IBM Passport Advantage
Distributed Software
Licensing Guide

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1) Overview

The goal of IBM's software licensing is to assist customers in being more competitive in the market place and to aid in running their business efficiently and effectively. Our approach to licensing is to provide flexibility in how they acquire IBM software to accommodate and better serve their customer specific needs.

IBM's Passport Advantage software licensing offers:
- Price-to-value, through which our software provides significant benefits to the customer.
- Flexibility for all customers to run software where it best fits into their system's design across numerous platforms and virtualization technologies, and allows them to optimize on the factor which is more important to their business (i.e. cost, performance, reliability, etc.).
- Capability to leverage the underlying technology to reduce costs. Virtualization is a common example, where IBM's licensing allows customers to leverage a wide variety of virtualization technologies. Virtualization licensing enables the customer to better manage system utilization, software images, and ultimately reduce costs while providing equal or better performance.

This document describes some of the licensing options available to IBM customers to assist them in gaining the greatest benefits from our software. It focuses on the software acquired under the International Program License Agreement (IPLA) and under the International Passport Advantage Agreement (PA). The IPLA, including License Information (LI) documents which defines any program unique terms and conditions, grants customers a nonexclusive license to use the IBM software. The PA agreement provides customers a way to obtain authorization to use, update, and support the IBM software. If there is a conflict between the terms of the PA agreement, including its Attachments, and those of the IPLA, including the program LI, the terms of the PA agreement and its Attachments prevail.

2) International Program License Agreement

IBM distributed software is licensed under the International Program License Agreement (IPLA). The IPLA grants the customer a nonexclusive license to use the software when the customer lawfully obtains and deploys the licensed software up to the level of authorized use specified in the applicable proofs of entitlement (PoEs). IBM licenses distributed software for use either indefinitely or for a fixed term (depending on the type of license obtained) so long as the customer complies with the terms of the license agreement.

For the IBM International Program License Agreement, visit:
http://www.ibm.com/software/sla/sladb.nsf/pdf/ipla/$file/ipla_en.pdf.

3) Program License Information

IBM's distributed IPLA software includes a program specific License Information document. This document defines any program unique terms and conditions that must be accepted by a customer before installing and utilizing the program.

For the License Information documents, visit:
http://www.ibm.com/software/sla/sladb.nsf

4) International Passport Advantage Agreement and Program

IBM's distributed IPLA software family of programs is offered through the Passport Advantage (PA) Programs – Passport Advantage and Passport Advantage Express.   Software obtained through these programs is governed by the IBM International Passport Advantage Agreement or International Passport Advantage Express Agreement, as applicable. Under the PA agreements, IBM provides the customer a way to obtain authorizations to use, update, and support selected programs at volume pricing.

	Passport Advantage	**Passport Advantage Express**
Enterprise Size	Larger including multiple sites	Smaller with single sites
Contract Type	Relationship based	Transaction based
Minimum Initial Order Size	No	No
Volume Discount Available	Yes	No
New Licenses	Yes	Yes
Subscription & Support	Yes	Yes

For the IBM International Passport Advantage Agreement, visit:
http://public.dhe.ibm.com//software/passportadvantage/PA_Agreements/PA_Agreement_International_English.pdf

For Passport Advantage Program details, visit:
http://www.ibm.com/software/passportadvantage/

For Passport Advantage Express Program details, visit:
http://www.ibm.com/software/passportadvantage/aboutexpress.html

5) Software Usage Options

An IBM license grants the right to use software either indefinitely or over a fixed term, depending on the offering. Some software offerings are made available on a fixed term basis is available for on premise installation (licensed software), while others are provided by IBM in a hosted environment and referred to as Software as a Service (SaaS).

	Use	Support	Software Updates
Indefinite Use			
Initial License	Indefinite for the software for which the license was obtained	For 12 months from date of acquisition	For 12 months from date of acquisition
Subscription &Support Renewal	Rights to Use Software Updates	For 12 months, or prorated to Anniversary date on first renewal	For 12 months, or prorated to Anniversary date on first renewal
Fixed Term License			
Initial Term	For the length of the term	For the length of the term	For the length of the term
Subsequent Term	For the length of the term; prorated to Anniversary date on first renewal	For the length of the term; prorated to Anniversary date on first renewal	For the length of the term; prorated to Anniversary date on first renewal
Software as a Service			
Initial Term	SaaS for the length of the agreed term	Per the Terms of Use documents	Not applicable
Subsequent Term	SaaS for the length of the agreed term	Per the Terms of Use documents	Not applicable

6) Distributed Software License Metrics

A licensing metric defines the basis on which a software program is licensed. License metrics are determined based on the program offering, the target market, and the value the customer receives. Over time, new charge metrics may be defined and others may become obsolete as the marketplace and technology evolve. License metrics for a specific program can be found in the corresponding program license information document and/or announcement. They will remain in effect until superseded by updated licensing terms and conditions.

