



## Broadcom Introduces First Fully Compliant TSN Ethernet Switch

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### Industry leading BCM53570 family delivers deterministic technology; Enables opening of new markets for Ethernet

SAN JOSE, Calif. and SINGAPORE, April 19, 2017 (GLOBE NEWSWIRE) -- Broadcom Limited (NASDAQ:AVGO), today introduced the [BCM53570 Ethernet switch family](#) that is the industry's first to offer full compliance with all available IEEE Time Sensitive Networks (TSN)\* standards. As the leader in field-proven switch technology, Broadcom StrataConnect BCM53570 family of switches with full TSN compliance brings determinism to Ethernet, expanding Ethernet's use in established markets as well as enabling Ethernet's growing presence in new untapped markets.

The Broadcom® BCM53570 family of products is built around Broadcom's award-winning StrataXGS® architecture supported by a common industry leading Software Development Kit (SDK). Together they provide the industry's most comprehensive end-to-end portfolio of switching solutions across the carrier, data center, and enterprise markets.

"The new BCM53570 family marks an exciting milestone in Ethernet technology," said Ram Velaga, senior vice president and general manager, Switch Products Group at Broadcom. "This family of switch solutions expands the total available market for Ethernet and delivers a strong business opportunity for numerous existing and emerging market applications."

The [Broadcom BCM53570](#) switch family is ideal for a number of applications:

- **Industrial Automation:** Support for *path control reservation*<sup>®</sup>, *time aware shaper*<sup>®</sup> together with *preemption*<sup>®</sup> enables deterministic real-time networks based on standard Ethernet. Industrial networks based on TSN Ethernet gains the benefits of interoperability, backward & forward compatibility with ever increasing Ethernet speeds while leveraging the economics and widespread open ecosystem of standard Ethernet.
- **Telecom / Wireless Infrastructure:** BCM53570 family supports industry leading *time synchronization*<sup>®</sup> accuracy that powers next generation (5G & beyond) Ethernet-based radio access networks with coordinated features and massive MIMO (Multiple Input, Multiple Output). Additionally, support for *enhanced queuing*<sup>®</sup> with *preemption*<sup>®</sup> ensures low latency, low jitter delivery of high priority radio traffic while exceeding *front-haul network profile*<sup>®</sup> requirements.
- **Automotive:** TSN Ethernet empowers future automotive applications that require real-time determinism including fully autonomous cars, automotive peer-to-peer communication and road-sensing infrastructure. Network integrity with zero packet loss is facilitated with support for *time based ingress policer*<sup>®</sup> and *frame replication*<sup>®</sup>.
- **Professional Audio/Visual:** *Frame replication*<sup>®</sup> provides redundancy required by high end SMPTE (Society of Motion Picture & Television Engineers) Audio/Visual (A/V) natively in Layer 2 hardware without the need for higher layer protocols. Together with fine grain *time synchronization*<sup>®</sup> delivers unprecedented lossless video and real-time editing of the highest 4K/8K resolution streams.

"The implementation of fully TSN-compliant Ethernet switches is a significant achievement that enables a wide variety of markets to deploy deterministic real-time networks," said Bob Wheeler, principal analyst for networking at The Linley Group. "Beyond the four core focus areas including industrial automation, telecom / base-station, professional grade A/V, and automotive, we anticipate that there will be numerous new applications that will emerge for deterministic Ethernet."

The new Broadcom BCM53570 family of TSN-compliant switches is among the industry's most highly integrated and feature-rich devices. The 53570 family of devices offers a broad range of flexible bandwidth & port speeds to include 1G, 2.5G, 10G, 25G & 50G.

Features include:

- Integrated ARM processors
- Cut-through line-rate switching
- Carrier grade OAM (Y.1731, 802.1ag)
- Integrated HSR/PRP (High-availability Seamless Redundancy (IEC 52439-3 C4) / Parallel Redundancy Protocol (IEC 62439-3 C5))
- Wired / wireless tunnel overlay support

Broadcom's TSN-compliant Ethernet switches are the latest among the industry's largest portfolio of Ethernet switch solutions.

Broadcom's BCM53570 family of devices is currently sampling. For more information about Broadcom network switch solutions, visit [www.broadcom.com](http://www.broadcom.com).

* TSN Features Supported	IEEE Specification
1 <i>Path control and reservation</i>	802.1Qca
2 <i>Time aware shaper</i>	802.1Qbv
3 <i>Frame preemption</i>	802.1Qbu/ 802.3br
4 <i>Cyclic queuing &amp; forwarding (peristaltic shaper)</i>	802.1Qch
5 <i>Timing and synchronization, PTP</i>	802.1AS-Rev, 1588 v2
6 <i>Stream reservation protocol enhancement</i>	802.1Qcc

<b>7 Time based ingress policer</b>	802.1Qci
<b>8 Frame replication &amp; elimination for reliability</b>	802.1CB
<b>9 Front-haul network profile</b>	802.1CM

#### **About Broadcom Limited**

Broadcom Limited (NASDAQ:AVGO) is a leading designer, developer and global supplier of a broad range of analog and digital 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, broadband access, telecommunications equipment, smartphones and base stations, data center servers and storage, factory automation, power generation and alternative energy systems, and displays. For more information, go to [www.broadcom.com](http://www.broadcom.com).

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