

RANDOM ACCESS XML (RAX) CONTENT PROCESSOR

The Tarari RAX Content Processor (RAX-CP) incorporates the industry's first in silicon implementation of Random Access XML. Random Access XML (RAX) fundamentally changes how XML is utilized, as it allows complex XML document analysis to be completed in near-zero CPU time - it flies through complex XML tasks at **up to 200 times** that achieved by software-only solutions.

RAX-CP enables network switch, server, blade, and appliance vendors to create a variety of new applications such as: gigabit message classification and routing, high transaction rate publish and subscribe systems, advanced SOAP message processing, high performance XML security firewalls and real-time telecommunications billing solutions.

Tarari high-speed XML processing is made easy to integrate into your application through the use of simple APIs and standard software components available in both Java and C.

Why is the Tarari RAX-CP so fast?

The Tarari RAX Content Processor is a hardware device designed from the ground up for only one purpose - to process XML very fast. This device sits on a 4.2Gbps PCI bus, communicating with main memory through multiple and interleaved DMA channels, and is capable of simultaneously processing several XML messages. While the Tarari RAX-CP handles XML, the CPU is free to complete other tasks. Tarari APIs maximize use of our special hardware resources and makes it easy and efficient to integrate high-speed XML processing into applications.

"Tarari Revolutionizes XML Processing"

Imagine being able to forget about parsing and immediately access any part of an XML document that is needed by your application. This "holy grail" of XML

processing has finally become possible. The RAX programmer uses XPath as pointers into the XML document; the Tarari RAX Content Processor indexes the XPath nodes at as much as 200 times the speed of software. RAX sustains these performance levels even over very complex and very large sets of XPath, as well as over very large XML documents.

Benefits of the Tarari RAX Content Processor

Throughput

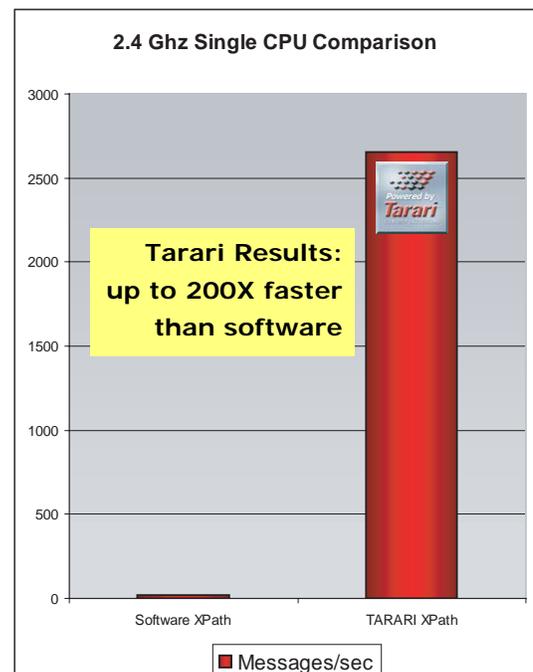
Manifold increase in overall system performance and XML message throughput giving a single server the performance of an entire cluster.

Accelerated XPath

World's fastest XPath processor, beating software by as much as 200X, with sustained performance on complex and large sets of XPath expressions.

Latency

Processes XML transactions in as little as 100 microseconds.



Large documents

Guaranteed performance without memory thrashing as document size increases.

Processing à la carte

Different hardware acceleration components can be combined and chained together for even faster processing.

Complex Documents

Performance does not diminish on dense, complex, or namespace-heavy XML documents. Tarari is the perfect defense against Denial of Service and resource exhaustion attacks.

Dynamically Reconfigurable Hardware

New hardware acceleration components can be loaded in the field, ensuring continued standards compliance and flexibility in responding to evolving business needs.

Plugs in anywhere

Standard PCI card that snaps into servers, appliances, and network devices.

SPECIFICATIONS

Java and C Language APIs

- ▶ RAX - Random Access XML
- ▶ Simultaneous XPath
- ▶ SOAP Processing
- ▶ Streaming XML Transformation
- ▶ SSL and XML Security - RSA, 3DES, SHA1, RNG with JCE/JSEE and Open SSL integration

CONTENT Processing Platform

- ▶ Full-height, short-card operating with 3.3v I/O signal levels on a PCI bus Rev. 2.2
- ▶ Recommend 64-bit/66MHz bus widths and speeds
- ▶ UL, CB, FCC Class A, CE and VCCI Certificates

Operating System and Software Support

- ▶ Linux RedHat* 7.2, 7.3 & 8.0 with SMP & non-SMP versions for Linux kernel 2.4.7 and later
- ▶ Diagnostic software and tools
- ▶ Multi-thread enabled Library
- ▶ Easy wizard and script based installation
- ▶ Ask for other OS availability

Ask about other Tarari Agents

- ▶ Regular Expressions
- ▶ Compression / Decompression
- ▶ UUdecode and Base64 decoding
- ▶ Signature-based pattern matching
- ▶ Character Conversion UTF-8 to UTF-16

Tarari Content Processors are hardware-based subsystem building blocks (silicon, boards) that snap into servers, appliances and network devices to allow control and inspection of complete messages and rich data at much greater rates than previously possible. Tarari Content Processors ensure that the information in the payloads of these messages can be intelligently accessed and processed while maintaining network speeds.

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Tarari RAX-CP
Order Code: CPX2023 OR CPX2123
with optional cooling fan

TARARI, INC.
10908 Technology Place
San Diego, CA 92127-1874
858.385.5131 tel

For additional Information:
Visit: www.tarari.com or
Contact sales@tarari.com


Tarari
The Acceleration Company