Gridification progress report

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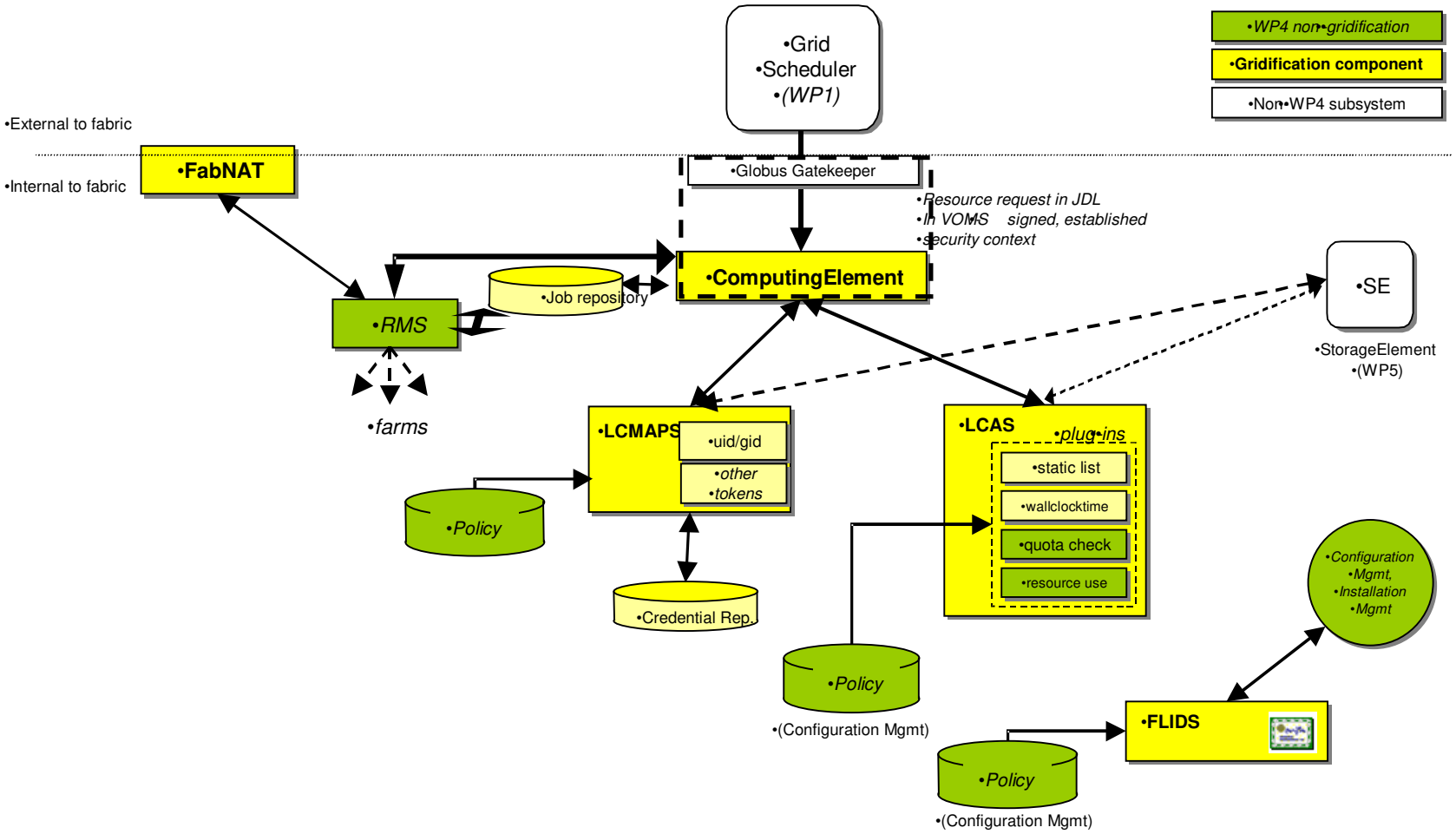
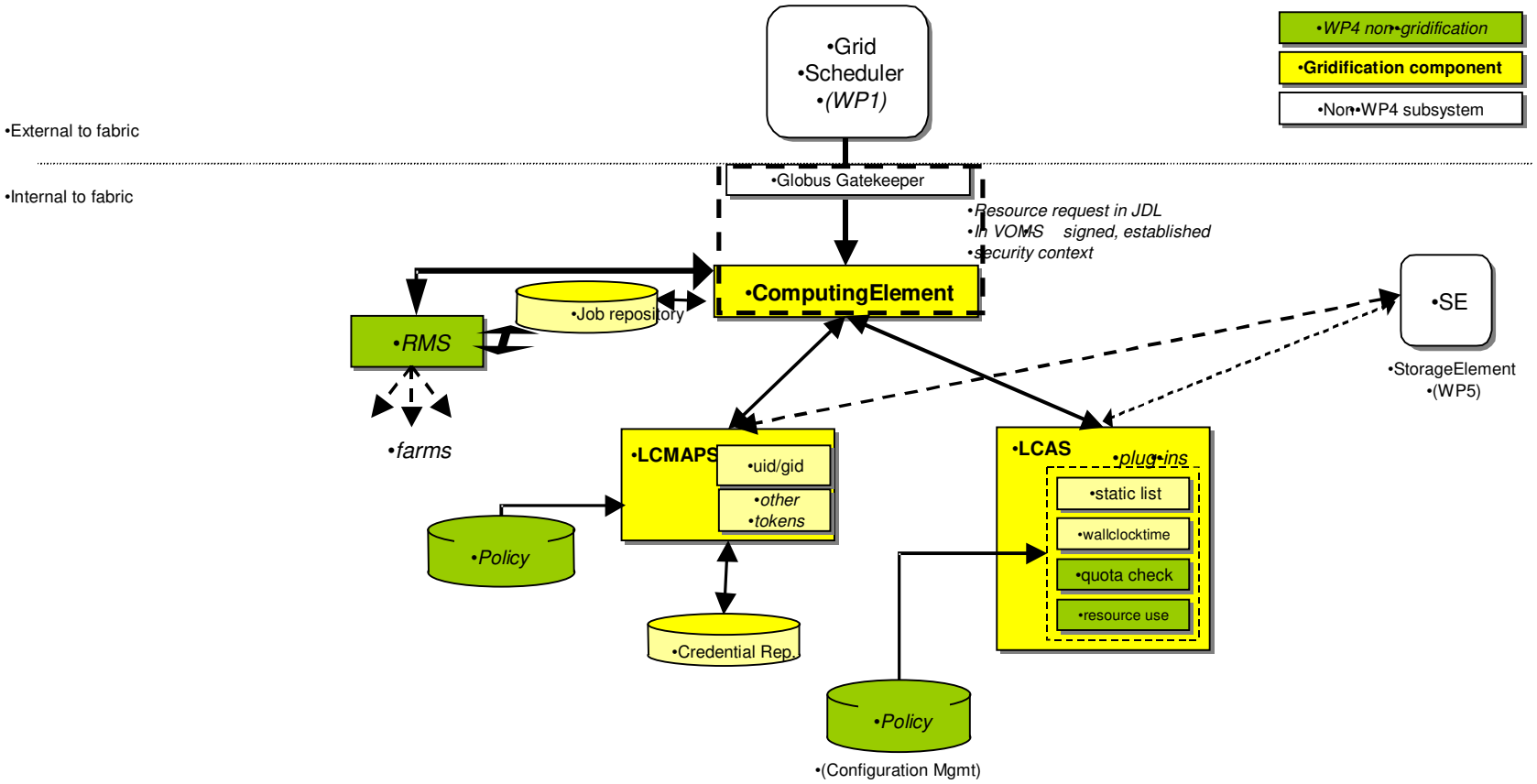
