



Science and
Technology
Facilities Council

EGI Accounting

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EGI2024, Lecce

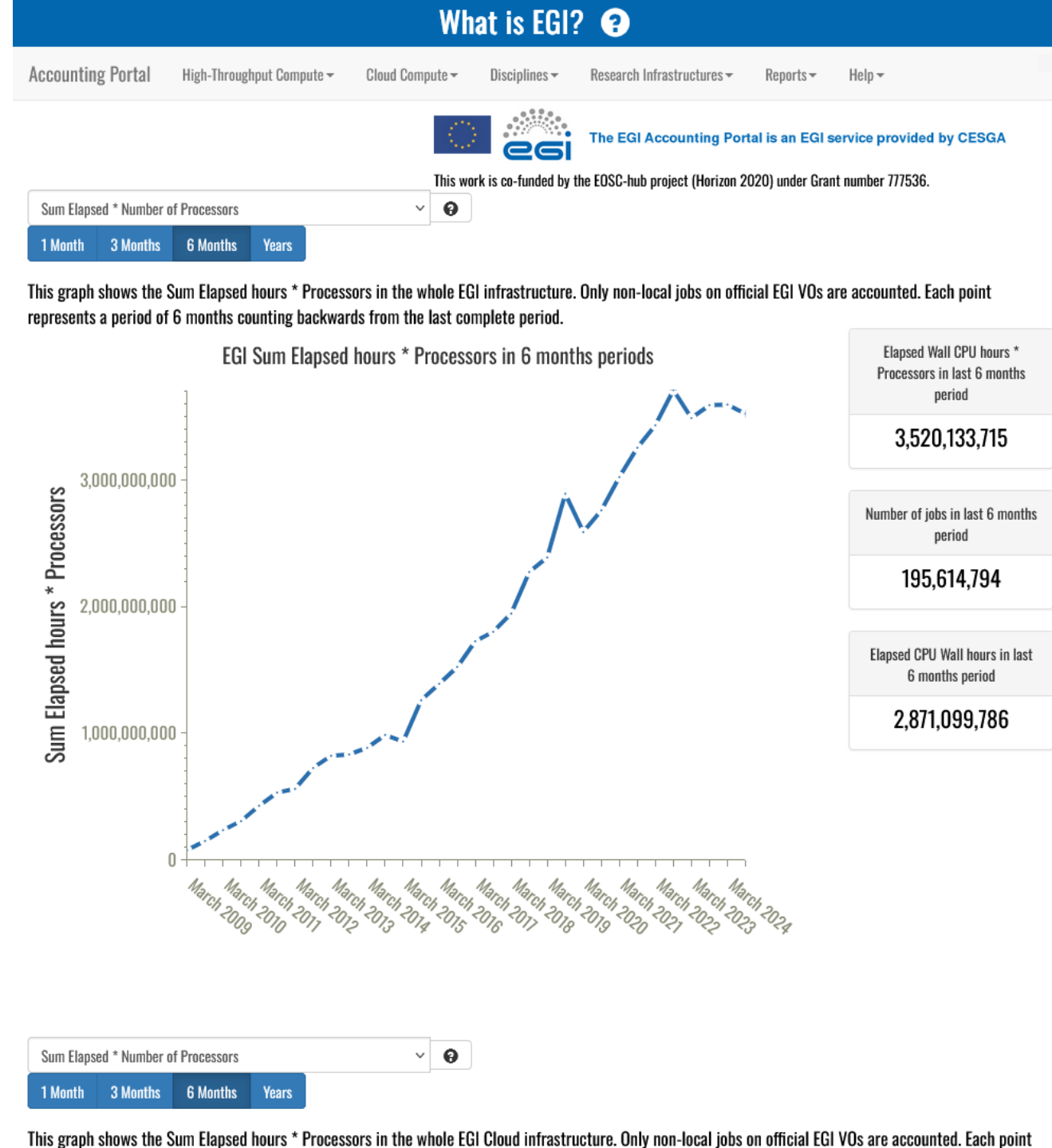
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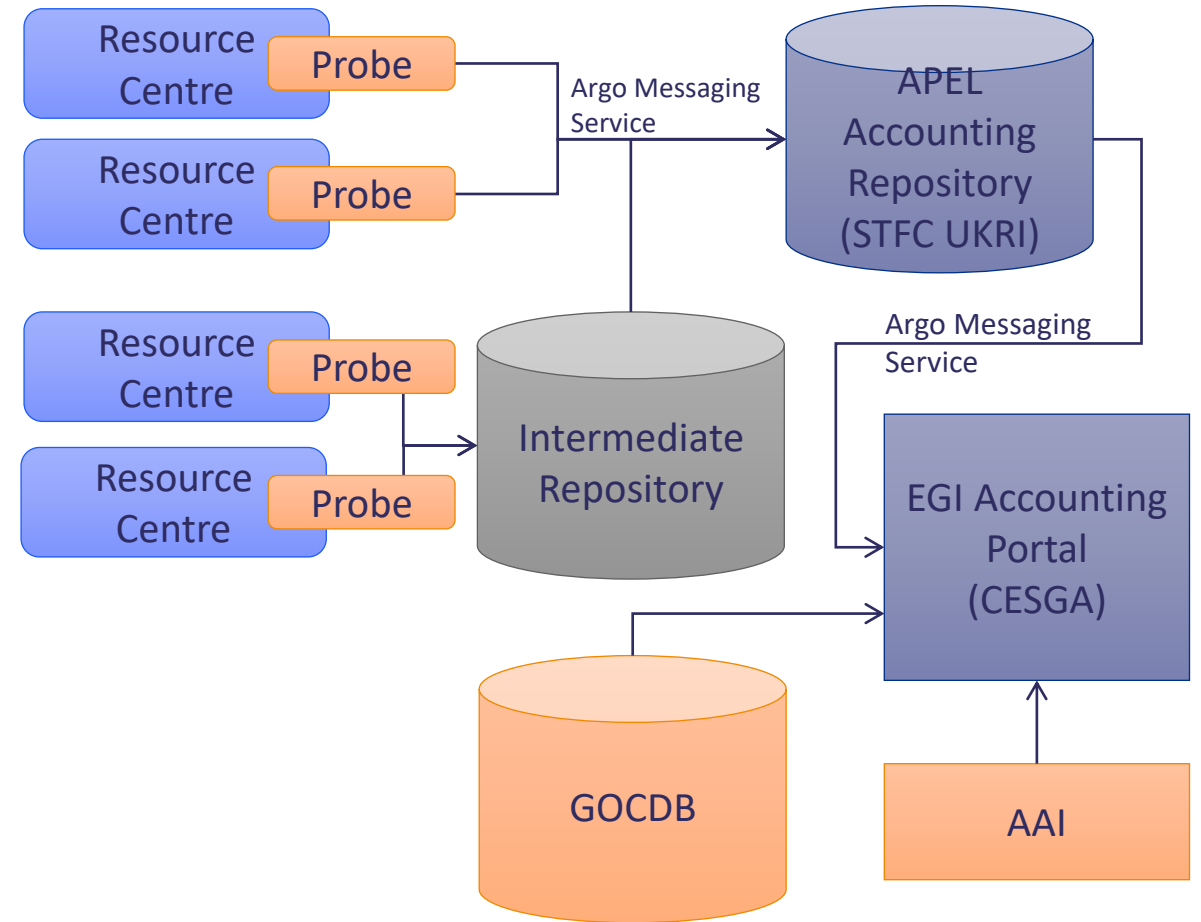
Accounting overview

