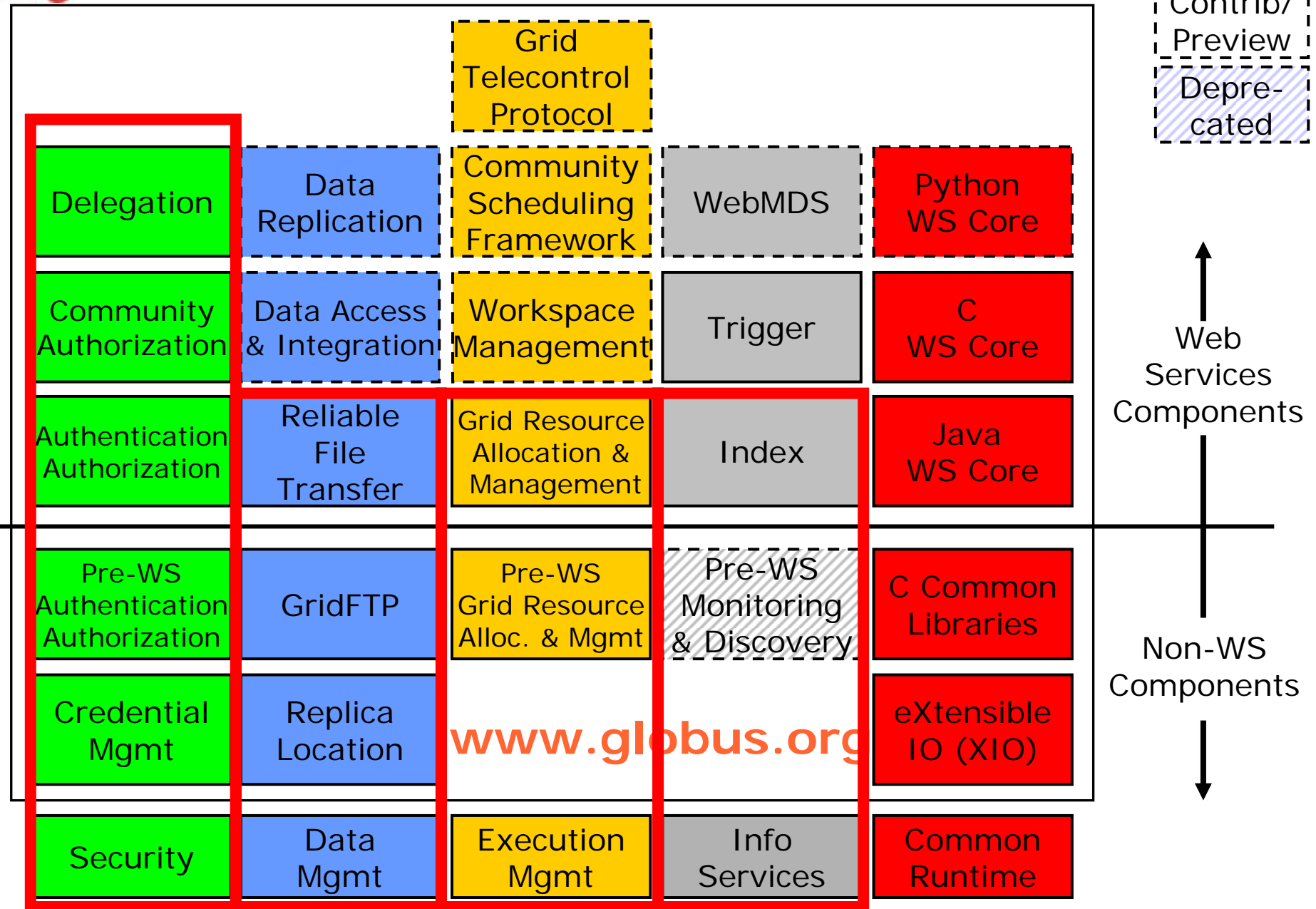


Globus Toolkit 4 hands-on

Gergely Sipos, Gábor Kecskeméti
MTA SZTAKI
sipos@sztaki.hu

The GT4 "service bag"



