

AUSTRALIAN ACCESS FEDERATION

ANNUAL REPORT

2021



AUSTRALIAN
ACCESS FEDERATION
AAF.EDU.AU



Fiona Rankin
Chair
Australian Access
Federation Ltd.

■ CHAIR'S REPORT 2021 REFLECTIONS

The pandemic has highlighted the importance of online connectivity and cybersecurity provided by the Australian Access Federation (AAF). I would like to offer my thanks and appreciation for the support of our members and subscribers as we continued to deliver value during this time.

Our vision and mission continues to be recognised at a federal level with inclusion in the exposure draft of the 2021 National Research Infrastructure (NRI) Roadmap. In-line with AAF's ongoing strategy to support Australia's research initiatives, the roadmap process outlined the need for a system-wide approach to supporting trust and identity as fundamental research infrastructure. The process also identified the importance of secure infrastructure to protect against future cybersecurity risks and technology disruptors. This has highlighted AAF's role in the sector as the national trust and identity experts for research.

Our member organisations have faced significant pressures with their operations during the pandemic. AAF's cloud solution Rapid IdP, has enabled our ICT leaders to focus on supporting their communities while we securely manage their federation connection. As a result, more than half of all AAF connected universities and research organisations are now realising the benefits of the service.

AAF has continued to provide leadership internationally as part of a global community of Trust and Identity experts. 2021 saw the completion of the European Union funded, Asia Pacific Identity, Roaming and e-infrastructure (iFIRE) project, of which AAF was the lead agent. The project saw the advancement of skills and federation deployments in the region. Other work continued through supporting international working groups and chairing the global eduGAIN interfederation committee.

A number of important virtual events took place throughout 2021. The AAF Chat in the Lounge is one example of an interactive panel that gave attendees an opportunity to ask the team questions in real time.

Throughout the year, the AAF continued to support a number of national research infrastructure capabilities with their trust and identity needs. Initiatives included working with the Australian BioCommons Project and the Human Genome Platform Project. This important work explores federated technologies to simplify their research process.

The Coordinated Access for Data, Researchers and Environments (CADRE) project, another initiative that commenced in 2021, aims at assembling data from a variety of sources to streamline requests for access to sensitive data for research projects in humanities and social sciences.

The AAF is proud of another successful year in the delivery of the Australian ORCID Consortium. The release of the member portal (a suite of tools to provide benefits to consortium members) has vastly improved the service for all members. The total number of Australian ORCID IDs is now 176,378 (a 500% increase since the consortium commenced in 2016). Importantly, the Australian Research Council (ARC) has recognised ORCID IDs and other persistent identifiers as key elements to reducing research reporting burden. This was indicated in their Excellence in Research Australia (ERA) 2021 review report.

VerifID Global, the AAF's privacy preserving verification service, continued to grow in 2021. This service has expanded its international footprint with a reseller agreement signed with Jisc (the UK federation operator) as the authorised reseller in Europe.

2022 will see AAF focus on a number of exciting initiatives as we await the final 2021 eResearch Infrastructure Roadmap. Looking to the future, the AAF will continue to explore its place in the broader Digital Identity agenda. The focus will remain on service improvements and enhancing our technologies through the development of a prototype for data analytics and reporting.

“ As we continue to navigate an ever-changing landscape in technology, education, research and cyber security, you can be assured that the AAF will build upon its strength in providing Trust and Identity leadership to support the sector.



