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AMD to Accelerate the ARM Server Ecosystem With the First ARM-Based CPU and Development Platform From a Server Processor Vendor

Also Announces ARM-Based Open Compute Micro-Server Board and OCP Contribution

SAN JOSE, CA -- (Marketwired) -- 01/28/14 -- Open Compute Summit V -- AMD (NYSE: AMD) today added a major new milestone to its list of seminal developments in server technology. The company displayed a comprehensive development platform for its first 64-bit ARM®-based server CPU, fabricated using 28 nanometer process technology, the first from an established server vendor. AMD also announced the imminent sampling of the ARM-based processor, named the AMD Opteron™ A1100 Series, and a development platform, which includes an evaluation board and a comprehensive software suite. In addition, AMD announced that it would be contributing to the Open Compute Project a new micro-server design using the AMD Opteron A-Series, as part of the common slot architecture specification for motherboards dubbed "Group Hug."

The AMD Opteron A-Series processor, codenamed "Seattle," will sample this quarter along with a development platform that will make software design on the industry's premier ARM-based server CPU quick and easy. AMD is collaborating with industry leaders to enable a robust 64-bit software ecosystem for ARM-based designs from compilers and simulators to hypervisors, operating systems and application software, in order to address key workloads in Web-tier and storage data center environments. The AMD Opteron A-Series development platform will be supported by a broad set of tools and software including a standard UEFI boot and Linux environment based on the Fedora Project, a Red Hat-sponsored, community-driven Linux distribution.

"The needs of the data center are changing. A one-size-fits-all approach typically limits efficiency and results in higher-cost solutions," said Suresh Gopalakrishnan, corporate vice president and general manager of the AMD server business unit. "The new ARM-based AMD Opteron A-Series processor brings the experience and technology portfolio of an established server processor vendor to the ARM ecosystem and provides the ideal complement to our established AMD Opteron x86 server processors."

The AMD Opteron A1100 Series processors support:

- 4 or 8 core ARM Cortex™-A57 processors
- Up to 4 MB of shared L2 and 8 MB of shared L3 cache
- Configurable dual DDR3 or DDR4 memory channels with ECC at up to 1866 MT/second
- Up to 4 SODIMM, UDIMM or RDIMMs

- 8 lanes of PCI-Express® Gen 3 I/O
- 8 Serial ATA 3 ports
- 2 10 Gigabit Ethernet ports
- ARM TrustZone® technology for enhanced security
- Crypto and data compression co-processors

The AMD Opteron A-Series development kit is packaged in a Micro-ATX form factor and includes:

- An AMD Opteron A1100 Series processor
- 4 Registered DIMM slots for up to 128GB of DDR3 DRAM
- PCI Express® connectors configurable as a single x8 or dual x4 ports
- 8 Serial-ATA connectors
- Compatibility with standard power supplies
- Ability to be used stand-alone or mounted in standard rack-mount chassis
- Standard UEFI boot environment
- Linux environment based on Fedora, which provides developers with a rich set of tools and applications
    - Standard Linux GNU tool chain, including cross-development version
    - Platform device drivers
    - Apache web server, MySQL database engine, and PHP scripting language for developing robust web serving applications
    - Java 7 and Java 8 versions to provide developers to work in a 64-bit ARM environment

"Since 2012, AMD has been working with members of the Linaro Enterprise Group (LEG) on accelerating the ARM server ecosystem," said Andrea Gallo, LEG director. "Linaro's work on boot architecture including UEFI and ACPI, as well as key core server software such as an optimized LAMP stack and a best-in-class enterprise quality OpenJDK 8 Java implementation developed in collaboration with Red Hat, will enable AMD to deliver differentiated and innovative hardware solutions providing industry-leading performance and low-power products for the next generation of data center server platforms."

AMD continues to drive the evolution of the open-source data center from vision to reality and bring choice among processor architectures. It is contributing the new AMD Open CS 1.0 Common Slot design based on the AMD Opteron A-Series processor compliant with the new Common Slot specification, also announced today, to the Open Compute Project.

"Predefined, 'one size fits all' server platforms are giving way to customized solutions that deliver high performance at the lowest power consumption," said Frank Frankovsky, chairman and president of the Open Compute Project. "AMD's contribution to the Open Compute Project expands a growing portfolio of OCP designs that enable utilization and efficiency gains in data center operations."

AMD's Andrew Feldman and Suresh Gopalakrishnan, executives in the server business unit, will be hosting a virtual press briefing today at 1:30 p.m. PT/ 4:30 p.m. ET to discuss the AMD Opteron A-Series announcement. Ian Drew, CMO of ARM, will also be on hand.

For more information please visit AMD's booth at the Open Compute Summit today and tomorrow where the AMD Opteron-A development kit, AMD Open CS 1.0 server platform and partner technologies will be on display.

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