BROADCOM

Product Brief

BCM56470

1.7 Tb/s Programmable Multilayer Switch

Key Features

- Flexible I/O that supports Multigigabit interface on all ports.
  - Support all speeds from 10/100 to 100GE.
  - Half duplex support.
- Centralized forwarding and traffic management.
  - On-chip fully shared buffer with Hierarchical QoS and channelized flow control.
  - Large ACL scale to apply policies centrally.
  - Large on-chip forwarding databases for L2 switching, L3 routing, and overlay forwarding.
- Centralized hardware-based flow analytics engine with Network Performance Monitoring. Tracks application response times.
- Flexible TCAM allocation between ACLs and LPM.
- FleXGS™ programmable pipeline allows introduction of new features via an in-field upgrade.
- PCIe host CPU interface improves control plane updates and boost performance by 5x.
- Feature compatibility with other Trident3 Enterprise products.

Overview

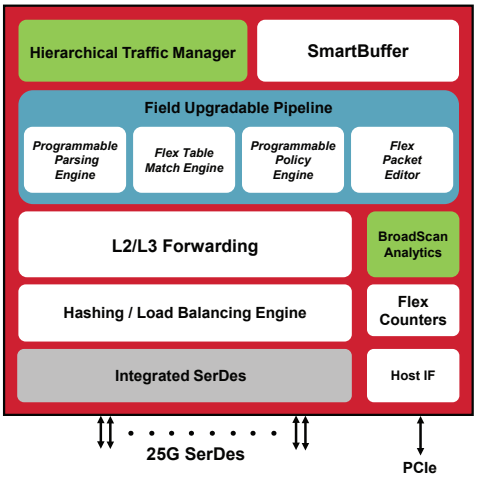
The BCM56470 is the first purpose-built switch for Ethernet chassis based on a centralized architecture. A centralized chassis is where all forwarding and policies are applied on a central control card, while the port line card are simple connection cards. An upgrade of the central control card upgrades the capability of all the chassis ports, as every packet passes through the central control card.

The BCM56470 offers full flexibility to build systems with different slot and port combinations. The BCM56470 has the optimal I/O, large forwarding data bases, scalable policy engines, integrated hierarchical traffic manager with on-chip buffers, and integrated advanced analytics that makes it ideal for centralized chassis solutions.

Enterprise networks are going through a digital network transformation. In addition to speed upgrades driven by new WiFi standards, such as IEEE-802.11ac and IEEE-802.11ax, that continuously drive bandwidth and enhance user experience, there is a push in the industry towards automation for provisioning and troubleshooting to reduce OPEX. Role-based address and policy assignment using VxLAN GBP, actionable network performance metrics, threat detection,and so on, are some of the different facets that aid in this digital network transformation. BCM56470, with its comprehensive feature set, is fully aligned to drive this transformation.

The BCM56470 is part of the end-end common Trident3 architecture that scales from wiring closet units to the campus-core, which brings feature and software programming consistency that translates to reduced development costs and quick time to market.

Figure 1: BCM56470 Centralized Supervisor Switch

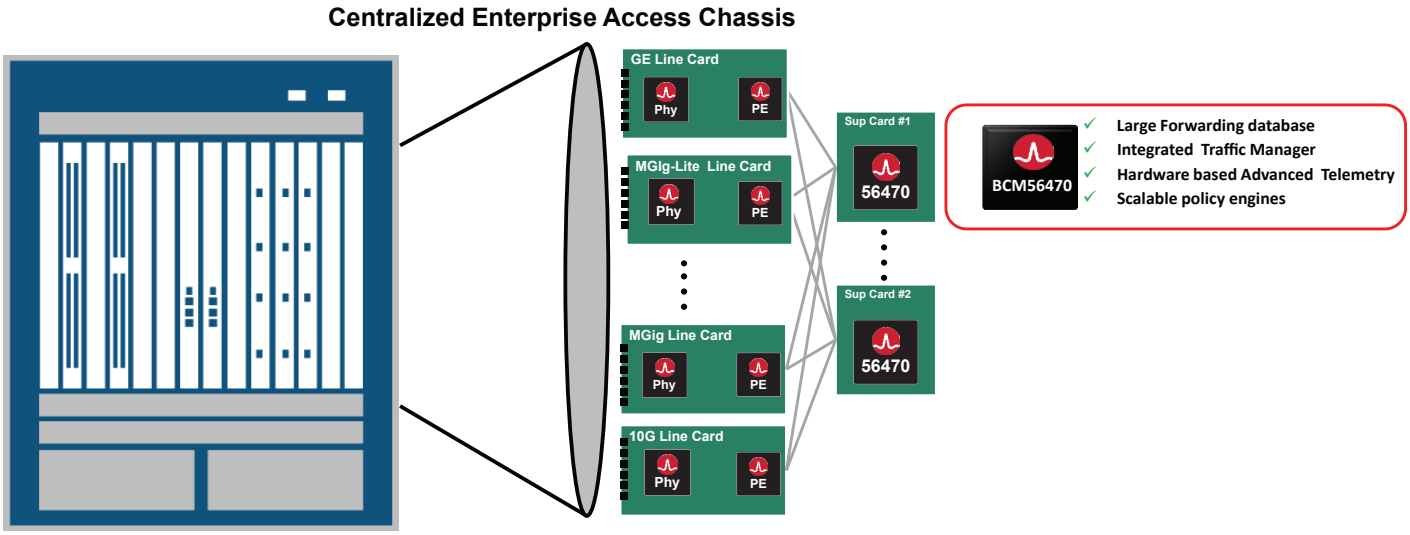


Centralized Enterprise Chassis Switch

Benefits

- Optimized for Centralized Enterprise Access Chassis.
- Ports that are capable of supporting speeds from 1GE to 100GE (all ports are Multigigabit capable).
- Large hardware-based BroadScan 3.0 flow-analytics engine that supports fine-grained monitoring and policy enforcement, node and network level latency, jitter measurements, the ability to track buffers on a per-flow basis, and track aggregate flows.
- The Trident3 architecture feature set ensures uniform behavior and consistency across the entire enterprise network. It also protects the customer's captial investment with an in-field programmable pipeline.

Figure 2: BCM56470 – Typical Chassis Deployment



Ordering Information		
Device ID	**Description**	**BroadScan**
BCM56470	Centralized Supervisor Switch	Yes
BCM56471	25G Enterprise Aggregation Switch	Yes

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