



Web Service Access to ETH Course Catalogue with SOAP

Live-Demo and Experiences



Technology Used



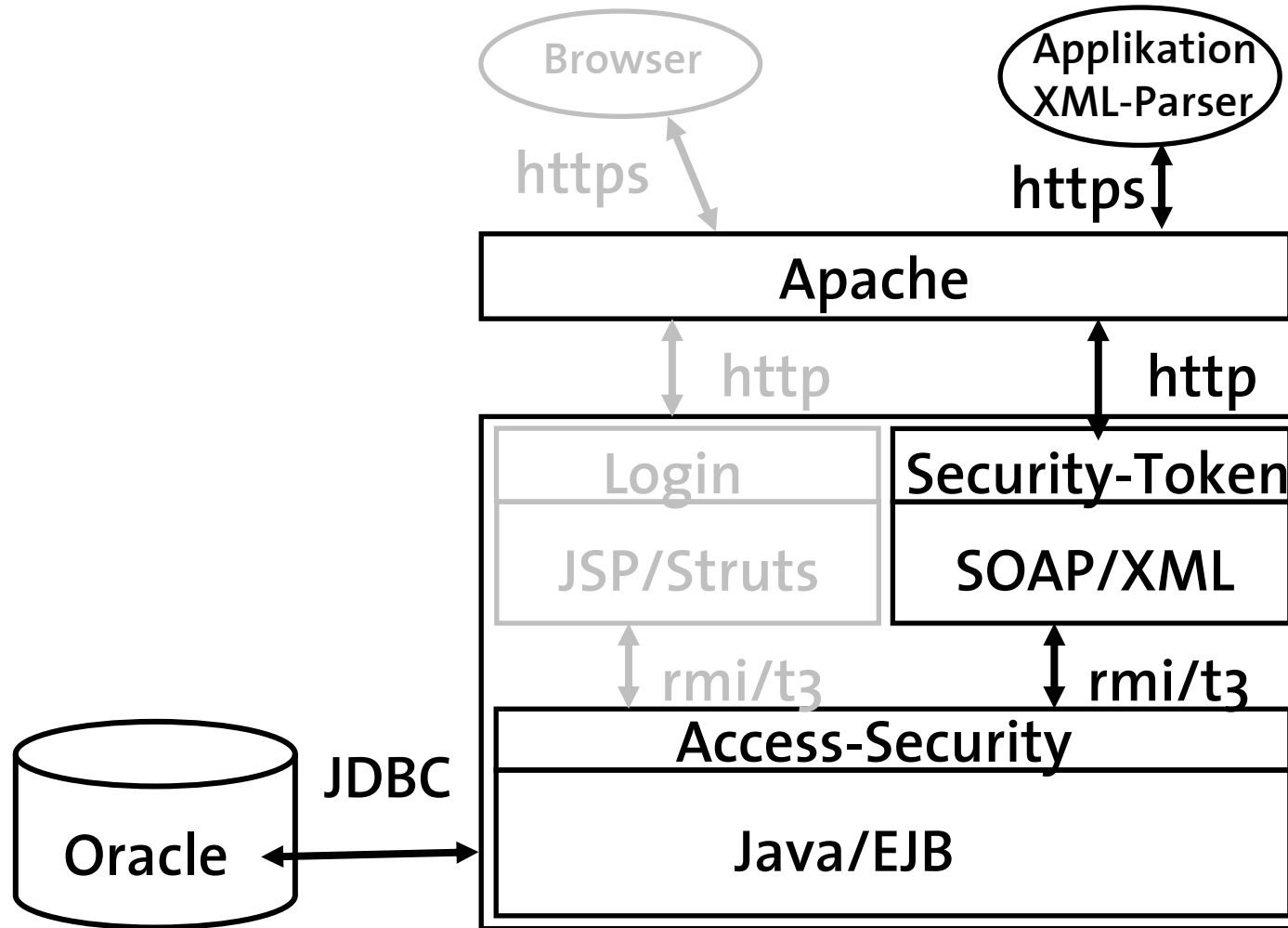
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- Database: Oracle V8.1.7.4
<http://www.oracle.com>
- Database-Access/Business-Logic:
J2EE-Application Server BEA Weblogic V6.1
<http://java.sun.com/j2ee/>
<http://www.bea.com>
- SOAP-Implementation: Apache Jakarta Axis V1.1
<http://www.w3.org/TR/soap/>
<http://ws.apache.org/axis/>
- Web-Frontend: Apache Webserver 1.3 with SSL
<http://httpd.apache.org>



