This is not an exhaustive list, and some concepts may be discussed in other licensing guides or rely on assumed knowledge.

Bring Your Own Software License ("BYOSL")

An IBM policy which permits clients to deploy their on-premise licenses in eligible public cloud offerings.

Eligible Public Cloud ("EPC")

A public cloud offering which IBM has deemed to be eligible for the BYOSL policy as specified on this page.

Private Cloud

A type of computing in which a service provider makes computing resources available to an end client via the internet using dedicated hardware specific to that end client.

Public Cloud

A type of computing in which a service provider makes computing resources available to an end client via the internet. The client typically has little to no control over the infrastructure which is used to host the computing resources, and the underlying infrastructure is likely to be shared among multiple end clients. For more information, see this page.

Introduction

Prior to the introduction of the BYOSL policy, IBM software (either purchased directly from IBM or through a reseller) could only be deployed on private infrastructure, or on a cloud service where the underlying infrastructure was dedicated to an individual customer (a so-called "Private Cloud"). The BYOSL introduces greater freedom to allow clients to deploy IBM software on a Public Cloud service.

BYOSL gives clients who are considering a hybrid approach to their IT estates the opportunity to pursue this while making use of existing licenses.

IBM's BYOSL Policy in Detail

Software eligibility for BYOSL

The BYOSL policy applies to any IBM software licensed to you directly or through an authorized IBM reseller under IBM's license terms. However, the following software is NOT eligible for BYOSL:

1. Mainframe (IBM System z) software

2. Any IBM software sublicensed to you by a third party (for example, IBM software included in a third party's software solution as a licensed component)

IBM Business Partners

If you are an IBM Business Partner and are authorized to deploy your solution on a hosted environment, the BYOSL policy **does not apply to you** as this situation is handled under a separate agreement.

BYOSL Licensing

If the BYOSL policy applies to your deployment of IBM software in a public cloud environment, your usage of IBM software continues to be subject to use authorizations and restrictions as stated in the applicable license agreements and transaction documents, such as:

– IBM International Passport Advantage Agreement (IPAA) and Passport Advantage Express Agreement (IPAEA)

– IBM International Program License Agreement (IPLA)

– License Information documents

The BYOSL policy does not modify or supersede any obligations in the applicable governing licensing agreements, including requirements for licensed software use in a virtualized environment as defined in the Sub-Capacity and Container Licensing policies.

IPAA v10 and older

If you are on IPAA version 10 or older and are deploying to a Container in a Public Cloud, you must sign the Container Licensing Addendum before doing so. The Addendum is available here. Starting from IPAA v11 (available since February 2023), the Container Licensing terms are now included within any updated version of the IPAA.

Third Party Access

The BYOSL policy does not allow you to permit or grant access to (or use of) the IBM software by any third party, including the public cloud provider. Unless you have entered into specific licensing agreements with IBM that permit third-party access to the licensed software, it remains for your organization's own internal use only.

If you are using a third party to run or manage some or all your computing environment and that third-party's employees access the IBM software to do so, the BYOSL policy does not apply. Examples of this are providers of strategic outsourcing, web hosting and managed services. *A Third-Party Access Agreement (TPAA)* is required in such cases and you should discuss this with your IBM representative.

When a license entitlement is used on a public cloud, the same entitlement cannot be used for any other purpose or in any other place at the same time. For example, if you move an on-premise installation to a public cloud, you must remove the on-premise installation. It cannot continue to be installed without requiring additional use authorizations.

Eligible Public Clouds

IBM maintains a list of public cloud providers which are considered eligible for the BYOSL policy. It is located [here](#).

Virtualization Capacity and Container Licensing Requirements

It is common for public cloud offerings to provide you with a virtual machine which uses either traditional virtualization or container technology.

– You must be clear which technology is being used. If in doubt, check with your public cloud provider. IBM's Virtualization Capacity licensing rules will apply to virtual machines, and IBM's Container licensing rules will apply to containers.

