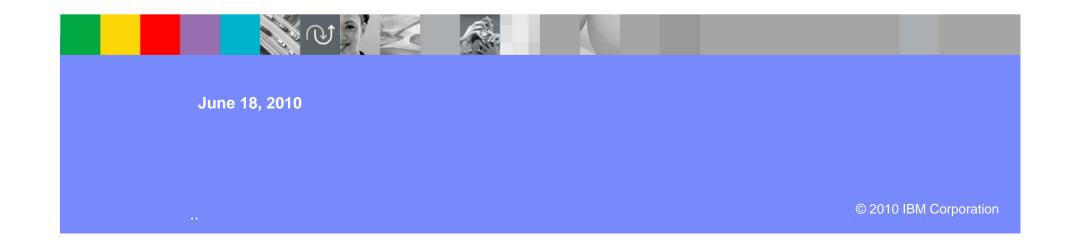IBM Passport Advantage Software

Sub-capacity (Virtualization) License Counting Rules

WebSphere CloudBurst Appliance V2.0 Virtualization Environment

NOTE: Please use these rules along with the Sub-capacity licensing attachment

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Summary of Virtualization Capacity Licensing Requirements

- ▪ Customers must:
  - ▸ Agree to the terms of the Sub-capacity Attachment, and follow Virtualization Capacity License Counting rules for their Eligible Virtualization Environment(s)
  - ▸ Use Eligible Sub-capacity Products
  - ▸ Use Eligible Virtualization Technologies
  - ▸ Use Eligible Processor Technologies
  - ▸ Use the IBM License Metric Tool (ILMT) and maintain report documentation
    - • Tivoli Asset Discovery for Distributed V7.2 (TADd) may be used in lieu of IBM License Metric Tool V7.2
    - • Certain ILMT / TADd use exceptions may apply

PLEASE   NOTE:

▪*The above is only a summary. For details about sub-capacity licensing requirements, see the Sub-capacity Attachment and other information referred to above, at* **_Passport Advantage Virtualization Capacity website_**

▪*Customers are responsible for the installation of the IBM License Metric Tool and for the server it runs on.*

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License Counting

- For the following eligible virtualization environments
    - IBM Power Systems (with WebSphere CloudBurst Appliance V2.0)
        - *LPAR - AIX 6.1*
        - *DLPAR - AIX 6.1*
        - *Single Shared Processor Pool - AIX 6.1*
        - *Micro-Partitioning – AIX 6.2*
    - IBM System z (with WebSphere CloudBurst Appliance V2.0)
        - *LPAR - SuSE SLES11*
        - *z/VM - SuSE SLES11*
    - Intel/AMD (x86) - (with WebSphere CloudBurst Appliance V2.0)
        - *VMware ESX 3.0 – SuSE SLES10, Red Hat Enterprise Linux 5*
        - *VMware ESX 3.5 – SuSE SLES10, Red Hat Enterprise Linux 5*
        - *VMware ESX 4.0 – SuSE SLES10, Red Hat Enterprise Linux 5*
        - *VMware vCenter Server 4.0 – SuSE SLES10, SuSE SLES11, Red Hat Enterprise Linux 4 and Red Hat Enterprise Linux 5*

- Refer to the Virtualization License Counting Scenarios for each of those virtualization environments at the below link
Virtualization Capacity License Counting Rules

License Counting - Adding non HV PVU products into HV VM image

- If PVU metric products (non Hypervisor-HV edition) eligible for sub-capacity licensing are added into a HV VM image and subsequently provisioned by the WebSphere CloudBurst Appliance V2.0

- Customers are required to follow the steps below :
  ▶ Extend the image via WebSphere CloudBurst Appliance V2.0
  ▶ Add additional products to the image
  ▶ Add the additional products' PID numbers to the image metadata using the WebSphere CloudBurst Appliance V2.0 User Interface
  ▶ Refer to the WebSphere CloudBurst Appliance V2.0 Info center (which can be found at the link below) for additional information
  ▶ http://www-01.ibm.com/software/webservers/cloudburst/

- Above steps are needed for the WebSphere CloudBurst Appliance V2.0 reports to capture the PVU capacity of the eligible PVU metric products (non HV)

- Note: Failure to adhere to follow the above steps, would require full capacity licensing for the PVU metric products (non HV)

- The licensing rules in the preceding pages reflect how ILMT and WebSphere CloudBurst Appliance V2.0 will operate to calculate PVUs

- Since ILMT does not support the WebSphere CloudBurst Appliance V2.0 Virtualization Environment, you will need to follow the Manual Calculation of Virtualization Capacity.

