



Cisco ACE Application Control Engine XML Gateway

The Cisco® ACE Application Control Engine Extensible Markup Language (XML) Gateway is a key component of the Cisco ACE Application Control Engine family of products. By extending application intelligence into the network, this standalone appliance provides improved performance and security for applications and Web services that use the XML protocol.

Web Services Overview

Web services are XML-based information exchange systems that leverage the Internet for direct application-to-application interaction. Web services link key business functions within the applications a business shares with its customers, suppliers, and business partners. The benefits of Web services include reduced application deployment time and complexity, and increased flexibility and functionality through service reuse.

Web Services Challenges

Performance is one of the most significant considerations when working with XML, as the overhead associated with processing XML places considerable load on the application servers. XML requires significant memory and CPU processing resources, and because of increased adoption of XML applications, analysts estimate that XML will represent 50 percent of all network traffic by 2008.

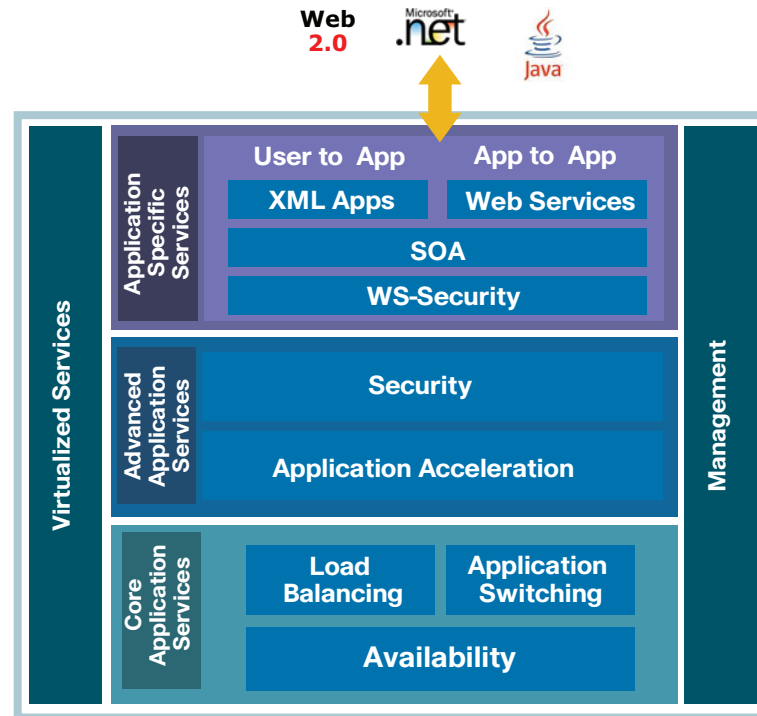
The Solution

The Cisco ACE XML Gateway (Figure 1) offloads computation-intensive XML message processing from servers, improving application performance. The Cisco ACE XML Gateway helps ensure that all XML messages can be processed without compromising security, interoperability, or reliability, which enables businesses to efficiently secure, accelerate, and manage XML applications, and allows customers to quickly provision Web services to customers and partners.

Innovative Architecture to Deliver High Performance & Integrated Services

ACE family of products have been built from the ground up with an innovative virtualized services architecture to deliver highest performance with integrated services. Similar underlying architecture is utilized for the ACE XML Gateway Solution to enable XML and Web services with highest performance, providing customers with comprehensive application delivery with integrated acceleration, management and security.

Figure 1. Cisco ACE XML Gateway Architecture



Benefits of Cisco ACE XML Gateway

Cisco ACE XML Gateway offers several important benefits including the following:

- Maximizes XML application and Web services scalability by improving concurrency and reducing end-to-end latency
- Improves XML application and data center security by preventing XML-based threats and providing XML message security
- Accelerates performance of XML applications and Web services by offloading computation-intensive XML processing and so reducing the number of expensive servers needed
- Improves IT professionals' productivity by reducing the amount of time needed to provision and maintain the IT infrastructure

