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13 June 2012

AMD, ARM, Imagination, MediaTek and **Texas Instrument**s team up in a collective effort against the mighty Intel-- the **HSA Foundation**, a non-profit alliance formed around the mysterious art of "Heterogeneous System Architecture."

After all, as the old saying goes, "the enemies of my enemy are my friends." Or is that "the enemy of Intel is my friend"?

What is **Heterogeneous System Architecture** (aka HSA)? It is a fairly old concept, actually. Heterogeneous-- or hybrid-- processors use all chip components (such as CPUs and GPUs) as co-processors of a "parallel computing engine."

This directly opposes the way current processors work, where all components act as solo units on specialised tasks.

A $55.5 billion market already exists for hybrid processors, but by working together (just like all components in a hybrid chip!) **the vendors forming the foundation hope to expand the market further by packing hybrid chips in, well, everything.**
How? By creating a cross-OS open standard transcending the divide between not only PCs and mobile devices but also supercomputers and cloud servers.

The HSA Foundation also plans to trash the cornerstone of the Intel chip strategy-- Moore's Law, which states computing processing power doubles every 18 months (give or take 6 months, depending on who is counting). According to theoretical physicist Michio Kaku Moore's Law will collapse in around 10 years, as "computer power simply cannot maintain its

rapid exponential rise using standard silicon technology."

Intel knows this, and is trying to beat it by packing transistors in three-dimensional CPUs. However (at least in theory) hybrid chips defeats such limitations, packing more power in less silicon while reducing heat and leakage problems.

The HSA plans to have PC and mobile hybrid chips available by 2014. Will they manage to bring a new era of increasingly powerful computing? Maybe. If not, we'll just stick to waiting for viable quantum computers...

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