

The Execution Environment Service

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Introduction

Nikhef

Grid computing

Security middleware in the gLite stack

Site Access Control suite

The Execution Environment Service

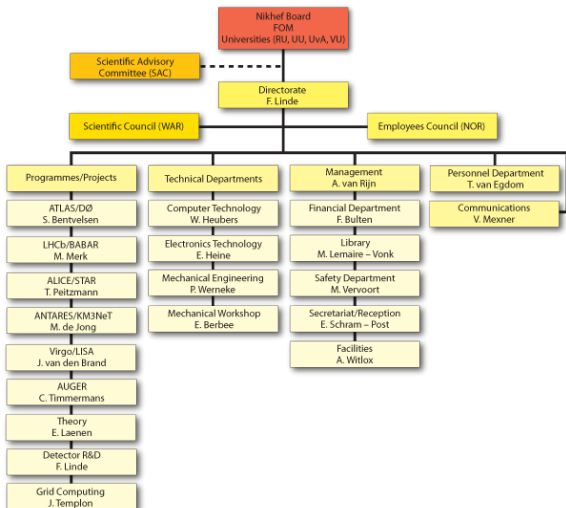
Functional requirements

Technical requirements

Proposed design of the EES

API design

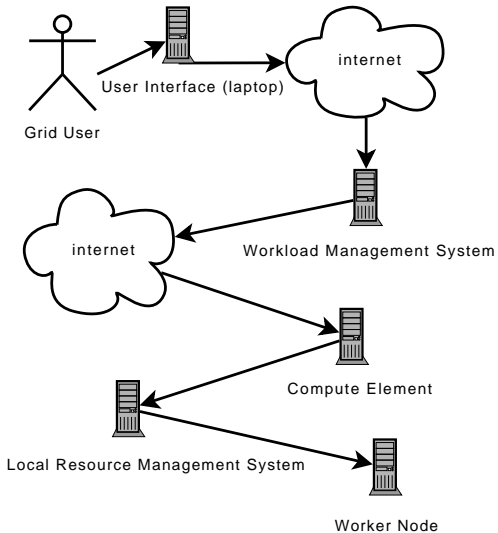
Future development

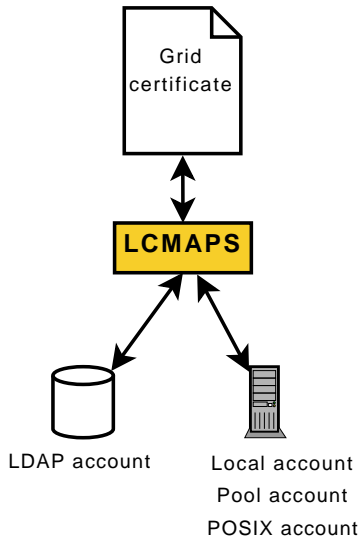


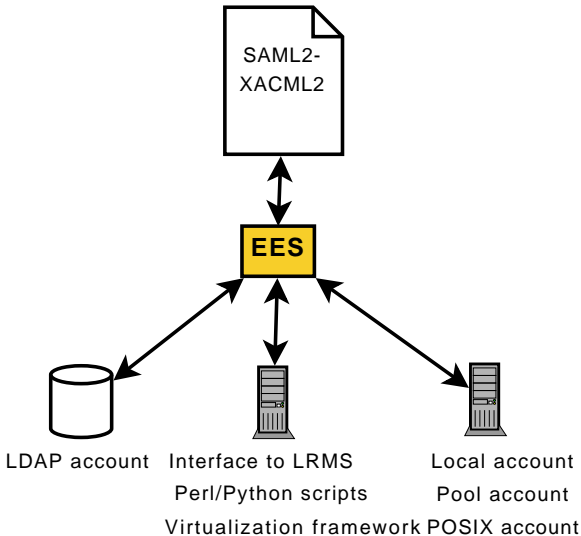
CERN on Grid computing:

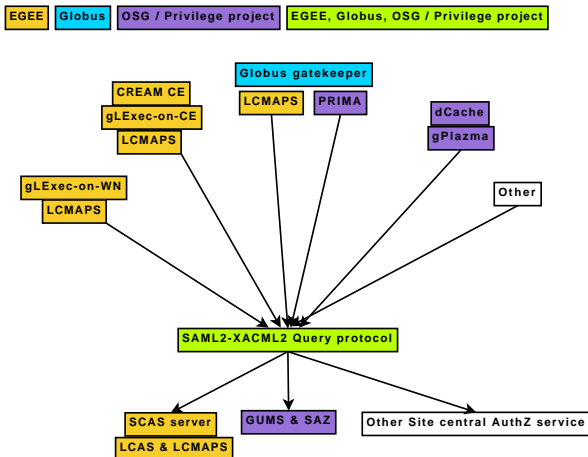
"A service for sharing computer power and data storage capacity over the Internet"

