

《Ultrafast computer prototype on horizon》

JINAN - China is developing a third prototype exascale computing machine, also known as a super supercomputer, and plans to launch it by June 2018, according to the developers.

The Sunway exascale computer prototype is being developed by the National Research Center of Parallel Computer Engineering and Technology and the National Supercomputing Center in Jinan, Shandong province.

The NRCPC led the team that developed the Sunway TaihuLight, crowned the world's fastest computer two years in a row at the International Supercomputing Conference in 2016 and 2017 in Frankfurt, Germany.

An exascale computer is able to execute a quintillion calculations per second, about eight times faster than the Sunway TaihuLight. The increase in computational speed will advance research in such areas as climate change, space science, medicine and oceanology.

China and the United States are currently leading exascale computer development. In China, prototypes are being developed by three teams led by the NRCPC, the Dawning Information Industry Co (also known as Sugon) and the National University of Defense Technology.

The three have spearheaded China's supercomputer efforts with their respective brands?Sunway, Sugon and Tianhe.

The National University of Defense Technology, partnering with the National Supercomputing Center in Tianjin, announced in January that their prototype will be ready by the end of the year.

Sugon said it had begun developing its prototype late last year.

After the prototypes have been developed, exascale supercomputers are expected to hit the market by 2020.

The Sunway supercomputer's developers said they are eyeing applications in fields such as high performance numerical simulation in marine environments, to be used by the State Oceanic Administration's First Institute of Oceanography in Qingdao. The city is at the forefront of China's marine scientific research and is the base for the deep-sea manned submersible Jiaolong.