Abstraction Layers – Server Side

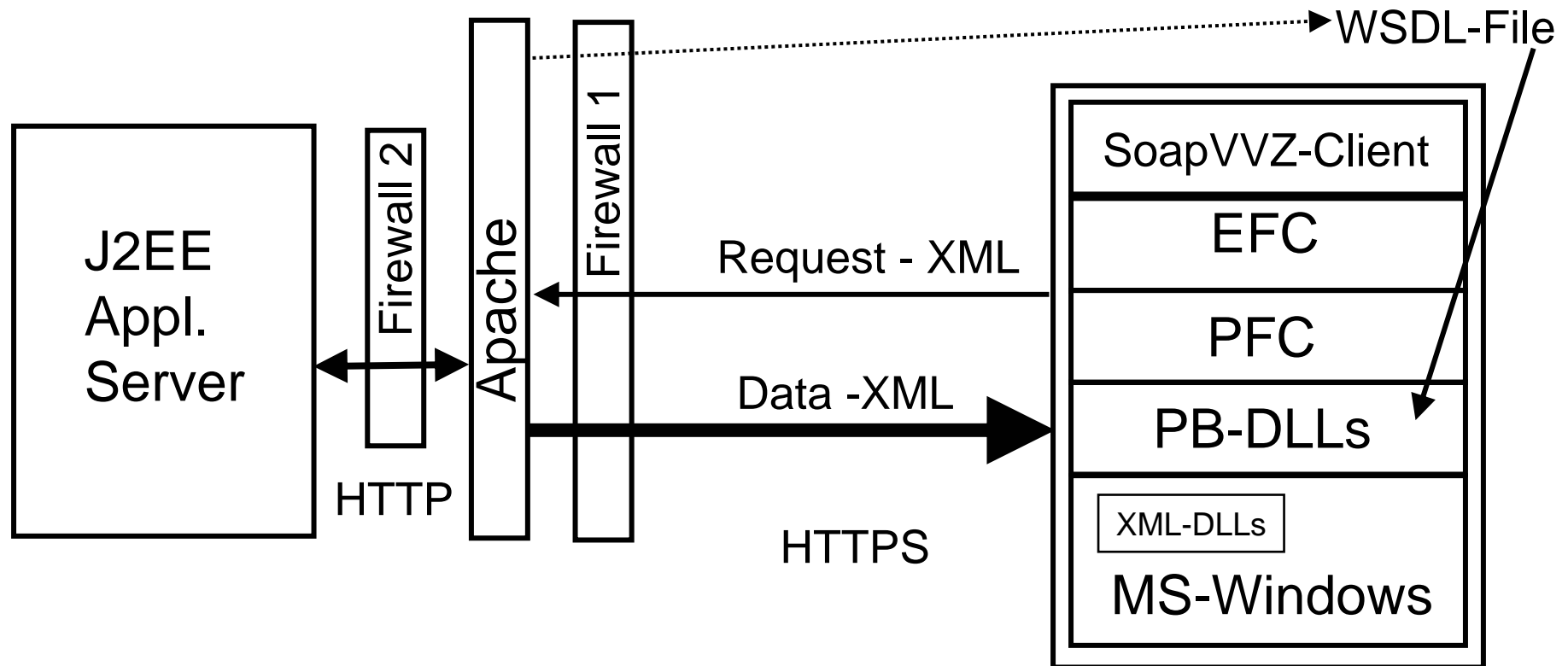
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Client Side – PowerBuilder



