Abstract

Web service security is essential for SOA-based applications; it has an exploratory set of technologies such as Simple Object Access Protocol (SOAP), Web Services Description Language (WSDL) and Universal Description, Discovery and Integration (UDDI), and Electronic Business XML (ebXML). These promote an environment for organizations to communicate in the Internet. The inevitable challenge that organizations face today is to implement adequate Web Service Security as the Web Service transactions are done mainly through plain text formats, making them easy to get hacked. This paper proposes the XML signature and encryption as the core of Service Oriented Architecture (SOA) for web service security, and describes how to create and verify XML signature, and how to encrypt and decrypt XML data. This application provides security based on the parameters such as confidentiality, integrity, authentication and
A Stream based Implementation of Secured SOA Model using XML Encryption and XML Signature

authorization.

References

- "XML Digital Signatures (Cover Pages hosted by OASIS) (Technology Reports)"; -http://xml.coverpages.org/xmlSig.html.

Index Terms

Computer Science Security
Keywords
Web Services  Service Oriented Architecture (SOA)  Simple Object Access Protocol (SOAP)
Description Language (WSDL)  Encryption
XML Signature.