Customers are responsible for and are encouraged to maintain strong software asset management practices. Having effective and strong asset management is especially important to be able to take advantage of the most beneficial metric terms when various license metric options are available from which a customers can select, and to aid customers' compliance with applicable terms and conditions.

a) Commonly Used License Metrics

These are the commonly used license metrics used by IBM distributed software programs acquired through the PA program. Capacity based licensing aligns to the capacity of the

machine(s) on which the program is installed or the machine(s) that the program manages. User based licensing aligns to the number of users given access to the program.

Below is a synopsis definition for each of these commonly used metrics. They have been provided as a quick reference only to provide a basic understanding of each metric. The full metric definitions can be found in program announcements, program license information documents, and/or on our web pages.

For metric definitions, visit:
http://www.ibm.com/software/passportadvantage/about_software_licensing.html

For the licensing metric specific for a program, visit to the program's license information document:
http://www.ibm.com/software/sla/sladb.nsf
Or visit the program's announcement letter:
http://www.ibm.com/common/ssi/index.wss

License Metric	Synopsis
User Based Licensing	
Authorized User	Count the number of unique users who have access to the software program.
Floating User	For each install of the software program, count the number of simultaneous users who have access to that install, then add those totals together.
Concurrent User	Count maximum number of users who simultaneously access the software program.
User Value Unit (UVU)	Count the number of users who have access to the software program and convert to the required number of UVU entitlements. See program specific UVU table in the License Information document.
Capacity Based Licensing	
Processor Value Units (PVU)	Count the PVUs for each activated processor core, by processor technology, available to the software program. See the PVU table for the PVU values required for each processor technology.
Virtual Server	Count the number of virtual computers created by partitioning the physical server or un-partitioned physical servers made available to the program.
Install	Count the number of copies of the software program installed on physical or virtual disks.
Other Licensing	
Client Device	Count the number of client devices: a) managed by the software program and/or b) on which the software program is installed.
Resource Value Units (RVU)	Count the number of resources: a) used by the software program or b) managed by the software program and convert to the required number of RVU entitlements. See program specific RVU table in the License Information document.

b) *Processor Value Unit (PVU) License Metric*

For programs licensed on PVUs, the number of PVU entitlements required is based on the processor core technology (defined within the PVU table by processor vendor, brand, type and model number) and the number of activated processor cores made available to or managed by the Program. IBM continues to define a processor, for the purpose of PVU-based licensing, to be each processor core on a chip. A dual-core processor chip, for example, has two processor cores. An activated processor core is a processor core that is available for use in a physical or virtual server, regardless of whether the capacity of the processor core can be or is limited through virtualization technologies, operating system commands, BIOS settings, or similar restrictions.

Here is an example of a partial PVU table.

	Processor Brand			Processor Type				
Processor Vendor	Processor Name	Server model numbers	Maximum number of sockets per server	Cores per socket (1)(2)(4)(6)(8)(10)(12)	IFL Engine	Proc. Model Number	PVUs per Core
IBM	POWER Systems cores running Linux OS	7R1, 7R2, 7R4 POWER IFL, p24L, S812L, S822L Any POWER System core running Linux	All			All	70
	POWER8	S814, S822, S824	2			All	70
		870, 880	>4			All	120
		770, 780, 795	>4			All	120
	POWER7 [4]	750, 755, 760, 775, PS704, p460, Power ESE	4			All	100
		PS700-703, 710-740, p260, p270	2			All	70

The customer can deploy the Program using either full capacity licensing or virtualization capacity (Sub-capacity) licensing according to the Passport Advantage virtualization licensing Terms. If using full capacity licensing, the customer must obtain PVU entitlements sufficient to cover all activated processor cores in the physical hardware environment made available to or managed by the Program, except for those servers from which the Program has been permanently removed. If using virtualization capacity licensing, the customer must obtain entitlements sufficient to cover all activated processor cores made available to or managed by the Program, as defined according to the virtualization capacity license counting rules.

For PVU licensing details, visit:
http://www.ibm.com/software/passportadvantage/pvu_licensing_for_customers.html.

For Virtualization Capacity (Sub-Capacity) licensing terms and details, visit:
http://www.ibm.com/software/passportadvantage/Counting_Software_licenses_using_specific_virtualiz ation_technologies.html.

i) **Virtualization Capacity (Sub-Capacity) Licensing**

Virtualization capacity (sub-capacity) licensing lets you license an eligible software program for less than the full capacity of your server or group of servers. It provides the licensing granularity needed to leverage various multi-core chip and virtualization technologies.

Virtualization capacity licensing requires the use of (1) eligible sub-capacity programs; (2) eligible virtualization technologies; (3) eligible processor technologies; and (4) the use of the IBM License Metric Tool (ILMT) unless one of the documented exception conditions applies.

To participate in virtualization capacity licensing, the customer must:

- Obtain and install the IBM License Metric Tool (ILMT) program and use it to create reports; and
- Verify eligibility of environment (processor, virtualization technology, software).

For current eligibility tables which are maintained on IBM's virtualization capacity licensing page, visit:
http://www.ibm.com/software/passportadvantage/subcaplicensing.html

For a list of PVU licensed programs not eligible for Sub-capacity Licensing, visit:
http://public.dhe.ibm.com/software/passportadvantage/SubCapacity/Sub_Capacity_Eligible_Programs.pdf

ii) IBM License Metric Tool (ILMT) Program

In order to assist customers with software asset management of PVU licensed software, IBM provides a no-charge software program, ILMT, which is available to IBM Passport Advantage customers. The tool provides the capability to generate reports to assist with software asset management and helps customers assess software compliance with licensing requirements.

