

The 640TB Computer

2015-02-20 23:40:06 by Southern

New Type Of Computer Capable Of Calculating 640TBs Of Data In One Billionth Of A Second, Could Revolutionize Computing

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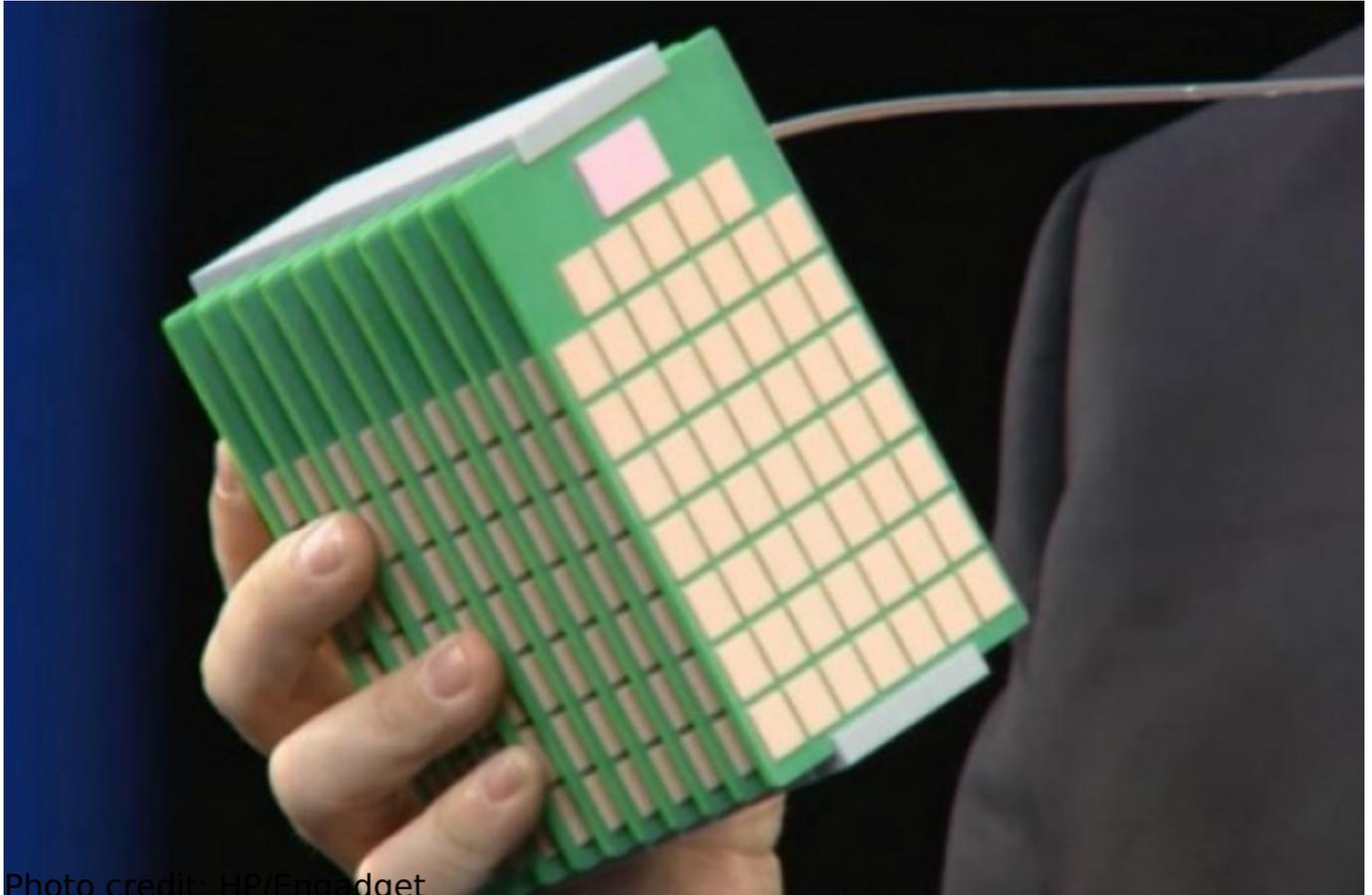


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Let me introduce The Machine- HP's latest invention that could revolutionize the computing world. According to HP, The Machine is not a server, workstation, PC, device or phone but an amalgamation of all these things. It's designed to be able to cope with the masses of data produced from the Internet of Things, which is the concept of a future network designed to connect a variety of objects and gadgets.

In order to handle this flurry of information it uses clusters of specialized cores as opposed to a small number of generalized cores. The whole thing is connected together using silicon photonics instead of traditional copper wires, boosting the speed of the system whilst reducing energy requirements. Furthermore, the technology features memristors which are resistors that are able to store information even after power loss.

The result is a system six times more powerful than existing servers that requires

eighty times less energy. According to HP, The Machine can manage 160 petabytes of data in a mere 250 nanoseconds. And, what's more, this isn't just for huge supercomputers- it could be used in smaller devices such as smartphones and laptops. During a keynote speech given at Discover, chief technology officer Martin Fink explained that if the technology was scaled down, smartphones could be fabricated with 100 terabytes of memory.

HP envisages a variety of future applications for this technology in numerous different settings, from business to medicine. For example, it could be possible for doctors to compare your symptoms or DNA with patients across the globe in an instant and without breaching privacy, improving health outcomes.

While this is an exciting development, unfortunately for us HP isn't expecting to have samples until 2015 and the first devices equipped with The Machine won't surface until 2018.

If you'd like to find out more, check out this YouTube video from Discover 2014 detailing the technology:

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