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