



Editorial Contacts:

Bruce Fienberg
Xilinx, Inc.
408-879-4631
bruce.fienberg@xilinx.com

Alan Tringham
ARM
44 1233 400947
alan.tringham@arm.com

XILINX AND ARM ANNOUNCE DEVELOPMENT COLLABORATION

Agreement sets the foundation for industry's next-generation programmable platforms

SAN JOSE, Calif., AND CAMBRIDGE, UK - Oct. 19, 2009 – Xilinx, Inc (NASDAQ: XLNX) and ARM [(LSE: ARM); (NASDAQ: ARMH)] today announced they are collaborating to enable ARM processor and interconnect technology on Xilinx® FPGAs. Xilinx is adopting ARM Cortex processor IP, using performance-optimized ARM cell libraries and embedded memories for their future programmable platforms. In addition, ARM and Xilinx are working to define the next-generation ARM® AMBA® interconnect technology that is enhanced and optimized for FPGA architectures.

The agreement underscores Xilinx's commitment to adopt the complete range of ARM technology, leveraging ARM's processor strengths to provide customers and ecosystem developers with flexible computing platforms where their IP and software development can be shared and re-used on a broad scale. This is expected to allow programmable solutions to penetrate even deeper into existing markets and expand into new market spaces. Ideal applications will span the communications, automotive, consumer, aerospace, defense and industrial markets.

"Time-to-market pressures and escalating product development costs are driving the development of a new category of products that combines the processor-centric design methods and open standards common in system-on-chip designs, with programmable logic flexibility," said ARM Chief Technology Officer, Mike Muller. "By combining ARM's leadership in low-power, high-performance processor and physical IP technology and its Connected Community™ ecosystem, with Xilinx's expertise in FPGA technology, we can accelerate the development of applications across a broad set of markets for software developers and hardware designers alike."

"While Xilinx's adoption of ARM processor technology provides a robust roadmap for FPGA-based architectures, the collaboration and joint definition of the next-generation AMBA interconnect specification will deliver the optimization necessary to achieve the system performance, integration, reuse, and scalability required in these products," said Nick Tredennick, a technology

analyst for Gilder Publishing. “It provides a common technology basis for IP and system solutions to be developed, scaled, exchanged and shared in a way that will have a profound influence on the programmable logic industry.”

To help create a more optimal ecosystem serving both Xilinx FPGA and ARM IP technologies, the two companies are already working with a number of IP providers and EDA vendors including Cadence Design Systems Inc., CAST, Inc., Denali Software, Inc., Mentor Graphics Corp., Northwest Logic, OMIINO Ltd., Sarance Technologies Inc., Synopsys, Inc. and Xylon d.o.o. to support an advanced version of the AMBA specification, the de facto standard for on-chip fabric communication, which is closely aligned to ARM processors. Not only will this new interconnect simplify and extend the capabilities of next generation programmable platforms using the world’s leading 32-bit processor IP, but the definition of the standard is aligned with the ‘Socketable IP’ aspect of the Xilinx Targeted Design Platform strategy. Because IP re-use is an essential component in reducing system development costs and timescales, this innovative plug-and-play approach means that IP developed by Xilinx and its ecosystem can be easily used without requiring the user to make a huge investment in vendor support.

“With open, standards-based solutions from Xilinx, we will enable our customers to further focus on their core solutions and differentiation through their IP while re-using established solutions from within and/or from ecosystem providers,” said Xilinx senior vice president of World Wide Marketing and Business Development, Vin Ratford. “We also believe this approach will foster a vibrant and robust ecosystem that will expand to provide both standard and emerging IP solutions that can be applied across many industry segments.”

AMBA and Xilinx Targeted Design Platforms

The AMBA protocol is the de facto standard for on-chip fabric communication that details a strategy for the interconnection and management of functional blocks that makes up a system-on-chip (SoC). The new collaboration with Xilinx optimizes this for FPGA implementations and introduces a new use model of being used with or without processors as well. The move to ARM aligns with the Xilinx Targeted Design Platform Strategy announced earlier this year, when the programmable logic leader mapped out plans to roll out development platforms based on industry-leading FPGA technology, boards, and standardized IP. A key component of the Targeted Design Platforms is ecosystem participation enabling mutual customers to easily scale their product designs around a stable architecture. The adoption of AMBA and AXI™ technology gives software and hardware designers that stability with a proven, broadly adopted standard for interconnecting IP blocks and building embedded systems.

