



Practical information for the P-GRADE workflow hands-on

www.portal.p-grade.hu



Introduction

- Aim is to learn the usage of the P-GRADE Portal
 - Understand the concept of data driven workflow applications
 - Go through the typical application development cycle
- Grid to be used:
 - GILDA (gLite)

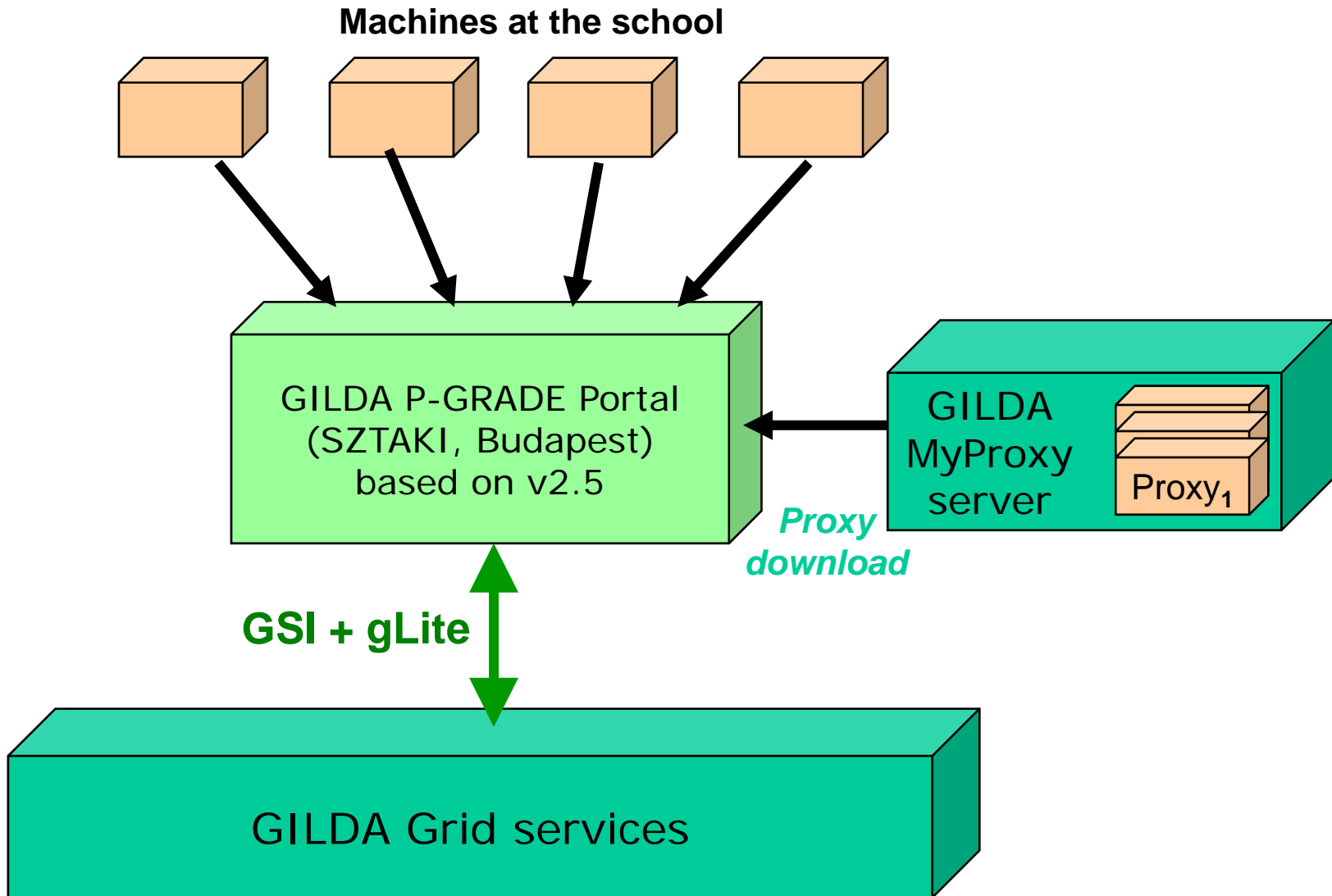


Security situation

- Tutors obtained certificates from GILDA CA
- Tutors registered these certificates at GILDA VO
- Proxies from GILDA certificates were uploaded into GILDA MyProxy



