World's Most Advanced, Feature-Rich Switch/Router Silicon Now Ramping in High Volume; Programmable, Scalable Architecture Spans Comprehensive Device Portfoliofrom 320Gbps to 10Tbps

SAN JOSE, Calif., Feb. 27, 2019 (GLOBE NEWSWIRE) -- Broadcom Inc. (NASDAQ:**AVGO**) today announced that it is shipping the production silicon revision of its flagship StrataDNX™ Jericho2 programmable switch-router system-on-a-chip (SoC) in high volume to customers. Broadcom also announced the expansion of the Jericho2 Series to include the 5 Tbps Jericho2c, the 2.4Tbps Qumran2c and the 800Gbps Qumran2a devices, delivering the industry's only comprehensive merchant silicon portfolio of carrier-grade routing chipsets and enabling production network deployments in 2019.

At 10 Tbps, the Jericho2 flagship device is the highest performance and most integrated merchant router silicon in the world today. In concert with Broadcom's production-released Tomahawk® 3 12.8Tbps switch providing the highest performance leaf-spine fabric interconnect for data center compute and storage, Jericho2 is enabling the service- and scale-intensive layers of cloud networks – including core switches, buffered spines and super-spines, border routers, regional gateways and backbones, content delivery networks (CDNs) and data center interconnect (DCI) – to migrate to high-density and long-reach 100/200/400GE based entirely on 50G PAM-4 serial interfaces. In doing so, customers deploying Jericho2 have the ability to dramatically transform the economics, feature integration and innovation velocity of the most expensive, demanding and rigid portions of their global network footprint.

"The Jericho2 family of products is pacing the deployment of next-generation carrier grade routers across a wide range of network use cases," said Ram Velaga, Senior Vice President and General Manager, Switch Products Division at Broadcom. "It is an important milestone for us to be shipping Jericho2 in ramping volume to leading carriers, OEMs, ODMs and software partners, and together we are delivering the industry's best-in-class solution for the next wave of cloud router and service provider infrastructure."

The expanded Jericho2 Series – including the new Jericho2c, Qumran2c and Qumran2a products – delivers a complete, end-to-end router-class solution for fixed and mobile service provider network infrastructure, including core, edge, access, transport, backhaul and midhaul. All the devices leverage a unified, fully scalable and software-programmable packet processing feature set based on the breakthrough Elastic Pipe™ architecture, enabling fast in-field upgrades of switch/router data plane functionality. Furthermore, the Jericho2 Series is the only high-performance merchant silicon family in the industry capable of concurrent multi-million, multiprotocol forwarding databases and extensible deep buffering with carrier-grade traffic management and subscriber-level virtual output queueing (VoQ). Buffering options range from all-on-die integrated VoQ buffer, to single-HBM deep buffer, to dual-HBM deep

buffer – with up to 8 Gigabytes of packet storage integrated on the same silicon chip substrate.

The new Jericho2c, Qumran2c and Qumran2a products add 5G network slicing support, high speed channelized interfaces up to 400GE, direct OTN framer support and Flexible Ethernet (FlexE) ports. With its comprehensive breadth of capabilities and performance scaling from 320 Gbps up to 10Tbps in a single device, the expanded Jericho2 Series addresses the full breadth of access, edge and core network use cases in next-generation carrier networks. Moreover, Broadcom's unified Software Development Kit (SDK) provides consistent APIs and resource management across the entire Series, significantly reducing customers' R&D investment and time-to-market.

"As part of AT&T's network evolution, we're replacing closed, vertically-integrated routers and switches with open, disaggregated white box hardware based on merchant silicon and open source Network Operating System software. Our white box cell site router deployment and DANOS projects are examples of AT&T's commitment to that objective," said Mike Satterlee, Vice President of Engineering at AT&T Labs. "The Broadcom DNX family of chips addresses service provider needs related to density, route scale and deep buffering for merchant silicon. We're excited to see this technology has matured and is now production-ready."

Expanded Jericho2 Series Technical Attributes

• Elastic Pipe™ programmable pipeline for future-proofed packet processing
• High bandwidth, low power and in-package HBM packet memory offering up to 160X more traffic buffering compared with on-chip memory, eliminating packet drops
• High-speed, high density port interfaces up to 400GE leveraging best in class 50Gbps PAM-4 SerDes
• Carrier grade Hierarchical Traffic Manager with end-to-end Virtual Output Queuing and High Subscriber Scale
• Large scale, hardware accelerated instrumentation and telemetry

• Jericho2

  ● 10Tbps switching and routing capacity per device
  ● All-on-chip VoQ buffer, Single HBM, and Dual HBM deep buffered options up to 8GB of packet storage
  ● Cell sliced fabric interface with perfect load balancing and credit based flow control for optimal chassis and scale-out architecture

• Jericho2c

  ● Up to 5Tbps switching and routing capacity per device
  ● Mix of 400GE and legacy 100GE ports, plus Interlaken interfaces for direct OTN framer attach
  ● Increased Service Scale for H-QOS Traffic Management

- 5G network slicing support, including both soft and hard slicing
- Cell sliced fabric interface with perfect load balancing and credit based flow control for optimal chassis and scale-out architecture

• Qumran2c

- Up to 2.4 Tbps switching and routing capacity per device
- Mix of 400GE and legacy 100GE ports, plus Interlaken interfaces for direct OTN framer attach
- Increased Service Scale for H-QOS Traffic Management
- 5G network slicing support, including both soft and hard slicing

• Qumran2a

- Up to 800 Gbps switching and routing capacity per device
- Mix of 400GE and legacy 100GE ports, plus Flexible Ethernet (FlexE) and Interlaken interfaces
- Integrated functionality compliant with Sliced packet network (SPN) and ITU-T G.mtn specifications
- 5G midhaul and backhaul support, including hard and soft network slicing

Availability

The Jericho2 Series of 10Tbps switch/router devices (BCM8869x) is currently shipping in volume. For more information on Qumran2a, Qumran2c, Jericho2 or Jericho2c, please contact your Broadcom sales representative or visit **www.broadcom.com**.

About Broadcom

Broadcom, Inc. (NASDAQ: AVGO) is a leading designer, developer and global supplier of a broad range of digital and analog semiconductor connectivity solutions. Broadcom'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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