

最新 MicroTCA/ .4 & 先端 System Interconnect (SRIO&PCIe) Seminar in Tokyo 2013

<<講演内容>>

『Saving costs through an improved management concept for MicroTCA.4』

N.A.T 社 Heiko Körte 氏 / Director of Sales and Marketing

MicroTCA has found many uses in applications requiring a modular open standard that is smaller and cheaper than AdvancedTCA.

Although MTCA.4 has closed the functional gap between ATCA and MicroTCA, the system and slot costs still are key to success, especially for smaller systems. A new concept utilizing the capabilities of the MCH slot in a MicroTCA.4 system addresses this issue and helps to build more cost efficient solutions. At the same time this new concept allows the customer to select from an even larger ecosystem of solutions than what was available so far. The presentation will first give short introductions to MicroTCA and MicroTCA.4 and then explain the improved management concept for MicroTCA.4. At the example of the AMC solutions available from N.A.T. the presentation will demonstrate how this new concept allows more AMC slots to be used for application specific purposes

『AMC-SRRM・独 Signalion 社製 uTCA 汎用 RF モジュールのご紹介』

Signalion 社 向井敬 氏 / ビジネスディベロップメントマネージャー

独 Signalion GmbH が現在販売しているマイクロTCA 準拠の RF モジュール『AMC-SRRM』ファミリーの使用例を元にご紹介致します。

『MTCA 及び .4 シャーシ技術解説及び市場動向と製品紹介』

株式会社ユーバー 森本正治 氏 / 技術部長

『TI KeyStone SoC introduction, enabling Green system with ARM® Cortex™ A15 and C66x DSP.』

日本テキサス・インスツルメンツ社 園本吉彦 氏 / Manager of processor, Embedded Processor & Connectivity Marketing

Traditionally Networking control plane has been domination by x86 and Power architectures supported sometimes by FPGA based or specialized accelerators.

However in the recent years the entire networking industry is looking for greener alternatives and actively considering RISC based processors which is low power but powerful enough to meeting the processing needs; enter Cortex A-15 core from ARM as an alternative. Just the core performance however is not sufficient to realize the theoretical performance if the overall SoC architecture does not enable that. KeyStone is an architecture to create infrastructure grade A15 based processor with the right mix of high speed peripherals, memory and processing power. The topic of discussion for today is to highlight specific applications within the networking domain that KeyStone architecture enables, market feedback and the differentiating features of KeyStone.

『Wireless systems: The Challenge and Opportunity of Highly-Integrated SoCs』

CommAgility 社 白井野之 / Technical Director (スターブリッジ)

From the outset CommAgility has been at the forefront of MicroTCA based wireless systems, helping our customers develop leading edge solutions for R&D, trials and Test Equipment. This position has enabled us to see the importance of MicroTCA as a modular platform and Serial RapidIO as a high-bandwidth low-latency transport fabric.

The latest generations of wireless SoC processors such as the Keystone II family from Texas Instruments, with ever increasing levels of integration, bring challenges to this architecture. In this presentation we explore these challenges and show how they can become opportunities.



『RapidIO: The Efficient Interconnect Technology』

IDT 社 Barry Wood 氏 / Expert Application Engineer

So much of the marketing activity on interconnect focuses on pure bandwidth, or the raw "through put". However, other interconnects require significant processing, bulk memory, and complexity to achieve "good put". This presentation gives information about the new 3.0 RapidIO specification, as well as why RapidIO will continue to be the superior interconnect when measured in terms of milliwatts per 10 Gigabits of "good put".

『アルテラの最新 FPGA 製品と SRIO ソリューション』

日本アルテラ株式会社 柿原将児 氏 / 応用技術部 シニア・システム FAE

昨今 FPGA は、最先端プロセスを利用した継続的な機能アップを重ねながら、多岐にわたる設計者の要求に応えるべく、異なる特徴を持った複数の製品ファミリーをポートフォリオとして提供しています。
また、標準的な機能を効率よく実現する手段として数多くの IP を提供し、Time-to-Market の強みを拡大させます。
本セッションでは、アルテラの最新 Generation 10 FPGA & SoC の概要を紹介し、そして高速インタコネクトのひとつである SRIO を取り上げ、IP によるインタフェース実装の手法とシステム応用例を紹介し、

『Running High Performance Applications over a PCI Express Network』

Dolphin 社 Herman Paraison 氏 / VP of Sales and Marketing.

PCI Express Switches and several Microprocessors now support PCI Express Non Transparent Bridging (NTB). This presentation outlines the process of using PCI Express NTB functionality to create a PCI Express Local Area Network.
The challenges of creating a PCI Express software stack, the advantages of using Programmed IO and RDMA and the key components of a PCI Express Network, including hardware and software APIs will all be reviewed. Application benchmarks reveal improved performance for I/O sensitive applications such as databases.

『New RapidIO Diagnostic and Network Management capability breakthrough』

FET 社 横川与英 / CTO (スターブリッジ)

RapidFET Tools have grown in lock step with RapidIO for the past 10 years and continues to offer a growing capability of diagnostic and system management features. This presentation will detail the most recent of these new breakthrough capabilities which can facilitate full system loopback diagnostic mode capability using only one endpoint and a new adaptive routing technique which avoids the costly performance impacts of re-writing routing tables on the fly, or the added hardware costs of requiring mirrored redundant hardware such as in dual star system architectures. These new RapidFET Professional capabilities break through what was previously considered to be hard RapidIO protocol limitations, and provide you with the RapidIO diagnostic and network management advantages that will help you deliver more innovative and competitive products on schedule.

『PCIe-SRIO System Interconnect 技術と SRIO システムレベルインテグレーション』

株式会社スターブリッジ 横川与英 / CTO

現在、プロセッサはマルチコアにより処理能力が強化され、PCI Express や RapidIO により大きなデータ転送帯域を確保できるようになりました。しかし、これらテクノロジーの進歩とともに産業機器などに要求される能力も大きくなり、PCI Express や RapidIO においてもマルチプロセッサ間通信や I/O の多チャンネル化は依然必要とされています。
スターブリッジは、設立当初から PCI バスをファブリック化する StarFabric を提供し、プロセッサの処理能力を増強するためのマルチプロセッサ化や、I/O の多チャンネル化のためのファブリック構築をサポートしてきました。
現在は、これまでに培ったノウハウを活かし、主に RapidIO を用いたシステム構築のサポートを国内外のお客様に展開しています。
このセッションでは、RapidIO を応用した自社製品である RapidExpress シリーズ製品とシステムの構築における応用例や、カスタムデザインの受託事例をご紹介します。

