

# Sun UltraSparc T1 Multi-Core Q&As

## (Updated March 28, 2006)

Q1: What are we announcing today?

A: IBM is announcing internally and to Business Partners that three IBM middleware software processor license entitlements will be required for a single Sun UltraSparc T1 octi-core chip activated in the server. For a Sun UltraSparc T1 chip configured with 4 or 6 activated cores, IBM will require 2 software processor license entitlements.

Q2: What is a processor?

A: A processor is a functional unit within a computing device that interprets and executes instructions. With multi-core technology, each core is considered a processor. For example, in a dual-core chip, there are two processors. In the Sun UltraSparcT1 octi-core chip there are 8 processors.

Q3: How does IBM Software Group (SWG) price its per processor middleware software products available through Passport Advantage?

A: IBM software products priced on a per processor metric require a license entitlement for each activated processor that is available in the server. This is the approach IBM has consistently used since we originally introduced per processor licensing.

On April 21, 2005, IBM announced an exception for x86 architecture and the OpenPower™ platform dual-core chip servers\*, where only one IBM middleware software processor license is required for each dual-core chip available in the server. On March 7, 2006, IBM announced another exception for the BladeCenter JS21 servers running PowerPC 970 dual-core chips, where only one IBM middleware software processor license will be required for each dual-core chip available in the server. Today, we are announcing another exception for the Sun UltraSparc T1 multi-core chip servers, where three IBM middleware software processor license entitlements will be required for a single 8-core Sun T1 chip, and 2 IBM middleware software processor licenses will be required for a single 4-core or 6-core Sun T1 chip.

Q4: Does this announcement apply to all IBM middleware software on a per processor metric offered through Passport Advantage?

A: It applies to all IBM Software Group middleware available through Passport Advantage.

Q5: What are the factors that impact the performance of single core or multi-core chips?

A: There are many factors which impact the performance of a processor including, but not limited to, the processor architecture, clock speed (Ghz), memory controller, processor cache and operating system. There are also additional factors that affect the overall system performance such as the size of the server memory, the server I/O subsystem and the number of processors available in the server.

Q6: Why is IBM announcing that a multi-core Sun UltraSparcT1 chip running IBM software only requires three processor license entitlements for a single 8-core chip?

A: The performance of the individual processors (or cores) on the Sun T1 chip is low enough that requiring a license for each core is not warranted.

Q7: If a customer has a dual-core Sun UltraSparc IV+ chip today, and they are buying a new Sun UltraSparc T1 machine with octi-core chips, can they move the two existing licenses to the new octi-core chip?

A: Yes, the customer is allowed to move their existing licenses to the new server as long as they either acquire or move a third processor license entitlement to the server running the T1 chip. Also, the customer must be in compliance with all terms and conditions of their agreement. Please keep in mind that the Sun UltraSparc IV+ dual-core chip requires two processor license entitlements, and the Sun UltraSparc T1 octi-core chip require three (3) IBM middleware software license entitlements according to our licensing policy.

Q8: What is the process to order software license entitlements for Sun UltraSparc T1 multi-core chips?

A: This will simply be a change in the number of entitlements ordered. The current process, product part numbers and contracts will remain unchanged.

Q9: Will IBM issue refunds to customers that may upgrade their current servers with dual-core technology and perhaps require fewer software processor licenses than currently being used?

A: IBM's policy still allows for license transferability, therefore, there will be no refunds or credits for prior sales.

Q10: When is the announcement effective?

A: The announcement is effective March 28, 2006.

Q11: If the customer has a Sun UltraSparc T1 octi-core chip, but is only running software on four cores of an octi-core chip, how many software processor license entitlements do they have to acquire?

A: Under full capacity licensing requirements, the customer must acquire 3 software processor license entitlements. Sub-capacity licensing on the T1 chip is not yet available.

\*For the OpenPower™ platform this unique pricing applies only to OpenPower™ 710 (9123-710) and OpenPower™ 720 (9124-720).