### Project title

Providing Group Management for eResearch applications and a metadata front-end for Cloudstor group drives via ReDBox

### Field of Research code(s)

- 01 MATHEMATICAL SCIENCES
- 02 PHYSICAL SCIENCES
- 03 CHEMICAL SCIENCES
- 04 EARTH SCIENCES
- 05 ENVIRONMENTAL SCIENCES
- 06 BIOLOGICAL SCIENCES
- 07 AGRICULTURAL AND VETERINARY SCIENCES
- 08 INFORMATION AND COMPUTING SCIENCES
- 09 ENGINEERING
- 10 TECHNOLOGY
- 11 MEDICAL AND HEALTH SCIENCES
- 12 BUILT ENVIRONMENT AND DESIGN
- 13 EDUCATION
- 14 ECONOMICS
- 15 COMMERCE, MANAGEMENT, TOURISM AND SERVICES
- 16 STUDIES IN HUMAN SOCIETY
- 17 PSYCHOLOGY AND COGNITIVE SCIENCES
- 18 LAW AND LEGAL STUDIES
- 19 STUDIES IN CREATIVE ARTS AND WRITING
- 20 LANGUAGE, COMMUNICATION AND CULTURE
- 21 HISTORY AND ARCHAEOLOGY
- 22 PHILOSOPHY AND RELIGIOUS STUDIES

### EOI Lead Name

Jason Nairnsey

### EOI lead Research Group

Research Portfolio - Information Management and Technology Services

### EOI lead Organisation

University of Wollongong (UOW)

### EOI lead Email

Collaborator details

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<tr>
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<th>Research Group</th>
<th>Organisation</th>
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<td>Gavin Kennedy</td>
<td>Cloud Services</td>
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<td>Heidi</td>
<td>Perrett</td>
<td>Queensland Cyber Infrastructure Foundation</td>
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**Project description**

**Problem Statements/Activities:**

a) CloudStor is widely used by the sector and has the ability for deploying Group Drives for research projects but doesn't have the ability of attaching metadata to them.

b) CloudStor has very advanced and flexible group management of Group Drives however there is no central tool for managing research group access to multiple eResearch applications.

c) Completion of the ReDBox workspace streamlining started in the ARDC Discovery process.

d) ReDBox's ability to spin up workspaces currently does not have the capability to automate the provisioning of storage. There is a strong need to do this for CloudStor Group Drives, S3 storage and storage at HPC locations.

e) UTS are progressing their OCFL/RO-Crate standards and there is a need to integrate this with ReDBox's archive function. This may be covered by another ARDC EOI application but have included it here if not.

**Solution Approach:**

The intention is to utilise QCIF to provide the development required to solve the above problems with ReDBox. Collaborators will provide the scope and AARnet will co-develop APIs for group access management for eResearch applications and for Group Drive metadata.

**Existing technology**

**Adopt**

- The RedBOX RDM platform will form the basis for this work - it is sustained via a subscription model and widely used by over 25% of the sector. (this is a growing trajectory)

- Teraform (streamlining templates for ReBox Workspaces)

- CloudStor Group Drives

- OCFL/RO Crate

- QCIF development team

**Adapt**

- ReDBox metadata to align with FAIR principles and OCFL/RO-Crate from metadata collection through to archiving

- ReDBox Workspace template streamlining & enhancements (commenced in ARDC Discovery project)

**Build**

- Integration of ReDBox with CloudStor Group Drives

- Research Group Management APIs manged by current CloudStor Group Drive Management capabilities

- New ReDBox Workspaces for Storage

- New ReDBox Workspaces for other commonly used eResearch applications

**Anticipated requirements**

**Annual funding**

- $300,000 - $399,000

**Proposed length**

- 3 years

**Other information**

**Other information you wish to provide**

Some of the scope crosses over with the 'Sustainable Server-based Research Workspaces' ARDC EOI application and there may be value in combining or aligning these projects.

The proposed tasks will deliver data which is more FAIR and provide increased capability, simplifying research data management, providing researchers more time to spend on research activities instead of administration. Increased capability from ReDBox to incorporate disparate data sources from more research systems allows for
richer research project metadata to be surfaced in RDMPs, an increasing requirement from funders

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