



B2B Web Services Testing Management View

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Presentation Contents

- ◆ The Problem
- ◆ The Solution
- ◆ Concepts & Terminology
- ◆ Challenges/Considerations
- ◆ Opportunities

The Problem

- ◆ Bi-Directional Data Delivery Mechanism
- ◆ Real-Time
- ◆ High Speed Delivery
- ◆ Protected Information
- ◆ Reusable Solution



The Solution

- ◆ Business to Business (B2B)
- ◆ Electronic Data Interchange (EDI)
- ◆ Web Services
- ◆ Signed & Encrypted



Business to Business (B2B)

- ◆ Electronic Data Transfer
- ◆ Between Businesses (vs. to Consumers)



Electronic Data Interchange (EDI)

- ◆ Structured Transmission of Data
- ◆ Electronic Means
- ◆ Between Computer Systems



Web Service

The World Wide Web Consortium (W3C) defines a web service as "*a software system designed to support interoperable machine-to-machine interaction over a network*".



Other Concepts/Terminology

- ◆ ebXML
- ◆ XML Schema (XSD)
- ◆ WSDL
- ◆ SOAP
- ◆ Encryption (i.e. X.509)



Testing Challenges/Consideration

- ◆ No GUI
- ◆ Testing Tools
 - ◆ Various Specialist Tools
 - ◆ Be Flexible/Adaptable
 - ◆ Restrictions
- ◆ Stubs & Drivers
 - ◆ Misaligned Milestones
 - ◆ Collaborate with Developers



Testing Challenges/Consideration

- ◆ Planning/Approach
 - ◆ Can Be “Costly”
 - ◆ Multi-Dimensional Testing
 - ◆ Comms & Message Protocols
 - ◆ Process
 - ◆ Content & Business Mappings
 - ◆ Existing & New Technologies



Testing Challenges/Consideration

- ◆ Scheduling
 - ◆ Stubs & Drivers Take Time
 - ◆ Training Factor (Tools, Concepts etc...)
 - ◆ Test Environments
- ◆ Test Environment
 - ◆ Inward & Outward Facing
 - ◆ Investment vs. Throw Away
 - ◆ As Project Deliverable



Testing Challenges/Consideration

- ◆ Security
 - ◆ Many Services/Many Security Holes
 - ◆ Security Policies
 - ◆ Remember the Test Environments
- ◆ Performance Testing
 - ◆ As Functional Testing
 - ◆ Accurate NFR
 - ◆ Regression/Maintenance Testing



Testing Challenges/Consideration

- ◆ Multiple Point of Failure
 - ◆ Quick Debugging
 - ◆ Integrated Log Tracking
 - ◆ Tracking in Production
- ◆ External Developer/Partner Interaction
 - ◆ Test Environment (Full/Stubbed)
 - ◆ Beta Testing (Yours vs. Theirs)
 - ◆ Interoperability



Testing Opportunities

- ◆ Tester/Developer/BA Collaboration
- ◆ Cross Skilling (Technical & Testing)
- ◆ Driver for Test Automation
- ◆ Multiple Testing Types
- ◆ Have Some Fun!

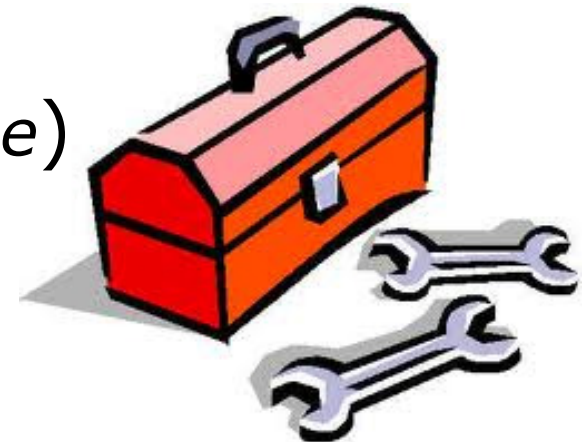


Summary

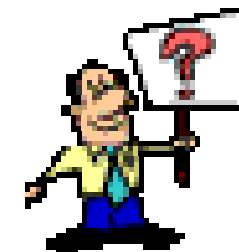
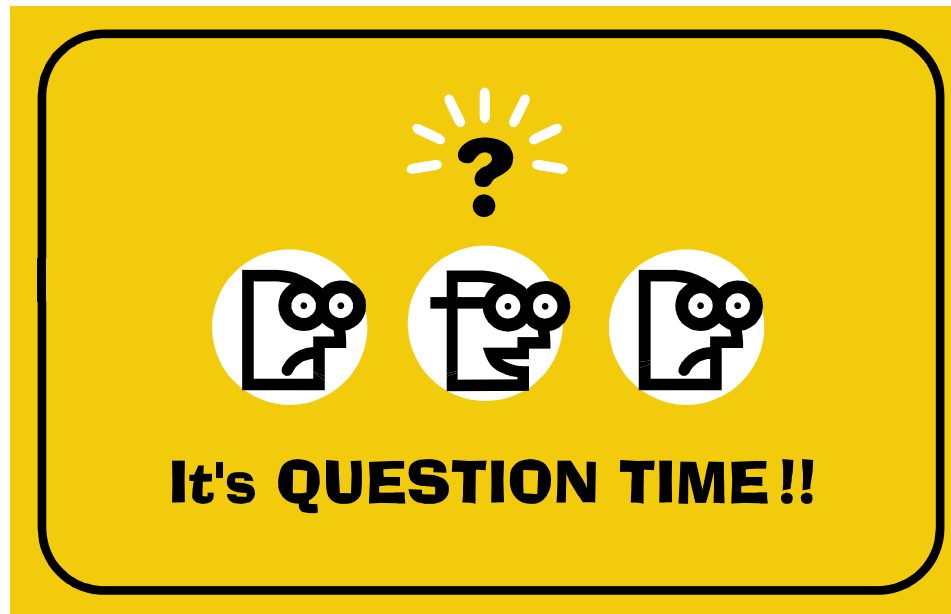
- ◆ Many Management & Technical Challenges
- ◆ Opportunities for Different Testing
- ◆ Opportunities for Team Work
- ◆ Opportunities for Automation
- ◆ Opportunities for Skill Development

Tools (Ours)

- ◆ SOAPUI (*Invoke Web Services*)
- ◆ XMLSpy (*Schema Validation*)
- ◆ OpenJMS (*JMSQueue Message Injection*)
- ◆ Hermes (*View JMSQueue Message*)
- ◆ OpenSSL (*Generate Certificates*)



Comments and Questions





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