

News Fact Sheet

CONTACT: Elvin Ong

65-9829 2055

elvin.ong@intel.com

Intel Developer Forum News Disclosures

Oct. 20, 2008: Intel Corporation is holding its Intel Developer Forum in Taipei, Taiwan from Oct. 20-21. Below are brief summaries and news highlights from the Day 1 afternoon keynote speeches.

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Douglas L. Davis, "Stage 4 of the Internet – The Rise of Embedded Computing" Vice President, Digital Enterprise Group and General Manager, Embedded and Communications Group

In his keynote address themed "Stage 4 of the Internet – The Rise of Embedded Computing," Doug Davis explained the common thread driving the next stage of the Internet is embedded Intel® architecture, with 15 billion embedded devices connected by 2015. Davis highlighted specific implementations of the scalable suite of Intel silicon available to drive innovations in retail, industrial and medical applications.

Intel Expands Scalable Choices For Embedded – Davis announced that Intel will add 7-year extended lifecycle support for the Intel® CoreTM2 Quad processor Q9400 validated with the Intel® Q45 Express chipset and the Intel® 3210 chipset. The Q9400 processor is ideal for embedded systems that need the performance of a 45nm processor with four complete execution cores to deliver high performance and responsiveness in multi-threaded and multi-tasking environments.

- *Intel Q45 Express chipset* a desktop chipset ideal for industrial, retail, gaming, print imaging, digital signage and network security applications. The chipset features are supported by the following technologies:
 - Intel® Graphics Media Accelerator 4500 provides enhanced graphics/media capabilities
 - Intel® Trusted Execution Technology (Intel® TXT) protects against software-based attacks

- o Intel® Active Management Technology (Intel® AMT) version 5.0 provides for enhanced manageability of remote clients
- *Intel 3210 chipset* a server chipset offers a unique combination to embedded customers with ECC, high bandwidth performance and improved memory speeds for mid-range network security, print imaging, storage and I/O-intensive industrial applications. The chipset features:
 - o Error Correcting Code (ECC) memory
 - o I/O performance and improved memory speed over the previous-generation chipsets for faster system responsiveness

Announcing Adaptations of Intel® Atom processor Z5xx series -- Davis also disclosed that adaptations of the Intel® AtomTM processor Z5xx series for embedded will be available with 7-year long lifecycle support in the first quarter of 2009. The adaptations will offer a larger package size and industrial temperature options that will benefit customers designing applications in the in-vehicle infotainment, interactive clients, medical, industrial automation, print imaging and communications infrastructure market segments.

Steve Pawlowski, "Next Generation Intel® Core™ Microarchitecture (Nehalem): Screaming Performance, Efficient Power"
Intel Senior Fellow and Chief Technology Officer, Digital Enterprise Group General Manager, Architecture and Planning

Steve Pawlowski provided an in-depth look into the architecture design of the "Nehalem" processor. The Nehalem processor was designed with the end user in mind to provide energy efficient performance with power efficiency at all levels from circuit to architecture. The Nehalem processor platform triples the memory bandwidth of previous Intel platforms, and Intel's Hyper-Threading Technology allows multiple threads to run simultaneously, improving response time and delivering 8-threaded performance capability on 4 cores.

Intel's unique Turbo Boost Technology accelerates performance to match workloads. A sophisticated on-die power control unit enables Turbo Boost by automatically adjusting the clock speed for both single-threaded applications as well as multi-threaded ones. In addition, new "power gate" transistors based on Intel's advanced 45nm Hi-k manufacturing process totally switch off idle processor cores to further cut power leakage. The Nehalem processor also has the latest Intel power saving technologies, allowing desktops to go into sleep states formerly reserved for notebooks.

Nehalem Microarchitecture technical disclosures

- Intel® Turbo Boost Technology In response to workload demand, adds higher speed to active cores
- Power Gates Enabled by Intel in-house design and process technology; turns individual
 cores on/off; transparent to OS; ultra low leakage and cores can run at independent voltage or
 frequency
- Intel Hyper-Threading Technology New and improved with more processor resources
- Over 3X increase in memory bandwidth