9/10/02 Extremetech.com 1 2002 WLNR 11707457

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## **September 10, 2002**

<u>Intel</u> Pushes Plug and Play Into Homes; Universal Plug and Play and 802.11 remain the technology <u>Intel</u> is betting on to infiltrate home entertainment networks.

Salvator, Dave

Universal Plug and Play (**UPnP**) A/V continues to cast a long shadow at this fall's IDF, with <u>Intel</u> focusing on the digital home as a key growth area in the coming years. In some ways, this message is just a repeat of past IDFs, but there are several new variations on previously presented themes.

The completion of the **UPnP** A/V spec this past June has laid the groundwork to enable a new class of devices. <u>Intel</u> calls these Digital Media adapters, which initially will make digital music and photos available throughout the homeusing a PC as the central server. This PC will most likely be a thin server, tucked out of the way.

There are several other key pieces to the digital home puzzle:

A reliable 24/7 server 802.11a or 802.11b wireless networking **UPnP** A/V specification to define device interaction Controllers Digital Media Adapters/Renderers

One new theme a this year's IDF is the idea of a 24/7 very reliable server, which would automatically reboot, in the event of a crash, using watchdog timers. These timers have traditionally been used in medical appliances and other mission-critical devices where downtime can cause catastrophes.

Digital Media adapters, or renderers, are another addition to the digital home pitch. They are designed to work with existing legacy devices like home audio receivers and TVs. These devices would physically resemble an 802.11b access point, though they would likely also include a small character display to access media on the home server. RCA or S/PDIF jacks would provide audio to the legacy TV or stereo, while composite or S-video connectors deliver video.

Intel also unveiled a reference design based on its XScale CPU that could enable either class of rendering device.



This is not a new concept. Available devices like the Turtle Beach Audiotron are very similar to what Intel's proposal. Intel's spec adds in **UpnP**, to let these devices auto-configure to recognize and seamlessly interoperate with other **UpnP** devices on the home network. These adapters also add in wireless networking, which makes them much easier to add into the typical home.

Intel has in the past shown controller devices using PocketPC- driven PDAs as a way to either pull music to a client, or push it from a server. New this year: the controller vision now includes tablet PCs and Microsoft's Mira.

The biggest challenge for these devices is hiding the technology, making them simple for non-technical consumers to set up within ten minutes. They must be as simple to use as a CD player. In addition, mainstream consumer electronics are very price sensitive - they'll have to be aggressively priced as well if they're to gain any traction.

One Intel official spoke of these devices' needing to pass the "elevator test." Could they be adequately explained to an "average" consumer during a short elevator ride to. This level of drop-dead simplicity and ease of use is absolutely critical for the digital home to become more than a PC industry pipe dream.

As IDF continues this week, Intel will continue to expand on its digital home vision, and we'll bring those revelations to you as they happen.

For more on Intel's initiatives in this area, check out their [http://developer.intel.com/technology/digitalhome/] web site.

For more information about Intel's Fall Developer's Forum, head over to our [http://www.extremetech.com/category2/1,3971,489239,00.asp] special report, we're updating it constantly all week during the show, from September 9th, 2002 through September 13th, 2002.

---- INDEX REFERENCES ---

COMPANY: MICROSOFT CORP; INTEL CORP

NEWS SUBJECT: (Major Corporations (1MA93))

INDUSTRY: (Small & Home Office Equipment (1SM98); I.T. (1IT96); Portable PCs (1PO56); Multimedia Peripherals (1MU17); Home & Multimedia PCs (1HO36); Consumer Electronics Standards (1CO37); Computer Equipment (1CO77); Consumer Electronics (1CO61); Office Equipment (1OF21); Electronics (1EL16); Semiconductor (1SE88); Manufacturing (1MA74); I.T. Multimedia (1IT53))

Language: EN

OTHER INDEXING: (CD; FALL DEVELOPERS FORUM; IDF; INTEL; INTEL PUSHES PLUG; MICROSOFT; PC; PDAS; RCA; UPNP) (Play; Universal Plug) (United States; US)



COMPANY TERMS: INTEL CORP

PRODUCT: unknown; unknown; unknown; unknown

SIC: 334413; 334210; 334419; 334611; 511210

Word Count: 709

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