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Sub-capacity licensing for select IBM Passport Advantage eligible programs running on x86 servers helps improve flexibility and price/performance

Overview

IBM continues to lead the industry in delivering On Demand Business solutions with flexible pricing and financing models that enable you to exploit new technology. IBM has already taken important steps in this area, including sub-capacity and On/Off Capacity on demand offerings, and the complementary hardware and software offerings.

IBM considers sub-capacity licensing to be a strategic offering within the on demand portfolio. Sub-capacity licensing lets customers license an eligible software program for use on less than the full processor capacity of your machine, when the software program is used within one or more partitions. IBM announced sub-capacity licensing on the IBM @server® zSeries® in 2001, and followed up with additional sub-capacity licensing support for zSeries in 2004. In April 2005, IBM extended sub-capacity licensing to the UNIX®, IBM @server® iSeries™, and selected Linux™ environments.

For additional announcement information, see the **Reference information** section.

In an effort to expand on demand offerings, IBM extends sub-capacity licensing benefits to selected Passport Advantage® programs licensed on a per-processor basis in select x86 servers (Intel®-based and AMD-based) running VMware ESX Server, VMware GSX Server, or Microsoft™ Virtual Server, as well as extending sub-capacity support in select UNIX servers (Solaris 10, HP-UX 11iv2). For a list of partitioning technologies supported under sub-capacity licensing terms, refer to the **Platforms eligible for sub-capacity licensing** section.

IBM is also delivering IBM Tivoli® License Compliance Manager for IBM Software, a tool for you to track and report your software assets in order for you to take advantage of these flexible pricing terms. V2.2 of IBM Tivoli License Compliance Manager for IBM Software (formerly IBM Tivoli License Manager) must be used by customers who wish to take advantage of sub-capacity licensing for x86 servers and UNIX servers running Solaris 10 or HP-UX 11iv2.

New and existing Passport Advantage customers will need to agree to the terms of an attachment to their Passport Advantage Agreement and submit a new Passport Advantage Enrollment Form to IBM or an authorized IBM Business Partner.

Key prerequisites

The sub-capacity offering is available on eligible distributed Passport Advantage programs that run on UNIX (AIX®, HP-UX, and Solaris), i5/OS™, OS/400®, Windows™ (x86), and Linux (IBM @server® pSeries®, iSeries, and zSeries models). The Sun Fire T1000 and Sun Fire T2000 servers do not currently qualify for sub-capacity licensing.

The customer must monitor use on a continuous basis with IBM Tivoli License Compliance Manager for IBM Software V2.2. A customer must migrate from IBM Tivoli License Manager V2.1 to IBM Tivoli License Compliance Manager for IBM Software V2.2, if they wish to take advantage of the additional partitioning technology support that IBM is announcing today.

Availability date

April 25, 2006

- Passport Advantage
- Passport Advantage Express

Description

Sub-capacity describes an environment where a machine is divided into multiple partitions, and you license IBM software based on the number of processors in the partition where the IBM software runs, instead of the full-capacity of the entire machine. With this new value proposition, IBM facilitates customer adoption of new technology, thereby aligning IBM software pricing with IBM Corporation's on demand strategy and our customers' desire for server consolidation.

Sub-capacity licensing is available for newly acquired licenses of selected Passport Advantage programs that are licensed on a per-processor basis. These programs may be used on supported platforms, with the programs running only in some of the partitions. For eligible platforms, refer to the **Platforms eligible for sub-capacity licensing** section. A customer may order sub-capacity licensed products to run in a full-capacity environment (or, likewise, operate on multiple partitions that sum to full-capacity).

For a description of the specific requirements to be eligible for sub-capacity licensing, refer to the **Eligibility requirements** section.

In order to be eligible for sub-capacity terms, the customer must agree to report capacity utilization to IBM on a quarterly basis. With the availability of IBM Tivoli License Compliance Manager for IBM Software, sub-capacity terms will be offered for select newly announced capacity-based programs that are enabled for IBM license manager software, and where the capacity is that of the partition on which the program is running.