– The eligibility requirements IBM sets out for taking advantage of Virtualization Capacity or Container Licensing continue to apply.

When you subscribe or purchase a virtual environment from the public cloud provider, the provider will typically offer various sizes of environment. For example, [IBM Cloud virtual server instances](#) are available in profiles between 1 and 56 vCPUs, and [Amazon EC2 Instance types](#) are available between 1 and 96 vCPUs.

The maximum number of vCPUs advertised and documented by the Public Cloud provider for the Virtual Server instance profile you select and pay for is what IBM will use as Full-Capacity value, also referenced as **contractual capacity**.
Some providers, such as Amazon and Google, may have Virtual Server instance profiles documenting a range of vCPUs that You can allocate to the virtual instance. The allocated number of vCPUs is the **configured capacity**, which is used by IBM as the Sub-Capacity value if the eligibility requirements are met.

For full details regarding the licensing of IBM software in container environments, see the licensing guide on the Guides page.

Calculating PVU and VPC Requirements for EPC Deployments

IBM provides a simple license requirement for Processor Value Unit ("PVU") and Virtual Processor Core ("VPC") based software across the various EPCs.

A flat rate of 70 PVUs per virtual CPU ("vCPU") is used no matter which EPC you choose, so you simply need to count the number of vCPUs and multiply this by 70. For example, if your virtual machine has 2 vCPUs, the number of PVUs required is 140 (2 x 70). Similarly, 1 VPC is required per vCPU.

Additional details on how to determine the number of vCPUs are set out below:

Virtualization Capacity For example, Virtual Machines using traditional Virtualization Technologies	**Determine the number of Virtual Processor Cores (VPCs) assigned to the virtual machine.** If you are eligible for Virtualization Capacity this is the number of vCPUs assigned to your virtual machine as measured by an approved license metering tool such as IBM License Metric Tool or HCL BigFix Inventory. **If you are not eligible for Virtualization Capacity you must license the contractual capacity for the virtual machine you have bought from the provider.**
Container Licensing For example, containers managed by Kubernetes running on RedHat OpenShift environments	**Determine the number of VPCs being allocated as the maximum CPU limit for the Containers** If you are eligible for IBM Container licensing rules, count the max limit of the vCPUs assigned to the pods running within the Kubernetes cluster hosted on the public cloud and as measured by IBM License Service. **If you are not eligible for IBM Container licensing, you must license the contractual capacity of all the worker nodes of your Kubernetes cluster.**

Notes:

1. For Oracle offerings that are measured by 'Oracle Compute Unit' (OCPU), each OCPU is 2 vCPUs. Therefore, each OCPU, as advertised by Oracle for their Virtual Servers profiles, corresponds to 140 PVUs of licenses.

2. If the offering is a container, check with your provider whether hyperthreading is enabled. If it is, you need to divide the number of vCPUs by 2 when calculating the number of VPCs in Step 1 of Scenario 2 *(Deployments in containers on public cloud)* below.

3. For **IBM Cloud Bare Metal servers**: the normal way of calculating PVU requirements is followed. This is because these are fully dedicated servers rather than shared infrastructure. The PVU Tables should be consulted to calculate PVU requirements.

4. For selected VMWare managed services which are considered Eligible Public Clouds the PVU Table should be consulted to calculate PVU requirements.

5. For IBM Cloud Bare Metal servers (or whenever the eligible virtualization technology requires PVU tables to be used to count the number of licenses required), you must ensure that the ILMT Virtual Manager component has been properly configured so that ILMT can report license requirements accurately. Please refer to the ILMT product documentation for more information.

Scenarios

Scenario 1: PVU software deployed on a traditional virtual machine based public cloud

In this scenario, IBM software has been deployed to a public cloud environment which is based on traditional virtualization technology. This scenario explores the effect of complying with the eligibility requirements for Virtualization Capacity (Sub-Capacity) as explained in the dedicated licensing guide.

