Easily secure XML applications for e-commerce

XML (Extensible Markup Language), the flexible data framework that allows applications to communicate on the Internet, has become the preferred infrastructure for e-commerce applications. All of those transactions require trust and security, making it mission-critical to devise common XML mechanisms for authenticating merchants, buyers, and suppliers to each other, and for digitally signing and encrypting XML documents such as contracts and payment transactions.

XML complements Public Key Infrastructure (PKI) and digital certificates, the standard method for securing Internet transactions. And now, VeriSign XML Trust Services—a four-component suite of open specifications for application developers—makes it easier than ever to integrate a broad range of trust services into B2B and B2C applications.

Efficiently integrate digital signatures and encryption with XKMS

To simplify the integration of PKI and digital certificates with XML applications, VeriSign, Microsoft, and webMethods have created the open XKMS (XML Key Management Specification) specification. Developers can take advantage of XKMS to integrate authentication, digital signature, and encryption services, such as certificate processing and revocation status checking, into applications in a matter of hours—without the constraints and complications associated with proprietary PKI software toolkits. With XKMS, trust functions reside in servers accessible via easily programmed XML transactions. Developers can allow applications to delegate all or part of the processing of XML digital signatures and encrypted elements to VeriSign, minimizing the complexity of the underlying PKI.

Enable portable authentication and authorization with SAML

Business-to-consumer and business-to-business transactions that take place between enterprises across the Internet have not had a standard language for authorization information that specifies what resources a buyer, seller, or enterprise is permitted to access. The Security Assertion Markup Language (SAML) developed by VeriSign and other vendors, solves this problem. SAML combines two prior protocols, S2ML and AuthXML, and offers a vendor-neutral, open XML standard for enabling secure e-commerce transactions by describing authentication, authorization, and profile information. Businesses can then exchange this data between customers, partners, and suppliers, regardless of the security system they use or the e-commerce platform on which they operate.

Key Benefits

Easy to use—The developer-friendly syntax used in XML Trust Services’ specifications eliminates the necessity for PKI toolkits and proprietary plug-ins. The XKMS specification allows developers to rapidly implement trust features, incorporating cryptographic support for XML digital signatures and XML encryption, using standard XML toolkits.

Quick to deploy—By simplifying application development, XML Trust Services removes the need to delay PKI deployment pending client support.

Open—The common XML vocabulary used to describe authentication, authorization, and profile information in XML documents makes XML Trust Services completely platform-, vendor-, and transport-protocol-neutral.

Interoperable—The SAML specification allows interoperability between any existing security or infrastructure systems that need to share security information.

Ideal for mobile devices—XML Trust Services allow mobile devices to access full-featured PKI through ultra-minimal-footprint client device interfaces.

Simple to manage—XML Trust Services provides a single point of administration for the entire enterprise, allow them to manage trust relationships among other enterprises, instead.
XKMS Enables Lightweight Trusted Applications

Using standard XML toolkits instead of proprietary third-party software, developers can use SAML to make trust information portable, allowing users to travel with XML documents for business transactions across multiple Web sites or services. In business-to-consumer applications, for example, users can achieve single sign-on by presenting their digital certificate once and then traveling across affiliated Web sites without having to re-authenticate.

**Provide secure e-commerce payment processing with XMLPay**

To help Internet merchants process a broad range of Web-based payment types (including credit debit card, purchase card, and Automated Clearinghouse, or ACH payments) for B2B and B2C e-commerce, VeriSign, Ariba, and other vendors created the XMLPay specification for sending payment requests and responses through financial networks. XML simplifies client-side processing in payment service applications, allowing applications to be easily linked to larger XML workflow environments.

XMLPay is also a live “payment gateway” service that provides connectivity to most major bank processors and financial networks, and comes pre-integrated in many e-commerce applications. Instead of having to use point-to-point, difficult-to-integrate payment solutions, merchants can simply communicate payment requests to the XMLPay gateway, and VeriSign switches these requests to the appropriate financial institution, returning results back to the merchant. XMLPay also helps businesses gain information from transactions, and supports certificate-based identification and authentication, digital signatures, and the generation and archiving of digital receipts.

**Provide streamline domain name registration with EPP**

To enable Internet registrars that sell online identity services to access central domain name registry data more efficiently, VeriSign has developed the Extensible Provisioning Protocol (EPP) to support an XML-based domain name management utility. EPP enables VeriSign Global Registry Services’ accredited registrar partners to sell domain names, telephone numbers, and other identity assets via EPP, which permits greater information sharing and flexibility and new identification technologies gain acceptance.

From providing domain name services, to online payment processing and building your own e-commerce applications, XML Trust services helps meet your authentication, validation, and payment needs for secure end-to-end XML-based transactions.

**For more information**

To learn more about VeriSign’s complete suite of XML Trust Services and to access the XKMS, SAML, XMLPay, and EPP specifications, visit http://www.verisign.com/developer/xml/index.html