



Broadcom Introduces Industry's First 100 Gbps Full Duplex Network Processor

Fully Programmable NPU Features 64 Custom Processors Running at 1GHz - Delivers More Than 2X the Throughput of Any NPU on the Market

SANTA CRUZ, Calif., April 24, 2012 /PRNewswire/ -- **GlobalPress Summit 2012**

News Highlights:

- Enables next wave of 100GbE optimized switching and routing platforms for service provider networks
- Proprietary look-up engine using low-cost DDR3 enables massive scalability while reducing system cost
- Industry's highest level of functional integration reduces power by up to 80 percent per 10GbE port

Broadcom Corporation (NASDAQ: BRCM), a global innovation leader in semiconductor solutions for wired and wireless communications, today announced the industry's first 100 Gbps full duplex network processor unit (NPU). Enabling the next wave of 100GbE optimized switches and routers for service provider networks, the fully programmable BCM88030 family features 64 custom processors running at 1GHz, delivering more than 2X the throughput of any NPU on the market. With the industry's highest level of integration, the BCM88030 solution eliminates costly external components, dramatically reducing system cost and power by up to 80 percent per 10GbE port. For more news from Broadcom visit our [newsroom](#).

In 2012, the number of connected devices is set to exceed the world's population with an estimated 7 billion devices connected to the network(1). By 2015, 90 percent of content viewed on mobile devices will be streaming video and application downloads are expected to reach 47 billion per year(1). To satisfy this overwhelming appetite for bandwidth, service providers around the globe are racing to transform their networks by adopting higher bandwidth links. Analysts estimate a compound annual growth rate (CAGR) of more than 170 percent from 2011 to 2016 for 100G Ethernet ports as service providers rush to meet this demand(2).

Built on the proven XGS Core® packet processing architecture, the BCM88030 family delivers the industry's highest performance NPU in a single device. With a powerful array of high-speed processors, extensive multi-threading and hardware acceleration for functions such as packet parsing, classification and look-ups, the BCM88030 product family delivers a feature-rich application at 100GbE full duplex for complex service provider switching and routing requirements. With a robust software development environment, the BCM88030 family is completely user programmable, enabling a highly flexible forwarding solution that ensures support for the most demanding applications, both existing and future.

The BCM88030 NPU family includes a proprietary algorithmic look up engine using low cost DDR-3 DRAM that enables massive scale for Layer 2, IPv4 and IPv6 tables while significantly reducing system cost. Algorithmic on-chip access control list (ACL) capability is available along with seamless expansion using Broadcom's industry-leading NL566xx knowledge based processor (KBP).

The Network of the Future — Delivered Today

Broadcom's NPU solutions are enabling the service provider network of the future today, providing the enhanced high-bandwidth capacity and scale to meet the aggressive requirements of next generation networks driven by the insatiable demand for data. With a fully programmable forwarding architecture, the BCM88030 family allows network operators to reduce CAPEX by adapting to emerging protocols without the costly redeployment of network equipment.

Spanning the entire network — from the access point to the edge, to the aggregation and finally the core — Broadcom high bandwidth solutions deliver the mobile experience consumers demand — with high quality voice connections, faster application downloads, and uninterrupted video streaming.

Market Drivers:

- Global IP traffic expected to grow 18-fold by 2016(1)
- Carrier Ethernet equipment market to reach \$40.2 billion by 2015(2)

- Massive traffic growth challenges current network architecture(3)
- Explosive bandwidth growth and the rapid adoption of 40GbE and 100GbE in service provider networks(3)
- Emerging and changing protocols driving the need for programmability in the data path

Key Features:

- 64 custom processors operating at 1GHz provide 100GbE carrier switching and routing with full programmability
- Advanced software development environment and feature-rich carrier Ethernet switch/router application enables robust user programmability and fast time-to-market
- Proprietary look-up algorithm utilizes low-cost DDR3 DRAM for highly scalable MAC & IP tables while dramatically lowering overall system cost
- Integrated OA&M engine, 1588 timing and synchronous Ethernet, 10GbE SerDes and 1/10/40/100GbE Ethernet MACs substantially reduces board space, system cost and power
- Seamless integration with XLP® multi-core processors for best-in-class control plane processing

Availability

The BCM88030 family consists of three devices, including the 100 Gbps BCM88038 NPU, the 50 Gbps BCM88034 NPU and the BCM88032 24 Gbps NPU. All devices are now sampling with production volume slated for the second half of 2012.