■ 2021 AT A GLANCE

100

Organisations connected
to the AAF

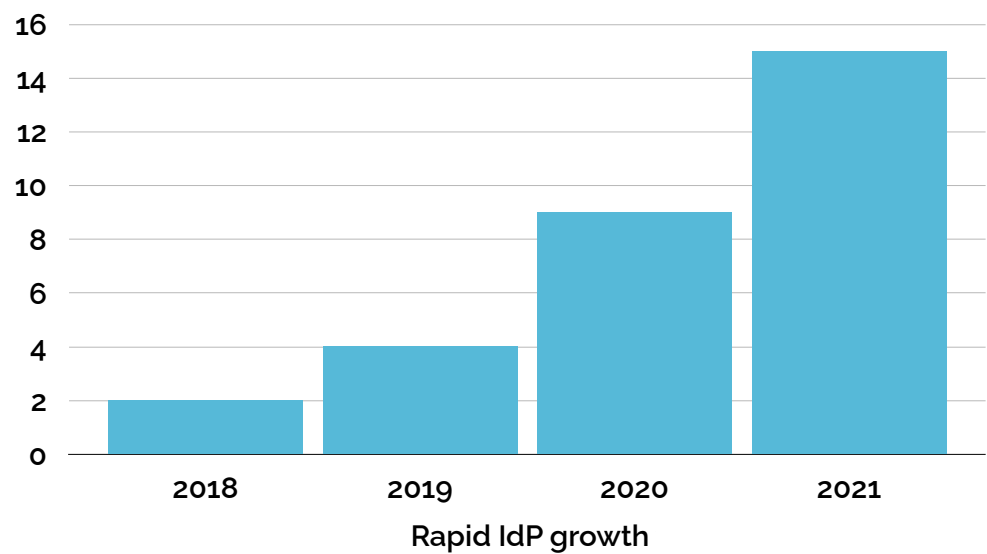
180+

Australian service connections

300+

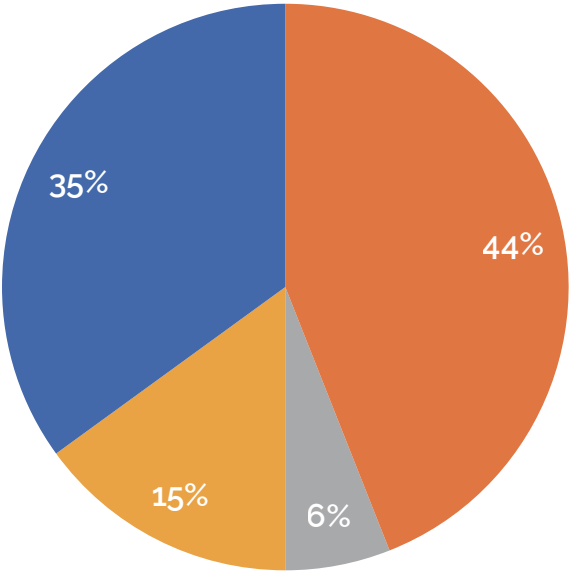
International service
connections

Rapid 
Identity Provider



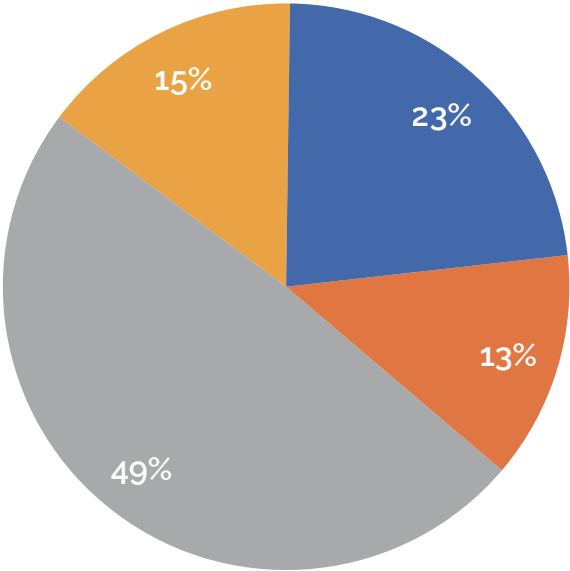
SUBSCRIBER PROFILE

- Commercial
- Government
- Research
- University



SERVICE PROFILE

- Teaching & Learning
- Research
- Publisher
- Administrative



■ TOP FIVE SERVICES

1 **NECTAR Research Cloud (ARDC)** **52,297**

ARDC's Nectar Research Cloud is Australia's first federated research cloud. This NCRIS service provides Australia's research community with fast, interactive, self-service access to computing infrastructure, software and data.