Eligibility requirements

To be eligible for sub-capacity licensing terms on select Passport Advantage programs, you must agree to install and configure IBM Tivoli License Compliance Manager for IBM Software or IBM Tivoli License Compliance Manager, in accordance with the IBM Tivoli License Compliance Manager publications, and to enable the collection of program use data on all eligible machines subject to sub-capacity terms.

For those machines running programs with sub-capacity licensing terms, you must use IBM Tivoli License Compliance Manager for IBM Software or IBM Tivoli License Compliance Manager to monitor program use and submit to IBM an IBM Use Report each calendar quarter.

Sub-capacity terms are not currently available for customers who use the Sun Fire T1000 or Sun Fire T2000 servers. IBM middleware running on these servers are licensing according to the requirements set forth in IBM Software Announcement 206-063, dated March 28, 2006.

Additionally, Passport Advantage customers must agree to the terms of an attachment to your Passport Advantage and submit a new Passport Advantage enrollment form.

Required and entitled license capacity

The quantity of each Passport Advantage program needed to satisfy applicable terms is referred to as the required license capacity. The quantity of each Passport Advantage program that you have acquired is referred to as your entitled license capacity. For each applicable program, you are responsible to ensure that you maintain the required number of software licenses to comply with the terms and conditions of the agreement. If you determine that additional software licenses are required, you must purchase them from IBM or your IBM Business Partner.

To further assist with compliance, IBM will compare your required license capacity with your entitled license capacity each quarter. If your required license capacity exceeds your entitled license capacity, IBM will expect to have received your order for the applicable Passport Advantage software programs. If you have not placed an order, IBM will initiate a quote for additional license capacity for that program. To issue a purchase order for the required additional license capacity, contact IBM or your IBM Business Partner. Regardless of whether or not you place an order for additional capacity, you will be charged for excess capacity used.

License requirements

Sub-capacity licenses for select Passport Advantage software programs are offered on a "per-processor" basis. The quantity of sub-capacity licenses required in a partition is equal to the number of processors contained in that partition where the program is installed (for example, a four-processor partition requires four licenses for each product in the partition). Licenses may be transferred to another machine if the number of licenses is equal to the number of processors in the partitions.

If shared pooling, or Micro-Partitioning™, of processors is being used, you must acquire the number of licenses for each program in accordance with the following methodology:

For UNIX, i5/OS, OS/400, and Linux (except zSeries) platforms:

The number of authorizations you must acquire is the smaller value of either of the following methods:

1. The total number of active processors in the machine, or

2. The sum of the two following items. (Any remaining fraction of a processor must be rounded up to a full processor for each server in the final aggregation.):

   a. When a program is run in partitions with dedicated processors, the sum of the processing units of those partitions, and

   b. When a program is run in partitions that are members of a shared processing pool, the smaller of:

      1) The number of processors assigned to the pool, or

      2) The sum of the virtual processors of each uncapped partition plus the processing units in each capped partition running a program

Example: You have an 8-way machine configured with a dedicated partition that has two processors. The remaining six processors are in a shared processor pool. Three partitions use the shared processor pool. WebSphere® Application Server is configured to run in the dedicated partition (two processors). WebSphere Application Server is also configured to run in two of the partitions that use the shared processor pool — one partition defined to use 2.2 processors and one defined to use 2.4 processors.

To calculate the license entitlements, you first calculate the requirements for the shared processor pool — 2.2 + 2.4 = 4.6, which you round up to five license entitlements. Then add the license entitlements for dedicated partitions (two) for a total of seven license entitlements required for WebSphere Application Server.

