



# SecureSpan™ XML Accelerator

Optimize performance through hardware-based acceleration of XML parsing, validation and transformation operations

The SecureSpan XML Accelerator offers:

## Improved Quality of Service

Enhance application services reliability by offloading XML processing from the services infrastructure, thereby ensuring Web services remain readily available.

## Scalable Acceleration

True clustering capabilities allow organizations to cost-effectively scale out, increasing throughput and automating failover for all application services.

To learn more about Layer 7 and how we can address your organization's SOA and Web services needs, call 1-800-681-9377 (toll free within North America) or +1.604.681.9377. You can also email us at [info@layer7.com](mailto:info@layer7.com); friend us on [facebook.com/layer7](https://facebook.com/layer7); visit us at [layer7.com](http://layer7.com), or follow-us on twitter [@layer7](https://twitter.com/layer7).

Delegating common or expensive XML-related tasks from back-end servers to edge appliances reduces overall network load.

## Improve Quality of Service

XML processing is computationally expensive and, if handled by application servers, Enterprise Service Buses (ESBs) or other back-end infrastructure, can significantly impact response times and overall network performance. To account for XML traffic most organizations attempt to optimize back-end server performance, resulting not only in increased infrastructure costs but also (typically) increased overall network load, which can limit performance gains.

The SecureSpan XML Accelerator is designed to be deployed at or near the edge of the network, allowing organizations to optimize network performance by offloading processor-intensive XML parsing, validation and transformation operations before the network can be impacted. The XML Accelerator appliance is specifically designed to accelerate XML message throughput and reduce the latency associated with processing all common XML message formats including POX (Plain Old XML), SOAP, REST and AJAX.

The XML Accelerator can be configured to validate XML documents against an acceptable predefined schema, probe XML data for specific content or values, and transform documents from one version to another. Control over message processing operations is handled through policies, which can be created using the SecureSpan Manager's visual tools. Policies can be defined to navigate XML structures, define message queries or transforms, examine messages for specific content or context, and route messages to specific endpoints/returned to requestor after processing.

## Scalable Performance

The SecureSpan XML Accelerator is a 1U, rack-mountable appliance featuring a 64-bit multiprocessor platform with optional SSL/crypto acceleration (via a hardware security module), four GE/FE NICS and dual power supplies. All complex XML message processing is performed by onboard, ASIC-based, hardware accelerators.

Multiple XML Accelerator appliances can be deployed in a cluster to provide effective, scalable performance, minimizing processing latency and maximizing message throughput as message size and transactions per second escalate. Clustered units can be managed and monitored from a single point, either locally (using the included SecureSpan Policy Manager) or remotely, using the Layer7 Enterprise Service Manager. Any changes made (such as changes to policies) are automatically propagated across all units in the cluster without the lag that results in race conditions. Additionally, automated failover ensures services remain available should any node fail.

<b>Key Features</b>	
<b>XML Acceleration</b>	
Wirespeed XML message processing	<ul style="list-style-type: none"> <li>• Hardware accelerated message classification, parsing and optimized FastPath Stream Processor minimizes latency</li> <li>• User defined variables provides low-latency caching of message context for subsequent policy decisions or message processing</li> <li>• Routing based on specific message content or message context</li> </ul>
Accelerated document transformation and concatenation	<ul style="list-style-type: none"> <li>• High speed message transformations based on internal or external XSLT/XPath</li> </ul>
Message versioning between applications	<ul style="list-style-type: none"> <li>• Hardware accelerated message searching, element detection and content comparisons</li> </ul>
Accelerated XML data validation	<ul style="list-style-type: none"> <li>• High speed message validation against predefined external schema</li> <li>• Configurable limits on XML message size, element size, nesting depth, string length, etc.</li> </ul>
ESB co-processing	<ul style="list-style-type: none"> <li>• Acts as an endpoint for processor-intensive XML operations; routes results to the ESB for further handling</li> </ul>
<b>Performance</b>	
Message Caching	<ul style="list-style-type: none"> <li>• Cache responses to common requests, decreasing back-end service load</li> </ul>
<b>Enterprise-scale Management</b>	
Operations Console	<ul style="list-style-type: none"> <li>• A single, real time view of all Gateways across the enterprise and cloud showing audits, events and key metrics</li> </ul>
Policy Migration	<ul style="list-style-type: none"> <li>• Centrally move policies between environments (development, testing, staging, production, etc), settings (enterprise, cloud, etc) or geographies, automatically resolving discrepancies such as SSG licenses, IP addresses, IT resources (i.e., LDAPs may be named differently), etc</li> </ul>
Services Reporting	<ul style="list-style-type: none"> <li>• Configurable, out-of-the-box reports provide insight into SSG operations, service-level performance, and service user experience</li> </ul>
Remote Patching	<ul style="list-style-type: none"> <li>• Selectively update any software installed on Gateways, including system files &amp; OS</li> </ul>
Disaster Recovery	<ul style="list-style-type: none"> <li>• Centrally back up SSG config files and policies from one or more Gateways/clusters, and remotely restore, enabling full disaster recovery</li> </ul>
Management API	<ul style="list-style-type: none"> <li>• Remote management APIs allow customers to hook their existing, third-party management tools into the SSG, simplifying asset management</li> </ul>
<b>Enterprise-scale Management</b>	
XML, JSON, SOAP, REST, PCI-DSS, AJAX, XPath, XSLT, WSDL, XML Schema, LDAP, PKCS, FIPS 140-2, Kerberos, SNMP, SMTP, POP3, IMAP4, XML Signature, XML Encryption, SSL/TLS, , HTTP/HTTPS, WS-Federation, WS-SecureExchange, WS-MetadataExchange, WS-Policy, WS-PolicyAttachment, WSIL, WS-I BSP, UDDI, WSRR, IPv6, WCF	

The SecureSpan XML Accelerator is supported on all hardware versions of Layer 7's 1U SecureSpan appliances. Additionally, the Accelerator can be software-upgraded to any of the more feature/function rich SecureSpan appliances, including the API Proxy, XML Firewall and SOA Gateway.

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