



Gridification progress report

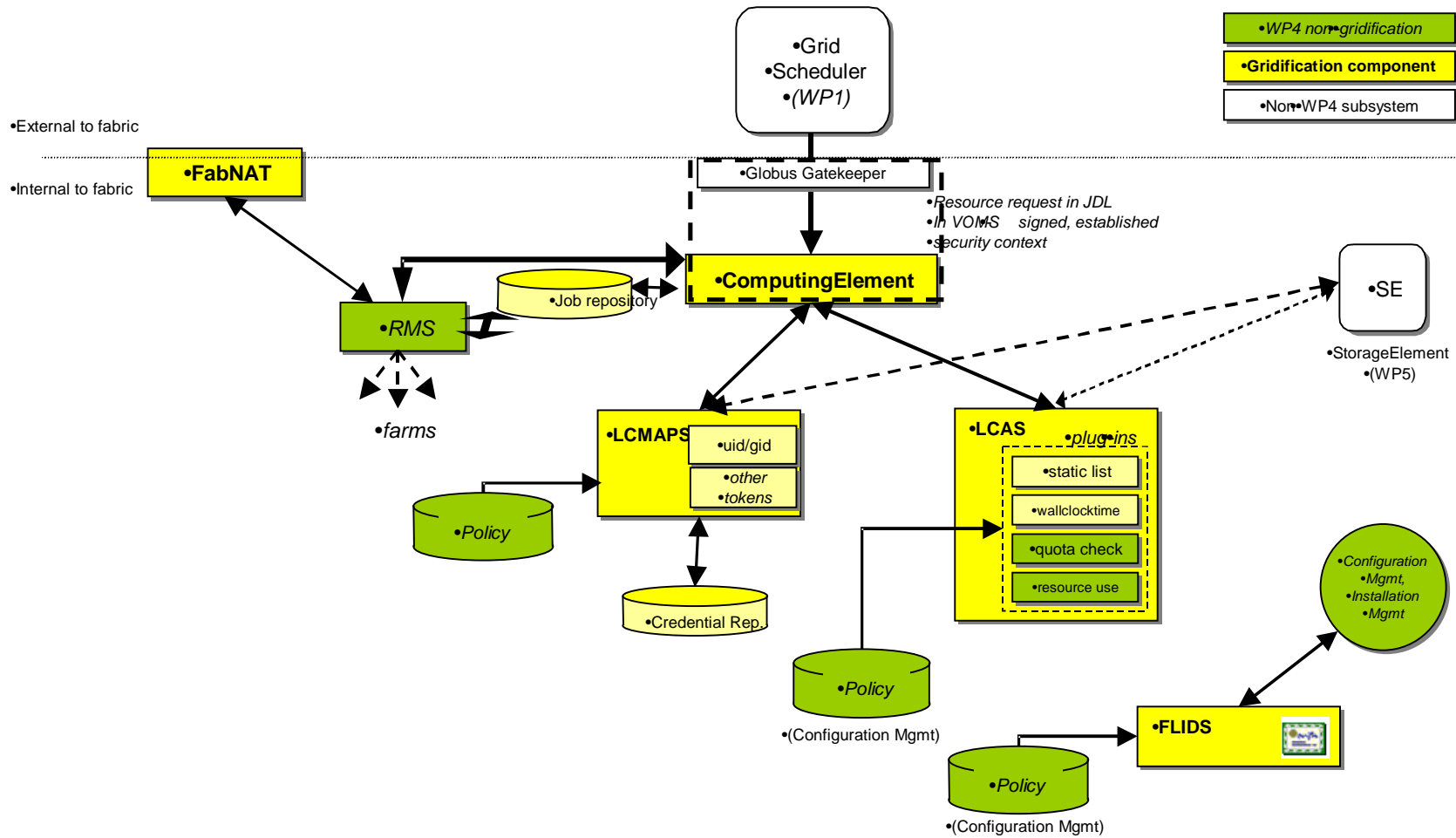
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Martijn Steenbakkens



