



ERICA Lunch & Learn



Research Technology Services

High Performance Computing (HPC)

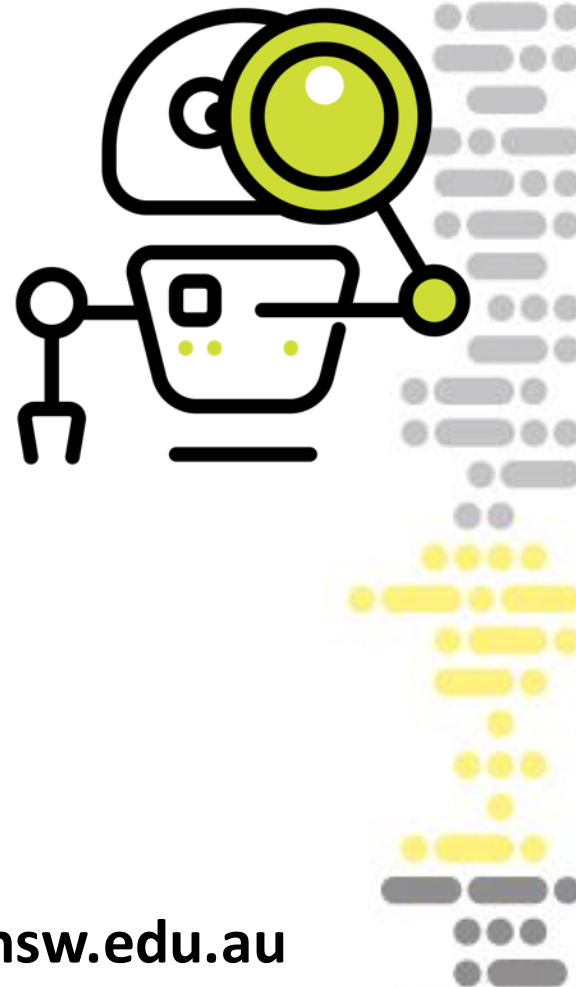
- Free for researchers and HDR candidates
- As a service: [NCI](#) – Gadi (100 million compute hours)
- [Katana](#) – local HPC cluster (24 million compute hours)

Cloud Computing

- Cloud services: Amazon AWS, Microsoft Azure, NECTAR
- Seed money for exploring research in the cloud

Research Data

- Help with Data Management training, issues, information
- Assistance with data moves, storage, planning



ResTech@unsw.edu.au

Research technology training

- 40+ courses per year on campus and online
- Free to researchers and HDR candidates

Consulting

- Help with code and using HPC
- Data Classification, Management, and tools help
- Advising on, purchasing and configuring HPC equipment

Hacky Hour

- Casual meetup 3pm every Thursday in Penny Lane (currently on Teams)
- Bring your problems with code, HPC, data
- Presentations about research technologies



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What is ERICA?

E-Research Institutional Cloud Architecture

- Secure, online, storage and computing on highly sensitive data
- Highly sure and extensively audited
- Follows the 5 Safes Framework
- Controlled movement of data in and out
- Federated instances, used by Australian Institute of Health & Welfare
- Ongoing development, funded by ARDC grants.



ERICA: key features

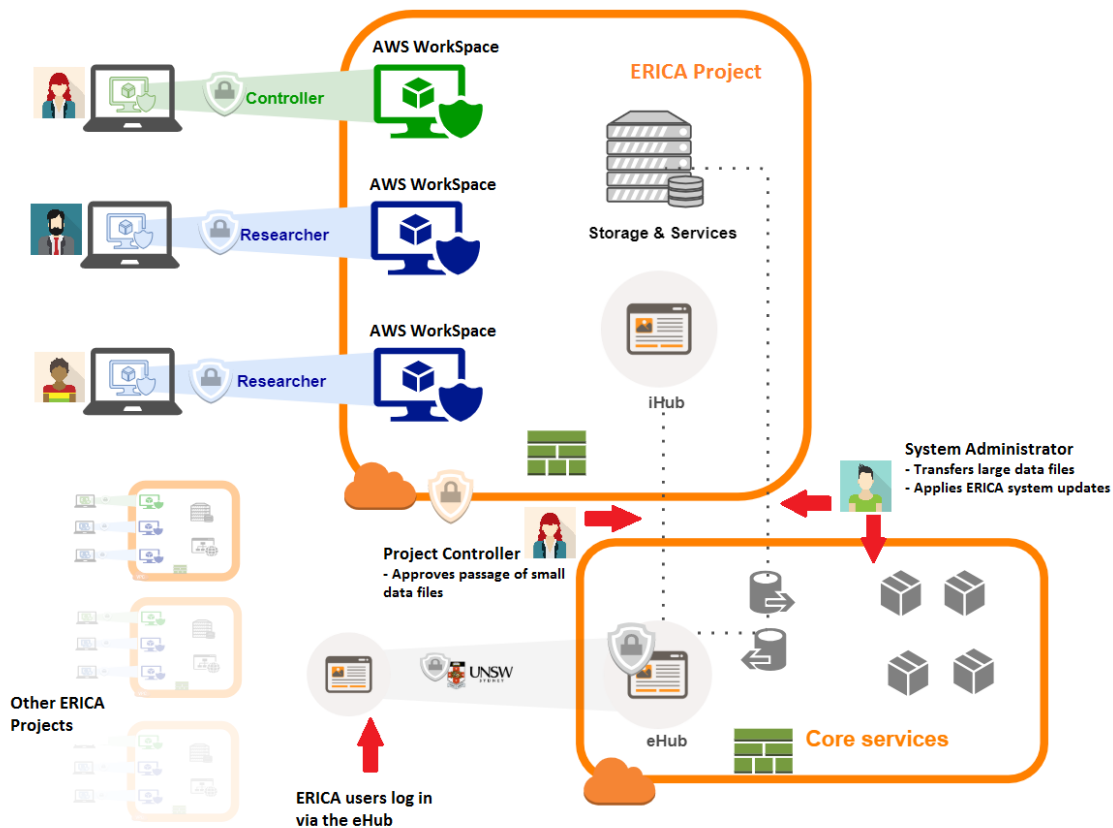
- Developed and funded by UNSW Sydney
- Development commenced 2016
- Australian Institute of Health and Welfare joined as development partner in 2018
- Uses Amazon Web Services (AWS) commercial cloud computing
- Leverages the features and scalability of AWS
 - Different OS and workspace configurations
 - High performance computing
 - Multiple storage and pricing options



