Intel Developer Forum Day 3 News Disclosures


Eric Kim, “The Architecture of CE Innovation”
Senior vice president and general manager, Digital Home Group
In his keynote address, Eric Kim took the wraps off the Intel® Atom™ processor CE4100, Intel’s newest system-on-chip (SoC) in a family of media processors designed to bring content and services to the TV. Kim discussed how TV broadcasting is quickly shifting from a linear model to an Internet-optimized model, and how at the center of TV innovation is Intel’s CE platform, which provides the processing power for advanced media applications like 3D graphics.

Kim also announced the company is working with several key industry players such as Adobe Systems, British Broadcast Company (BBC), CBS, Cisco and TransGaming to advance content, applications, services and infrastructure for next-generation television, making the vision of interactive TV a reality in the short term.

Intel® Atom™ processor CE4100 – Intel’s newest consumer electronics SOC, formerly codenamed Sodaville, combines a media processor and audio/video graphics components to advance connected CE devices. It is based on 45nm process technology and the Intel® Atom core and built on the popular Intel® architecture. It supports both Internet and broadcast applications and has the processing power required for graphics-intense media applications. It also meets all requirements for connected CE devices such as IPTV set-tops and digital TVs and media players.

Adobe – As TVs become more interactive, Adobe® Flash® is an important enabling technology to help content developers blend together video, 3-D animation and rich graphics. Intel is working with
Adobe to port Adobe Flash® Player 10 to the family of Intel CE media processors to optimize the playback of graphics and H.264 video that will enable for the first time a wide array of Flash-based games on the television.

Transgaming – Games delivered on-demand are growing in popularity with the advancements in interactive TV made possible by the Intel CE platform. One new service called GameTree.TV, offered from a company called TransGaming, allows existing PC games to operate on alternative operating systems for easy migration from the PC to connected CE devices based on Intel media processors. TransGaming will also offer a software development kit to help content developers simplify the deployment of games on to Intel architecture-based CE platforms.

Justin Rattner, “Convergence is So Yesterday: The Future of Television”
Chief technology officer, senior fellow, Director Intel Labs
Just Rattner described what users can expect the TV experience to be like in the year 2015. He said 15 billion consumer devices are expected to be capable of delivering TV content with hundreds of billions of hours of video. Much more sophisticated ways to organize content and provide it on demand are required. Intel Labs are working on evolving technology to get what people want, when they want it and wherever they want.

“Light Peak” high speed cable technology brings optical to the mainstream – Rattner demonstrated how someday consumers could benefit from “Light Peak” in a computer by connecting one cable to a four-wide SSD-based RAID subsystem and a large display. Using a slender fiber-optic cable, information can transfer at very high bandwidth between a computing device and its displays, networks, storage devices and remote peripheral adapters. Existing electrical cable technology is approaching practical limits for speed and length. Developed by Intel and codenamed “Light Peak,” this new high-speed optical cable technology is designed to connect mainstream electronic devices to each other for better performance and smaller form factor versus existing copper cables. Intel is working with optical manufacturers to make “Light Peak” components ready to ship in 2010. The company’s intent is to work with the industry to determine the best way to make this new technology a standard and available on PCs, handheld devices, consumer electronics, workstations and more. “Light Peak” will deliver:

- **High bandwidth:** Delivering 10Gb/s, which enables the transfer of a full-length Blu-ray DVD in 30 seconds or less. Over the next decade, “Light Peak” is expected to scale to 100Gb/s.

- **Optical technology for the mainstream:** allowing for smaller connectors and longer, thinner, and more flexible cables versus what can be done today with copper. For example, a person could stream a high-definition video on a mobile Internet device (MID) and connect to a TV to watch on a big screen.

- **Ability to connect any device over single cable:** Connect peripherals, displays, disk drives and more running multiple protocols simultaneously over a single cable.

Personalized TV – Future technology will only get more personal, according to Rattner. He demonstrated a technology from Intel Labs that has the ability to take information from users’ MIDs, such as calendar data or recommendations from a social network, and automatically influence the nearest TV display with a prioritized list of programs and offers based on people’s interests.
Interactive TV – Intel Labs are experimenting with technologies like light emitting diodes, a light commonly used in consumer electronics, as a way to communicate between a netbook and TV for more interactive experiences. If a show is requesting audience participation, like voting for a favorite singer, the audience member can use a netbook to send voting information directly or find additional information about the contestants.

Intel, Intel Atom and the Intel logo are trademarks of Intel Corporation in the United States and other countries.
* Other names and brands may be claimed as the property of others.