Japanese supercomputer becomes world's fastest (Update)

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Supercomputer "K computer"

A Japanese supercomputer has become the fastest in the world, making calculations more than three times faster than a Chinese rival, its developers said Monday.

The K Computer has achieved 8.162 quadrillion calculations per second, or 8.162 petaflops in computer jargon, according to developers Fujitsu Ltd. and the state-funded Institute of Physical and Chemical Research, known as RIKEN.

In doing so K Computer overtook China's Tianhe-1A of the National Supercomputing Centre in Tianjin, which became the world number-one in November and is capable of operating at 2.566 petaflops.

The K Computer's performance was recognised by the Top500 List of Supercomputers released on Monday at the 2011 International Supercomputing Conference in Hamburg, Germany, Fujitsu and RIKEN said in a statement.

It is the first Japanese supercomputer since 2004 to become the world's fastest, a symbolic moment for a nation proud of its cutting edge technology.

NEC's Earth Simulator was the world's fastest machine between June 2002 and November 2004.

K Computer's developers say the machine will be powerful enough to tackle complex calculations relating to climate research and disaster prevention.

"Use of the K computer is expected to have a groundbreaking impact in fields ranging from global climate research, meteorology, disaster prevention, and medicine, thereby contributing to the creation of a prosperous and secure society," the statement added.

K Computer is still being configured and has been assembled since October 2010 at a RIKEN's facility in Kobe, western Japan, where it should be completed by June 2012, the statement said.

It is made up of 672 computer cabinets currently equipped with of 68,544 computer processing units (CPUs), Fujitsu and RIKEN said in a press release.

When finished, the machine will have more than 80,000 CPUs and be able to operate at 10 petaflops.

Fujitsu and RIKEN chiefs said in statements that the project, launched in 2006 with a total budget of about 112 billion yen ($1.4 billion), had overcome supply chain difficulties caused by the March 11 earthquake and tsunami that devasted the country's northeast Tohoku region.

Fujitsu chairman Michiyoshi Mazuka said he was grateful to "our partners in the Tohoku region for their commitment to delivering a steady supply of components, even though they themselves were affected by the disaster."

RIKEN president Ryoji Noyori said: "I very much believe that the strength and perseverance that was demonstrated during this project will also make possible the recovery of the devastated Tohoku region."

Noyori, the 2001 Nobel laureate in chemistry, told a news conference later: "I am glad because the world number-one spot, by such an overwhelming margin, has proven that our country's industrial technology remains sound."

"After all, we must aim for the top in research."

The project's budget was slashed by 11 billion yen in late 2009 under a belt-tightening drive by the centre-left government.

A minister in charge of administrative reform asked at that time: "What is the reason for seeking to be the world number one? Can't you make do with second place?"

But the K Computer may find it hard to survive intensifying competition as a 1,000-petaflops supercomputer is under consideration in the United

States while China continues to invest heavily in supercomputer development, the Yomiuri newspaper said.

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