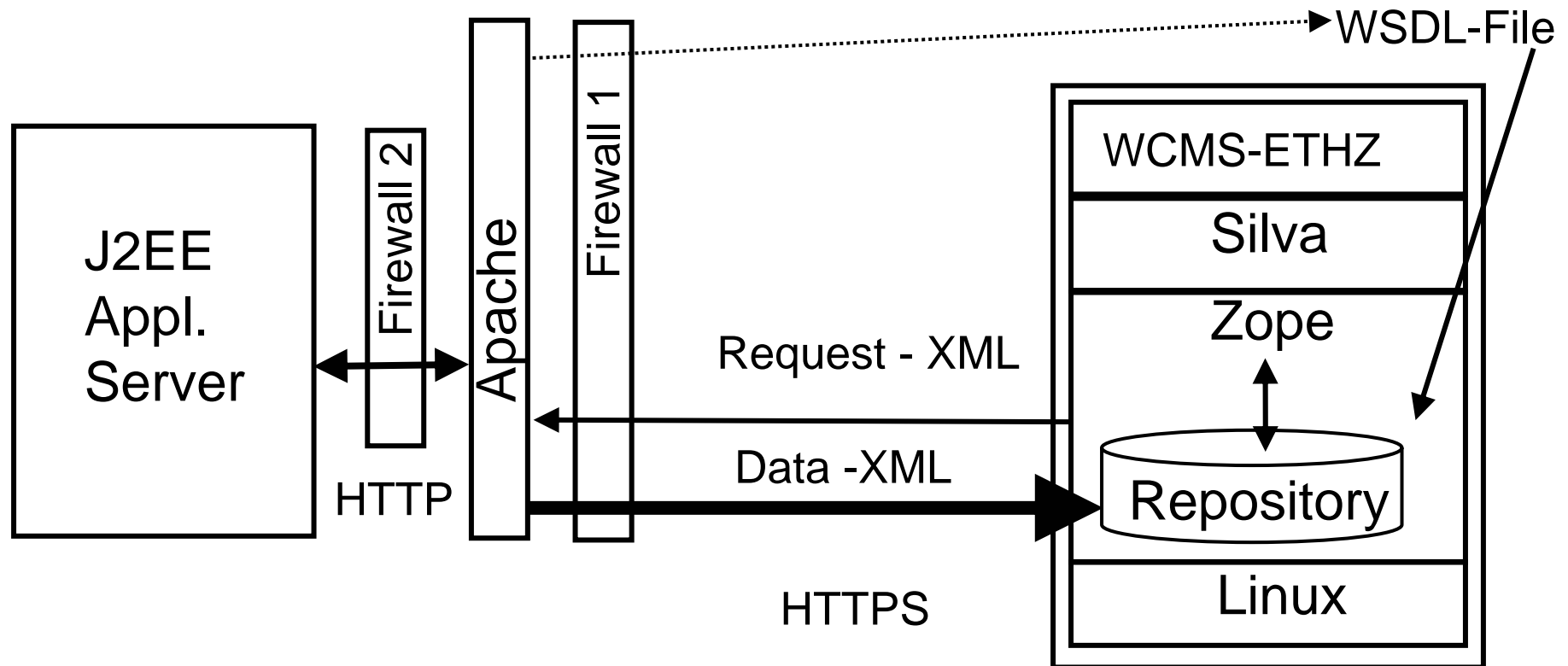
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Client Side – Zope/Python



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Test Results



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Test Case: Data Transfer of WS2003