For Linux for zSeries:

The number of authorizations you must acquire is the smallest value of the following methods:

1. When the program runs on one or more Central Processors (CPs) or one or more Integrated Facility for Linux (IFL) processors (or combination of CPs and IFLs) in the machine:

    a. The total number of active CPs when the program runs on one or more CPs, plus

    b. The total number of active IFLs when the program runs on one or more IFLs

2. When the program is run in z/VM® guests on a machine in basic mode, the sum of the processors available to each guest, or

3. The sum of all LPARs in the following three categories:

    a. When a program is run natively (that is, not a z/VM Guest) in an LPAR with dedicated processors, the number of active processors in the LPAR

    b. When a program is run in z/VM guests in an LPAR with dedicated processors, the smaller of:

        1) The number of active processors in the LPAR, or

        2) The sum of the processors available to each guest in which the program runs

    c. When a program is run in LPARs, which are members of a shared processor pool, the smaller the number of processors assigned to the shared processor pool, or the sum of:

        1) For a program running natively in the LPAR, the number of active processors in the LPAR

        2) For a program running in z/VM guests, the smaller of:
        ─ The number of active processors in the LPAR, or
        ─ The sum of the processors available to each guest in which the program runs

Example: You have an eight-way machine configured with all eight processors in a shared pool. Two z/VM guests use the shared processor pool. WebSphere Application Server is configured to run in two of the z/VM guests that run on an LPAR, which is configured to use all eight processors in the shared processor pool. One z/VM guest is defined to use two processors, and one is defined to use three processors. To calculate the license entitlements, calculate the requirements for both of the z/VM guests ─ 2 + 3 = 5. Then compare those entitlements to the number of processors available to the LPAR in which both guests are running and chose the smaller number of processors (five processors, instead of eight). Five license entitlements of WebSphere Application Server are required.

For x86 platforms running VMware ESX Server, VMware GSX Server, or Microsoft Virtual Server:

The number of authorizations you must acquire is the smallest value of either of the following methods:

1. The total number of active processors in the machine, or

2. The total number of processors on the server that could run the software on a concurrent basis.

x86 platforms currently require one software license entitlement for the two processor cores on the x86 dual-core chip. Since IBM only licenses its per-processor licensed software in whole processor increments, one processor license entitlement is required whether one or both processor cores of an x86 dual-core chip are running IBM middleware on a supported partitioning technology.

Example: You have a four-way machine configured with a four VMware virtual machines instances (VM instance). Each VM instance is configured to run on, at most, one processor core. Two of the VM instances allow WebSphere Application Server to run on the server. Full capacity licensing would require four WebSphere Application Server license entitlements. However, under sub-capacity licensing rules, only two WebSphere Application Server license entitlements would be required for this server configuration since only two processor cores could be running the software concurrently.

Distributed sub-capacity methodology

The required authorized use level for eligible programs is based upon the highest utilization of the partition where the program, or a component of the program, runs.

For each sub-capacity eligible software program, the required authorized use is reevaluated based upon the quarterly sub-capacity reports submitted to IBM.

Ordering information

You must order sub-capacity eligible products through either Passport Advantage (PA) or Passport Advantage Express (PAE). New Passport Advantage customers must enroll by completing and returning the applicable hardcopy enrollment forms to IBM or an IBM Business Partner. These forms may be obtained from the Program Information section of the Passport Advantage program page at

http://www.ibm.com/software/passportadvantage

Existing Passport Advantage customers must agree to the terms of a new attachment to their Passport Advantage Agreement and submit a new Passport Advantage Enrollment Form.

New revisions of the Passport Advantage Enrollment Forms and the new IBM International Passport Advantage Agreement Attachment for Sub-capacity Terms (Form Z125-7174) are available. These revised Passport Advantage Enrollment Forms replace all previous versions and will be the only versions of the forms accepted.

The customer originating site on a Passport Advantage Agreement must enroll under sub-capacity terms, or must add sub-capacity terms, before any additional site under that Passport Advantage Agreement can place an order for sub-capacity programs.

