GSI in LB & comp.

Daniel Kouřil EMI Security Workshop, May 25th, 2010

Multiple Notions of GSI

- The "enhanced" SSL protocol?
- The Globus libraries?
- The Globus GSS API?

Which one is unwanted?

L&B

- Org.glite.security.gss encapsulates all communication functions, including security
- Implemented using Globus and its GSS API
 - Smooth transition to Kerberos achieved
- The "SSL-compatible" mode enforced
 - No delegation (not needed)
 - SSL compatibility on the wire
 - Server is able to server browser and plain openssl clients

Proxy Renewal

- No authenticated interfaces exposed
 - No communication security
- Heavily use of Globus libraries for proxy management
 - Generation, signing, ...
- Requires MyProxy, which uses standard GSI protocol
 - However, delegation done in the application protocol
 - An implemention of MyProxy above plain OpenSSL available

Gridsite

- New responsibility in EMI
 - Not fully familiar yet
- Globus used at build-time to load openssl libraries
- Delegation routines use OpenSSL calls
 - Simple exchange of standard messages over SOAP

Summary

- No direct use the GSI protocol
 - Besides MyProxy
- Globus libraries used at several critical parts
 - Tuned and well-tested L&B communication
 - Any changes at this level are obviously critical
- GSSAPI proven useful
 - Portability to Kerberos achieved in production