

Building Secure and Reliable web Services

A practical guideline to the effective usage of web Service technologies

Intro

This course provides an overview for managers, decision makers and software engineers of the history, technologies and applications of Web Services to solve the problems of application and software technology integration within and between enterprises. The pervasive nature of the Internet/Web infrastructure has spawned newer and simpler solutions for integration leveraging the emerging base technologies of XML, SOAP and WSDL, operating with .NET, J2EE, CORBA and mainframe environments. This course highlights the re-use of existing Service Oriented Architecture but now over the ubiquitous world of HTTP and Web technologies to result in a Web Services approach to connecting companies and customers. In addition, valuable up-to-date information on Web Services tools and development environments as well as a live demonstration of Web Service development will be given to cement the reality of this exciting next step in IT systems

WS

Also included in the training are recent initiatives, such as WS-Security, WS-Coordination, WS-Transaction, WS-Policy, WS-Reliable Messaging and WS-Attachments. Orchestration and Choreography of business processes through the usage of middleware tools is another exciting subject that gets full attention during this course. Participants will learn the basics of web service transactions, compensation actions and new generation languages such as business process execution language for web services. (BPEL4WS).

Core technologies for web services

- ✓ High level overview of XML, WSDL, SOAP and UDDI
- ✓ Demystifying the underlying core technologies
- ✓ The classic service provider
- ✓ The service interface
- ✓ The service consumer

Web Services Demo

- ✓ Web services in action
- ✓ A web services client and server demo
- ✓ Quote service demonstration
- ✓ Interaction between XML, WSDL, and

SOAP

- ✓ Connecting to an Internet web service on the web
- ✓ Demo using XMPSpy, BizTalk, Eclipse, Java...

Web Services Standards and Organizations

- ✓ The web services standards space
- ✓ The standards body and their associated recommendations
- ✓ Overview of OASIS, W3C, WS-I, OMG and Java Community

XML Technologies

- ✓ XML elements and attributes with sample documents
- ✓ XML namespaces
- ✓ XML Schema Definition (XSD)
- ✓ Fundamentals of Extensible Stylesheet Language (XSLT)

SOAP - Simple Object Access Protocol

- ✓ Structure of a SOAP message
- ✓ Sample SOAP requests and responses
- ✓ Using SOAP as a protocol
- ✓ Using SOAP as an envelope

UDDI - Universal Discover Description and Integration

- ✓ UDDI technologies, API, and acceptance
- ✓ Alternatives to UDDI
- ✓ The green, white and yellow books
- ✓ tModels explained

WSDL - Web Services Description Language

- ✓ Understanding the logical interface
- ✓ Types, messages, operations and portTypes
- ✓ Different kinds of WSDL operations
- ✓ Example of One-way, Request-response
- ✓ Example of solicit-response and notification
- ✓ Understanding the physical interface
- ✓ Example of service ports and bindings
- ✓ Interface modelling using WSDL

The Wrapped-Doc-Literal Style for WSDL

- ✓ Discussion of different message encodings and styles
- ✓ Historical evolution and the on-the-wire format
- ✓ Why doc-literal is preferred over RPC-encoded
- ✓ Why using the wrapped form?

- ✓ Design guidelines for wrapped-doc-literal approach.

Best Practise in WSDL Design

- ✓ Advice on how to design interoperable WSDL
- ✓ Making WSDL easy to understand and re-use
- ✓ Operation Granularity
- ✓ Naming: portTypes, services, ports and bindings
- ✓ Client access
- ✓ WSDL-first design

Web Services Security

- ✓ Why security is so important for web services
- ✓ Challenges (and solutions) for web services security
- ✓ Presentation and discussion
- ✓ Use of secure transports (HTTPS) and WSSE headers
- ✓ Security related standards

Web Services Transactions

- ✓ Why transactions are so important
- ✓ Some things cannot be rolled back...
- ✓ Different semantics: long-lived, short-lived
- ✓ ACID, business process modelling, compensation
- ✓ Requirements for a web-services transaction monitor
- ✓ Transactions-related standards

Web Services and Service Oriented Architecture

- ✓ What are services, and what benefits do they offer?
- ✓ Service-oriented architecture
- ✓ Why web services are ideally suited for SOA
- ✓ service-oriented architecture
- ✓ SOA and the "Enterprise service bus"
- ✓ SOA without web services

Principles of service oriented design

- ✓ The principles of good service oriented design
- ✓ Loose-coupling, formal contracts, abstraction
- ✓ Examples of re-use, composition, autonomy
- ✓ Stateless and discovery
- ✓ Conclusions: how "service-oriented" is your actual architecture?

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Cursusmateriaal

De cursus wordt gegeven aan de hand van een syllabus/slides en levensechte voorbeelden en demonstraties. Deze worden gegeven door een zeer ervaren docent/consultant.

De open rooster training wordt gegeven in het Nederlands middels Engelstalig lesmateriaal. Een bedrijfstraining kan desgewenst ook in het Engels worden gegeven.



Investering

1. Open Rooster: € 995,00 per persoon, excl. BTW. Inclusief lesmap, certificaat, lunches en consumpties of
2. Bedrijfstraining: € 1450,00 per dag, exclusief BTW en exclusief lesmap/naslag boek. Inclusief certificaten en reiskosten in Nederland.
3. Het consultancytarief bedraagt € 1650,00 per dag incl. reiskosten binnen Nederland.

Inschrijven

U kunt zich online opgeven voor deze training via <http://www.imatica.nl>. Binnen de productgroep XML/UML/SOA kiest u Webservices en onderaan deze productpagina staat een linkje naar het online inschrijfformulier. Op verzoek sturen wij u graag een PDF exemplaar toe van dit formulier.



Deelnamecertificaat

U ontvangt na afloop van de training een certificaat van Imatica, waarop vermeld staat dat u de cursus "Building Secure and Reliable web Services" heeft gevolgd.

Tijdsduur

Deze cursus duurt twee dagen, van 9.30 - ca. 16.30 uur. Tussen 12.30 - 13.15 uur is er een lunch. Koffie, thee en frisdrank zijn de gehele dag beschikbaar.

Cursusdata

De open-rooster cursusdata staan op: www.imatica.nl onder het hoofdstuk "XML - UML - SOA".

Vanaf 3 deelnemers geven wij de training indien gewenst bij u op locatie, cursusdata en lestijden in dat geval in overleg met u.