Infrastructure for the hands-on

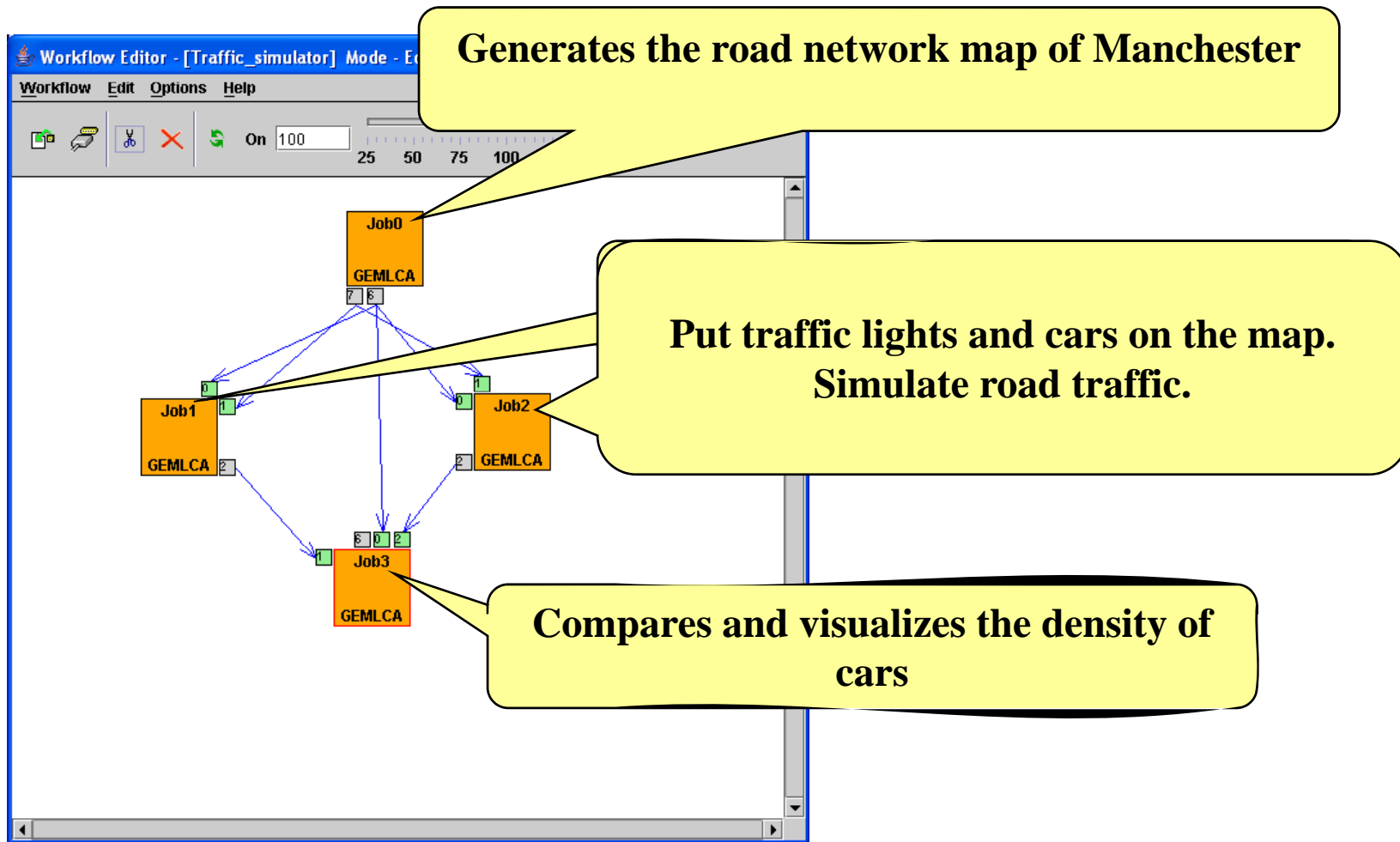




Exercise 1

Import and execute a pre-defined application

Traffic simulation

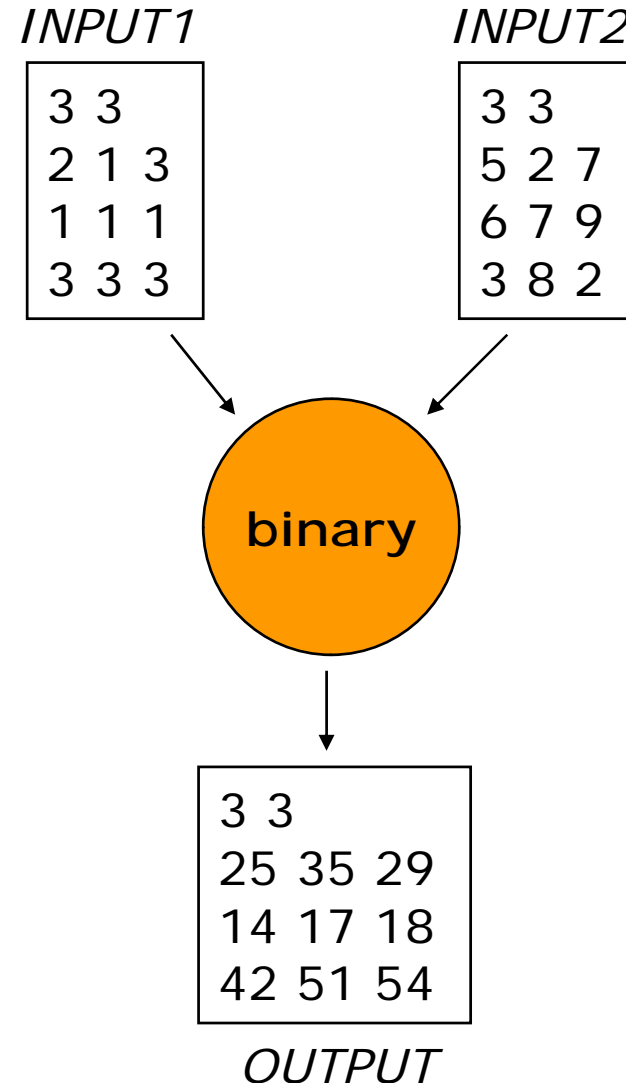




Exercise 2

Execute a matrix multiplication job on GILDA

- C code – Familiar from Monday
- Compiled on GILDA UI
- Reads matrixes from two files called **INPUT1** and **INPUT2**
