

Gatlet – a Grid Portal Framework

Stefan Bozic



Karlsruhe Institute of Technology



Needs a portal to give grid newbies an easy access to services and resources available in D-Grid



Scientists from different fields need portals for easy grid access

- KIT - SCC
 - Stefan Bozic
 - Dongmei Luo
 - Andreas Bender
- Ulm University
 - Bastian Bögel
 - Helmut Lang

- Open source
- GAT aims to provide a simple, clear interface to many different infrastructures (Globus Toolkit, gLite, Unicore, dCache)
- Different Implementations (C, C++, Java, Python)
- Easy to use API with focus on applications, and scientists, rather than Grid experts

- Gatlet = GAT + Portlet
- Grid Portal Framework and Service Provider
- Supports access to multiple middlewares and protocols (GT4, gLite 3.1, GridFTP, SRM)
- Provides vendor independent data persistence for storing jobs and resources in the portal
- Easy to use Service-API for developing scientific portlets
- Includes portlets for instant grid access

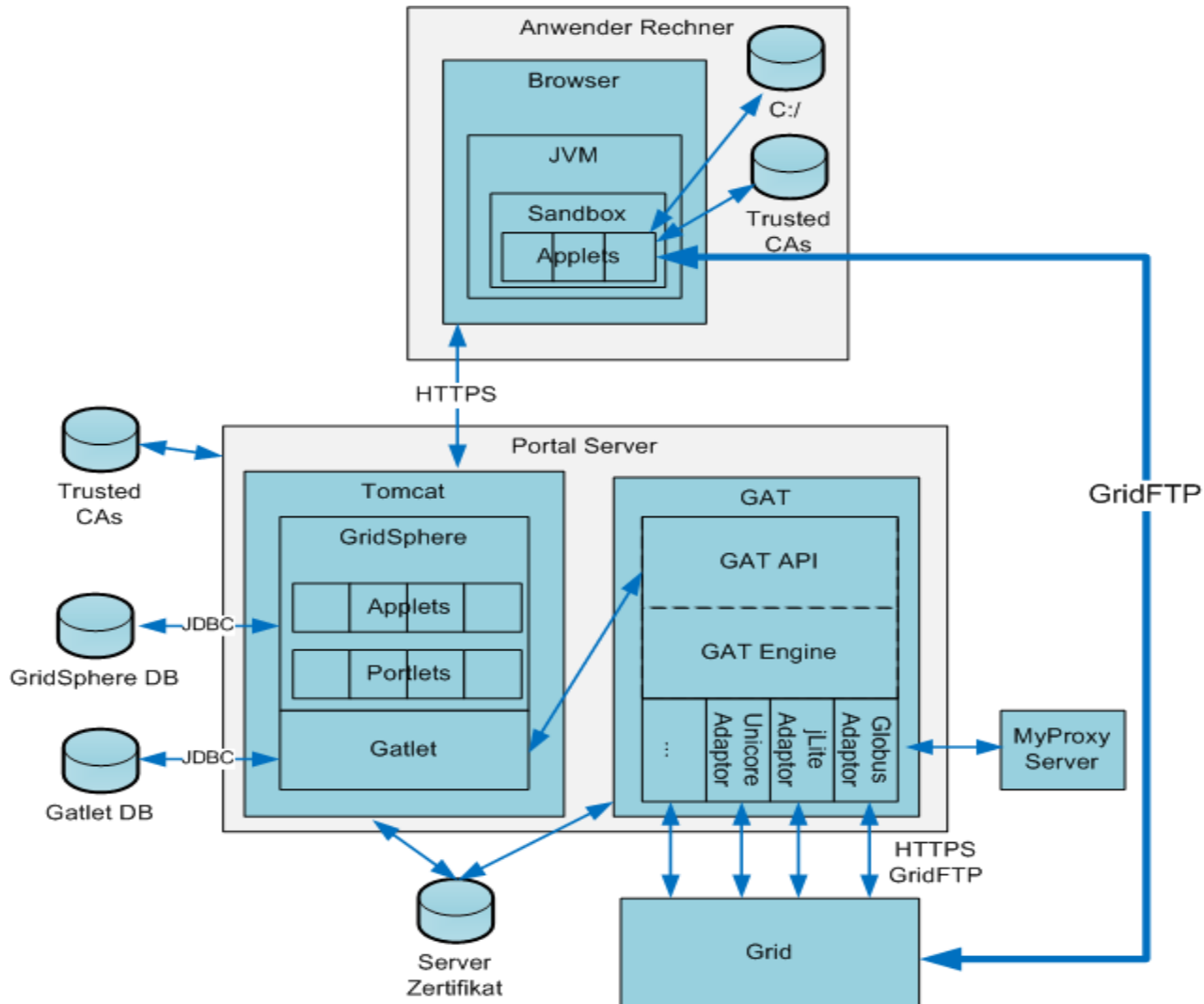
- Authentication via X.509 or User/Pwd
- Single Sign On
- GSI-Security via MyProxy
- Grid Proxy Manager (Firefox Plugin)
- HTTPS

- Job Handling
 - Submit
 - Monitoring
 - Job Details
- File Browser (SRM, GridFTP)
- Resource Management
- MyProxy
- SSHTerm

- FileService
 - createFile, createFileInputStream, createFileOutputStream
- JobService
 - saveJob, getAllActiveJobs, getJobById, getJobByJobId, refreshJob, stopJob, submitJob
- MonitoringAndDiscoverService
 - getQueues
- ResourceService
 - getGlobusResources, getMyProxyResources, saveResource,...

- **UserManagerPortlet**
Imports Users and Vos from gridadmin file
- **DGridImporter**
Imports Users, Vos and Resources from GRRS database

Gatlet - Architektur



- Java 6
- Tomcat5.5 (Webserver)
- Ant1.7 (BuildManagement)
- Gridsphere3.1
- ModifiedVersion ofGAT
- Spring 2.5.6
- EclipseLink(JPA)
- SLF4j (Logging)
- JGlobus1.7 (MyProxy)

- Integration of Globus 5
- Integration of Unicore 6
- Migration from GridSphere to LifeRay
- Import interface to GOC-DB
- Workflow support
- Development of portlets for scientific applications
- Dissemination

- [Gatlet](#)
- [JavaGAT](#)
- [GridSphere](#)
- [bwGRiD](#)
- [D-Grid](#)
- [KIT](#)
- [Ulm University](#)

Thank you!