

Data Services within ARCS

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What is ARCS?

- ARCS:
Australian Research Collaboration Service
- Mission:
To provide long-term eResearch support services including, but not limited to, interoperability and collaboration infrastructure and services through a continuous and open process of consultation and engagement with the Australian research community.”

Members of ARCS

- 8 members:
iVEC, eRSA, VPAC, CSIRO HPSC, ANUSF, TPAC, ac3, QCIF
- are in all Australian States; apart from NT
- are local providers of advanced computing

The ARCS Services

- Collaboration Services
- System Services
- Authentication Services
- Data Services

ARCS Collaboration Services

- hosting and support of Web-based collaboration platforms
- support for Video Collaboration tools
- run the end-user helpdesk via email or telephone

ARCS System Services

- support the the basic ARCS infrastructure
- manage and support the ARCS National HPC Grid
- deploy services and tools developed by the other ARCS Teams

ARCS Authorisation Services

- provide ARCS authentication and authorisation infrastructure, services, tools
- coordinate ARCS activity with the Australian Access Federation (AAF) and other relevant parties
- work with the other ARCS teams to integrate common authentication into all ARCS services and tools

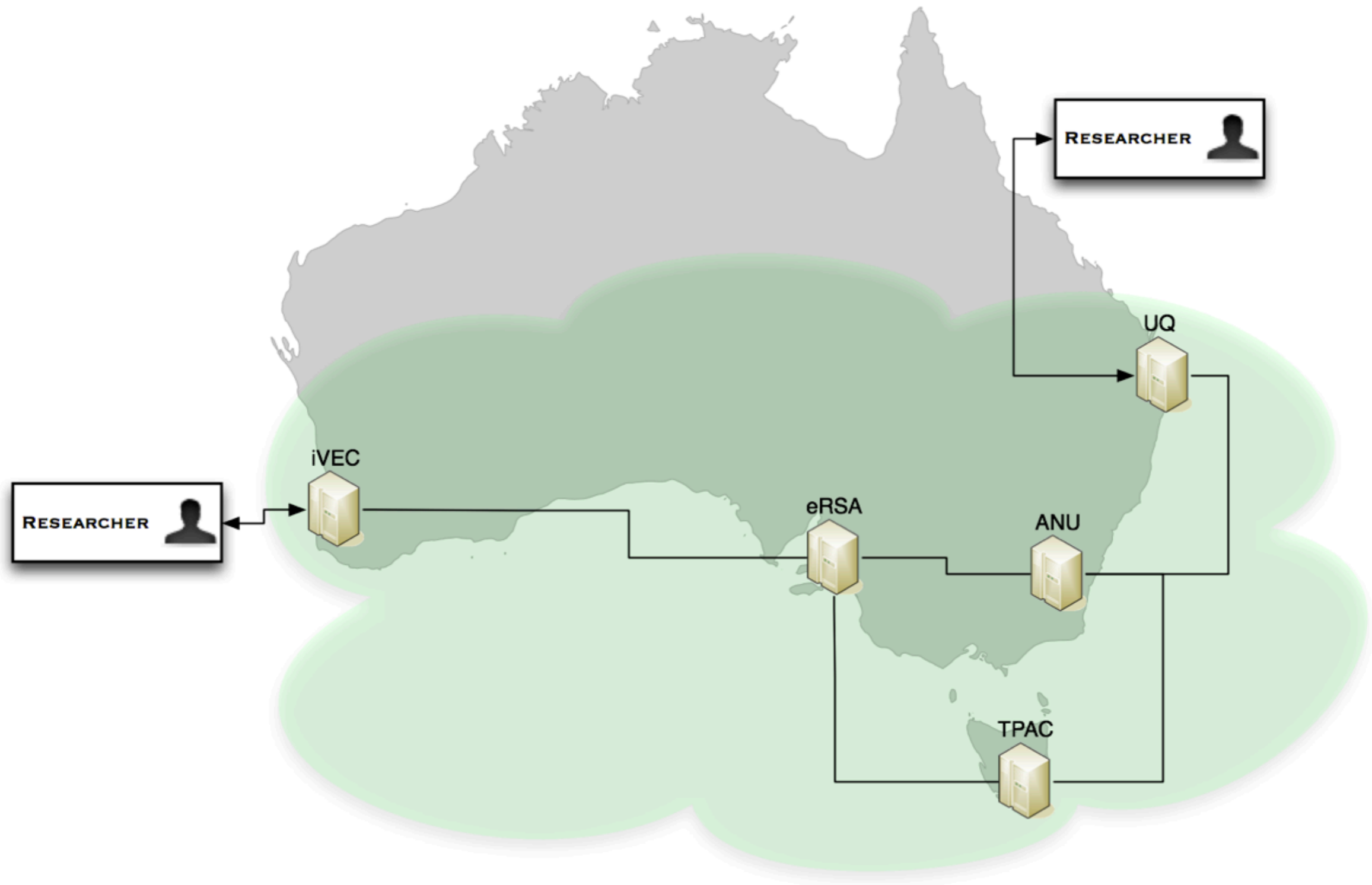
ARCS Data Services

- provide support and expertise in all questions regarding data transfer
- setup large scale data transfers, one off or continuously, national and international
- help to organize large scale storage at one or several locations
- provide all-purpose data service: ARCS Data Fabric

ARCS Data Fabric

- is a service to **store, manage** and **share** data
- is available to every Australian researcher and their international colleagues
- has nodes in most states
- can be access with GUI and CLI tools
- can interface with Grid compute job and instruments
- supports several authentication methods

ARCS Data Fabric



ARCS Data Services

- gridFTP
- LDR
- OPeNDAP
- the ‘classics’: sftp, ftp, rsync
- and anything else if a user needs it!

Use Cases: MODIS Archive

- 20TB and growing
- FTP push from NASA to iVEC
- mirror to ANUSF using LDR
- accessible via OPeNDAP

Use Cases: ANSTO

- ANSTO: Australian National Nuclear Research and Development Organisation
- Experimental data is stored in the ARCS Data Fabric
- currently 1.5 million files and growing

Use Cases: Aust. Synchrotron

- provide users with web-interface to experimental data
- allows users to directly upload their data into the ARCS Data Fabric

Use Cases: BlueNet

- BlueNet: Australian Marine Science Data Network
- collecting meta data on marine dataset from around Australia
- investigating the ARCS Data Fabric as a backup facility

Use Cases: IMOS

- IMOS: Integrated Marine Observing System
- responsible for making marine datasets available to researchers Australia wide
- first tests with the Data Fabric as a transport and distribution layer are underway

Use Cases

- Individual Researchers!

Thank you. Questions?

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