



Enabling Grids for
E-science in Europe

www.eu-egee.org

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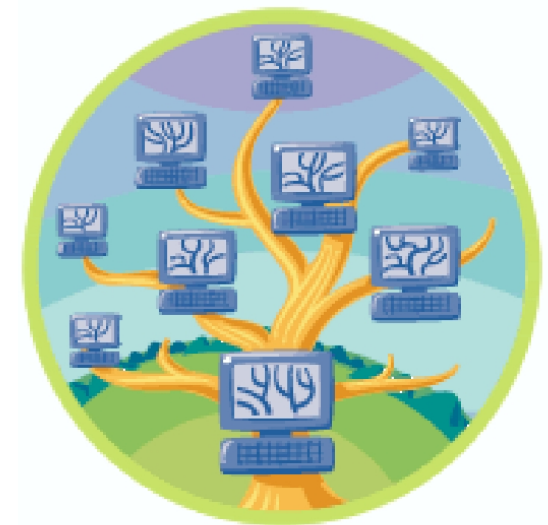
CESNET Report

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Activities overview

- vacation
- security: transition to GSS, framework for webservice
- new development: L&B webservice and Job Provenance
- bright future: R-GMA convergence
- unit tests
- support and maintenance: HOLUB, bugfixes



Transition to GSS

- Globus GSS/SSL implementation and Globus GSS extensions (credential retrieval)
- eliminates the dependence on legacy ssl_utils
- backward compatible with old clients/servers
- tested in the SCM framework
- available in INFN CVS on a branch, merge is desirable due to maintenance

- JRA3 recommendations: use GridSite
 - gSoap server without calling soap_bind, soap_accept etc.
 - executed within Apache & mod_gridsite as (Fast)CGI
 - authentication done by mod_gridsite, info passed through environment
 - implementation of the delegation portType, sharing delegated proxies across multiple connections etc.
 - client library to handle delegation
- gSoap GSI plugins
 - still buggy, potential problems with support
 - licensing issues (GPL)
 - virtually imply using gSoap internal http server – not so good for real service deployment

Webservice security – CESNET approach

- GridSite still too heavyweight for our purpose
- custom gSoap plugin + single-line patch on stdsoap2.c
- pure SSL transport, built on top of GSS
- limited usage of gSoap http machine
- intended to be used together with server-bones (slide 6)
- all operations bound by strict timeouts
- no credential delegation (not required by L&B and JP, not easy to do)

L&B webservice interface

- WS-I compliant WSDL
- problems with `<import>`, solved with CL assistance
- query interface integrated with legacy L&B server
- security via our gSoap plugin
- available in gLite CVS (org.glite.lb.server module, exp_bones tag)
- short demo

Server bones library

- factorised functionality of data-independent parts of original L&B server
- master and pre-forked multiple slaves architecture
- listen on multiple UNIX or TCP ports
- well-defined API to implement a service
 - initialise slave
 - initiate/terminate connection
 - handle request
 - reject client
- designed to be reusable for any server
- module `org.glite.lb.server-bones` in CVS

- prototype implementation of JP Primary Storage service
 - public WS interface
 - GSI-FTP based storage backend
 - JP Index registration
 - core of matching engine – when new data arrive, they are propagated to JP Indices which are registered for receiving these data
- JP Index: stubs only, able to receive data from Primary Storage
- currently default gSoap TCP server, migration to server-bones and GSS soon

- deeper analysis of R-GMA internals
- more concrete plans:
 - independent implementation of R-GMA services
 - optimised for usage as L&B over R-GMA infrastructure components
 - properties (reliability, security) required by L&B preserved
- early prototype of the services
 - interfaces generated from original UK group WSDL's
 - able to communicate with one another
 - mostly stub functions (just print "Hey, I was called")

- two dedicated sessions
- almost all important modules hit by the tests
 - GSS communication – 70%
 - event parsing (only one event type) – 20%
 - logging library and locallogger – 47%
 - interlogger: auxiliary functions – almost 100%
 - interlogger: core event delivery – difficult, requires failing server
 - L&B server – under development
 - consumer library – 25%
 - notifications – missing
- Any news about VOMS?