Processor Value Unit Licensing for Select IBM Middleware

Processor Value Unit Licensing and Hardware Terminology

Answers to Frequently Asked Questions

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Processor Value Unit Licensing

Q1: What is a Processor Value Unit?
A: A Processor Value Unit is a pricing charge metric for program license entitlements, based on the type of processor technology. The number of Processor Value Units required for different processors may vary across processor technologies, but the price per Processor Value Unit for a software product remains constant across these systems.

Q2: How does the Processor Value Unit licensing structure position IBM for the future?
A: The Processor Value Unit licensing structure provides more granularity and licensing flexibility relative to the traditional per processor licensing metric. As multi-core, grid, and virtualization technologies become more prevalent, the Processor Value Unit licensing structure can be more easily adapted for new and dynamic hardware environments.

Q3: How will IBM assign Processor Value Units for new technology?
A: As we place new processor technologies in the Processor Value Unit structure, IBM's key objective is to continue to deliver middleware price performance improvements. When assigning Processor Value Units, we will also assess relative performance using a number of different industry standard benchmarks. These benchmarks may include both transaction processing (eg. TPC-C) and processor-based (eg. SPECint and SPECjbb) standard benchmarks. Market conditions and the desire to maintain a simple structure will also be factors influencing the assignment of Processor Value Units.

Q4: Are there any assistance tools available to help calculate value units?
A: Yes, tools are available to help you calculate the appropriate Processor Value Units for your hardware environment. The Processor Value Unit calculator assistance tools are designed to identify the correct number of value units after asking you a series of questions. You can determine the correct number of Processor Value Units if you know the processor architecture, the processor brand, and processor (or chip) type. The value unit calculator is available at the following URL: https://www-112.ibm.com/software/howtobuy/passportadvantage/valueunitcalculator

Hardware Terminology

Q5: What is a processor?
A: A processor, commonly called a 'CPU' or 'core', is a functional unit within a computing device which interprets and executes instructions. Processors are mounted on chips. With multi-core chips each core is considered a processor. For example, in a dual-core chip, there are two processors.

Q6: What is a multi-core chip?
A: Chips can contain one or more processor cores on a silicon wafer. Chips with more than one core are called multi-core chips. Chips are mounted on sockets.

Q7: What is a socket?
A: Sockets contain one or more chips. Sockets are mounted on the server motherboard (x86) or backplane (RISC).

Q8: What is an nWay?
A: The term nWay has historically been used to describe how many processors were on a given server, with "n" representing the number of processors. However, with the introduction of multi-core chips from Intel® and AMD, some hardware vendors now use the term nWay to describe the number of chips on a given server, while others continue to use the term nWay to describe the number of cores on a server.

Q9: What is a processor architecture?
A: A processor architecture is a design which uses a common instruction set. The major processor architectures in the distributed middleware server marketplace are x86, RISC, and IA-64® (Itanium).

Q10: What is a processor brand?
A: A processor brand is a group of processors within the same architecture which have the same or similar processor design and performance characteristics, but which may vary in clock speed or cache. Examples of processor brands are IBM POWER 5™, Intel® Xeon®, AMD Opteron, and Sun UltraSPARC IV.

Q11: What is a processor type?
A: A processor type (or chip type) indicates the number of processor cores on a single chip. Examples of processor types are single core, dual-core, and octi-core.

Note: The terms processor architecture, brand, and type, as defined above are for use with the IBM Processor Value Unit Table and associated calculator assistance tools.

For answers to additional questions on Processor Value Unit licensing, please contact your IBM Sales representative.