Sun's 'Rock' Shines a Little Brighter in First Test

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The company completes the first test of its new UltraSPARC processor that includes a successful boot of its own Solaris 10 operating system.

Sun Microsystems is shining some new light on its "Rock" processor.

On May 2, the Santa Clara, Calif., company is announcing that its new UltraSPARC multicore processor , called Rock, successfully booted Sun's own Solaris 10 operating system for the first time.

"This is the most complex thing we have ever built at Sun," said Jeff Thomas, senior vice president for engineering and microelectronics at Sun. "This test showed that we were able to get the operating system up and running and all the basics are there. After this, we'll be running some additional diagnostic tests and test other applications in order to validate what we have done."

On April 10, Sun CEO Jonathan Schwartz wrote on his company blog that Sun had just received the first Rock silicon back from Texas Instruments. Not long after that, the company began its first tests of the 16-core processor, including the successful boot of the Solaris OS.

By comparison, the current crop of Sun's UltraSPARC processors, which also go by the name "Niagara," offer eight cores per chip. The UltraSPARC T1, which Sun sells in its SunFire T1000 and T2000 servers, offers four threads per core. The soon-to-be-released Niagara 2 processor doubles the threading, offering eight threads per core.

Niagara 2 is expected to hit the market later this year.

For several years, Sun has been one of the biggest proponents of processors with CMT (chip multithreading) architecture. This key feature allows the CPU to run multiple threads in parallel, which provides higher throughput for multithread applications.

Executives have said that Rock with its CMT architecture will offer vast improvement in high-end enterprise applications, such as CRM (customer relationship management), and offer support for large databases.

So far, Sun executives have not offered additional details on how Rock will improve on its Niagara processors. Fadi Azhari, director of marketing for SPARC, said the company is not ready to detail how many threads per core Rock will offer. He also declined to offer any other specific performance benchmarks.

Sun executives did note that Rock, which has been subject to past delays, will begin to appear in servers starting in the second half of 2008. Azhari added that Sun is working on several systems that will support the new chip.

Charles King, an analyst at Pund-IT Research, said Sun is following the lead of several other IT companies, notably Microsoft in its run up to the release of its Windows Vista operating system, by offering incremental information about a new product without diving too deeply into configuration and performance details.

"People have been talking about Rock for a long time now, and the company has been fairly conservative about its estimates and when it would arrive," King said. "It seems now that things are moving along and this is legitimate progress. The fact that they were able to boot Solaris is

a good reason to generate a press release and let people know that it's on the way."