February 27, 2018

AMD Targets ‘Internet of Things’ with New “Zen” Architecture-Based Embedded Processors Through its EdgeX Foundry Membership

New AMD Ryzen™ Embedded V1000 and AMD EPYC™ Embedded 3000 processors deliver performance, security features, scalability and ease-of-use for complex applications including industrial systems, smart cities and transportation management

SANTA CLARA, Calif., Feb. 27, 2018 (GLOBE NEWSWIRE) -- Following the launch of its next-generation “Zen” architecture-based embedded processors, AMD (NASDAQ:AMD) has positioned its embedded products to help customers apply and advance the use of internet of things (IoT) principles to a growing number of applications such as industrial systems, smart cities, inventory management, medical displays, and point of sale. Many of those applications and the two new embedded processors are on display at the AMD booth number 1-360 at Embedded World this week.

AMD recently launched the AMD Ryzen Embedded V1000 and AMD EPYC Embedded 3000 processors, which provide new levels of performance, flexibility and security features for embedded customers. The same qualities that the new processors apply to vertical markets, including gaming, medical imaging, thin clients and aerospace, can translate into benefits for IoT solutions for edge gateways, servers and interconnected products. In addition, AMD is a supporting member of EdgeX Foundry, a group of ecosystem partners with the common goal of improving IoT interoperability and collaborating with more than 50 participating members towards a quality open environment and framework for building and accelerating IoT deployments.

“Complexity is a hallmark of the current IoT environment with varying perspectives on the best approach and a seemingly endless number of devices becoming connected. As a founding member of the EdgeX Foundry, which is dedicated to IoT interoperability, AMD is committed to breaking through these barriers to deliver flexible and reliable tools required to serve as the foundation for edge computing and IoT gateways,” said Stephen Turnbull, director of product marketing, Datacenter and Embedded Solutions Business Group, AMD. “We’ve seen major interest and adoption of our ‘Zen’ architecture-based processors in personal computing and the datacenter. Now AMD Ryzen Embedded processors and AMD EPYC Embedded processors are poised to bring equally impressive results to high-growth markets developing products for the IoT space.”

Performance and Security Making an Impact from the Edge to the Cloud

Customers that choose to develop solutions for IoT applications based on embedded products from AMD will benefit from strong performance and cutting-edge security features.

In an IoT application, there are many connected products working at the edge of the network, which pose a security threat. Embedded processors from AMD implement features that validate the operating systems at the chip level while also fortifying the integrity of other platform facets. An on-chip secure processor, in tandem with hardware-validated boot capabilities, protects data and helps ensure systems boot up based on trusted software. Security measures are bolstered even further with Secure Memory Encryption to help deter unauthorized physical memory access and Secure Encrypted Virtualization for encrypting virtual machine memory.

AMD processors, including the new AMD Ryzen Embedded V1000 and AMD EPYC Embedded 3000, are also designed with exceptional performance and versatility top of mind. These embedded processors feature “Zen” architecture-based, high-performance x86 cores that offer advanced compute capabilities and can be optimized for many different markets.

The high-performance features of AMD Ryzen Embedded processors bring together the best of the “Zen” core architecture complemented by the “Vega” graphics architecture in a single chip. This enables a level of graphics computing that is necessary for inference-based applications closer to the edge gateway. In addition, EPYC Embedded processors bring stunning performance and enterprise-grade reliability, availability and serviceability to edge applications, which enables improved processing and data analytics to take place at the edge of the network instead of the cloud. This translates to less latency when information remains central to the devices that are dependent upon it along with more bandwidth at the core of the network, as cycles are available for other tasks and processes.

AMD Ryzen Embedded and AMD EPYC Embedded processors, as well as the broader family of embedded processors from AMD, have a substantial impact on edge-level devices. By participating in the EdgeX Foundry, AMD can work closely with the right partners to scale quickly, take a more robust approach to security and management, and deploy solutions easier and with better support. Cooperation and a sharper focus on interoperability are key to ensuring that IoT solutions remain capable and dependable.

EdgeX Foundry Member Support

ClearBlade

“The combination of embedded processors from AMD and ClearBlade’s IoT edge platform software gives companies the flexibility to power the edge of any IoT solution, including real-time business rules, data filtering, online and offline execution, machine learning, and messaging,” said Eric Simone, CEO, ClearBlade. “The same software at the center, for cloud or on-premises, and the edge running on hardware from AMD provides companies with endless flexibility and scale. ClearBlade is also committed to industry standardization as a founding member of the EdgeX Foundry, which focuses on a common framework for IoT edge interoperability.”

Dell EMC

“Customers love the benefits of an open ecosystem, especially in emerging technology, and EdgeX Foundry plays a crucial role in improving IoT interoperability,” said Jason Shepherd, IoT CTO, Dell Technologies. “We’re excited that AMD joined the EdgeX project as a fellow founding member, and we look forward to deploying the framework together in secure and

scalable IoT solutions that include our new line of three highly-capable, AMD-powered Dell EMC PowerEdge servers. These servers are engineered to deliver flexible compute at the edge to turn data into real-time, actionable insights."

Device Authority

"We're delighted to join AMD in its IoT vision and solutions, which recognize the importance of cutting-edge security features for edge gateways and servers. Our KeyScaler platform adds value by delivering secure device provisioning, policy-based credential management and end-to-end data security for gateways with embedded processors from AMD," said Darron Antill, CEO, Device Authority. "We're also a founding member of the EdgeX Foundry, which continues to build a common framework for IoT edge computing."

The AMD Embedded Legacy Paves the Way for Success in the Internet of Things

AMD embedded processors have decades of credibility and reliability supporting both the computing and graphics needs of demanding industries. The company's embedded reach already transcends several of the key markets that are in transformation due to a greater emphasis on IoT principles, including industrial 4.0, medical, and point of sale. However, the next generation of AMD Ryzen Embedded V1000 and AMD EPYC Embedded 3000 processors are ushering in a refresh of advanced platforms that are less cloud dependent than their predecessors while being even more interconnected and open. A change made possible by the dedication to advancing processor features and performance, and elevated by a commitment in the EdgeX Foundry.

Visit the AMD booth number 1-360 at Embedded World for more information on AMD, to check out the latest demos of our embedded applications in action, and to speak with an executive about AMD and its EdgeX partners.

About AMD
For more than 45 years, AMD has driven innovation in high-performance computing, graphics and visualization technologies — the building blocks for gaming, immersive platforms, and the datacenter. Hundreds of millions of consumers, leading Fortune 500 businesses and cutting-edge scientific research facilities around the world rely on AMD technology daily to improve how they live, work and play. AMD employees around the world are focused on building great products that push the boundaries of what is possible. For more information about how AMD is enabling today and inspiring tomorrow, visit the AMD (NASDAQ:AMD) website, blog, and Facebook and Twitter pages.

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Source: Advanced Micro Devices