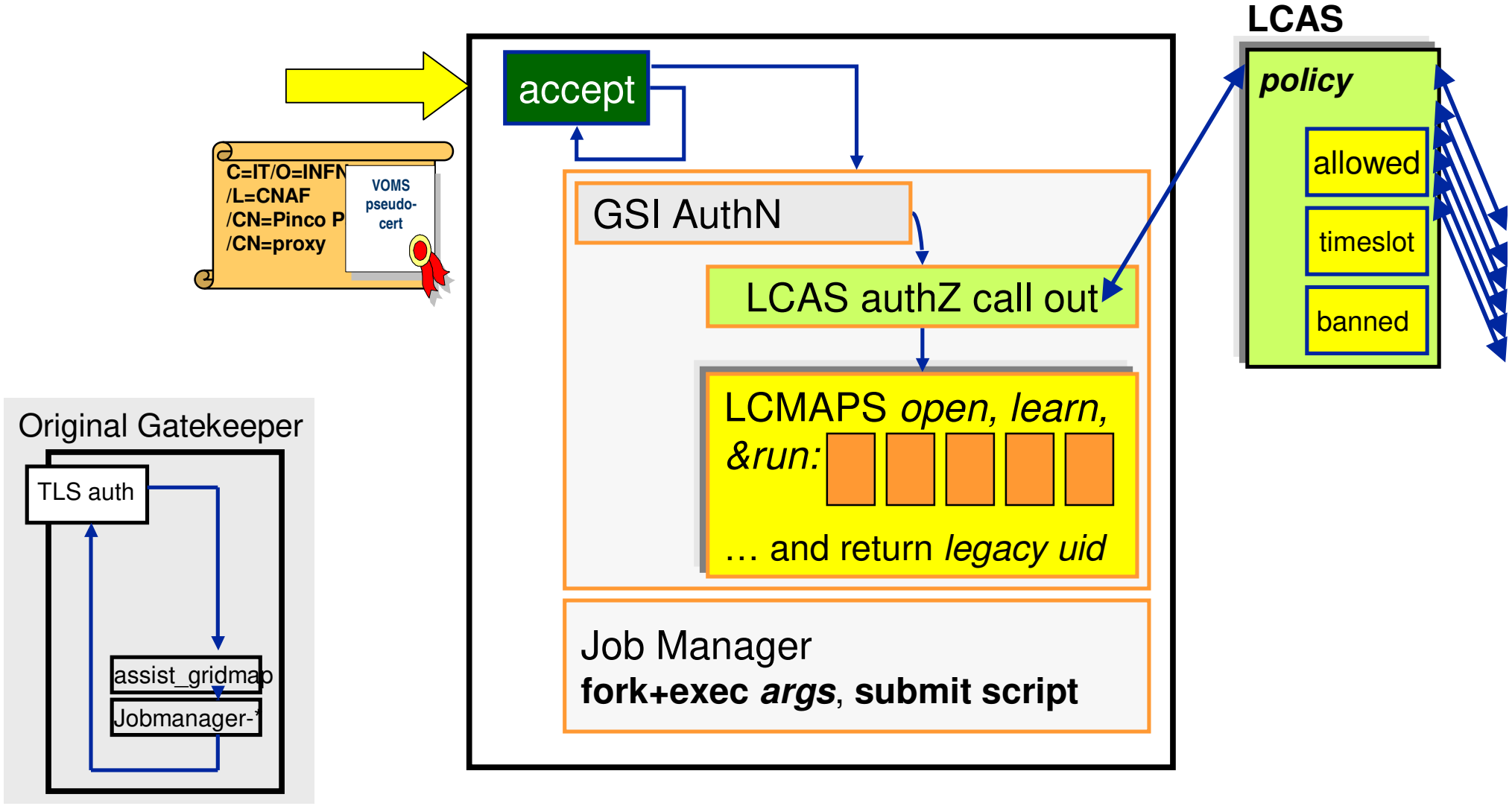
Gridification Overview



Gridification Overview



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
  - 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)

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

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	??