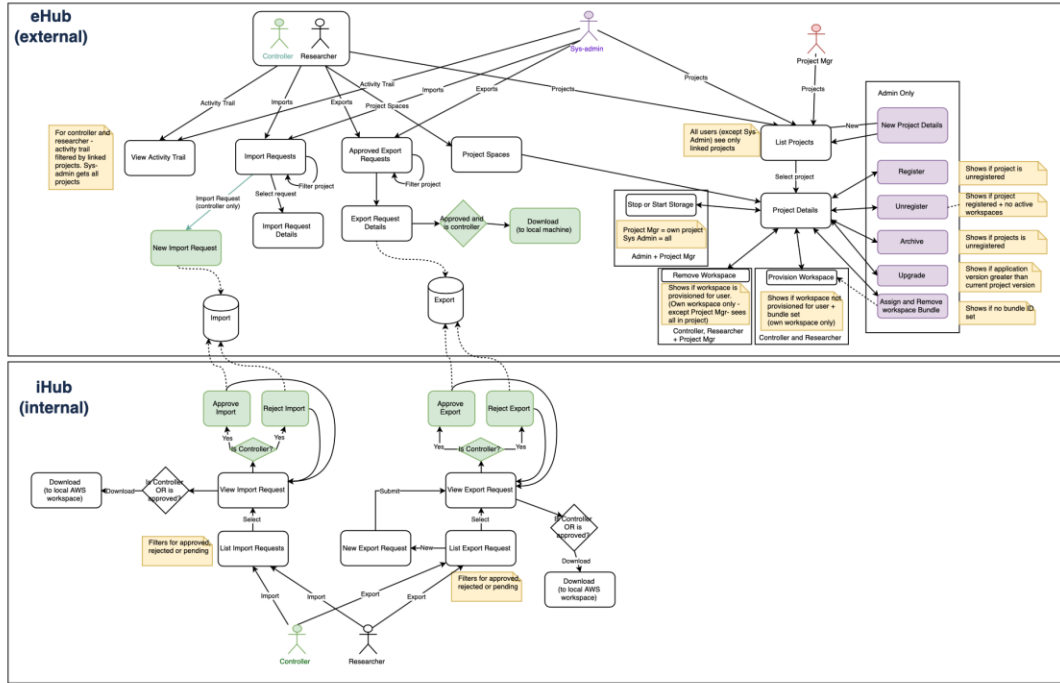
ERICA: key features

- Is institution-based
 - Governed and managed by a host institution and its policies and procedures
 - Multiple instances ('clones'), governed by different host institutions can be established (anywhere that AWS operates), currently:
 - UNSW
 - Australian Institute of Health and Welfare (AIHW SRAE)
 - NSW Government Data Analytics Centre
- A code-driven 'orchestration framework'
 - Testable and tested for correct behaviour
 - System administrators do not manually configure resources

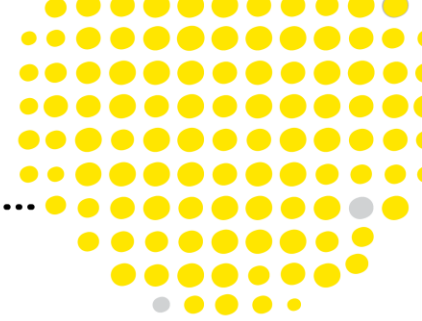
ERICA architecture



ERICA architecture (Hard Mode)



Demo



Q & A

Questions?

Contact Research Technology Services:
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