



Intel chip reflects design by AMD

By Jordan Robertson The Associated Press

SAN FRANCISCO — Intel Corp. cracked the lid this week on a new chip design that is at once a big challenge to smaller rival Advanced Micro Devices Inc. and an admission that AMD nailed a key design feature before it slipped into a severe financial slump.

Intel, the world's largest computer chip maker, showed off the new blueprint, known as a microarchitecture, at a developers conference in San Francisco.

Though some of the details were already known, the design's formal unveiling represented another demonstration of Intel's advantage over AMD in cranking out new chip designs once every two years, a factor that helped send AMD's stock price down 5 percent in an overall down day for technology shares.

AMD has racked up nearly \$5 billion in losses during the past 18 months and last month replaced Hector Ruiz, who had been running AMD for six years, with a new chief executive, Dirk Meyer.

The details of Intel's microprocessor architecture are always highly technical. But they're also closely watched because of the ubiquity of Intel's chips in personal computers and corporate servers.

One of the most significant changes was already known. Intel now plans to build a part called an integrated memory controller — which moves information between the microprocessor and the computer's memory — directly into the processor itself.

That's a key change because processors are asked to do more and more, and any lag in communication can seriously hurt performance. AMD already has integrated memory controllers in its processors.

Because of that and other tweaks, Intel said its new design, which is code-named Nehalem, will triple the speed at which data can be written to memory or read back, compared to previous generations.

Intel said four-core Nehalem chips are due to be in production by the end of 2008.