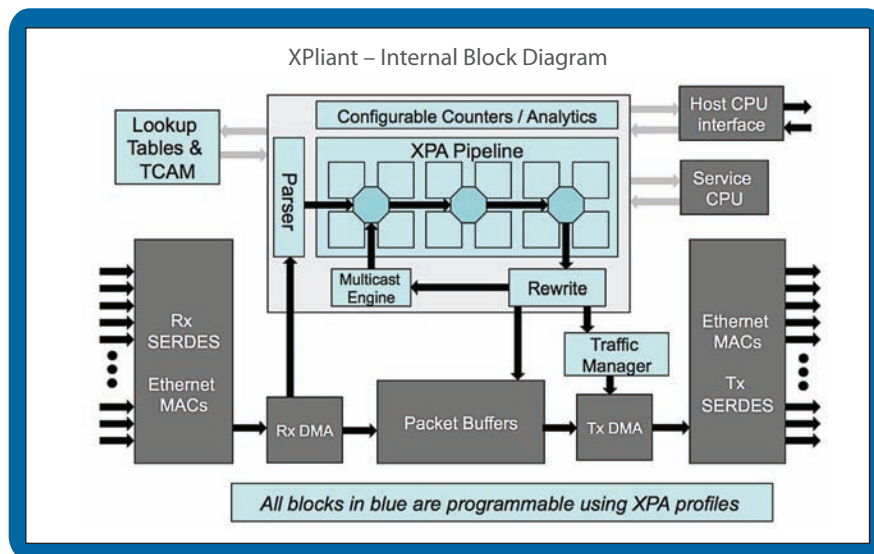




OVERVIEW

The Cavium / XPliant® CNX880xx family of Ethernet switches provide unprecedented flexibility in protocol processing without compromising speed. XPliant Packet Architecture (XPA) allows programming of every element of switch packet processing. Cavium / XPliant provides a complete set of networking protocols with the switch. However, as new protocols are required, the switch can be updated by software to add support for these new protocols, including changes to parsing, lookups, traffic scheduling, packet modification, scheduling, and traffic monitoring. The CNX880xx with XPA is the first switch that can do this – and it provides industry leading processing at up to 3.2 Terabits per second.

With the rapid growth in mobile devices, video, and private and public clouds, the pace of networking innovation is increasing. Software Defined Networks (SDN) and other technologies are rapidly evolving to meet this challenge, but require the introduction of new protocols. Traditional merchant switch silicon with FIXED architectures need to be re-engineered to support new protocols, resulting in switches that lag 3 to 4 years behind the requirements. XPA allows XPliant switch silicon to gain new features by software updates, without even removing the cables from the installed switch. In the past switches had to be replaced to add VXLAN support – an expensive, slow and difficult change. The latest feature required is the GENEVE overlay. The XPliant team has already added GENEVE to the CNX880xx. As new features are needed, an XPA powered switch will not have to be replaced – it can simply be updated.



FEATURES

- 3.2 Terabits per second capacity
- 128 field proven 25G SERDES
- XPliant Packet Architecture (XPA) – Fully flexible software defined packet processing
- Support of 25G Ethernet Consortium specification – 25G on a single lane
- Best in class table capacity
- Configurable, flexible multipurpose counters
- Virtual interfaces based architecture
- Integrated, configurable traffic management
- Host CPU interface

BENEFITS

- Market leading throughput and scale enables cost & power effective switch solution for the most demanding Data Center needs.
- Powerful building block for even larger Ethernet switching systems
- XPA allows new features to be added – enabling longer switch life-cycles and avoiding fork-lift upgrades
- System vendors can provide unique data-plane features to their markets
- XPA switch can interoperate with proprietary or legacy system headers
- One switch model can adapt to multiple use-cases via software profile updates
- Cost effectively update endpoints from 10G to 25G or 50G
- Cost-effective support of 40G and 100G

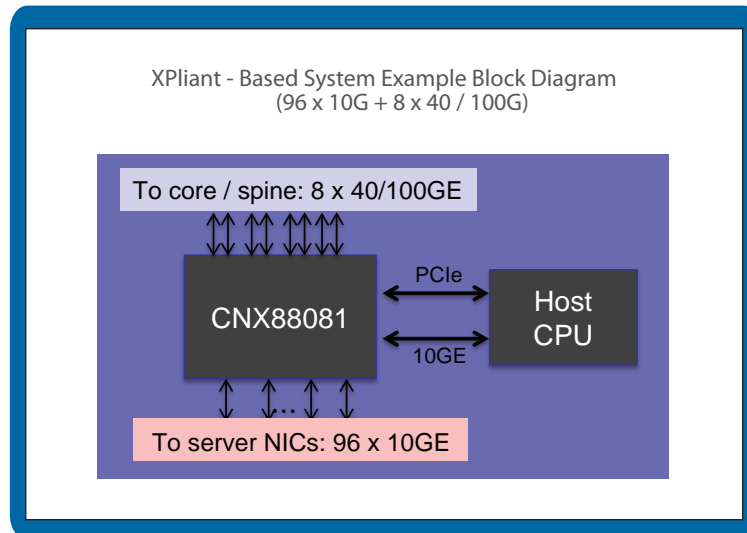


Applications

- Switch System Configurations
 - Fixed chassis Top-of-Rack (LEAF)
 - Fixed or modular chassis core (SPINE)
 - Modular End-of-Row switch
 - Fixed or modular aggregation switch
- Data Center Applications
 - Flow filtering & classification
 - Traffic tapping & monitoring
- Embedded connectivity
 - Modular switch or router interconnect
 - Mobile core EBC

Software Support

- API source code for standard layer2 and layer3 networking functions
- Control path simulation model (White Model) binary for application software testing and integration
- Development toolchain for programmability
 - Forwarding logic compiler binary
 - Networking personalities source code



CNX880xx product family:

Part Number	IO Throughput	10GE Ports	25GE ports	40/50GE ports*	40GE ports**	100GE ports
CNX88091	3.20 T	128	128	64	32	32
CNX88081	1.76 T	128	32	16	32	8
CNX88071	1.28 T	128	n/a	n/a	32	n/a
CNX88061	880 G	64	16	8	16	4

* : 40/50GE port over 2x20/25G SERDES lanes
** : 40GE port over 4x10G SERDES lanes