



GT4 Security Overview

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Security Implementations

- Java, C, and Python (contribution from LBNL)
- Each of these implementations contain WS as well as non-WS security
- Each implement different subsets
 - ◆ I will only cover WS-related security for Java and C



A Closer Look at Java WS Security

- Provides APIs for building secure WS-Resources and web services
- Provides complimentary services
 - ◆ Delegation Service
 - ◆ Secure Conversation Service
 - ◆ Community Authorization Service (CAS)
- Programmatic on the client, declarative on the service
- Implemented with 'standard' Apache and other open source software
 - ◆ Apache WSS4J (WS-Security implementation)
 - ◆ Addressing (the WS-Addressing implementation)
 - ◆ OpenSAML
 - ◆ Etc.

Java WS Security GT 4.0 Features

- Multiple authentication mechanisms
 - ◆ Username/Password
 - ◆ HTTPS with proxy support
 - ◆ GSI Secure Message (WS-Security X.509 profile)
 - ◆ GSI Secure Conversation (GSSAPI/WS-SecureConversation/WS-Security)
- A flexible authorization framework
 - ◆ Allows for custom authorization modules
 - ◆ Chaining of authz decisions
 - ◆ Several modules provided
- A delegation service



Differences from GT3 Java WS Security

- Based on WS-Security standard
- Default security mechanism is https
 - ◆ No httpg support
- More flexible authorization framework
- GSI-SecureConversation now uses WS-Trust/SecureConversation
- Support for OGSA-AUTHZ SAML callout

C WS Security GT 4.0 Features

- Authentication support:
 - ◆ https
 - ◆ GSI Secure Message (WS-Security X.509 profile)
- Authorization Support
 - ◆ No framework support
 - ◆ Can be done using APIs for authorization callouts