

# ORACLE APPLICATION SERVER SECURITY DEVELOPER TOOLS 10gR2

## KEY FEATURES AND BENEFITS

ORACLE APPLICATION  
SERVER SECURITY  
DEVELOPER TOOLS 10gR2

- Implementation of XML Encryption and Signature specifications
- Liberty Alliance specification support for federated identity management
- SAML 1.0 and 1.1 implementation
- Support for Web Services Security
- Java APIs for easy integration
- Secure email using strong cryptography
- Standards based

*OracleAS Security Developer Tools are part of Oracle Identity Management and offer a wide-range of Java security functionalities. These provide the cryptographic building blocks for securing applications such as secure messaging to more complex projects such as securely implementing a Service-Oriented Architecture (SOA).*

### Securing Your Service Oriented Architecture

OracleAS Security Developer Tools include standards based implementations of the key XML and Web Services security protocols necessary to secure a Service Oriented Architecture (SOA) - a set of technologies and methodologies for accessing resources across a network. Security and interoperability are necessary requirements when resources are made accessible across heterogeneous networks. OracleAS Security Developer Tools programmatically allow you to extend the security of Oracle Application Server and Oracle Identity Management with the following Java libraries:

- **Oracle XML Security** ensures a secure and interoperable exchange of data with an implementation of the World Wide Web Consortium (W3C) XML Signature and Encryption specifications.
- **Oracle Web Services Security (WSS)** provides a framework for authentication and authorization using existing security technologies as outlined by the Organization for the Advancement of Structured Information Standards (OASIS) specification for Web Services Security and supports the Username, x509 and SAML Token Profiles.

### Federation and Single Sign-On

OracleAS Security Developer Tools provide Java components that support the Liberty Alliance and OASIS specifications for federation and single sign-on. The Oracle Liberty SDK implements version 1.1 and 1.2 of the Liberty Alliance ID-FF specifications and Oracle SAML supports the OASIS specification for SAML - an essential component of an interoperable Single Sign-On (SSO) environment.

- **Oracle Liberty SDK** implements the Liberty Alliance Project specifications enabling federated single sign-on between third-party Liberty-compliant applications. Oracle is a Management Board member of the Liberty Alliance.
- **Oracle SAML** supports the OASIS specification for the Security Assertions Markup Language (SAML), a framework for the exchange of security credentials over disparate systems and applications in an XML-based format. Instead, use additional paragraph returns to force text to the second page.

**RELATED PRODUCTS:**

**Oracle Identity Management** includes solutions for:

- **Access and Identity**, which provides single sign-on, identity management and delegated administration
- **Federation**, which provides multi-protocol cross domain single sign-on through standards such as SAML and Liberty
- **Provisioning**, a framework for managing users, defining approval workflows, and automating user creation in Oracle and 3rd party applications
- **Internet Directory**, a scalable, robust LDAP V3-compliant directory service implemented on the Oracle Database. Included is a directory synchronization service, which facilitates synchronization between Oracle Internet Directory and other directories and user repositories
- **Web Services Manager**, which provides web services security and management for heterogeneous web services

**Oracle Application Server 10gR2** is an integrated, standards-based software platform that allows organizations of all sizes to be more responsive to changing business requirements. It provides all the middleware services you need to deploy and manage applications and Web services, deliver personalized applications through enterprise portals and mobile devices, provide real-time business intelligence, integrate applications, and automate business processes.

**Cryptography, PKI and Secure Messaging**

OracleAS Security Developer Tools include standards-based components implementing core cryptographic algorithms, S/MIME for secure email, and public key infrastructure (PKI) protocols. Oracle AS Security Developer Tools allow Java developers to extend the security of the Oracle Application Server platform and integrate applications with Oracle Identity Management using the following components:

- **Oracle Crypto** is a pure Java library that provides core cryptography algorithms, including those mandated by the National Institute of Standards and Technology (NIST) in their FIPS publications.
- **Oracle Security Engine** extends Oracle Crypto by offering X.509 based certificate management functions.
- **Oracle S/MIME** implements the IETF S/MIME (Secure/Multipurpose Mail Extensions) specifications for secure email.
- **Oracle CMS** implements the IETF Cryptographic Message Syntax (CMS) protocol. CMS defines data protection schemes for secure message envelopes.
- **Oracle PKI SDK** implements the security protocols that are necessary within Public Key Infrastructure implementations.

**Standards Supported**

OracleAS Security Developer Tools supports a comprehensive range of security standards and protocols, including:

- PKIX Standards
- X509v3 Certificates
- IETF S/MIME and CMS specifications
- Liberty Alliance Project federation standards
- OASIS SAML and Web Services Security specifications
- W3C XML Signature and Encryption specifications

**Packaging and Availability**

OracleAS Security Developer Tools are part of Oracle Identity Management and are available with the Oracle Application Server 10gR2 (10.1.2.0.2) release.