

China's computers in the super fast lane



China's Sunway TaihuLight [File Photo]

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 (NRCPC) and the National Supercomputing Center in Jinan, east China's Shandong Province.

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

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

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

The three have been spear-heading China's supercomputer efforts with their respective brands: Sunway, Sogon, and Tianhe.

The NUDT, partnering the National Supercomputing Center in Tianjin, announced in January that their prototype will be ready by the end of 2017.

Sogon said it had begun developing the prototype late last year.

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

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