The enrollment forms and sub-capacity attachment links will also become available via the PA/PAE enrollment and e-commerce Web pages. All completed enrollment forms must continue to be faxed to the CSO prior to placing an order for sub-capacity programs. Orders for sub-capacity programs through Business Partners will be accepted via fax or EDI.

Passport Advantage Express acceptance wording has been updated to include reference to sub-capacity terms. An updated copy of the agreement is generated with the order documents from the IBM order fulfillment systems.

After agreeing to sub-capacity terms, you may place an order for one or more of the eligible sub-capacity products. Passport Advantage Express customers only need to place an order for the specified sub-capacity eligible products. Note that the Passport Advantage Online eOrdering and IBM Software OnLine Catalog applications do not support sub-capacity program ordering at this time. One or more sub-capacity programs must be ordered through an IBM representative or an IBM Business Partner.

You will then receive IBM Tivoli License Compliance Manager for IBM Software, which must be installed and configured for your sub-capacity products. Once the license manager software is installed, you will be required to register online (IBM may need to contact you in order to finalize the registration process).

Ensure that you have registered your IBM Tivoli License Compliance Manager administration server with IBM. Information about the registration process can be found at IBM's License Management Server site

http://www.ibm.com/software/lms

Registration with IBM allows an unlimited number of users to have their own user IDs and passwords to access the tools. The Passport Advantage Primary Contact for your organization must be the first to register, and can grant access to other users. If you have registered the administration server for IBM Tivoli License Manager V2.1, the registration is still valid when you migrate to V2.2.

Conversion of full-capacity licenses to sub-capacity licenses

You may only convert full-capacity license entitlements to sub-capacity license entitlements, if the converted license entitlements are being deployed on hardware that delivers a partitioning technology supported by IBM Tivoli License Compliance Manager for IBM Software. You may redeploy current license entitlements for the full capacity of a system to sub-capacity license entitlements for a system divided into physical, logical, or virtual partitions.

Prior to making any changes to the existing environment, you must contact an IBM representative or an IBM Business Partner when you wish to convert full-capacity licenses to sub-capacity licenses. Conversion will be done on a one-for-one entitlement basis; that is, one full-capacity license entitlement will be converted to one sub-capacity license entitlement.

To determine the number of license entitlements required, refer to the **License requirements** section.

In order to proceed with the conversion from full-capacity entitlements to sub-capacity entitlements, the following conditions must be met:

- You must be in compliance with existing terms and conditions governing IBM software use.

- The number of full-capacity license entitlements must be equal to, or exceed, the number of sub-capacity license entitlements required in one or more partitions. If the number of full-capacity license entitlements is less than the number of sub-capacity license entitlements required in one or more partitions, you must purchase additional sub-capacity license entitlements.

- The sub-capacity license entitlements must be deployed on an eligible platform. For details, refer to the **Platforms eligible for sub-capacity licensing** section.

- The Software Maintenance must be in active status. If the customer does not have current Software Maintenance for their existing licenses, the normal Software Maintenance rules apply and the customer must obtain Software Maintenance Reinstatement for those existing licenses for which Software Maintenance has lapsed.

- The version of the software being converted to sub-capacity license must be enabled for monitoring and reporting by IBM Tivoli License Compliance Manager for IBM Software.

- When converting from full-capacity license entitlements to sub-capacity license entitlements, you must agree to the terms of the Passport Advantage Agreement Attachment for Sub-Capacity, and install and configure the IBM Tivoli License Compliance Manager for IBM Software in accordance with the IBM Tivoli License Compliance Manager publications, to enable the collection of program use data on all eligible machines subject to sub-capacity terms.

- You are not entitled to refunds, rebates, or credits for previously purchased full-capacity licenses that are not deployed after conversion to sub-capacity licenses.

Once the full-capacity license entitlements are converted, they will be the same as entitlements purchased initially for sub-capacity. Your anniversary date will be unchanged for maintenance renewal purposes after conversion is completed.

