Gridification status report

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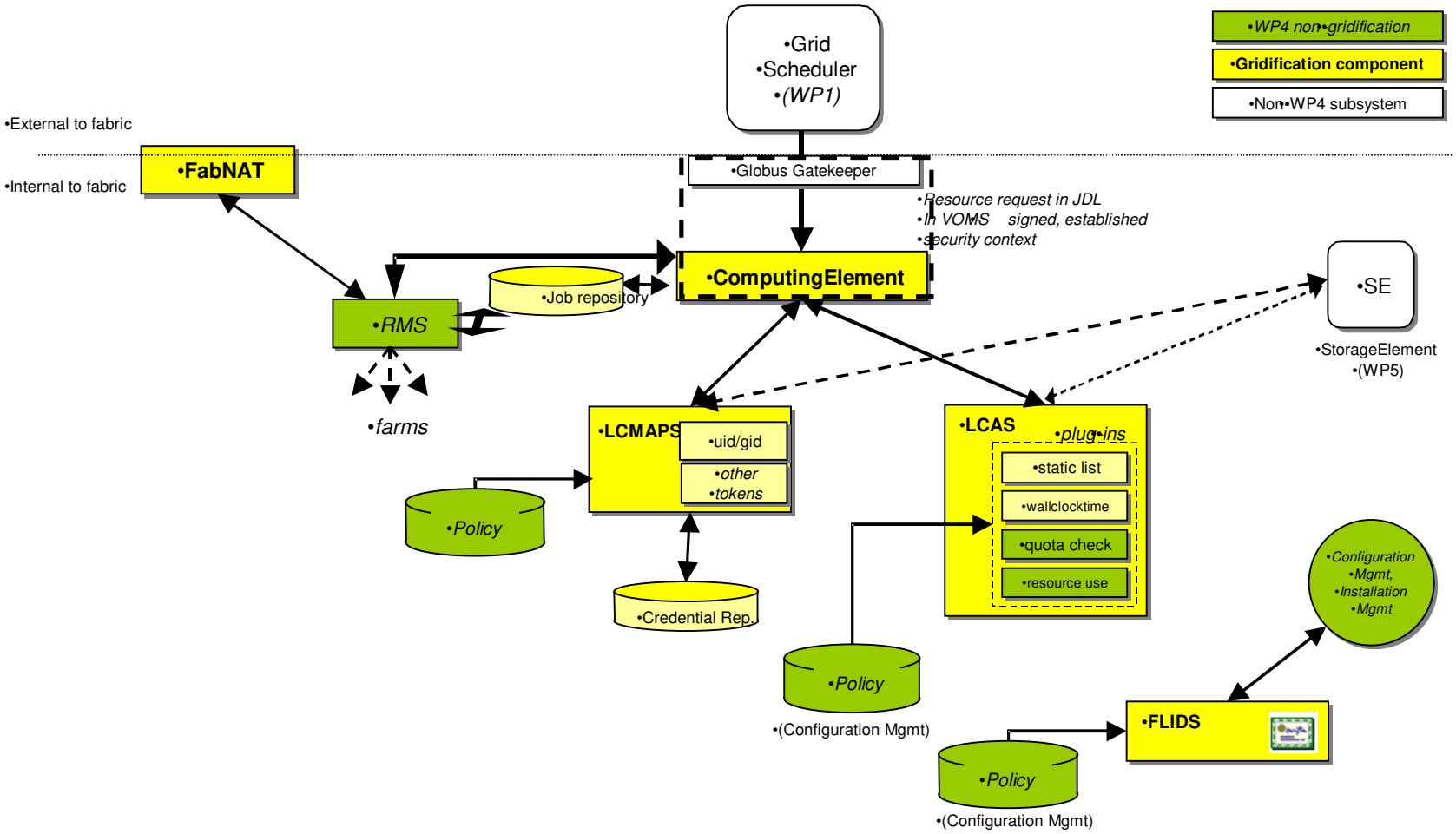
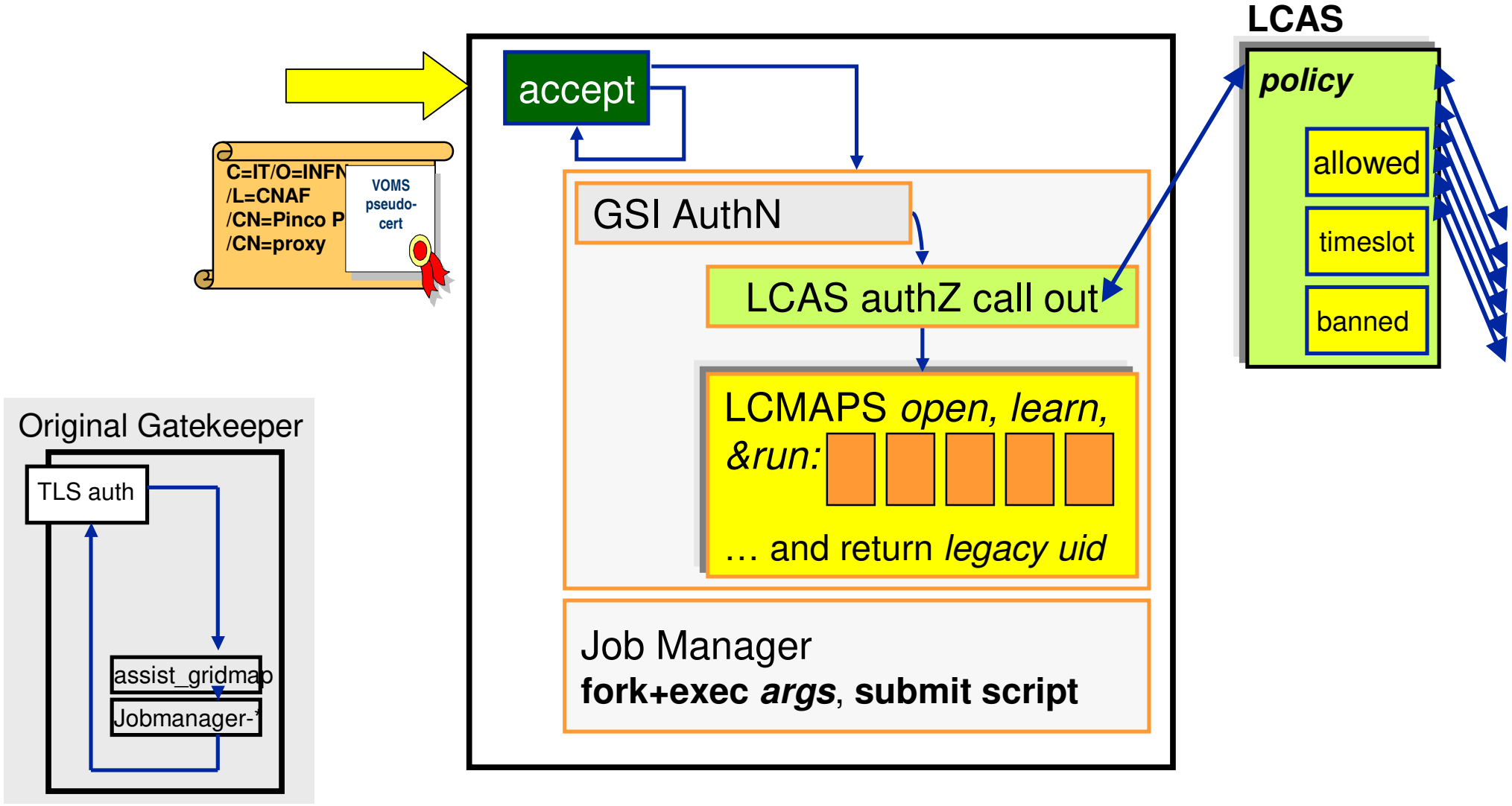
Gridification Architecture



