XML WEB SERVICES
PRODUCT BRIEF

Tarari®
The Acceleration Company

XML Threat Management (XTM) Content Processor

The transaction-intensive environment of Web Services, AJAX, and other XML messaging standards requires a secure, reliable network with clean and accurate data reaching endpoints. XML applications are vulnerable to special variants of many of the same exploits (maliciously corrupted data, denial of service, intrusions) carried by other kinds of network traffic and capable of bringing down enterprises and triggering wide-swath disruption. Protecting the network from such XML-borne exploits has become a matter of business-critical urgency.

Tarari XML Threat Manager (XTM™) Content Processor delivers fundamental XML security to the network infrastructure. Tarari XTM, scalable to 10Gbps, ensures XML traffic is clean, safe and accurate. Using the industry's first XML security content processor to support true packet-oriented streaming and configurable adaptive threat detection capabilities, Tarari XTM analyzes every message at line speed for well-formedness, XML denial-of-service attacks, and anomalies that may point to intrusions. XTM eliminates malicious or unwanted content before it reaches the applications and servers processing XML. XTM can stop attacks without known signatures ("first-day" attacks) and can often do so on the very first packet.

Summary of Benefits

- Tarari XTM™ allows original equipment/design manufacturers (OEMs/ODMs) to add powerful, easy-to-implement XML threat management to existing network security devices
- XTM supplements existing defenses with a full-spectrum approach for networks carrying business-critical XML
- Patent-pending algorithms detect XML-borne attacks with greater protection and higher throughput than XML firewalls
- XTM silicon results in low price/high performance ratio and broad options for integration into low- to high-end network security devices
- Tarari's XML RAX Content Processor (RAX-CP) complements XTM with layered capabilities for any complex XML processing task (content-based routing, parsing, XPath, SOAP, XML Security, schema validation, XSLT)

The Need for XML Threat Management

Typical network security devices and appliances are built to scan packets for viruses, spam, and certain kinds of intrusions and attacks but cannot deal with the application- and semantic-level threats possible with XML traffic. They do not deliver the full-spectrum security that the XML-enabled, application-aware network requires. XML firewalls, which perform schema validation and basic checks against parser attacks, are not designed for first-line perimeter security; they do not support algorithms capable of scanning for semantic attacks at network speeds. Schema validation, the main line of semantic defense, leaves a wide-open security breach – most schemas allow an infinite number of valid documents but applications can only handle a tiny subset. Tarari XTM makes a critical addition to deterministic defenses with the ability to learn to recognize patterns in XML traffic and to detect and report anomalies, often on the very first packet.

A Hardened Hardware Solution

Tarari XTM Content Processor is the result of four years of research and development of silicon for XML network security. A chip-based solution provides critical benefits:

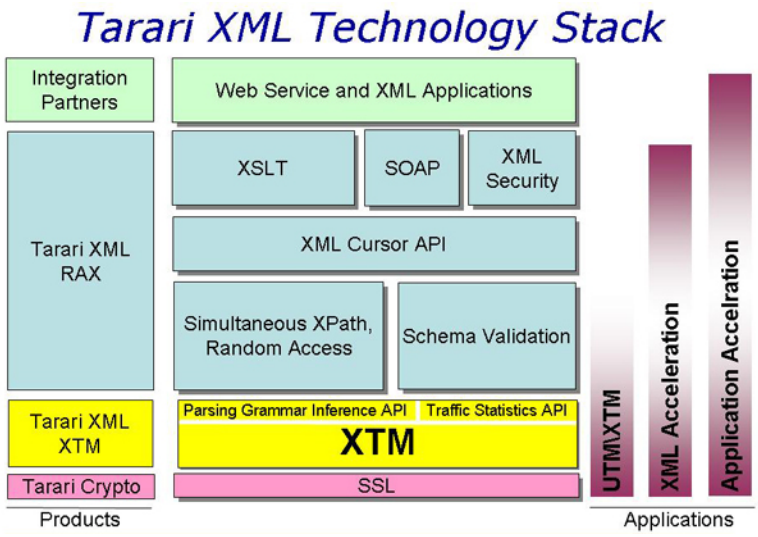
- **Bullet-proof security:** Hardware-based XML processing is immune to all known parser attacks
- **Full content inspection:** Only parallel hardware can do semantic threat analysis on full message content in linear time
- **Plug-in integration:** Does not depend on the software environment of the appliance, which is often minimal, and does not rob CPU cycles
- **Outstanding Performance:** scales up to 10Gbps

The Opportunity for OEMs/ODMs

OEMs/ODMs can now easily integrate XML threat protection into existing products and take advantage of a need not addressed by the older generation of network security devices or XML firewalls. They can offer their customers robust defense built around Tarari XTM silicon to protect the quality of service on the network, the performance of XML application servers, and the security of the enterprise.

Tarari: Leader in XML Security and Performance

Tarari offers a complete portfolio of XML security and high-performance technologies including XTM and RAX (Random Access XML) content processors and hardware-accelerated XSLT and RAX-J Enterprise APIs. Tarari XML technology is available today inside network security devices, application-aware networking appliances, XML Gateways and Firewalls, VoIP servers and other types of equipment.



Features

XML Well-formedness Check on Every Message

- Accelerated XTM check in dedicated hardware
- Basic protection for host processing environment against non-malicious message corruption

Robust XDoS Attack Detection

- Hardware-accelerated detection of XML-specific parser attacks (examples: recursive payload, element/attribute name size, jumbo payload, malformed XML such as dangling XML and unclosed tags)

Message Anomaly Detection

- Configurable adaptive learning mode for recognition of message traffic pattern and first-packet identification of anomalies
- XTM "tolerance" level adjustable to any percentage of acceptable anomaly
- 20 times more throughput than Schema Validation while providing tighter, superior threat detection

XML Stream/Packet Processing Scales to 10Gbps

- Designed to work with network packet-processing
- Transparent stream and context management
- Manages very large numbers of interleaved streams

XTM Sandbox

- Hardened, full content inspection security
- No known vulnerabilities to XML software attacks
- Stateless machine immune to buffer overflow attacks

Simple Integration

- Hardware-based plug-in card or chip solution
- Minimal requirements on host environment
- Does not rob CPU cycles from host or network processor

Tarari Content Processors are hardware-based subsystem building blocks (silicon and software) that are easily integrated into servers, appliances and network devices to allow control and inspection of complete messages and rich data at much greater speeds 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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