

AMD Demonstrates Accelerated Computing Solution that Breaks Teraflop Barrier

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AMD today showcased a single-system, Accelerated Computing platform that breaks the teraflop computing barrier. Organizations are ultimately expected to be able to apply this technology to a wide range of scientific, medical, business and consumer computing applications.

At a press event in San Francisco, AMD demonstrated a “Teraflop in a Box” system running a standard version of Microsoft Windows XP Professional that harnessed the power of AMD Opteron dual-core processor technology and two next-generation AMD R600 Stream Processors capable of performing more than 1 trillion floating-point calculations per second using a general “multiply-add” (MADD) calculation. This achievement represents a ten-fold performance increase over today’s high-performance server platforms, which deliver approximately 100 billion calculations per second.

“The technology AMD demonstrated today is just one example of how the ‘New’ AMD is changing the game for our industry,” said Dave Orton, executive vice president of visual media business at AMD. “Today, teraflop computing capability is largely reserved for the supercomputing space. But now that “Teraflop-in-a-Box” is a reality, AMD can deliver an order of magnitude increase in performance.”

Today also marks an important milestone on the road to Accelerated Computing, AMD’s vision for specialized “co-processors” interoperating with x86 microprocessors to provide efficient and flexible acceleration for specific applications. Platforms based on the same technology found in the “Teraflop-in-a-Box” demonstration should benefit a wide range of scientific and commercial applications, including energy, financial, environmental, medical, scientific, defense and security organizations around the world by equipping them with the intensive computing power they require to conduct research and deliver solutions significantly faster than previously possible.

In the supercomputing field, “flops” is an acronym meaning Floating point Operations Per Second, a measure of a computer’s ability to perform floating point calculations. A teraflop is one trillion floating point operations per second. Stream processing technology helps raise the bar in this regard by leveraging sophisticated, massively parallel processors, generally used for 3D graphics applications, to solve real-world problems.

Source: AMD

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