

APEL for Accounting

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- The APEL Central Accounting Repository has been in production service since 2004.
- It holds cpu data for $2.5 \times 10^{**9}$ jobs dating back to 2004
- It holds data on EGI VOs and is also the worldwide repository for LHC jobs, also taking data from OSG, NeIC(NorduGrid), Asia-Pacific, Latin America, and Africa).
- These data come from a variety of middleware stacks: Unicore, ARC, Globus, gLite, OSG, ARC, DTG, QCG

- APEL has a client which parses batch logs, adds identity and cuts OGF Usage Records
- SSM is a message-based transport mechanism for reliable and efficient transfer of accounting records to an APEL server
- The APEL server (or Repository) can be deployed hierarchically – region, country, grid, global - publishing selected data to the next level.
- Several other site/country/grid/middleware accounting services (previous slide) have used SSM to publish selected data to APEL

- MPI within cpu accounting – in test/rollout
- Storage (StAR records) in test
- Cloud – in use in EGI Federated Cloud Testbed
- These will all have progressed by the start of H2020 projects
- GPGPU and Pay-per-use only recently started.

- The EGI Accounting Service is one of the core services which will survive Inspire.
- The APEL Team is keen to collaborate in deployment and continuing development of cpu, storage, and cloud accounting.
- ...both within the EGI ecosystem and in independent projects deploying their own e-infrastructures.
- This also applies to GOCDDB which in its latest form is designed for use by multiple projects/e-infrastructures/
 - GOCDDB is already in separate use by EUDAT.