



*Polish Infrastructure
for Supporting Computational Science
in the European Research Space*

EMI UNICORE progress update (accounting, authorization, information system)

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Outline

- ◆ Accounting – status update (PL-Grid)
- ◆ Authorization – UNICORE and EGI infrastructure (EMI)
- ◆ Information system
- ◆ Open issues

Accounting (PI-Grid)

- ◆ Recently a new version 1.5.0 was released.
 - ◆ Support for aggregated usage records,
 - ◆ Export to APEL using APEL summary records and APEL SSM,
 - ◆ Visualization web tool can use other authentication mechanisms then UVOS.
 - ◆ Many small improvements and bugfixes.
 - ◆ Documentation:
<http://unicore.eu/documentation/manuals/unicore6/files/rus-accounting-1.5.0>
 - ◆ Downloads:
<http://sourceforge.net/projects/unicore-life/files/UNICORE%20RUS%20Accounting/1.5.0/>
- ◆ With this release we have a working solution that can be used to publish UNICORE accounting data to EGI.
- ◆ However there are many things to be improved:
 - ◆ the SSM protocol has multiple serious drawbacks,
 - ◆ the APEL format is not a generally accepted standard.
- ◆ Move to MOM and commonly agreed UsageRecord format (from EMI) is suggested.
- ◆ This is tracked in a separate EGI Task Force.
https://wiki.egi.eu/wiki/TCB:Accounting_Task_Force

Security: AuthN and AuthZ

- ◆ Current status (UNICORE 6.4.2/EMI 1), from the **gLite/EGEE perspective**:
 - ◆ UNICORE doesn't accept proxy certificates for authentication (only regular certificates)
 - There is an add-on for UNICORE allowing for usage of proxy for authentication, but it can be assessed as a very risky from security PoV and doesn't work with all UNICORE server-side features (e.g. VOs won't work).
 - ◆ UNICORE doesn't support proxy-based delegation (or impersonation), i.e. it is not able to request a proxy and use it when communicating with other services.
 - ◆ Argus as authorization service is not supported.
 - ◆ It is not possible to use anyhow authorization data stored in VOMS.
- ◆ So it is bad. BUT a big improvement is just behind a corner.

Security: AuthN and AuthZ (cont.)

- ◆ Changes which will be available in the next EMI 2 release (corresponding to UNICORE release 6.5.0):
 - ◆ It will be possible to use VOMS authorization data.
 - VOMS version must be the one from EMI 2.
 - It must be configured with SAML endpoint support.
 - Only with UCC and servers accepting pushed credentials.
- ◆ Changes available in the EMI 2 update, corresponding to UNICORE 6.5.1.
 - ◆ Integration with EMI common authentication library (caNI) will add support for authentication with proxies.
- ◆ Argus integration is already available (but absolutely unofficially as it is not working with the current Argus).
 - ◆ The initial tests showed that integration with Argus using a suggested approach (i.e. integration with Argus PAP) should work with Argus released in EMI 2.
 - ◆ Officially this will be available in the UNICORE 6.5.1.
 - ◆ Integration with Argus PDP will be available after subsequent Argus update(?).
- ◆ Delegation with proxies – no short-term plans. In further future STS might help (1-2 years?)

Information system

- ◆ EMIR – the EMI Registry - is coming into scene.
 - ◆ EMI 2 should contain a first version.
- ◆ Integration with UNICORE come probably with the first updates (experimental support is possible maybe even in EMI2).
- ◆ Timeline for integration of other middleware stacks with EMIR - ???

Open Issues

- ◆ Certification of UNICORE-only sites in EGI
 - ◆ What are the precise EGI requirements for all its sites?
 - Ability to account resource usage with APEL? ability to monitor? fulfilling QoS metrics? being able to run tests?
 - ◆ How to realize it in UNICORE.