For customers using IBM's full capacity licensing, the use of the ILMT tool is optional. However, for customers who use software in virtualized environments, installation and use of ILMT is a contractually mandatory requirement unless one of the documented exception conditions applies. With today's multi-core technologies and proliferation of virtualization technologies, software licensing management has continued to increase in complexity (e.g. calculating PVU consumption in a highly virtualized environment). Thus, this requirement helps customers ensure that IBM offerings are accurately licensed in their environment. The reports generated through ILMT must be maintained by the customer and provided to IBM for compliance verification on request.

To access the ILMT Information Center for information to install, use, and maintain the software, visit:
https://www.ibm.com/support/knowledgecenter/SS8JFY/lmt_welcome.html?lang=en

7) Program Trade Ups

Some IBM software programs provide migration paths from another IBM software program or in some situations from a non-IBM program. This is referred to as a trade up. When offered, trade ups may be obtained for a reduced charge. By obtaining the replacement program through the use of a trade up, the customer agrees to terminate the use of the previous program when they install the replacement program.

8) Maximum Licensing Configuration

Some IBM software programs, particularly our express or entry edition offerings, specify a maximum configuration. Depending on the charge metric for the program, the program may state that a maximum number of users can be licensed for an instance of the program or the machine where the program is running may be limited to a maximum number of PVUs. These maximum configurations will be specified within the program's announcement as well as in the program's License Information document.

9) Backup or Standby Systems

The intent of backup licensing is to enable the customer to continue to be operational if an emergency occurs. This is frequently referred to as backup use, disaster recovery, or abbreviated as BRS when a backup and recovery service is involved.

For programs or residents running on backup machines, IBM defines three types of backup situations: cold, warm, and hot. In cold and warm situations, a separate entitlement for the copy on the backup machine is typically not required and no additional charge applies. In a hot backup situation, the customer must acquire license entitlements sufficient for that machine. All programs running in backup mode must be solely under the customer's control, even if running at another enterprise's location. Any program's unique terms would be documented in the program's license information document.

As a practice, the following are definitions and allowable actions concerning the copy of the program used for backup purposes:

Backup Category	Program Status	Licensing
Cold	Not Started	No additional entitlement
Warm	Started but Idle	No additional entitlements
Hot	Started and doing work	Additional entitlements required

"Doing work" includes, but is not limited to activities such as:
- Programming
- Development
- Program maintenance
- Testing
- Mirroring of transactions
- Updating of files
- Synchronization of programs, data, or other resources (for example, active linking with another machine, program, database, or other resource, and so on)
- Any activity or configurations that would allow an active hot switch or other synchronized switch over between programs, databases, or other resources to occur.

In the case of a program or system configuration that is designed to support a high availability environment by using various techniques (for example, duplexing, mirroring of files or transactions, maintaining a heartbeat, or active linking with another machine, program, database, or other resource), the program is considered to be doing work in both the warm and hot situation and license entitlements must be acquired.

For backup details, visit:
http://www.ibm.com/softwarepolicies

10) Reference Links

For the IBM International Program License Agreement, visit:
http://www.ibm.com/software/sla/sladb.nsf/pdf/ipla/$file/ipla_en.pdf

For the License Information documents, visit:
http://www.ibm.com/software/sla/sladb.nsf.

For the IBM International Passport Advantage Agreement, visit:
http://public.dhe.ibm.com/software/passportadvantage/PA_Agreements/PA_Agreement_Internatio
nal_Englis h.pdf

For Passport Advantage Program details, visit:
http://www.ibm.com/software/passportadvantage/

For Passport Advantage Express Program detains, visit:
http://www.ibm.com/software/passportadvantage/aboutexpress.html

For Program announcements, visit:
http://www.ibm.com/common/ssi/index.wss

For metric definitions, visit:
http://www.ibm.com/software/passportadvantage/about_software_licensing.html

For PVU licensing details, visit:
http://www.ibm.com/software/passportadvantage/pvu_licensing_for_customers.html

For Virtualization Capacity (Sub-Capacity) licensing terms and details, visit:
http://www.ibm.com/software/passportadvantage/Counting_Software_licenses_using_specific_vir
tualiz ation_technologies.html

For current eligibility tables which are maintained on IBM's virtualization capacity licensing page,
visit:
http://www.ibm.com/software/passportadvantage/subcaplicensing.html

For a list of PVU licensed programs not eligible for Sub-capacity Licensing, visit:
http://public.dhe.ibm.com/software/passportadvantage/SubCapacity/Sub_Capacity_Eligible_Progra
ms.pdf

For the ILMT Information Center for information to install, use, and maintain the software, visit:
https://www.ibm.com/support/knowledgecenter/SS8JFY/lmt_welcome.html?lang=en

For backup details, visit:
http://www.ibm.com/softwarepolicies