- The Manual Calculation of Virtualization Capacity rules can be found in the following pages

- To find out if a Eligible Virtualization Technology is supported by ILMT visit
  Passport Advantage Sub-capacity licensing information

Manual Calculation of Virtualization Capacity

- Requirements:
    - Customers must manually manage, track and prepare Audit Reports
    - An Audit Report must be prepared at least once per quarter and identify the following detail: Each Eligible Sub-Capacity Product deployed in each Eligible Virtualization Environment

        - *WebSphere Cloudburst Appliance report must be used for sub-capacity licensing, as part of the Audit Report*

        - *Customer must license the peak PVU capacity during the quarter by product as listed in the WebSphere Cloudburst Appliance Report*

        - *The worksheet referenced in the following page is optional*

    - An Eligible Virtualization Environment can be a Single Server or a Group of Servers (Server Cluster)

    - In addition to the above detail, the report should provide a summary total of the required number of PVUs by and for each Eligible Sub-Capacity Product.

    - Each Audit Report must be **signed and date stamped**, at least once per quarter

The above is only a summary. For detailed terms please see the **Passport Advantage Sub-capacity licensing information**

Manual Calculation of Virtualization Capacity - Worksheet Example

Worksheet has 3 tabs

- Instructions & Information

- Single Server

- Group of Servers "Cluster"

Web Link: Worksheet for Manual Calculation of Virtualization Capacity

VIRTUALIZATION ENVIRONMENT - SINGLE SERVER

- This worksheet is for one standalone server for one Software Product
- Per the Instructions on the first tab, you may choose to leverage this approach or develop / leverage your own processes and reporting format so long as you capture all of the information below
- Enter data in input fields below (shaded area)   * Mandatory

Date of this Audit Report *	March 31, 2009
Product Name *	IBM WEBSPHERE APPLICATION SERVER NETWORK DEPLOYMENT
Program Identification Number (57xx-xxx)	5724-H88
P/N Description	IBM WEBSPHERE APPLICATION SERVER NETWORK DEPLOYMENT PROCESSOR VALUE UNIT (PVU)
Part Number	D55WJLL
Server ID / Location	Server ID # F6015; Bldg 1, Room 1, Somers, NY
Server Vendor / Brand	IBM System x
Server Model	xxxxx
Virtualization Technology used *	VMware ESX 3.5
Processor Technology (Vendor, Brand,Type,Model#) * (A)	Intel Xeon Quad Core Model 35XX
PVUs per core * (A)	70
Total Activated Cores on Server * (C)	8
Full Capacity PVUs for Server * (C)	560

DO NOT DELETE ROW

VM, Partition ID * (whatever identifier used for any subdivision of a server such as LPAR #, IP address, hostname, etc.)	Cores (B) per Partition or VM *	User Comments
A	4	
B	4	
C	2	
D	2	

Sum of Virtual Cores *	12	
PVUs per core *	70	
Virtualization Capacity PVUs by Product for Server *	840	
PVU Licenses required by Product for Server * (C)	**560**	

* Mandatory Field

(A) PVU's required for each physical processor core are listed on the PVU table (see link below, including vendor/brand designations)
http://www-01.ibm.com/software/lotus/passportadvantage/pvu_licensing_for_customers.html
(B) For purposes of 'Manual Calculation' of Virtual Capacity, 1 virtual core (or CPU) is equivalent to 1 physical core. Enter values in whole cores.
(C) Lower of Full Capacity or Virtualization Capacity

Instructions + Information \ Single Server / Group of Servers "Cluster" /

Key Web Links

- PVU

  - PVU table and other information

- Sub-capacity

  - Passport Advantage Sub-capacity licensing information

  - Virtualization Capacity License Counting Rules

  - Sub-capacity licensing attachment

- WebSphere CloudBurst Appliance V2.0

  - WebSphere Cloudburst Appliance V2.0

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