- Writes result matrix into file called **OUTPUT**
- Controllable by command line parameters
- Local execution:
`./multiply M V`





Exercise 3

Save the multiplication **OUTPUT** on a SE

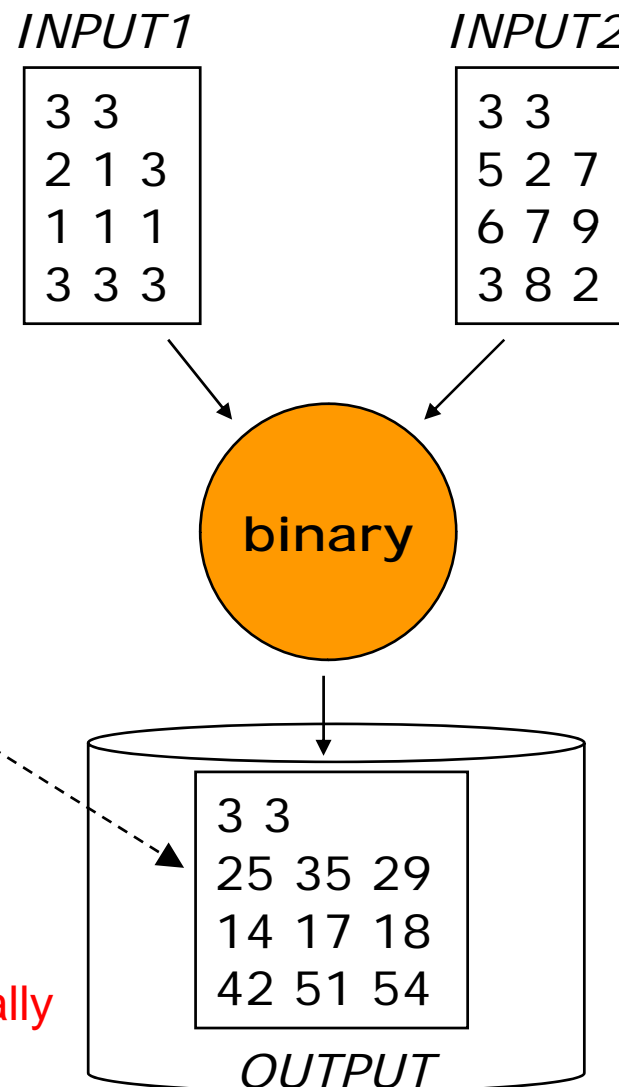
- Modify output file type from “Local” to “Remote”
- Specify a logical file name as target location:

