

L7 Content Processors

NITROX® DPI II CN18XX L7 Content Processor Family

Product Brief



OVERVIEW

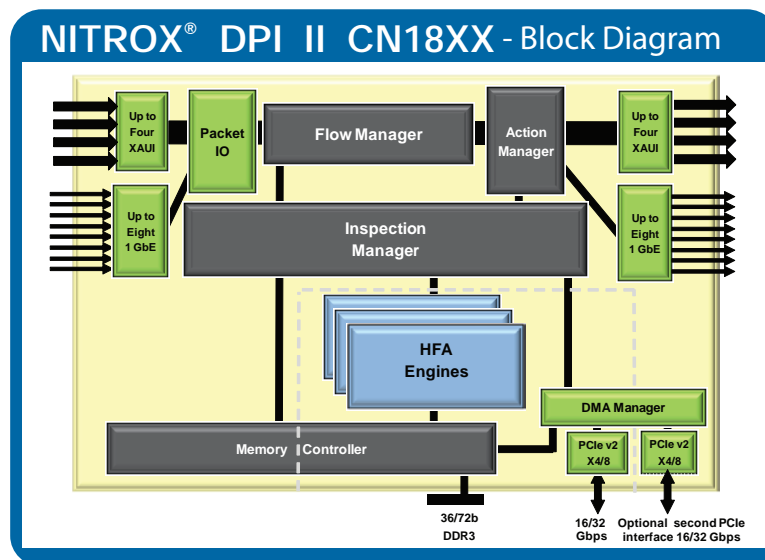
The NITROX® DPI II CN18XX processor family is the most advanced hardware acceleration available for inline, NIC and co-processor Layer 7 content processing. It supports completely processor-less mode or can be coupled to OCTEON®, x86, MIPS, PowerPC or other general purpose processors, enabling intelligent, deep packet inspection in next-generation networking and wireless applications from 2 to 40 Gbps performance. The CN18XX processor family integrates Inline interfaces (Up to four XAUI and up to 8 SGMII), up to two PCI Express Gen 2 x4 or x8 I/Os along with the most advanced deep packet inspection engines, Hyper Finite Automata Thread Engine (HTE), to deliver the highest performance, low latency processing of very complex regular expression rules. NITROX DPI II processors are targeted for a wide range of applications including application recognition, protocol analysis, flow statistics, application level firewalls, intrusion prevention (IPS), gateway anti-virus, unified threat management and content-based QoS in routers, switches, appliances and services blades.

FEATURES

- Performance up to 40 Gbps
- Inline, NIC and Coprocessor modes
- On-chip rule cache for lower latency
- Very small flow state for cross packet matching
- Interface Options:
 - Single or Dual PCIe Gen 2 x4/x8 lane
 - Single, Dual, Quad or Octal GbE
 - Single, Dual or Quad XAUI
- POSIX and Advanced Perl Compatible Regular Expression (PCRE) syntax support - including capture groups, back references and assertions
- No On-Chip programming required – simple configuration and off-chip rule compilation
- 100% Compatible with OCTEON II HFA Engines