Gridification Overview

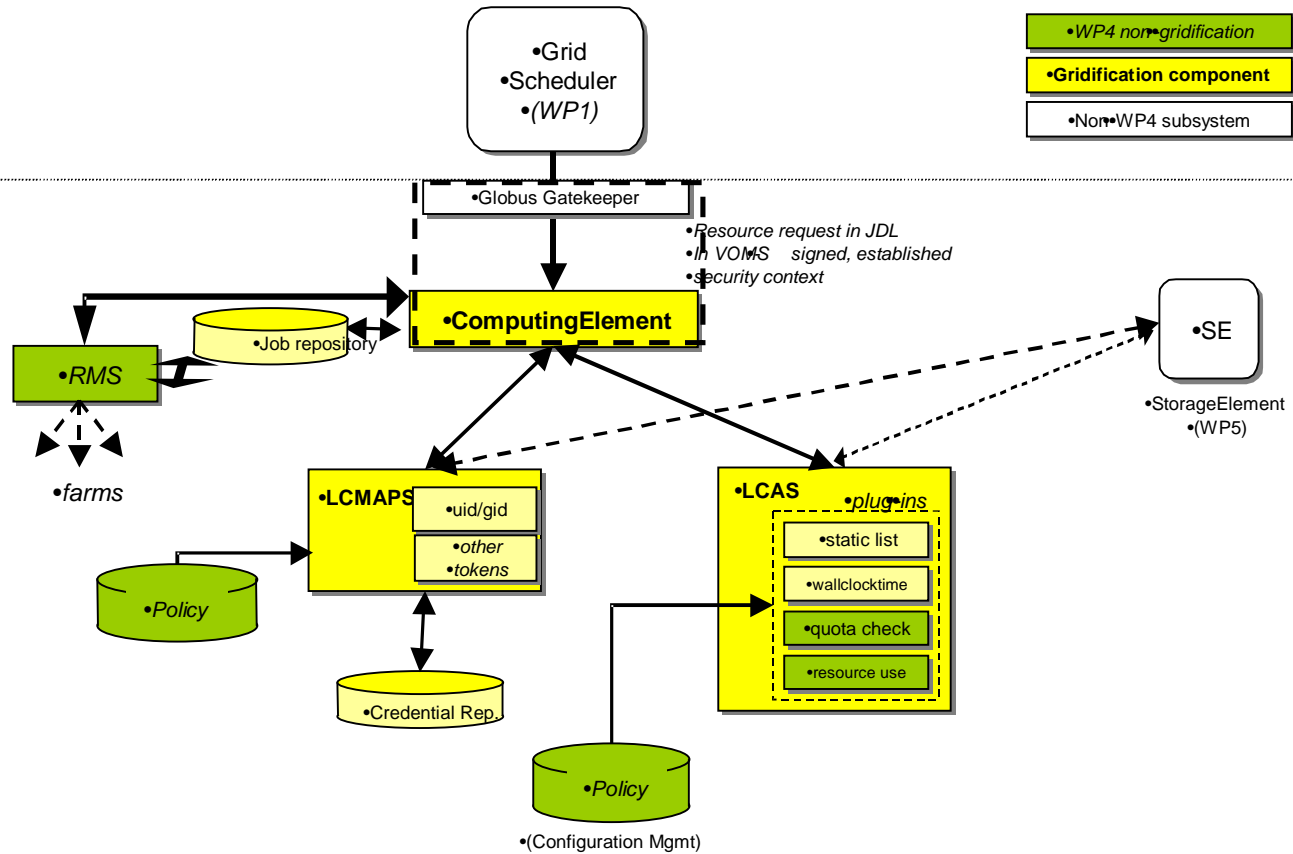




Gridification Overview

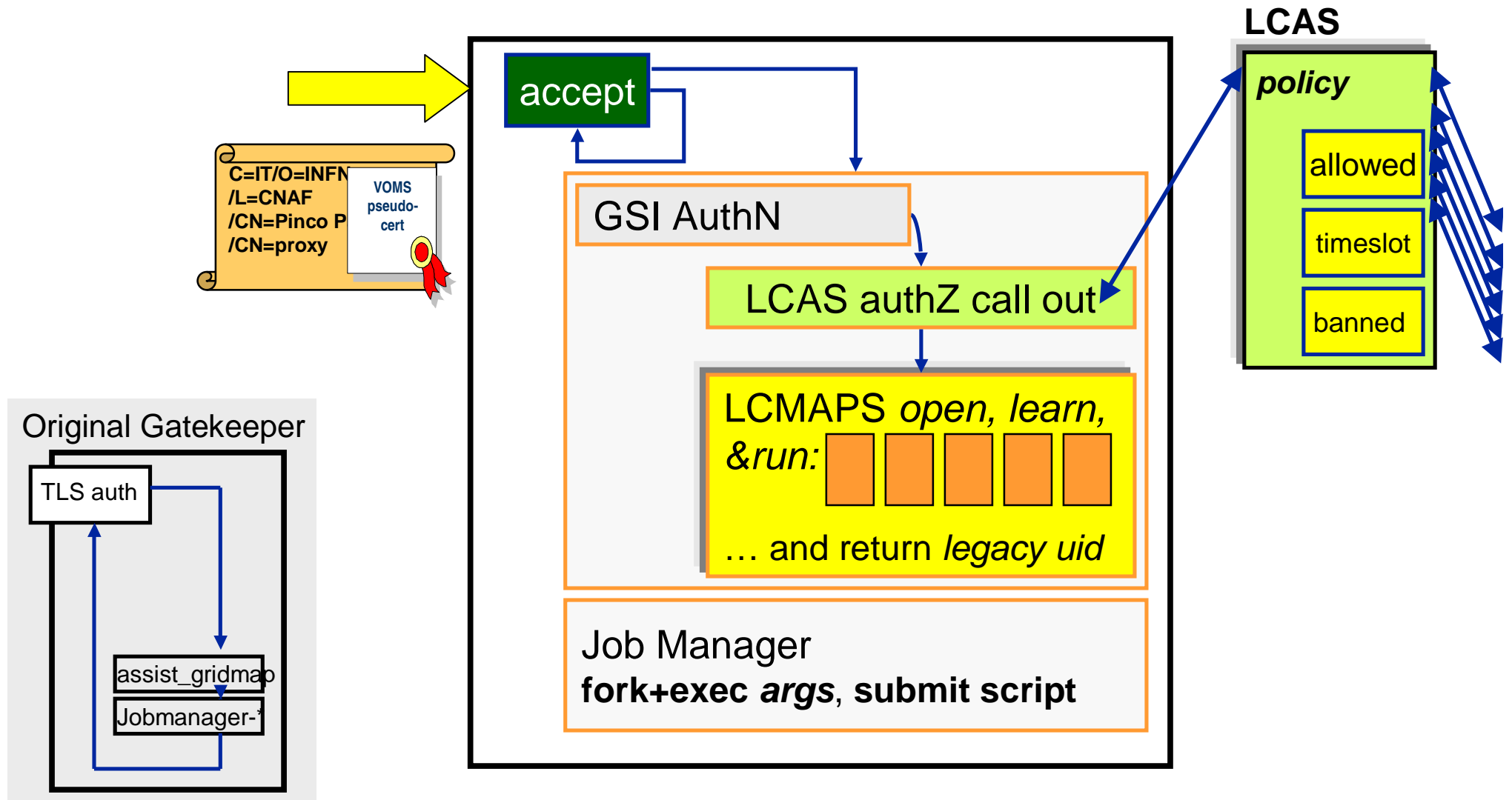
•External to fabric

•Internal to fabric





Authentication control flow EDG gatekeeper





Local Centre Authorization Service (LCAS)

- ◆ Current version LCAS-1.1.16 (integrated in dev tb, EDG 2.1)

- *Authorization plugin* framework
- Authorization decision based on proxy certificate (and RSL)
- 3 standard plugins provided: `lcas_userallow.mod`, `lcas_userban.mod`, `lcas_timeslots.mod`

- New plugin: `lcas_voms.mod`

- Replaces `lcas_userallow.mod`
- Authorization based on VOMS information in user proxy
- Authorized VOs from either grid-mapfile or GACL file
- Supports 'old-style' user proxies as well