`lfn:/grid/gilda/. . .`

`lfn:/grid/gilda/budapest12/...`

Logical location defined by the user
Registered in LFC automatically

Storage Element selected automatically

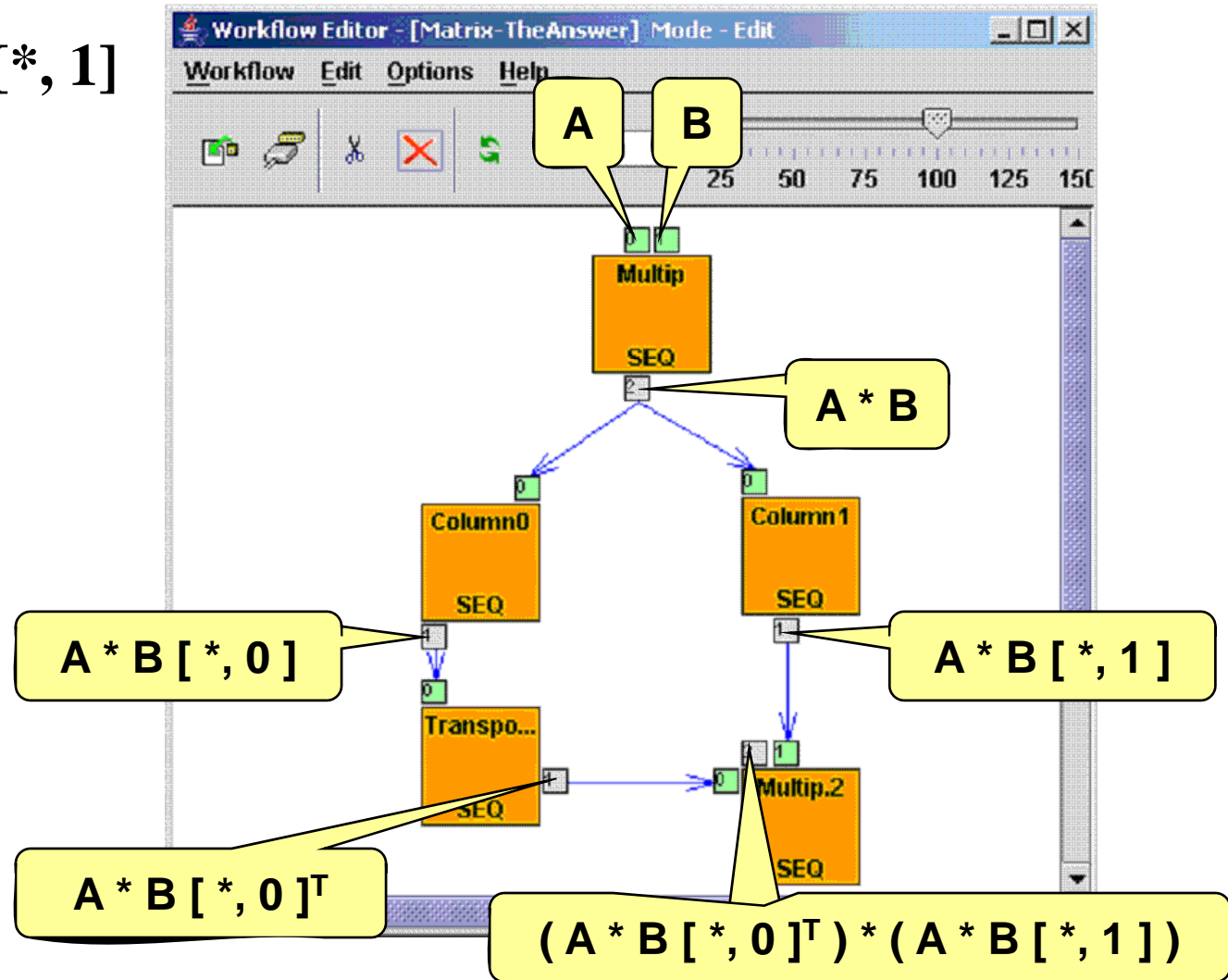




Exercise 4

Define a complex workflow using the MatrixOperations job

- $AB[* , 0]^T * AB[* , 1]$





Tips and tricks

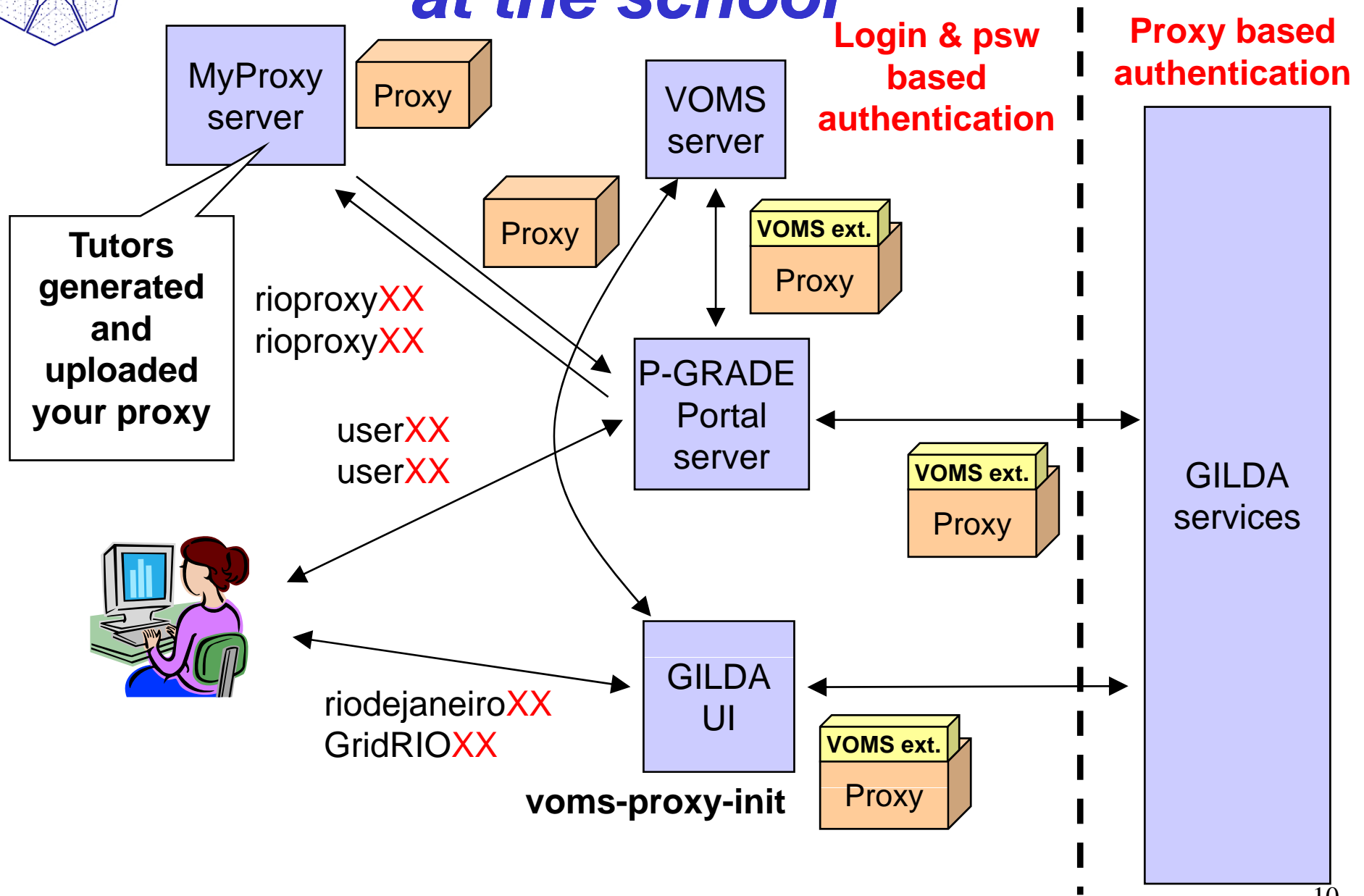
- **Exclude an erroneous site from the brokering process:**
 1. Open the JDL editor of the job
 2. Write

```
other.GlueCEInfoHostname != "hostname"
```

into the “Ranks & requirements” window
- **Automatic job resubmission:**
 1. Open the JDL editor of the job
 2. Set **Retry count** to a higher value



User authentication at the school





Accounts

www.portal.p-grade.hu/gilda

Skip the “Upload your certificate...” section

Location of Java WebStart: `/usr/bin/javaws`

Portal accounts: `user01 – user30`

Portal passwords: `user01 – user30`

MyProxy accounts: `riodejaneiro01 – riodejaneiro15`

MyProxy password: `GridRIO01-GridRIO15`



***Open the hands-on material from
the agenda page...***