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# News Fact Sheet

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## INTEL DEVELOPER FORUM DAY 1 NEWS DISCLOSURES

**Sept. 18, 2007:** Intel Corporation is holding its Intel Developer Forum in San Francisco today. Listed below are summaries of each executive's keynote speech and the major news disclosed during the first day of the conference.



### **Paul Otellini, "Extreme to Mainstream" President and Chief Executive Officer**

Paul Otellini today described the new products, chip designs and manufacturing technologies that will enable the company to continue its quickened pace of product and technology leadership.

***Intel's "Nehalem" Microarchitecture Comes to Life*** – Nehalem, demonstrated on-stage by Otellini for the first time at IDF, is an entirely new scaleable processor and dynamic system design that fully unlocks Intel's 45nm Hi-k process technology. Nehalem has 731 million transistors, leverages Intel's four issue Intel® Core™ microarchitecture, has simultaneous multithreading, and a multi-level cache architecture.

- Nehalem is anticipated to provide three times the peak memory bandwidth of current competing processors.
- Also announced was broad industry support for the Intel® QuickPath architecture. The QuickPath interconnect provides a high speed system data path to Nehalem's processor cores.
- Nehalem is on track for production in the second half of 2008.

***Intel's First 32nm SRAM*** – With the launch of its first 45nm high-k metal gate processors imminent, Otellini said Intel had already reached a critical milestone in the next-generation of high-volume manufacturing when he unveiled Intel's first functional 32nm static random access memory (SRAM) chips with more than 1.9 billion transistors each. Intel is on track to ramp 32nm technology in 2009.

- The 291Mbit 32nm SRAM chips feature second-generation high-k metal gate transistors and the memory cell size measures 0.182  $\mu\text{m}^2$ .
- SRAMs are test vehicles that are used to demonstrate technology performance, process yield and chip reliability prior to ramping processors and other logic chips that will use the 32nm manufacturing process.

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**Intel 45nm Chips Go Halogen-Free** -- Intel's forthcoming 45nm processors take advantage of hafnium-based high-k and metal gate transistor technology, are 100 percent lead-free and -- starting in 2008 -- will also be halogen-free, making them energy efficient and better for the environment.

- Intel will convert its 45nm processor and 65nm chipset products to halogen-free packaging technology by the end of next year, starting with its "Menlow" platform for mobile Internet devices.
- Intel's conversion to halogen-free products benefits the environment by eliminating the use of potentially sensitive materials and marks another step in the company's continual march toward minimizing the environmental footprint of its products, processes and technologies.

**Intel Adds 25-watt Mobile Processor to Roadmap** -- For the first time, Otellini said that Intel plans to offer a robust line of 25-watt (W) mobile dual-core Penryn processors for thinner and lighter laptop PCs. The 25W Penryn processor will be an option for next-generation next generation Centrino® processor technology, codenamed "Montevina" for mid-2008.

**PC Vendors Get On-Board with WiMAX** -- A number of OEMs, including Acer, Asus, Lenovo, Panasonic and Toshiba today expressed intent to embed WiMAX into Montevina-based laptops in 2008. These PCs will be among the first to access the Xohm\* service that will be deployed in many major U.S. cities by Sprint and Clearwire next year. WiMAX is expected to deliver multi-megabit speeds, greater throughput and wider range as compared to other wireless broadband technologies.



**Pat Gelsinger, "Tick-Tock – Powerful, Efficient, and Predictable"**

**Intel Senior Vice President; General Manager, Digital Enterprise Group**

Pat Gelsinger gave updates on Intel's work with the industry on processor and platform innovation and discussed Intel's "tick-tock" processor design cadence, including new details on Intel's upcoming 45nm processors. He discussed the industry's recent moves in energy efficient computing, virtualization, as well as recent system architecture initiatives.

**Welcome USB 3.0** - Intel and other industry leaders formed the USB 3.0 Promoter Group to develop a super-speed personal USB interconnect that is expected to be over 10 times the speed of today's connection. USB 3.0 is backward compatible with USB 2.0, and the specification is expected to be complete in the first half of 2008.

- USB 3.0 technology delivers excellent power management for all platforms and is optimized for low power and improved protocol efficiency. It also helps eliminate consumer wait time. For example, a 27GB HD-DVD could be downloaded 70 seconds using USB 3.0.

**"McCreary" Business Platform** - Intel plans to further evolve security and PC management benefits through the 2008 product, codenamed McCreary, on Intel® vPro™ processor technology.

- New in McCreary will be Intel's lead- and halogen-free 45nm dual- and quad-core processors, chipset codenamed "Eaglelake," an integrated Trusted Platform Module, and a more secure, manageable data encryption solution codenamed "Danbury."

**Intel and the Industry Do Virtualization** - John Fowler from Sun appeared on-stage with Gelsinger and provided an update on virtualization.

- Parallels demonstrated how they are taking advantage of innovations such as Intel Virtualization Technology and Intel Trusted Execution technology to provide protection for virtual environments in future workstations and desktop PCs.

**Advanced Computing** - Customers will use Intel® Xeon®-based workstations with a new 1600MHz front side bus to solve scientific problems.

- Gelsinger also showed the first ever Nehalem next generation microarchitecture dual processor server and discussed the Intel QuickPath architecture.

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