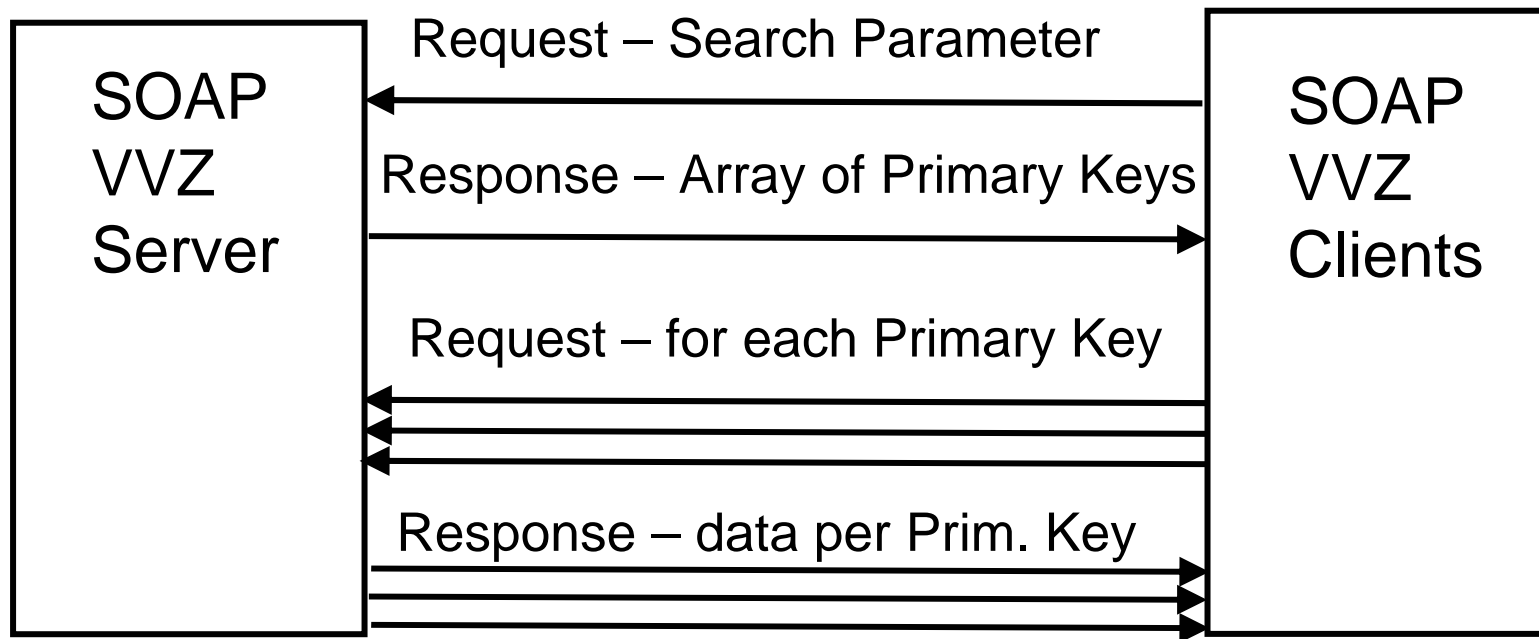
- Resulting XML-file size: 44 MB (compressed 2.5 MB)
- Resulting memory usage: 53 MB (java objects)
- Time consumption
 - Weblogic (DB-Access): 4 minutes
 - Tomcat (Java -> XML): 2 minutes
 - Datatransfer to PB or IE6: 0.5 minute
 - DOM-Tree and Rendering (PB or IE6): 3.5 hours - swapping!!!
- Memory consumption (total ~3.2 GB)
 - Weblogic: 250 MB
 - Tomcat (Java -> XML): 480 MB
 - DOM-Tree and Rendering: 810 MB (IE6) or 200 MB (PB)

Lessons learned

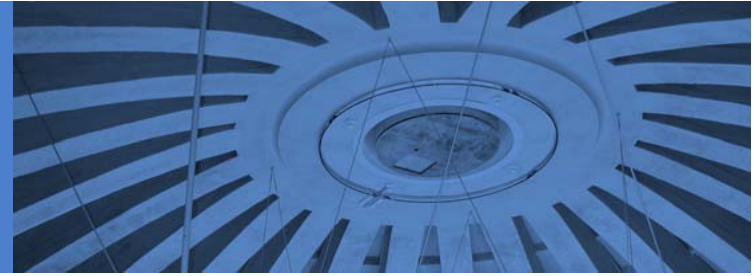


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Break down into smaller pieces:



Only one Data-Req. at a time



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Thank you for your attention!