About ARM

ARM designs the technology that lies at the heart of advanced digital products, from wireless, networking and consumer entertainment solutions to imaging, automotive, security and storage devices. ARM's comprehensive product offering includes 32-bit RISC microprocessors, graphics processors, and video engines, enabling software, cell libraries, embedded memories, high-speed connectivity products, peripherals and development tools. Combined with comprehensive design services, training, support and maintenance, and the company's broad Partner community, they provide a total system solution that offers a fast, reliable path to market for leading electronics companies. More information on ARM is available at www.arm.com.

About Xilinx

Xilinx is the worldwide leader in complete programmable logic solutions. For more information, visit www.xilinx.com.

Commentary from Xilinx ecosystem:

"Cadence® and ARM have a long history of close collaboration to ensure that ARM IP and Cadence's design and verification solutions are optimized for the successful development of ARM core-based SoCs. Today's announcement from Xilinx and ARM to collaborate on new programmable platforms and expand AMBA® brings a much-needed standard interconnect to the FPGA market. It also provides the opportunity to apply our proven Enterprise Verification solution with Cadence Incisive® products, including AMBA verification IP and the Open Verification Methodology (OVM), to bring productivity and predictability to the increasingly complex verification challenge faced by FPGA customers."

- Michał Siwiński, group director of Front End marketing

Cadence Design Systems, Inc.

"Xilinx's adoption of the AMBA interconnect technology not only aligns well with our own product direction, but matches what many of our SoC customers are already asking for. Adopting a broad industry standard like this will dramatically simplify SoC design and integration for FPGA customers and the IP developer community. CAST looks forward to supporting this initiative with our broad portfolio of proven IP cores."

- Newton Abdalla, Vice President of IP

CAST, Inc.

“As a member of the ARM Connected Community, Denali Software provides design and verification IP for the ARM architecture that enables customers to speed chip development and reduce design verification risks. The alliance between Xilinx and ARM to create an ARM-based FPGA platform and Xilinx’s decision to standardize on AMBA allows Denali to extend our robust design and verification offerings to better support the needs of these SoC designers.”

- Sanjiv Kumar, director, Verification IP products

Denali Software, Inc.

“Standard, high performance on-chip fabrics are critical to SoC designs as they provide a plug-and-play model for connecting reusable IP blocks. Mentor Graphics is excited to expand our existing partnership with Xilinx and ARM to enable this new world of FPGA-based SoCs with ARM AMBA-centric verification solutions that will help speed these systems to market.”

- Simon Bloch, VP and General Manager

Mentor Graphics Corp.

“Northwest Logic’s IP Cores already support the ARM AMBA interconnect standards, so as a leading provider of DDR3/2 SDRAM Controller and PCI Express2.0/1.1 IP Cores for Xilinx FPGAs, we are excited that Xilinx is adopting the industry’s leading processor and interconnect technology. We will ensure that the full range of our high-performance, high-quality IP cores support Xilinx’s next generation of embedded products.”

- Brian Daellenbach, President

Northwest Logic

“Omiino and Xilinx have collaborated closely in successfully delivering innovative Packet Optical Transport Network (P-OTN) products for our mutual customers. Xilinx’s actions to standardize on the AMBA interconnect will accelerate the development and verification of our Virtual ASSP solutions, benefiting our customers with a shorter time-to-market and faster integration.”

- Gary Hamilton, CEO

OMIINO Ltd.

“Sarance develops Ethernet, Interlaken and other packet processing IP cores used by many Tier-1 data communications companies around the world and we have worked closely with Xilinx to deliver best-in-class support for Xilinx FPGAs. The collaborative work being done by Xilinx and

ARM to extend an industry standard interconnect like AMBA to FPGAs will allow customers to more effectively integrate and reuse Sarance IP into their FPGA SoC designs.”

- Farhad Shafai, Vice President of R&D

Sarance Technologies Inc.

“By adopting the ARM® Cortex™ processor IP and AMBA® interconnect, Xilinx enables its customers to take advantage of the robust suite of solutions available from ARM ecosystem partners. Synopsys DesignWare® IP solutions for AMBA® include a comprehensive suite of AMBA® bus fabrics, verification IP and connectivity cores with AMBA® interfaces. In addition, we continue to collaborate with ARM and Xilinx on next generation design tools and connecting to the Confirma™ Rapid Prototyping Platform.”

- John Koeter, Vice President of Marketing for Synopsys’s Solutions Group

Synopsys, Inc.

“As a very active Xilinx Alliance Member with IP in the embedded space, we see standardization on AMBA as an important enabler for Xilinx leadership in processor based solutions. We also see this initiative as a way to better enable customers to seamlessly integrate our IP into their products and look forward to supporting this interface on our logicBRICKs™ IP portfolio.”

- Davor Kovacec, CEO

Xylon d.o.o.