Texas Instruments embraces Linux for C64x DSPs

Multicore Expo – San Jose CA (April 27, 2010) – Texas Instruments Incorporated (TI) (NYSE: TXN) today announced Linux kernel support for its TMS320C64x™ digital signal processors (DSPs) and multicore system-on-chips (SoCs) targeted for applications such as communications and mission critical infrastructure, medical diagnostics, and high-performance test and measurement. As customers move towards open source as a key element of their products, application developers can benefit from the availability of Linux on TI's high-performance DSPs by having less software to develop, and focusing more on differentiating features and software in their applications.

"TI's C64x processors have an enviable footprint in signal processing oriented high-performance multicore applications," said Olaf Soentgen of Nash Technologies. "The introduction of Linux support expands the utility of the C64x into portions of these applications that traditionally have been reserved for RISC cores. We are taking advantage of Linux availability on TI's SoC to lower the cost and simplify the development of femtocell base stations."

TI's C64x Linux effort is a community collaboration with considerable support already in place. As part of the effort to port the Linux kernel to the C64x ISA, Code Sourcery is developing a

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complete tool chain including support for the GNU Compiler Collection (GCC) and the GNU

Project Debugger (GDB). The project's goal is that both the C64x Linux kernel and the GCC / GDB

tools will be accepted by kernel.org and the Free Software Foundation, making both fully supported

as open source community projects. In addition, TI will sponsor a Linux-C64x portal and a

community-oriented distribution program to facilitate communication and development around this

technology. ENEA is making its open source, scalable multicore communications stack available to

the C64x Linux community, as well as offering advanced multicore platform software and

debugging tools. Nash Technologies is implementing features ranging from advanced chip level

functions, such as multicore interprocessor communications, to complete LTE protocols. PolyCore

Software, also an early community participant, is implementing the MCAPI multicore

communications framework.

"Our customers are rapidly moving towards open source as a critical element of their

solutions," said Brian Glinsman, general manager of TI's communications infrastructure business.

"Because of the C64x-based products' ultra low power consumption and cost effectiveness,

customers are interested in running traditional DSP MAC/PHY and codec algorithms as well as

classic RISC control code and protocols on our DSPs. TI's embracing of Linux and an open tool

chain for the industry workhorse C64x makes this kind of integration practical."

Availability

Product support for the C64x Linux kernel will be available for TI's TMS320C6472,

TMS320C6474, TMS320C6455 and TMS320C6457 devices in 3Q10.

For more information please visit the links below:

- Overview page & supported products: www.linux-c6x.org/about
- Multicore microsite: www.ti.com/linux-pr-multicore

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- Communications infrastructure products: www.ti.com/linux-pr-ciproducts
- Follow TI on Twitter: www.twitter.com/txinstruments
- Community Participants:
    - Code Sourcery: http://www.codesourcery.com/
    - PolyCore Software: http://www.polycoresoftware.com/
    - Nash Technologies: http://www.nashtech.com/
    - ENEA: http://www.enea.com/

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