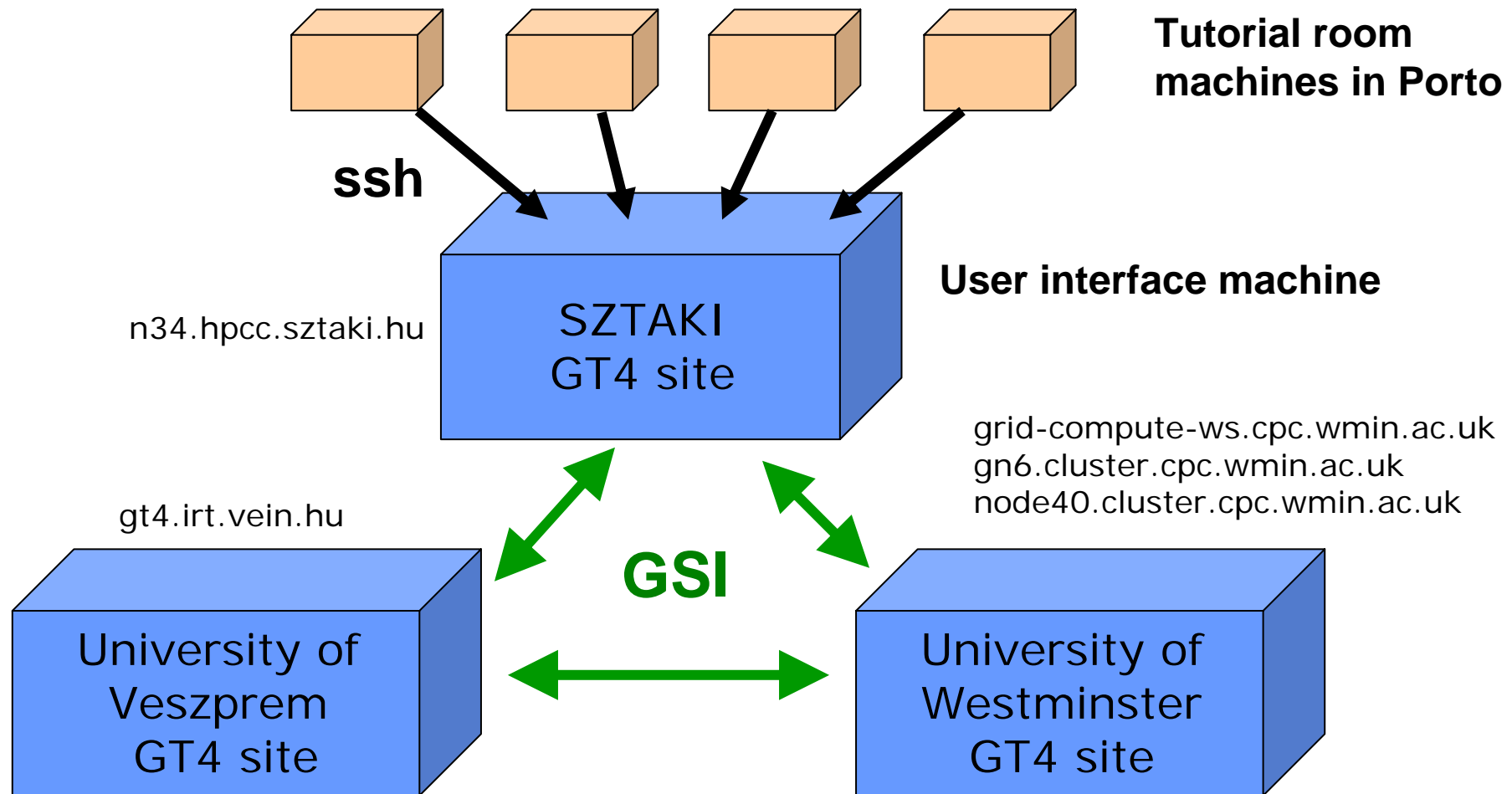
How to use a Grid

1. Find a VO suitable to your needs – national or international collaborations. (*See Grid intro slides from the morning*)
2. Obtain a user certificate from a CA which is recognized by the VO
 1. Procedure is CA dependent
3. Register to the VO
 1. Procedure is VO dependent
4. Use client tools to interact with the Grid services involved in the VO
 1. Use command line clients installed on a user interface (UI) machine
 2. Use portals or other graphical tools to access the services

How it works today

1. Our VO today is Westfocus:
 - Contains services for training and demonstration purposes
 - Grid services are located at 3 sites:
 - MTA SZTAKI - Budapest, Hungary
 - University of Westminster - London, UK
 - University of Veszprem - Veszprem, Hungary
2. Tutors obtained training certificates for you from UK CA
 - Training certificates are valid for a few days...
3. Tutors registered these certs. at the 3 sites
4. Command line clients are available on SZTAKI site
 - MDS4 information system
 - GridFTP
 - WS-GRAM job management with RFT (reliable file transfer)

