

New Products Extend Industry's Most Comprehensive Switch Portfolio and Deliver Industry Leading Bandwidth at High Feature Scale

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News Highlights:

Delivers more than 100 Terabits per second (Tbps) of switching capacity

External packet memory provides up to 300 times more traffic buffering

Complementary to StrataXGS® Trident and Tomahawk™ families

Accelerates the transition from ASIC to merchant silicon across routing and switching markets

Broadcom Corporation (NASDAQ: BRCM), a global innovation leader in semiconductor solutions for wired and wireless communications, today announced its next generation addition to the StrataDNX™ ("Dune") family of switch system-on-chip (SoC) devices. These new SoCs have been adopted by top tier equipment makers worldwide and provide a complete solution for the service provider network ranging from dense compact switching and routing platforms to large-scale multi-chassis routers. Broadcom's new switch SoCs are ideal for optical transport, carrier Ethernet, edge and core routers, data center cloud and enterprise campus market segments. For more news, visit Broadcom's Newsroom.

The Broadcom® StrataDNX products are the world's first to provide 800 Gbps packet processing per device at a high interface bandwidth while integrating a scalable multi-terabit switch fabric, hierarchical traffic manager, external packet buffer memory and advanced packet processing. This unique combination enables equipment makers to deliver network equipment with a higher port density, lower power consumption and greater subscriber scale in a smaller physical system size.

The StrataDNX family of expandable products is complementary to Broadcom's highly integrated StrataXGS® Trident and Tomahawk™ SoCs. Together they provide the industry's most comprehensive end-to-end portfolio of switching solutions across the carrier, data center and enterprise markets.

"With the addition of our latest StrataDNX products to our switch portfolio, Broadcom is delivering the most comprehensive switching platform in the industry," said Ram Velaga, Broadcom Senior Vice President and General Manager, Network Switch. "These devices will change the way customers build and deploy networking equipment by providing a unique combination of advanced core features at a level of high bandwidth integration never before possible."

The StrataDNX family supports pre-standard implementation for 25 and 50 Gigabit Ethernet, enabling direct connectivity to the Broadcom BCM56960 Tomahawk switch SoC, the industry's first high-density 25/100 Gigabit Ethernet switch for cloud-scale networks. In addition, the devices support port speeds of up to 400 Gbps, enabling the world's largest interconnect pipes and roadmap to 400 Gigabit Ethernet. Integrated accelerators for carrier service management provide visibility and control for carrier networks and distributed data centers traversing a wide area network (WAN).

The 28 nanometer (nm) StrataDNX switch family offers the following device options:

BCM88370 - A single-chip switch delivering 800 Gbps Ethernet for compact carrier Ethernet and data center top-of-rack switches

BCM88670 - A 720 Gbps packet processor and traffic manager with DNX fabric interfaces for carrier Ethernet switch router, data center chassis, and enterprise campus applications

BCM88770 - A high density switch fabric device providing 3.6Tbps throughput per device enabling over 100Tbps switching capacity in a single stage system when combined with BCM88670. Broadcom's StrataDNX line delivers a complete set of advanced features for the most demanding carrier, campus and cloud environments. The devices support external DRAM-based packet memory offering up to 300x more traffic buffering compared with on-chip memory, enabling zero-packet-loss in heavily congested networks. In-field reconfigurable flexible packet processing engines allow for customer-specific forwarding paradigms or future support of new and emerging protocols.

On-chip hierarchical traffic management ensures per-subscriber bandwidth guarantees, required by carrier networks to deliver on service level agreements (SLAs). For optical transport applications, the architecture enables converged carrier Ethernet and optical transport network (OTN) traffic over a unified fabric, enabling significant savings in carrier CapEx and OpEx.

The BCM88370, BCM88670 and the BCM88770 combine the market-leading feature-set of StrataDNX with high bandwidth capacity, enabling a new generation of innovative network switch systems. These include converged Ethernet/optical transport platforms, deep buffered elements for the data center cloud, and advanced network functions virtualization (NFV) infrastructure solutions combining the attributes of carrier and data center network equipment.

StrataDNX Family Key Features

BCM88370 and BCM88670

- Up to 800 Gbps forwarding capacity per device
- Advanced, flexible and configurable packet processor
- Integrated accelerators for carrier service management
- Carrier feature support including Ethernet OAM, MPLS, VPLS
- Integrated hierarchical traffic manager with support for thousands of flows
- External packet buffer memory supporting DDR4 or GDDR5 DRAM
- Data center virtual network tunneling including VXLAN, NVGRE and Geneve
- Support for 10 GE, 25 GE, 40 GE, 50 GE, 100 GE Ethernet port interfaces
- Support for 200G-400G Interlaken™ port interfaces
- IEEE 1588 network timing engine

BCM88770

- Chassis switch fabric supporting 3.6 Tbps per device
- Single-stage interconnect for up to 144 BCM88670 devices
- Dual-plane Ethernet/optical switch fabric
- Backwards compatible to legacy DNX switch fabric chipsets
- Availability

Broadcom's StrataDNX BCM88370, BCM88670 and BCM88770 devices are currently sampling.