Written by Marco Attard 03 November 2011

HP and ARM licensee Calxeda start making way into the server business with Project Moonshoot-- a server design carrying the EnergyCore ARM system-on-chip (SOC) which the companies claim slashes power and space requirements by up to 90%.



The Calxeda design consists of an "EnergyCard"-- a reference design hosting x4 EnergyCore SoCs on a single daughterboard, together with x4 DIMM slots and x4 SATA ports. Calxeda says the processor "consumes as little as 1.5W per SoC," with peak consumptions (when equipped with x4 cores, integrated on-chip fabric switch, on-chip management engine and 4GB DRAM) reaching 5W.

The HP server design (called "Redstone") packs either 288 EnergyCards into a 4U rack-mount server or 2800 on a full rack, together with shared power, cooling and management infrastructure. The design eliminates a lot of cabling and switching devices, leading to further reductions in power and space needs.

However HP will only release test servers in H1 2012, with no mention of when it will start selling ARM-based servers for production use. The company does say the Calxeda system is the first in an energy-efficient servers using the Redstone server platform aimed at "hyperscale" customers aka cloud and web service giants.

HP is also experimenting with Intel Atom and AMD chips-- but the ARM servers will be the first to see production, at least in some form.

Go HP Project Moonshoot

HP, Calxeda Shoot at the Moon with ARMs

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