Broadcom Announces Shipments of World's First 16nm and Highest Throughput Knowledge-based Processors for Next Generation Routers and Switches

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Industry's Most Advanced KBP Offerings Deliver Groundbreaking Internet Search Speeds up to 7.2 BSPS and Aggregate Data Transfer Rates up to 1 Tbps

SAN JOSE, Calif. and SINGAPORE, Dec. 15, 2016 (GLOBE NEWSWIRE) -- Broadcom Limited (NASDAQ:AVGO), a leading designer, developer and global supplier of a broad range of digital and analog semiconductor connectivity solutions, today announced shipments of its latest series of heterogeneous knowledge-based processors (KBPs), the BCM15000 (BCM15K), designed for modern network infrastructure including core, edge and data center routers and switches. The BCM15K is a new series of 16nm KBPs which integrates TCAM, SRAM and algorithmic search technology to enable unprecedented levels of forwarding, classification and security for service provider routers and switches. Compared with previous generation KBP products, the BCM15K delivers internet search speeds up to 7.2 billion searches per second (BSPS) and aggregate data transfer rates up to 1 terabit per second (Tbps), which are 8x and 3x improvements, respectively.

As global internet traffic will soon surpass a zettabyte on an annual basis and bandwidth-intensive applications such as cloud computing and video streaming continue to expand, next-generation networks would need more advanced routers and switches that are capable of handling terabit bandwidth and performing multi-billion packet search operations per second. Efficiently supporting these applications at these speeds means next-generation routers and switches would need a specialized, high performing KBP that has advanced Layer 2 to Layer 4 packet header processing capabilities enabling service providers to deliver services with QoS and security guarantees.

BCM15K Product Highlights

- Up to 3x improvement in core processing for IPv6 traffic
- Up to 8 concurrent look-ups per packet
- Up to 1 Tbps of I/O bandwidth based on Broadcom's 25G SerDes technology
- Support for customer ASICs and merchant NPUs using multiple interface protocols
- 4x improvement in routing databases and 8x improvement in ACLs
- Deterministic performance and low latency independent of database or signature complexity
- 3x improvement in packet search performance per watt
- Up to 8x improvement in database capacity

"The demand for large forwarding and ACL scale driven by the continued transition of IPv4 to IPv6 in service-provider networks is fueling the need for more advanced KBPs," said Bob Wheeler, principal analyst with The Linley Group. "Furthermore, the need for deterministic packet processing throughput is driving adoption of KBPs in service-provider and hyperscale data centers."

"As service providers upgrade their networks to terabit speeds to meet the growing demand for more bandwidth, KBP with multi-BSPS capability and terabit throughput will become more critical in router and switch systems complementing networking ASICs and merchant NPUs," said Ed Redmond, senior vice president and general manager of the Compute and Connectivity Division at Broadcom. "Our latest 16nm KBP delivers the highest throughput and performance, and is fully optimized for next generation service provider networks as well as emerging applications like hyperscale data centers and network security appliances."

<u>**Availability**</u>

Broadcom has begun shipping volume quantities of the BCM15K and is currently accepting orders for the new 16nm KBPs. Please contact your local Broadcom sales representative for samples and pricing.

Further information on the BCM15K is available online at
http://www.broadcom.com/products/embedded-and-networking-processors/knowledge-based/bcm15k

About Broadcom Limited
Broadcom Limited is a leading designer, developer and global supplier of a broad range of digital and analog semiconductor connectivity solutions. Broadcom Limited's extensive product portfolio serves four primary end markets: wired infrastructure, wireless communications, enterprise storage and industrial & other. Applications for our products in these end markets include: data center networking, home connectivity, set-top box, broadband access, telecommunications equipment, smartphones and base stations, data center servers and storage, factory automation, power generation and alternative energy systems, and electronic displays. For more information, go to www.broadcom.com.

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