Compliance

You must monitor program use on a continuous basis with an IBM Tivoli License Compliance Manager for IBM Software and submit IBM Use Reports to IBM on a calendar quarterly basis. Calendar quarters begin on January 1, April 1, July 1, and October 1, of each year.

If you do not submit a complete IBM Use Report by the ninth day of the month following the end of a quarter (due date), IBM will notify you that the Use Report has not been received and must be submitted immediately. You may either submit the IBM Use Report or place an order for the full capacity of the one or more machines in question. If IBM Use Reports cannot be submitted in accordance with this schedule, you should contact IBM by the due date to resolve.

If you acquired sub-capacity terms through a special bid prior to April 25, 2006, you are required to install IBM Tivoli License Compliance Manager for IBM Software by October 25, 2006. You must submit your first IBM Use Report by January 9, 2007.

If you exceed your authorized level of sub-capacity use at any time, you are required to submit a purchase order to IBM (or a Business Partner) for the sub-capacity licenses required for compliance at the time the authorized use level was exceeded.

Customers running Linux for zSeries must install IBM Tivoli License Compliance Manager for IBM Software V2.2 as the program has the capability to monitor all sub-capacity environments on Linux for zSeries.

Customers who wish to acquire sub-capacity terms for new programs running on iSeries servers running i5/OS or OS/400 must install IBM Tivoli License Compliance Manager for IBM Software on a separate, supported hardware platform. If the customer only has iSeries in their environment, the customer may operate in accordance with Software Announcement 201-316, dated November 19, 2002, using the full capacity part number

for WebSphere Application Server or WebSphere Application Server Network Deployment on iSeries, or in accordance with Software Announcement 202-132, dated June 4, 2002, using the full capacity part number for WebSphere Commerce Suite on iSeries.

Customers with existing sub-capacity terms for WebSphere Application Server and WebSphere Application Server Network Deployment on iSeries are unaffected by this announcement. For information, refer to Software Announcement 202-316, dated November 19, 2002.

Customers with existing sub-capacity terms for WebSphere Commerce Suite on iSeries model are unaffected by this announcement. For information, refer to Software Announcement 202-132, dated June 4, 2002.

Customers who obtain sub-capacity licensing on HP-UX 11i or HP-UX 11iv2 on the Intel Itanium chip do not need to install IBM Tivoli License Compliance Manager for IBM Software at this time. These customers will be required to install IBM Tivoli License Compliance Manager for IBM Software when the tool is able to support this platform.

Additional information

Platforms eligible for sub-capacity licensing

Chip platform	Operating system	Partition technology	Sub-capacity eligible	ITLM/ITLCM version required
Power	AIX V5.1	LPAR	Yes	2.1
		AIX WLM	No	NA
	AIX V5.2	LPAR	Yes	2.1 or 2.2
		DLPAR	Yes	2.1 or 2.2
		AIX WLM	No	NA
	AIX V5.3	LPAR	Yes	2.1 or 2.2
		DLPAR	Yes	2.1 or 2.2
		AIX WLM	No	NA
		Virtualization engine	Yes	2.1 or 2.2
	RHEL 3 u3	LPAR	Yes	2.1 or 2.2
		Virtualization engine	No	NA
	RHEL 3 u4	LPAR	Yes	2.1 or 2.2
		Virtualization engine	Yes	2.1 or 2.2
	RHEL 4 u1	LPAR	Yes	2.1 or 2.2
		Virtualization engine	Yes	2.1 or 2.2
	SLES 8	LPAR	Yes	2.1 or 2.2
	SLES 9	LPAR	Yes	2.1 or 2.2
		DLPAR	Yes	2.1 or 2.2
		Virtualization engine	Yes	2.1 or 2.2
	OS/400 V5.2	LPAR	Yes	2.1 or 2.2
		DLPAR	Yes	2.1 or 2.2
	i5/OS V5.2	LPAR	Yes	2.1 or 2.2
		DLPAR	Yes	2.1 or 2.2
	i5/OS V5.3	LPAR	Yes	2.1 or 2.2
		DLPAR	Yes	2.1 or 2.2
		Virtualization engine	Yes	2.1 or 2.2