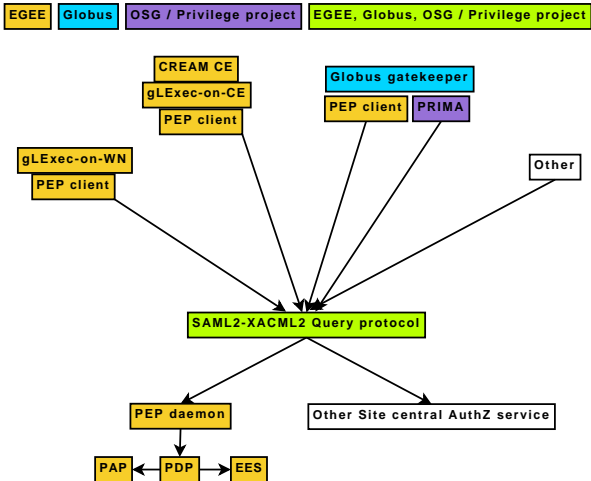








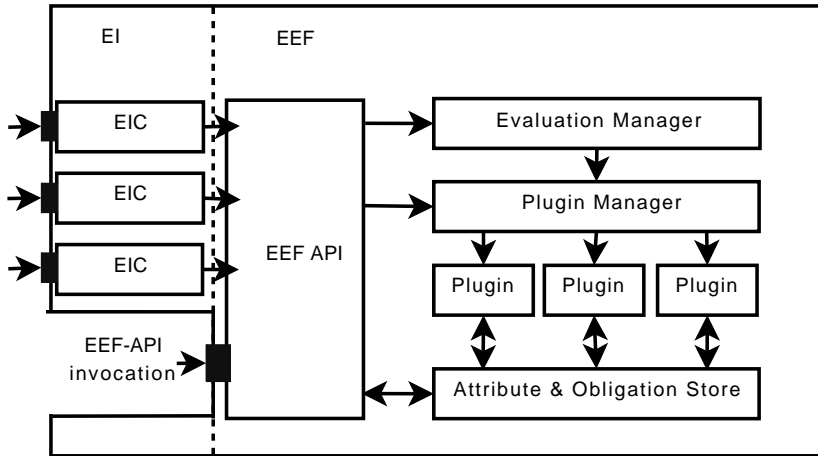


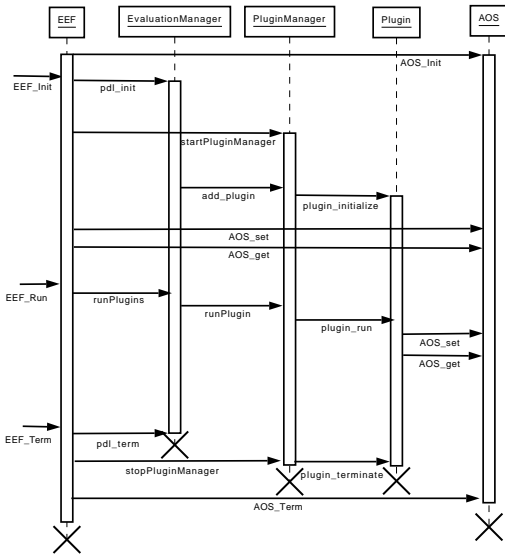


- Have the ability to work with SAML2-XACML2 concepts
- Provide a data store for generic and specialized data types
- Be easily adaptable to new use cases
- Facilitate access from several external interfaces

- Be largely backward-compatible with existing deployment schemes
- Perform efficiently
- Be thread-safe
- Be portable to many different platforms
- Be able to interact with the OS on a low level
- Provide a flexible plug-in API

EES





- EEF_Init()
- EEF_Run()
- EEF_Term()

- `plugin_initialize()`
- `plugin_run()`
- `plugin_terminate()`

- `setAttribute(label, value)`
- `getAttribute(label)`
- `setObligation(label, value)`
- `getObligation(label)`
- `destroyObligation(label)`

- getNode(label)
- addChild(label, child node)
- getChild(label)
- getParent(label)
- getValueByNode(node)

- Expose the EEF as a service
- Multi-threading support
- Plug-ins to support new use cases
- SAML2-XACML2 parsing
- Patch existing plug-ins

- X.509 certificate
- VOMS AC
- XACML request
- SAML statements

- Unix local account
- Unix pool account
- POSIX enforcement
- LDAP enforcement

- Interact with Local Resource Management System
- Enforce reconfiguration of a batch queue scheduler like Maui
- Interface with virtualization frameworks like OCCI or OpenNebula
- Execute arbitrary scripts local to the site for management purposes

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