	Virtual Machine 1	Virtual Machine 2
IBM PVU software licensed under BYOSL	IBM MQ	IBM DB2 Enterprise Server Edition
Metering tool	IBM License Metric Tool	NONE
# vCPUs (contractual)	4	8
# vCPUs (configured)	2	6

Step 1: Count the number of VPCs

	Virtual Machine 1	Virtual Machine 2
Eligible for Virtualization Capacity?	✓	✗ No metering tool
Number of vCPUs to count	2	8
Is this a container?	No	No
- Is hyperthreading enabled?	N/A	N/A
- If yes, divide vCPUs by 2	N/A	N/A
Number of VPCs	**2**	**8**

Step 2: Calculate PVUs for the total number of VPCs

		Virtual Machine 1	Virtual Machine 2
Number of VPCs	[A]	2	8
PVUs per VPC	[B]	70	70
Total PVUs	[A * B]	**140 PVUs**	**560 PVUs**

Real customer scenario sample – N2 custom profile on Google public cloud

Google provides Standard Virtual Server instance N2 profiles with a predefined allocated capacity of vCPUs. However, for the same N2 instance profile, Google allows to allocate a custom capacity in the range from 2 vCPUs to a max of 80 vCPUs.

80 vCPUs are what IBM will use for Full Capacity, and this is also the contractual capacity.

If Customer allocates 8 vCPUs to this custom N2 Virtual Server, IBM will recognize the allocated 8 vCPUs of sub-capacity only if Customer has deployed ILMT and can provide reports in support of the allocated capacity over time.

Scenario 2: Deployments in containers on public cloud

This scenario illustrates how to count the number of VPCs and PVUs for container-based deployments on public cloud. The important things to look for are eligibility for container licensing, whether hyperthreading is enabled, and whether the number of vCPUs has been reduced from the standard contractual allocation.

Container 1 is eligible for Container Licensing; Container 2 illustrates what would happen if that same container was not eligible for Container Licensing.

In both examples, the container is running on a Kubernetes cluster containing two worker nodes with 8 hyperthreaded vCPUs each.

	Container 1	Container 2
IBM PVU software licensed under BYOSL	IBM MQ	IBM MQ
Metering tool	IBM License Service	NONE
# vCPUs (contractual)	8	8
# vCPUs Worker Node (configured)	6	6
# vCPUs in Container (configured using the "cpu_limit" setting in the container image)	2	2
Is hyperthreading enabled?	Yes	Yes

Step 1: Count the number of VPCs

	Container 1	Container 2
Eligible for Container Licensing?	✓	✗ No metering tool
Full-Capacity (worker node level)		
Number of worker nodes in cluster	N/A	2
Total vCPUs in all worker nodes	N/A	16
Number of vCPUs to count	2	16
Is hyperthreading enabled?	Yes	Yes
If yes, divide vCPUs by 2 [note 1]	1	8
Number of VPCs	**1**	**8**

Step 2: Calculate PVUs for the total number of VPCs

		Container 1	Container 2
Number of VPCs	[A]	1	8
PVUs per VPC	[B]	70	70
Total PVUs	[A * B]	**70 PVUs**	**560 PVUs**

(1) Assumes 2 threads per physical core. If the processor using Simultaneous Multithreading the number to divide by may be higher. For example, a processor with SMT-4 has 4 threads per physical core, so the vCPUs would be divided by 4 in this case.

FAQs

How do I know if I'm eligible for IBM's Public Cloud policy?

If you have licenses to IBM software purchased either directly from IBM or through an authorized IBM reseller and are not an IBM Business Partner (detailed above) then you have the right to deploy your IBM software in one of the Eligible Public Clouds. If your public cloud deployment is in a Container, be sure you have signed the Container Licensing Addendum if you are on IPAA v10 or below otherwise your containerized deployments must be licensed on a Full-Capacity basis.

What metering tools must I install to be eligible for Virtualization Capacity (Sub-Capacity or Container Licensing)?

