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Intel to Ship New Desktop Chips; Prescott Line Is Expected To Be Priced Aggressively, Pressuring Rival AMD

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Abstract (Article Summary)

AMD instead developed extra instructions that allow its chips to run both 32-bit programs as well as new 64-bit software. Its Opteron chip for servers is being used by such companies as International Business Machines Corp. and Sun Microsystems Inc. H-P also confirmed this week that it is considering using a hybrid chip in servers, but didn't specifically mention AMD. An H-P spokesman reaffirmed its commitment to keep using Itanium, though some analysts believe a separate 64-bit chip from Intel could undermine Itanium's future.

Nathan Brookwood, an analyst with the market-research firm Insight 64, inferred Mr. [Paul Otellini]'s remarks to suggest that Intel will emulate AMD's technology to take advantage of Microsoft's forthcoming software. That would be something of a blow to Intel's prestige; the chip maker has long set technology standards for AMD and other companies to follow.

Greg Sullivan, a Microsoft lead product manager, noted that its forthcoming operating system wasn't tailored only for AMD, though a test version was delivered when AMD announced its Athlon 64 chip for desktop computers in September. He wouldn't comment on whether the software would be adapted for Intel, but suggested it would be relatively simple to do so. "We worked very closely with AMD, but we work very closely with all of the chip manufacturers," he said.

Full Text (790 words)

Intel Corp. is finally ready to ship a new generation of chips for desktop computers, and to signal plans to match rival Advanced Micro Devices Inc. in another major technology shift.

The Santa Clara, Calif., company's new microprocessor, code-named Prescott, extends its dominant Pentium line through the use of new manufacturing processes that should enable rapid improvements in price and performance.

Analysts yesterday predicted that Prescott will be priced very aggressively, putting pressure on AMD, Sunnyvale, Calif. Michael McConnell, of Pacific Crest Securities Inc., said a high-end 3.4- gigahertz chip will cost $414, compared with an initial range of $500 to $700 for new products in the past. Intel declined to comment on pricing.

Prescott, scheduled for release by next week, is designed to provide processing power for both conventional desktop systems as well as new machines -- dubbed Entertainment PCs -- that Intel is pushing as a replacement for an array of consumer video and audio gadgets.

Prescott isn't expected to perform one trick -- to run 64-bit programs as well as existing 32-bit software -- that has been a big selling point for AMD since last spring. But Paul Otellini, Intel's president and chief operating officer, this week gave the strongest indication yet that its microprocessors eventually will be upgraded with 64-bit capability.

"You can be fairly confident that, when there is software from an application and operating-system standpoint that will take advantage of it, that we will be there," Mr. Otellini said, in an interview conducted Wednesday by Schwab SoundView Capital Markets.

Intel wouldn't elaborate on his remarks, or the timing of any modified chips. The first likely opportunity for a new microprocessor would be late this year, when Microsoft Corp. is expected to deliver an operating system that takes advantage of 64-bit technology.

The 64-bit question is now academic for most personal-computer users, but it long has shaped the design of larger computers. Such systems use the technology to tap into massive banks of memory chips for chores such as managing large databases. Intel and Hewlett-Packard Co. spent a decade developing a specialized 64-bit chip, called Itanium, that is starting to gain traction in high-end systems after a slow start. But the Itanium achieves peak speed only on 64-bit programs.

AMD instead developed extra instructions that allow its chips to run both 32-bit programs as well as new 64-bit software. Its Opteron chip for servers is being used by such companies as International Business Machines Corp. and Sun Microsystems Inc. H-P also confirmed this week that it is considering using a hybrid chip in servers, but didn't specifically mention AMD. An H-P spokesman reaffirmed its commitment to keep using Itanium, though some analysts believe a separate 64-bit chip from Intel could undermine Itanium's future.

The possibility that Intel would design its own hybrid chip has been a hot topic for more than a year. One person familiar with the matter said Intel developed 64-bit circuitry for use in Prescott. If so, it isn't expected to be immediately activated, because of the absence of software available to exploit the technology.

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Mr. Brookwood expects Intel's new 64-bit features to come late this year or in early 2005 on another chip, code-named Tejas. The technology may be demonstrated at an Intel conference for technology developers in mid-February, he said.

Mr. Otellini suggested there is no big hurry. To add enough memory to a PC to exploit 64-bit computing would cost users $2,000 to $3,000, though that price eventually will decline, he said.

Prescott, meanwhile, raises the ante in other ways. It is Intel's first chip to be manufactured on a larger generation of silicon wafers, reducing production costs, and to use a process that creates lines of circuitry at a size of 90 nanometers, 44% smaller than existing circuitry. Shrinking circuitry helps make chips operate faster and use less power.

In 4 p.m. trading yesterday on the Nasdaq Stock Market, Intel was at $30.89, off 49 cents.