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HEPCG Workshop,
Jun 2007*

A Design Proposal for Interactive Data Analysis on the Grid



“Road map”

- Introduction
- Design of “PROOF on gLite”
- Live demo
- Summary
- Future plans



Introduction

Tools for ROOT based data analysis

- Self-made solutions for local cluster
- Self-made solutions for Grid

PROOF:

- Preinstalled PROOF clusters (local/remote)
- Self-made PROOF job submission
- Get an ALICE VO membership and use AliEn+PROOF



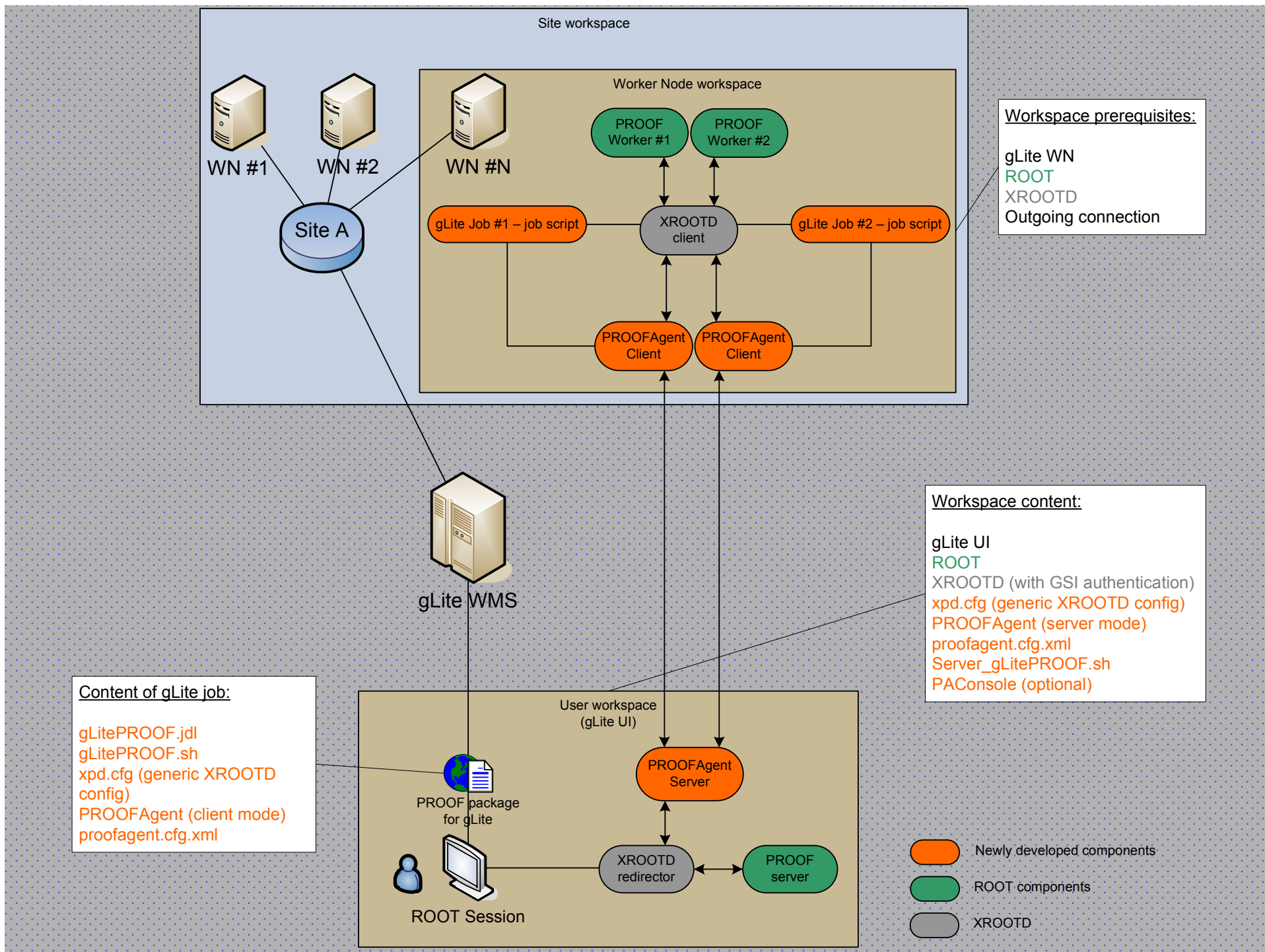
RGLite

```
// Initializing RGLite plug-in
TGrid::Connect("glite");
// Submitting a Job to gLite Grid
TGridJob *job = gGrid->Submit("JDLs/proofd.jdl");
// querying a Status of the Job
TGridJobStatus *status = job->GetJobStatus();
status->GetStatus();
// Getting a Job's output back to the user
TGLiteJob* job_glite(job);
job_glite->GetJobOutput("/home/anar/");
```

**Job submission, Status
querying, Output retrieving**

```
// Initializing RGLite plug-in
TGrid::Connect("glite");
// Changing current File Catalog directory to "dteam"
gGrid->Cd("dteam");
// Querying a list of files of the current FC directory
TGridResult* result = gGrid->Ls();
// Printing the list out, including full file information
result->Print("all");
```

**List full file information of a
catalog folder**





LIVE DEMO



Summary

- RGLite is ready.
 - ROOT team accepted our suggestions in order to improve TGridXXX.
- A PROOF job submission on gLite MW is ready.
- Using Agile methods of software development.
 - Continues integration,
 - automated build system (tests on SLC3 and FC6),
 - nightly release,
 - projects metrics,
 - task tickets and sprints...

see it all here: <http://wiki.gsi.de/cgi-bin/view/Grid/RGLiteAndGAW>



Future plans

- Implement an ability to keep PROOF connection alive after quitting ROOT session.
- Implement a schema with “sub-redirector”.
- Implement WMPProxy job submission in glite-api-wrapper.
- We need gLite resources in HEPCG VO to test on...

GEFÖRDERT VOM



Bundesministerium
für Bildung
und Forschung