IBM maintains a list of approved Eligible Public Cloud providers and related service offerings upon which you may deploy your IBM programs in line with the BYOSL policy. Any provider or service offering that is not approved by IBM is not eligible for the BYOSL policy. Deploying your IBM programs on an ineligible public cloud provider or service offering requires special agreements to be in place, such as a Third Party Access Agreement (TPAA).

For Eligible Public Cloud providers and related service offerings, the treatment depends upon the technologies used to deploy the IBM programs:

– Deployments on 'traditional' virtualization technologies such as virtual machines hosted in VMware ESX Hypervisor are subject to the Virtualization Capacity (Sub-Capacity) licensing rules. These rules require the installation an IBM approved metering tool such as IBM License Metric Tool or HCL BigFix Inventory. This in addition to ensuring that all other eligibility requirements for Sub-Capacity licensing are met.

– Deployments as Containers on a supported Kubernetes-orchestrated container platform are subject to the Virtualization Capacity (Container Licensing) rules. These rules require the installation of IBM License Service on each Cluster where IBM programs are deployed.

– All other deployments of IBM programs must be licensed at Full-Capacity, the measurement of which is described in this guide. This includes Containers running on a Docker-based platform, on ineligible operating systems or using ineligible virtualization technologies.

Do I need to sign any additional licensing agreements to deploy my IBM software in a public cloud?

If you are deploying IBM software on a container-based Public Cloud offering and you are on IPAA version 10 or older, a Container Licensing addendum is required. If you are deploying on a traditional virtual environment, no additional licensing agreement is needed.

Are there any reporting requirements to be eligible for Container Licensing on public cloud environments?

Yes. The same reporting requirements exist for deployments on public clouds as for on-premise installations. For Virtualization Capacity this means the deployment of an approved Virtualization Capacity Metering Tool such as ILMT or other approved tools such as *HCL BigFix Inventory*, *Flexera One IT Asset Management* (by Flexera) and *Flexera One with IBM Observability IT Asset Management* (by IBM). For Container Licensing this means deploying IBM License Service and optionally IBM License Service Reporter. You are required to create reports at least quarterly and retain them for two years. These reports must be made available to IBM or its auditors upon request. For more information see the Virtualization Capacity and Container Licensing guides.

The Public Cloud provider where I want to deploy IBM software is not listed as an Eligible Public Cloud. Can I deploy my software there?

No. In order for the BYOSL policy to apply, the public cloud offering must be listed among those eligible on this page. IBM is continually reviewing the Public Cloud offerings and updates the list of EPCs from time to time.

Further Reading

IBM BYOSL Policy on Public Cloud
The BYOSL policy detailing the terms and conditions for deploying IBM software in an eligible public cloud.
https://www.ibm.com/software/passportadvantage/eligible_public_cloud_BYOSL_policy.html

IBM Cloud Paks
A page that provides details and useful resources relating to IBM Cloud Paks.
https://www.ibm.com/cloud/paks

Container Licensing Guide
A guide which provides information on IBM's Virtualization Capacity licensing terms for IBM programs deployed using container technologies.
https://www.ibm.com/about/software-licensing/assets/guides_pdf/Container_Licensing.pdf

Virtualization Capacity Licensing Guide
A guide which provides information on IBM's Virtualization Capacity licensing terms for IBM programs deployed using traditional virtualization technologies.
www.ibm.com/about/software-licensing/licensing/guides

IBM Cloud
The landing page for the IBM Cloud offering.
https://www.ibm.com/cloud

IBM Container Licensing
A page providing the IBM Container licensing policies and IPAA addendum for clients on IPAA 10 or older.
https://www.ibm.com/software/passportadvantage/containerlicenses.html

Questions and Comments:

If you have questions regarding the content of this licensing guide, or any aspect of IBM's licensing terms and conditions, please contact us at www.ibm.com/about/software-licensing/contact.