BENEFITS

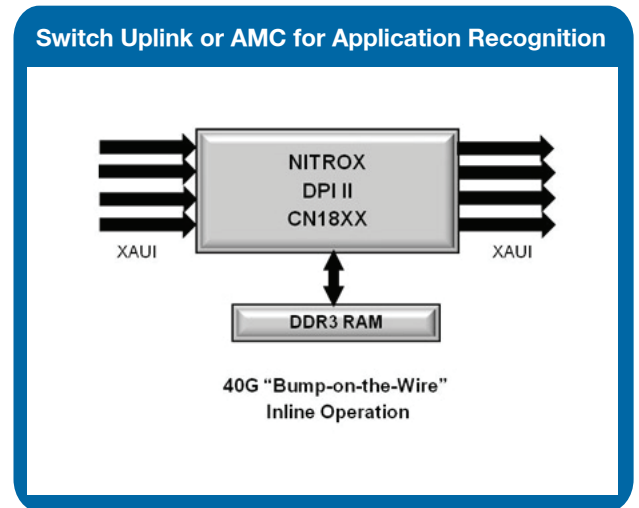
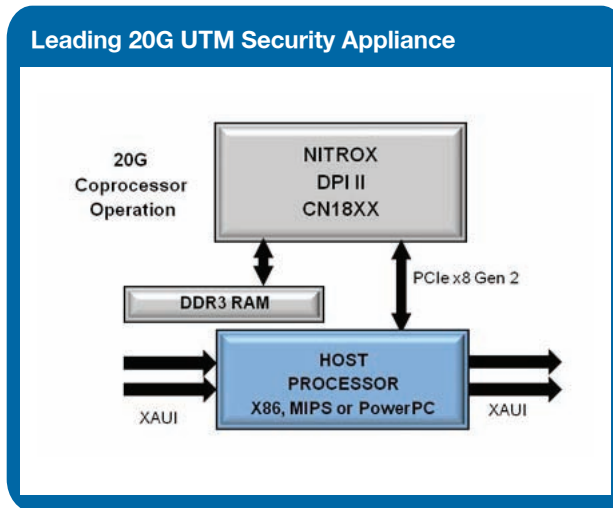
- High performance for inline or look-aside RegEx processing
- Lower memory costs reduces overall BOM costs
- Very small memory footprint required
- Flexible set of latest I/O interfaces
- Supports a broad range of DPI applications
- Comprehensive development kit
- Tested on several tier 1 customer RegEx patterns with excellent performance and rule-set footprint
- Supports TurboDPI and wide range of third-party applications



L7 Content Processors

NITROX® DPI II CN18XX L7 Content Processor Family

Product Brief



TARGET APPLICATIONS

Enterprise Routers and Switches

- Application Recognition, Protocol Analysis and Flow Statistics
- SME to high end router control, services and Data-plane
- Content security & content QoS

Data Center Networking Appliances

- Content security & content QoS
- Anti-Spam Servers, L7 load balancing

Integrated Security Appliances

- Next generation SME to high end UTM, AV, IPS Web Filtering, URL Blocking, Anti-Malware, Data Leakage Protection

WLAN and WAN Optimization

- Application Recognition

Service Provider 3G/4G/LTE Infrastructure

- Application Recognition, Protocol Analysis
- URL Filtering, Lawful Intercept
- Content security & content QoS

SOFTWARE SUPPORT

NITROX DPI CN18XX SDK

- Extensive driver support
 - Linux & FreeBSD (32 & 64 bit) on x86
 - Linux on OCTEON Plus & OCTEON II
 - Simple Executive on OCTEON Plus & OCTEON II
 - Other host processors, including MIPS & PowerPC
- RegEx Compiler
 - Linux on x86, OCTEON Plus & OCTEON II
 - POSIX and Advanced Perl Compatible Regular Expression (PCRE) signatures
- Functional simulator and profiling tools
- Optimized C libraries/API for offload

Comprehensive support for RegEx applications

- Commercially available AV, URL, IPS, Anti-Spam, Data Leakage and Application Recognition signatures
- Open source IPS, SNORT, ClamAV

NITROX® DPI CN18XX- Product Family

Device	Part Number	Interfaces	Pattern Memory
CN1805	CN1805-XXXBGYYY Option Code	PCI Express x4 Gen 2	DDR3
CN1810	CN1810-XXXBGYYY Option Code	PCI Express x4 Gen 2	DDR3
CN1820	CN1820-XXXBGYYY Option Code	PCI Express x4/x8 Gen 2	DDR3
CN1840	CN1840-XXXBGYYY Option Code	PCI Express x4/x8 Gen 2	DDR3

Device Options:
XXX = Device Speed Grade (800=800MHz)

© 2011 Cavium Networks. All Rights reserved. SSL Technology and PureVu are trademarks of Cavium Networks. All other brands and product names are trademarks of their respective owners.