Authentication control flow EDG gatekeeper



Local Centre Authorization Service (LCAS)

- Current version LCAS-1.1
  - Authorization plugin framework, library
  - Authorization decision based on proxy certificate and RSL
  - 3 plugins provided: `lcas_userallow.mod`, `lcas_userban.mod`, `lcas_timeslots.mod`
  - Documentation: http://www.dutchgrid.nl/DataGrid/wp4/lcas/edg-lcas-1.1/
- Future developments
  - VOMS plugin (authorization decision based on VO, (sub)group, role)
    - Delivery: end of July
  - LCAS-2.0:
    - Server implementation (API does hopefully not change)
    - Use policy description language (pdl) from LCMAPS
    - Upgrade API plugins to LCMAPS plugin API (introspect)
    - Delivery: July/August

Local Credential Mapping Service (LCMAPS)

- LCMAPS-1.0 (more in David's talk)
  - *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), AFS tokens, Krb5
  - Delivery LCMAPS + plugins: end of June
  - Apidoc: http://www.dutchgrid.nl/DataGrid/wp4/lcmaps/edg-lcmaps-0.0.1/apidoc/html/index.html

LCMAPS – modules

- **VOMS** from role info and local mapfile assign gid (A)
- **PoolAccounts** from username assign unique uid (A)
- **PoolGroups** from (VOMS) groupname assign unique gid (A)
- **LocalAccount** from username assign local existing unique uid (A)
- **AFS/Krb5** get token based on user DN info (A)
- **POSIX *process*** setuid() and setegid() (E)
- **POSIX LDAP** update distributed user database (E)
- **Krb5** run job via k5cert (E)
- …

edg-gatekeeper

- Current version: edg-gatekeeper-2.1
  - Supports LCAS-1.1 (either "dlopened" or linked in)
  - Independent from globus-gatekeeper (based on GT-2.2)
- Future versions:
  - edg-gatekeeper-2.2
    - Supports LCAS-1.1 and LCMAPS-1.0
    - Delivered with LCMAPS-1.0 (end of June)
  - edg-gatekeeper-2.3
    - Supports LCAS-2.0 and LCMAPS-1.0
    - Delivered with LCAS-2.0 (July/August)

Job Repository

- Keeps a log of incoming and stores local job info
  - Repository and access API
  - LDAP directory
  - Store job status, credential mapping (plugin LCMAPS), job description
- Release: september 2003
- main user RMS

FabNat and FLIdS

- FabNat
  - Provides a method for streaming connections to be channeled into local fabric
  - Information provider and tunnel request specification (RSL)
  - Foreseen delivery: November
  - Still required ??
- Fabric Local Identity Service (FLIdS)
  - Automated CA with policy engine
  - Perl script with SSL module (openssl calls)
  - Foreseen delivery: September
  - Still required ??

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	??