HPAC and FENIX: HPC platform for storage and computing in the HBP

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• HBP *High Performance Analytics and Computing* (HPAC)
  • Brain centric storage, visualisation and simulation technology for supercomputers
  • Run large-scale, data intensive, interactive multi-scale brain simulations up to the size of a full human brain
  • Manage the large amounts of data used and produced by simulations and in experiments
  • Manage complex workflows comprising concurrent simulation, data analysis and visualisation workloads

• FENIX infrastructure is a set of federated e-infrastructure services with HBP as primary use-case provider
  • BSC (Spain), CEA (France), CINECA (Italy), CSCS (Switzerland) and JSC (Germany)
Services

- **End-user**
  - Scalable Compute Services (both hybrid CPU+GPU nodes and multicore CPU-only nodes)
  - Interactive Compute Services (including hybrid nodes)
  - SWIFT Object Storage
  - Data Storage Services

- **HPAC**
  - Data Transfer Service
  - Continuous Integration Services
  - Software Packaging and Deployment Services
  - Visualisation Services

- **Other**
  - Infrastructure Services (middleware access to HPC resources via Rest APIs)
  - Infrastructure as a Service (e.g. OpenStack) for Virtual Machine Services
  - Data Management Services
  - User and Resource Management Services
  - Service Accounts (currently not available at all sites)
Services

• CSCS (Switzerland) resources are available now
  • 35 VM servers, 650 Nodes, 4000TB+ storage: 25% for HBP
• Other centers are coming online over the coming months
How to get access?

• Write a proposal using a template
  • icei-coord@fz-juelich.de

• Review process
  • Technical assessment within FENIX
  • Scientific assessment by scientific experts

• FENIX will make the resources available

• Non HBP members can apply for resources via PRACE
How to get access?

- For small-scale projects the EBRAINS considers a shortened procedure without Scientific Assessment

- FENIX invites especially students and early career researcher to apply!

icei-coord@fz-juelich.de
How to get access?
THANK YOU!

www.humanbrainproject.eu

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