For ongoing news, visit Broadcom's [Newsroom](#), read the [B-Connected Blog](#), or visit [Facebook](#) or [Twitter](#). And to stay connected, subscribe to Broadcom's [RSS Feed](#).

Quotes:

Michael Howard, Infonetics, Principal Analyst & Co-Founder, Infonetics Research

"As the need for higher bandwidth continues, carriers are transitioning to 100GbE. In fact, we expect the high speed 100G interface market to outpace the overall market revenue with a CAGR of 170 percent over the next five years. Emerging and changing protocols such as OA&M are further driving the need for programmability in the data path. Carriers will want to consider telecom equipment outfitted with Broadcom's programmable 100GbE network processor, due to the bandwidth capacities and service flexibility the programmability provides."

Bob Wheeler, Senior Analyst, Networking Silicon, The Linley Group

"Service providers are clamoring for high performance, flexible solutions, and Broadcom's new family of programmable 100 Gbps full duplex network processors will provide customers with the ability to tailor performance, throughput, cost, and power to meet their requirements across a range of solutions."

Toshio Suzuki, General Manager, IP Network Division, NEC Corporation

"Our service provider customers are demanding high density 100GbE platforms over the next year. Only Broadcom's BCM88030 100GbE NPU provides us with the performance and density to meet these stringent requirements in a fully-programmable solution. Broadcom's BCM88030 100GbE NPU is unmatched in its ability to provide us with the flexibility to meet the constantly changing demands of our customers as well as the performance to drive line rate 100GbE full-duplex performance in a single device."

Fan Chengfa, Chief Architect of Bearer Network Product Line, ZTE

"Many of our customers have urgent demands for high density 40GE/100GE ports and further capacity upgrades to the core and edge of their networks due to LTE, video and other applications driving the never ending demand for bandwidth. It is imperative that the industry - both equipment manufacturers and semiconductor suppliers - deliver the solutions to upgrade their routers and switches to support higher bandwidth and lower cost per port in order for consumers and businesses to use the applications they have come to expect."

Dan Harding, Senior Director of Product Marketing, Network Processors, Broadcom Corporation

"We have experienced very strong demand for our programmable XGS Core line of network processors the last several years as service providers transform their legacy networks to higher bandwidth Ethernet-based solutions. Today's introduction is the culmination of some very talented engineers, who have developed a line of products touting a number of industry first innovations and the industry's highest level of integration. Being first to market with the world's first full duplex 100 Gbps network processor, we hope to reshape the carrier Ethernet market and drive the next wave of 100GbE optimized switches and routers."

About Broadcom

Broadcom Corporation (NASDAQ: BRCM), a FORTUNE 500® company, is a global leader and innovator in semiconductor solutions for wired and wireless communications. Broadcom® products seamlessly deliver voice, video, data and multimedia connectivity in the home, office and mobile environments. With the industry's broadest portfolio of state-of-the-art system-on-a-chip and embedded software solutions, Broadcom is changing the world by Connecting everything®. For more information, go to www.broadcom.com.

Broadcom®, the pulse logo, Connecting everything®, XGScore and the Connecting everything logo are among the trademarks of Broadcom Corporation and/or its affiliates in the United States, certain other countries and/or the EU. Any other trademarks or trade names mentioned are the property of their respective owners.

Resources:

- (1) Cisco Visual Networking Index: Forecast and Methodology, 2011-2016
- (2) Infonetics Service Provider Router & Switch Forecast, 4Q11
- (3) Linley Guide to Network Processors, April 2011

Contacts

Broadcom Trade Press Contact

Tamara Snowden
Senior Manager, Product Communications
408-922-6505
tamaras@broadcom.com

Broadcom Investor Contact

Chris Zegarelli
Director, Investor Relations
949-926-7567
czegarel@broadcom.com

SOURCE Broadcom Corporation; BRCM Infrastructure & Networking

News Provided by Acquire Media