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Marvell Unveils Groundbreaking SRAM-Based Network Search Engine with Industry's Highest Capacity, Fastest Performance and Lowest Power Consumption

New Marvell Questflo product line delivers 4X capacity and fastest speed at 1/3 the power consumption to support next-generation flow-based services for the Mobile Internet and Internet of Things

SANTA CLARA, Calif., Oct. 20, 2014 /PRNewswire/ -- [Marvell](#) (NASDAQ: MRVL) today introduced Questflo™ (98TX1100), a groundbreaking Static Random Access Memory (SRAM)-based network search engine, that delivers the industry's highest capacity and fastest performance while using a fraction of the power of existing solutions today. Marvell's new Questflo product line delivers 4X capacity at 1/3 the power consumption to address the needs of next generation networking equipment to collectively support the explosive growth of mobile devices, Internet of Things (IoT) and automotive connectivity where today's traditional Ternary Content Addressable Memory (TCAM)-based solutions are unable to address these future scaling requirements of both bandwidth and service density from a system cost, power, form-factor and reliability perspective. Marvell's new Questflo product line marks a technology breakthrough that will help carriers and service providers introduce, manage and rapidly scale new revenue-generating services while offering enhanced security and network quality. Applications for the 98TX1100 include carrier and enterprise service/edge routers, security appliances, network probes, data center switches, servers, load-balancers and new classes of Software Defined Network (SDN) and Network Functions Virtualization (NFV) platforms.



"Network search engine is a key pillar in supporting today's vast infrastructure of cloud computing and cloud-based services. I am very pleased that our groundbreaking Questflo technology will quadruple the network search capacity at the fastest speed and at a fraction of the power consumption for security appliances, software defined networks and other key network applications. It enables service providers and network operators around the world to significantly scale up their ability for the fast growing mobile internet and Internet of Things markets," said Weili Dai, President and Co-Founder of Marvell. "I am very proud of our dedicated and innovative global engineering teams for continuously raising the technology bar and making unparalleled contributions to the industry. It is our mission and passion at Marvell to make the world a better place through technology invention and innovation."

"As next-generation networking equipment adopts new paradigms based on highly flexible and highly scalable flow-based services, Marvell is entering the market as a credible supplier of network search technology. The magnitude of scaling required by these new equipment designs can only be realized using innovative new approaches like that represented by Questflo," said Bob Wheeler, Principal Analyst for Networking at The Linley Group.

As SDN has become a reality, the Questflo 98TX1100 family of network search co-processors is able to flexibly manage, deliver and secure up to 8 million service and virtualized flows with deterministic throughput and latency regardless of bandwidth, packet size and search lengths. The 98TX1100 is typically used with a network packet processor featuring standard high-speed Interlaken (ILK-LA) interfaces, such as Marvell's Xelerated® family of programmable network processors, Prestera® family of Ethernet packet processors or any customized ASIC or FPGA-based solution to scale the level of service processing beyond what can be supported and implemented in a single device.

Key features of Marvell [Questflo 98TX1100 family](#) include:

- Up to 8 million flow entries
- Flexible table configurations and multi-width searches

- Advanced automatic table and resource management
- 2.4 billion searches per second
- Deterministic throughput of 1 clock cycle per search from 80b up to 640b keys
- Deterministic fixed low latency for searches from 80b up to 640b keys
- Multi-port configuration for device and resource sharing
- Carrier Grade reliability with ECC memory protection
- Typical power consumption of 25W

The Questflo 98TX1100 family is currently sampling along with the evaluation platform and SDK. A complete platform development kit consisting of Marvell's Xelerated 400Gbps wire-speed network processor (NPU) and ARMADA® XP, 1.6GHz, quad-core, ARM-based embedded control processor is also available to enable customers the fastest time-to-market in developing high capacity, highly scalable and flexible packet processing solutions.

Marvell will be showcasing Questflo and the complete packet processing solutions at the upcoming Linley Tech Processor Conference this week, October 22nd-23rd, at the Hyatt Regency, in Santa Clara, Calif.

About Marvell

Marvell (NASDAQ: MRVL) is a global leader in providing complete silicon solutions and Kinoma® software enabling the "Smart Life and Smart Lifestyle." From mobile communications to storage, Internet of Things (IoT), cloud infrastructure, digital entertainment and in-home content delivery, Marvell's diverse product portfolio aligns complete platform designs with industry-leading performance, security, reliability and efficiency. At the core of the world's most powerful consumer, network and enterprise systems, Marvell empowers partners and their customers to always stand at the forefront of innovation, performance and mass appeal. By providing people around the world with mobility and ease of access to services adding value to their social, private and work lives, Marvell is committed to enhancing the human experience.

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