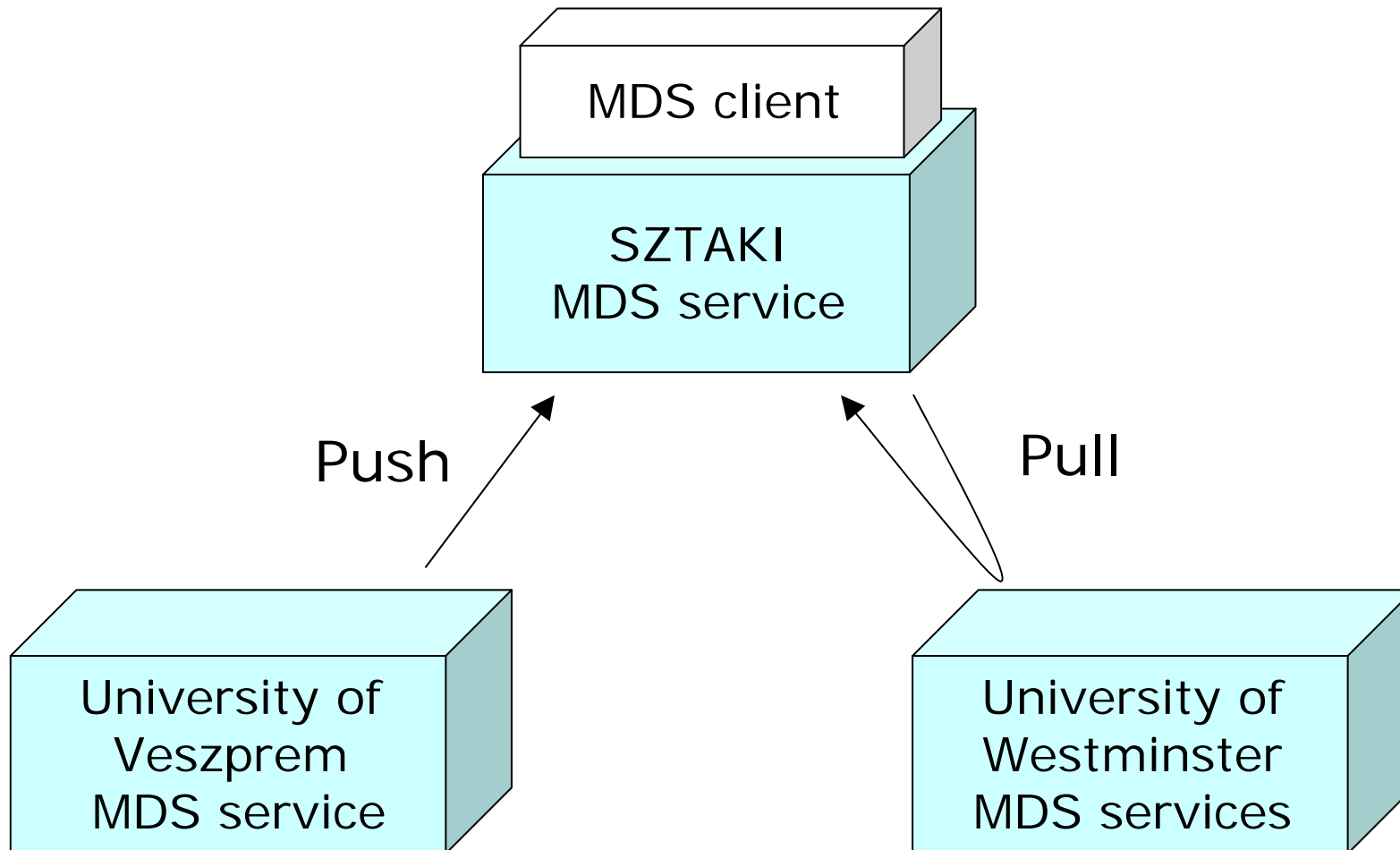
Westfocus infrastructure



Agenda

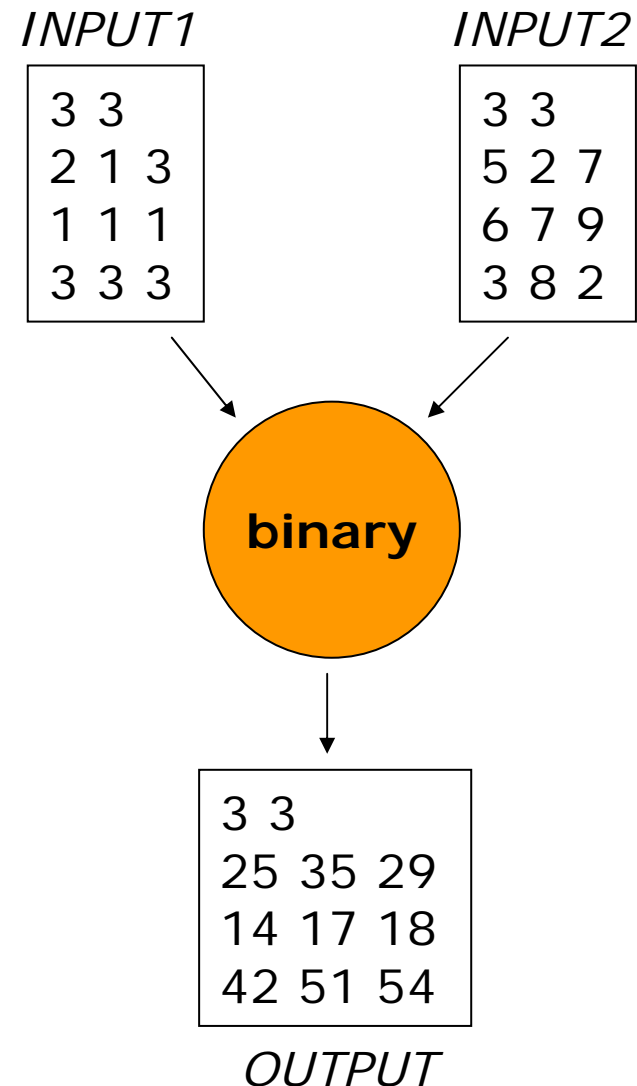
- Get access to Westfocus:
 - ◆ Transform certificate from P12 to PEM format
 - ◆ Create proxy
- Discover Westfocus services
 - ◆ MDS query
- Managing files
 - ◆ Transfer files with GridFTP
- Manage jobs
- Manage batch jobs
- Collaborative work with GT4