- EGI Accounting stores resource usage records from various services offered by EGI, such as Cloud, HTC and storage usage.
- It uses the Argo Messaging Service to transfer usage data from the resource provider to a central Accounting Repository.
- The data is handled securely and can be consulted online through the EGI Accounting Portal <https://accounting.egi.eu/>



High-level architecture

- Resource centres run a collector that gathers metrics formatted into a standardised format
- Metrics are then sent via the Argo Messaging Service to the APEL Accounting Repository which produces aggregations across all centres to send to the EGI Accounting Portal
- The Portal retrieves topology information and community affiliation from other services, such as GOCDB, to properly organise the accounting data



Organisation

- APEL Accounting Repository
 - Managed by the Science and Technology Facilities Council (STFC UKRI)
 - Recent team reorganisation has improved resilience
 - APEL now part of the Federating Services team with a pool of software developers to work on services depending on development priorities
 - Product Owner and team leader: Tom Dack
 - APEL Service Owner: Adrian Coveney
 - Steadily improving Agile processes and service management
- EGI Accounting Portal
 - Managed by the Galicia Supercomputing Centre (CESGA)

Software upgrades

- STFC and CESGA have been working to overhaul both the Repository and Portal software to ensure it will run on the latest operating systems and programming languages.
- This has included STFC updating the APEL accounting client, server and messaging software to support Python 3, and to build and run on the latest versions of Rocky/Alma Linux and Ubuntu
- Packages currently published to the CERN software repo and will be published to UMD-5
- In the middle of final upgrades and migrations of hosts at STFC RAL

HEPscore benchmark accounting

- Supporting the HEPscore23 benchmark through the whole accounting data pipeline, and enabling a transition from HEPSPEC
- APEL software changes included: message handling, parsing/loading, summarising, unloading processes, APEL client, database schema definitions
- Currently in testing between sites, Repository and Portal
 - Ensuring whole accounting pipeline works as expected with a combination of accounting clients and usage record formats

Roadmap

- Currently in planning period for increment up to end of 2024
- The priority tasks are to finish host migration and deploy HEPscore accounting to production
- We are developing features for interTwin in parallel that will likely be merged into EGI Accounting in future (e.g. Kubernetes accounting)
- Beyond this period the areas that will be focussed on include:
 - Accounting data validation system (replacement for pub/sync system)
 - Token accounting
 - Working with the Portal developers to improve our communication and coordination



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Thank you

GGUS support unit: APEL client & Accounting Repository