Cisco ACE XML Gateway Highlights

- XML application scalability and performance:** Cisco ACE XML Gateways provide best-in-industry scalability and throughput for XML application traffic, processing 30,000 schema validations per second on a 1-KB message and handling up to 40,000 concurrent connections in a single appliance. By offloading computation-intensive XML processing, Cisco ACE XML Gateways free up as much as 90 percent of server resources. Cisco ACE XML Gateways improve server utilization and end-user experience.
- XML security:** The Cisco ACE XML Gateway serves as an XML firewall that provides the highest level of protection against XML threats. The Cisco ACE XML Gateway differs from network firewalls in that it focuses primarily on the application layer and works with the payload of the XML message. The Cisco ACE XML Gateway performs a broad range of security services such as guarding against malicious XML payloads, protecting against XML denial-of-service (xDoS) attacks, and providing other security functions including authentication, authorization, and auditing (AAA).
- Centralized management of XML applications:** The Cisco ACE XML Manager, a secure, Web-based application that serves as a centralized policy management system, increases developer productivity and improves deployment flexibility through its sophisticated rollback and versioning capabilities, simplifying policy definition and enforcement.

Return on Investment with Cisco ACE XML Gateway

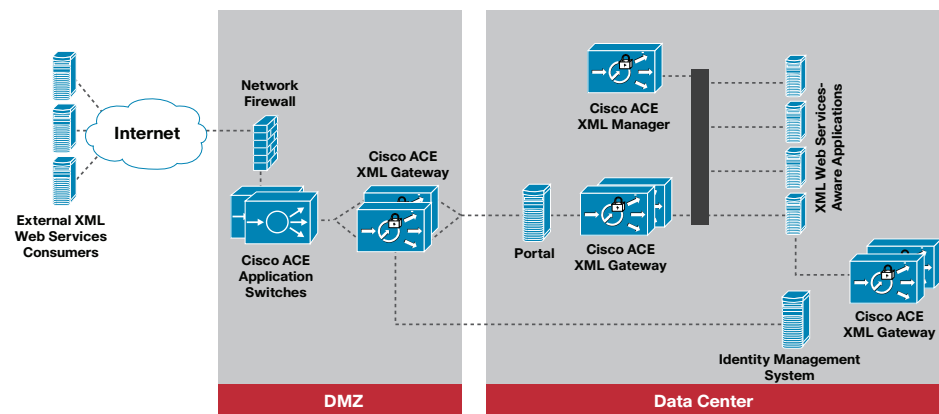
The main reason customers deploy the Cisco ACE XML Gateway is to decrease costs through reuse of existing infrastructure and services. The more services that are reusable from system to system, the greater the return on investment (ROI). Customers have achieved full ROI in as few as 6 months through savings achieved in the following ways:

- Offloading of computation-intensive XML message and security processing, reducing the number of servers and software licenses needed, decreasing CPU, capital and operating expenses
- Consolidation of applications onto fewer platforms, reducing software lifecycle costs
- Increased application performance, reducing service-level agreement (SLA) penalty expenses and development and help desk costs

Typical Deployments

Typically, customers deploy Cisco ACE XML Gateways in the data center in front of application servers hosting XML applications and Web services (Figure 2). As traffic is sent from clients to the data center servers, it passes through Cisco ACE XML Gateways to secure, offload, and accelerate message processing for XML traffic. The ACE XML Gateway does not duplicate the functions of a Layer 4 to 7 device, and in all real-world deployments of an ACE XML Gateway, the device is behind a Cisco ACE or other application switch.

Figure 2. Deployments of Cisco ACE XML Gateway



Cisco Application Networking Services: Broad Product Portfolio

The Cisco ACE XML Gateway is part of the Cisco Application Networking Services (ANS) portfolio, the industry's most comprehensive range of application-aware network-based services for improving the value and effectiveness of enterprise application deployments. The Cisco ANS family includes technologies such as server load balancing, application security, Secure Sockets Layer (SSL) acceleration, XML gateways, and WAN optimization to enhance the full range of deployment scenarios, including branch office, remote-worker, data center, and back-office application integration projects, all using a common foundation and enterprise quality.

For More Information

For more information about the Cisco ACE product family, visit <http://www.cisco.com/go/ace>.