New

- Documentation:

- LCAS: <http://www.dutchgrid.nl/DataGrid/wp4/lcas/edg-lcas-1.1/>
- GACL: <http://www.gridpp.ac.uk/authz/gacl>



Local Credential Mapping Service (LCMAPS)

NEW NEU NIEUW

LCMAPS-0.0.16 (integrated in dev tb, EDG 2.1)

- *Plug-in* framework, driven by comprehensive *policy description language*
- Mapping based on user identity, VO affiliation, site-local policy
- Provides local credentials needed for jobs in fabric
- Supports standard UNIX credentials (incl. pool accounts)
- LCFG object: edg-lcfg-lcmaps-1.0
- To be done: AFS/Krb5 support: November ?
- Documentation: <http://www.dutchgrid.nl/DataGrid/wp4/lcmaps/edg-lcmaps-0.0.16>



LCMAPS - modules

- ◆ Modules represent *atomic* functionality
- ◆ Standard acquisition modules:
 - `lcmaps_localaccount.mod`: from user DN assign local UID
 - `lcmaps_poolaccount.mod`: from user DN assign UID from pool
- ◆ VOMS acquisition modules:
 - `lcmaps_voms.mod`: extract VOMS info from proxy
 - `lcmaps_voms_localgroup.mod`: assign GID based on VOMS info
 - `lcmaps_voms_poolgroup.mod`: assign GID from pool, based on VOMS info
 - `lcmaps_voms_poolaccount.mod`: assign UID from pool, based on DN, VOMS and GIDs
- ◆ Enforcement modules
 - `lcmaps_posix_enf.mod`: `setreuid()`, `setregid()` and `setgroups()` in gatekeeper process
 - `lcmaps_ldap_end.mod`: update distributed user database
- ◆ In progress
 - Get **AFS/Krb5** token based on user DN (`gssklog`)
- ◆ ...



edg-gatekeeper

- ◆ Current version: edg-gatekeeper-2.2.8
- ◆ Supports LCAS (either 'dlopened' or linked in)
- ◆ Supports LCMAPS (either 'dlopened' or linked in)
- ◆ New version supports the server version of LCAS



Integration LCAS & LCMAPS

- ◆ Basic integration finished end of last week
 - A few problems with VOMS servers and the like are solved
 - VOMS servers only for ITeam and WP6
- ◆ LCMAPS
 - `edg-lcfg-lcmaps` works fine
 - Involves one manual step: creation of a groupmapfile (use `edgl-lcfg-filecopy` object !)
 - default EDG LCMAPS configuration: No LDAP, No poolgroups
- ◆ LCAS
 - `edg-lcas-voms2gacl` creates LCAS GACL file automatically from grid-mapfile
- ◆ Testing on the development testbed continues ... (?)



To be done

- ◆ Job repository
 - Store job status, local credential mapping (plugin LCMAPS), job description, user proxy, global job ID (from jobmanager)
 - Repository and access API
 - LDAP directory
 - Foreseen delivery: October/November
- ◆ AFS/Kerberos support in LCMAPS
 - Foreseen delivery: November ?
- ◆ LCAS server implementation
 - May involve a few changes in the edg-gatekeeper
 - Foreseen delivery: November
 - (From GACL to XACML) ?
- ◆ Give support for edg-gatekeeper, LCAS, and LCMAPS

The logo consists of the word "Data" in orange above the word "GRID" in black. The "GRID" text is stylized with a blue globe icon behind the letters "I" and "D".

Data GRID Dissemination

- ◆ GGF (various WG and RG: authorization WG, site AAA RG)
- ◆ Evaluation by PPDG/GriPhyN projects
- ◆ In the Netherlands: VL-E (Virtual Laboratory for E-science)



Hands-on tutorial on Monday



Timetable gridification components

Component	Release	Integration
LCMAPS-1.0 (+ edg-gatekeeper-2.2)	End of June	July ? (after VOMS)
LCAS-2.0 (server + VOMS plugin)	End of July/August	September
Job Repository	End of August ?	September ??
FLIDS	September	??
FABNAT	November	??