Chip platform	Operating system	Partition technology	Sub-capacity eligible	ITLM/ITLCM version required
PA-RISC	HP-UX 11i	nPAR	Yes	2.1 or 2.2
		vPAR	Yes	2.2
		HP WLM	No	NA
		HP PRM	No	NA
	HP-UX 11iv2	nPAR	Yes	2.1 or 2.2
		vPAR	Yes	2.2
		HP WLM	No	NA
		HP PRM	No	NA

Chip platform	Operating system	Partition technology	Sub-capacity eligible	ITLM/ITLCM version required
Itanium	HP-UX 11iv2	nPAR	Yes	(1)
		vPAR	Yes	(1)
		HP WLM	No	NA
		HP PRM	No	NA
		HP Integrity VM	No	NA

(1) Customers who obtain sub-capacity licensing for the Itanium platform running HP-UX 11iv2 agree to install the version of IBM Tivoli License Compliance Manager for IBM Software that supports Itanium.

Chip platform	Operating system	Partition technology	Sub-capacity eligible	ITLM/ITLCM version required
SPARC	Solaris 8	Dynamic System Domains	Yes	2.1
	Solaris 9	Dynamic System Domains	Yes	2.1 or 2.2
		SRM	No	NA
	Solaris 10	Dynamic System Domains	Yes	2.1 or 2.2
		SRM	No	NA
		Containers	Yes	2.1 or 2.2

Chip platform	Operating system	Partition technology	Sub-capacity eligible	ITLM/ITLCM version required
x86	MS Windows	VMware Workstation	No	NA
		VMware ESX Server	Yes	2.2
		VMware GSX Server	Yes	2.2
		Microsoft Virtual Server	Yes	2.2
	RHEL 3.0 u3	VMware ESX Server	Yes	2.2
		VMware GSX Server	Yes	2.2
	RHEL 4.0	VMware ESX Server	Yes	2.2
		VMware GSX Server	Yes	2.2
	RHEL 8 SP 3	VMware ESX Server	Yes	2.2
		VMware GSX Server	Yes	2.2
	RHEL 9	VMware ESX Server	Yes	2.2
		VMware GSX Server	Yes	2.2

Chip platform	Operating system	Partition technology	Sub-capacity eligible	ITLM/ITLCM version required
zSeries	RHEL 3.0 u1	LPAR	Yes	2.1 or 2.2
		VM	Yes	2.1 or 2.2
		VM in LPAR	Yes	2.2
	RHEL 4.0	LPAR	Yes	2.1 or 2.2
		VM	Yes	2.1 or 2.2
		VM in LPAR	Yes	2.2
	SLES 8	LPAR	Yes	2.1 or 2.2
		VM	Yes	2.1 or 2.2
		VM in LPAR	Yes	2.2
	SLES 9	LPAR	Yes	2.1 or 2.2
		VM	Yes	2.1 or 2.2
		VM in LPAR	Yes	2.2

Product number

Programs eligible for sub-capacity licensing

For a listing of IBM middleware programs eligible for sub-capacity licensing, refer to

http://www.ibm.com/software/passportadvantage

Choose "Find out more about Passport Advantage and Passport Advantage Express", then select "Sub-Capacity Licensing" to learn more about sub-capacity licensing options at IBM.

Reference information

Announcement letter references

In addition to the announcements referenced in other sections, refer to:

- Software Announcement 201-258, dated September 10, 2001

- Software Announcement 204-184, dated August 10, 2004

- Software Announcement 205-093, dated April 19, 2005

- Software Announcement 305-080, dated May 31, 2005.

Order now

To order, contact the Americas Call Centers, your local IBM representative, or your IBM Business Partner.

To identify your local IBM representative or IBM Business Partner, call 800-IBM-4YOU (426-4968).

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Note: Shipments will begin after the planned availability date.

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