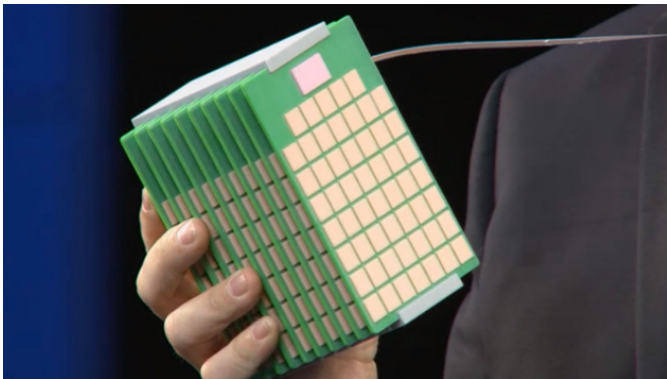# The Future of Computing According to HP

Written by Marco Attard
 12 June 2014

The future of computing has been a long time coming, but HP might actually bring it about-- at its Discover 2014 conference the company unveils "The Machine," an ominously titled processing architecture designed to handle vast amounts of data.

In a few words, The Machine consists of clusters of special-purpose cores, with silicon photonics (ie lasers) replacing traditional copper wires. Serving as both memory and storage are memristors , a futuristic technology as fast as RAM yet also able to store data permanently, while tying all together is a new HP-designed Machine OS.

The result is a computer able to handle vast amounts of data while using much less power. How much so? According to HP a Machine server can crunch 160 petabytes of data in 250 nanoseconds while consuming 80% less energy than the data centers we know and love. In fact, The Machine can crunch so much data it requires the use of new terms, such as "brontobyte" (1000 yottabytes), and will possibly allow for impossibly large-scale computing concepts.

HP speaks of smart cell towers able to react to what is happening in other towers and clouds connecting aircraft and airports, all with the required privacy and data security.

And the technology is not even restricted to servers-- it can shrink down to consumer devices, and HP is already working on an Machine-optimised Android version.

All said and done, when will we actually get Machines? HP's "Future History" timeline says 2018, as the necessary memristors will only enter sampling phase by 2015 before the Machine

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OS enters beta sometime on 2017. That said revolutions tend to take time, so here's hoping.

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