MDS4 infrastructure in Westfocus



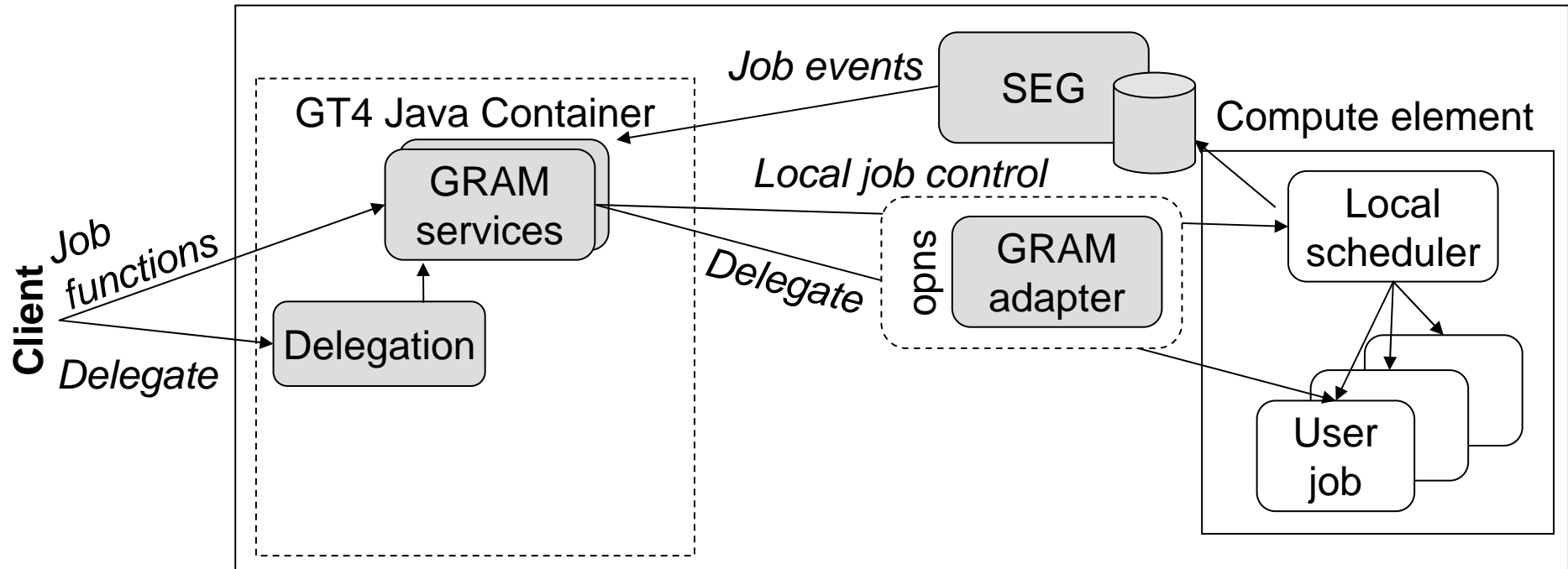
Matrix multiplication job

- C code
- Binary compatible with Westfocus
- Reads matrixes from INPUT1 and INPUT2 files
- Writes result matrix to OUTPUT file
- Command line parameters: M V
- `./multiply M V`



Simple job submission

Target GRAM service



Job submission with file staging

Target GRAM service

