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JAMES COOK UNIVERSITY AUSTRALIA

eRESEARCH Centre

SERVICE PORTFOLIO SUMMARY

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GENERAL RESEARCH SUPPORT SERVICES

- **Web Collaboration** - JCU eResearch Spaces provide fully-featured collaborative workspaces to JCU researchers, allowing users to share and discuss content with colleagues or optionally, the greater public, and does so within a secure, online environment. Spaces are provided free of charge for researchers and groups at JCU.

- **National eResearch Services** – Support for users accessing national eResearch programs and services
  - ***Access Grid*** – Access Grid is a widely-adopted room/group collaboration tool, commonly utilised for large-scale or high-bandwidth video conferencing between dispersed locations. JCU eResearch provides an Access Grid node on the Townsville campus for use with research group discussions and remote teaching (fee for service).
  - ***EVO*** – eResearch provides support for EVO, a desktop conferencing client that allows many users to communicate at once using various multimedia and discussion tools, such as video, audio, screen sharing, shared whiteboards, and more.
  - ***Data Fabric, CloudStor*** – JCU eResearch provides advice and usage guidance for Nationally-funded storage solutions, including the ARCS Data Fabric, a cloud-based storage system for research data, Aarnet's CloudStor, a flexible file transfer utility suitable for content of any size.
  - ***RDSI/NeCTAR/NCI/ANDS*** – Support for these services as they are developed, including the national peek computing facility and cloud-based services.

- **QCIF** – HPC, Data Storage, Transfer etc.
  - Continued access to larger QCIF resources and services as well as seed research funding and eResearch support.

- **JCU HPRC Computing Infrastructure (in collaboration with ITR)**
  - ***VMs for Researchers*** – Many researchers and groups at JCU require reliable, always-on computing infrastructure in order to host specialist services and serve data. JCU eResearch works with JCU High Performance and Research Computing to deliver access to virtual machines running upon HPRC infrastructure.
  - ***High Performance Computing & Data Storage for Research*** – JCU HPC provides the JCU cluster and new PetaByte data store. Through a collaboration with JCU's Information Technology & Resources, HPC delivers highly-available high performance computing infrastructure, and suitably-sized data storage repositories, to researchers.

- **eResearch Consulting**
  - ***eResearch Practice and Technology*** – Provide advice to staff, researchers, and students regarding suitable technologies and practices surrounding eResearch.
  - ***National and State connections*** – eResearch provides a key link to accessing large-scale funding at both State and National Government tiers.
  - ***Education and Outreach*** – workshops, user guides
  - ***Training and Coffee Breaks*** – JCU eResearch aims to improve the knowledge and experience of researchers and other staff at JCU by providing regular open sessions covering various aspects of technology, programming, and more. These sessions, conducted in informal environments over coffee and the like, will also help improve community knowledge of what eResearch does and how their research can improve through uptake of various services.

EXTENSION SERVICES

- **Web development (Plone)** – eResearch works with a variety of clients, both internal and external to the University, in developing web-based solutions for a variety of different projects
- **Access Grid** – A number of external clients utilise the eResearch Centre's Access Grid facilities for large-scale meetings between different locations. The high-bandwidth capacity of the Access Grid, and its comparative cost-effectiveness compared to other video conferencing solutions using telephony, make the technology attractive to use.
- **Software development and management** – The JCU eResearch Centre can provide staff for custom software development and deployment in various different areas, as well as the ability to deploy and manage software packages for clients unable to take up the Virtual Machine service.
- **Consulting** – Staff are frequently called upon to consult for private industry, public-sector organisations and Government departments regarding all aspects of digital technology.

PROJECTS

- **Tropical Data Hub**
  The Tropical Hub is a data repository and discovery service that will aggregate research data relevant to the tropical world. As well as a data repository the TDH will also be the centre of a range of eResearch services and outputs from organisations involved in tropical R&D.
- **Sensor Networks**
  The eResearch centre has extensive experience in remote sensor networks for gathering environmental data. These data can then be transported and processed in the Cloud to produce near real-time data visualisations and interpretations.