2 **WebDB Database (University of Queensland)** **51,855**

A collection of databases used by occupants of the Queensland Biosciences Precinct (QBP) under the umbrella of the University of Queensland.

3 **AURIN (Australian Urban Research Infrastructure Network) Portal** **31,104**

AURIN, an NCRIS service, is crucial infrastructure for researchers, government and industry providing demographic information, population health data, and urban planning data.

4 **Clarivate Analytics** **27,256**

Clarivate Analytics provides analytics to accelerate the pace of innovation and deliver critical data in areas including scientific and academic research, patent, pharmaceutical and biotech intelligence.

5 **tick@lab (SAHMRI)** **17,355**

Research software for animal ethics and animal management.

■ RAPID IDP USAGE

AAF's Rapid IDP service continues to gain traction and is seamlessly providing 24/7 access to critical services. Over just six weeks (mid November to end December) the top three services saw over 80,000 authentications. On one day in December across just two universities, 14,500 authentications were recorded for students accessing the MyEquals portal. This usage demonstrates the value that AAF provides through seamless access to critical services utilised by the university and research sectors.

RAPID IDP STATISTICS

1

MyEquals (Monash & Melbourne University academic record portals)

A system for students to access their academic records.

50,593

2

ScienceDirect Journal (Elsevier)

ScienceDirect is a journal publication provided by Elsevier which explores scientific, technical, and medical research.

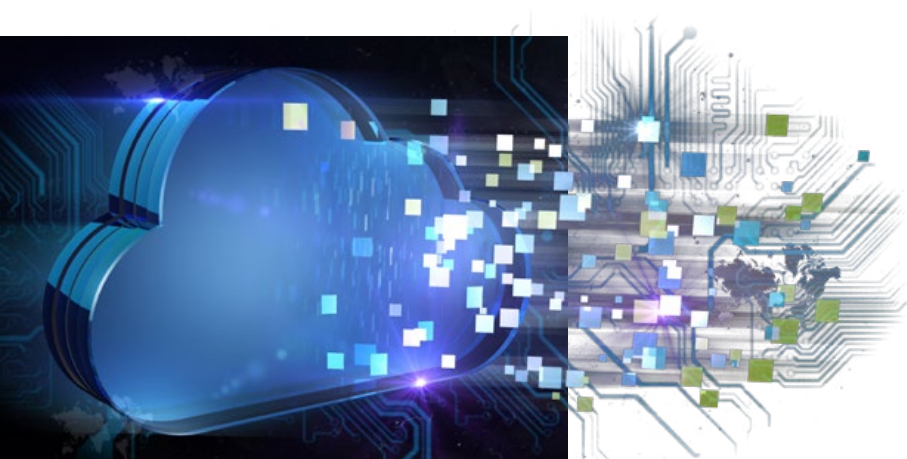
18,994

3

Lab Archives Research Data Management Platform

LabArchives provides scientists and their teams with a better research experience.

12,364



AN NCRIS TRUST AND IDENTITY CAPABILITY

In 2021 the AAF was involved in the consultation process for the development of the National Research Infrastructure Roadmap Exposure Draft. It was indicated that investment in Trust and Identity (T&I),

"... would result in more secure research infrastructure and allow secure access and global connectivity for Australian researchers. Investment would provide the capacity to develop cutting edge trust and identity solutions to prepare for future cybersecurity risks and technology disruptors".

The AAF has a vision to enable a more interconnected, efficient and secure NCRIS system that is supported by T&I. A number of NCRIS capabilities have already identified the need for a system-wide approach. Our strategy for T&I includes:

- ♦ support NCRIS capabilities with the use of a common T&I Framework for research; and
- ♦ create standardised and interoperable access and authentication infrastructure.

T&I is an integral part of a researcher's journey. AAF is seeking investment to support an NCRIS T&I accelerator and incubator pathfinder program that will extend the functionality of our current solutions, and implement new identity and access technologies as they emerge.



AUSTRALIAN BIOCOMMONS ACCESS & AUTHENTICATION INFRASTRUCTURE (AAI) PILOT

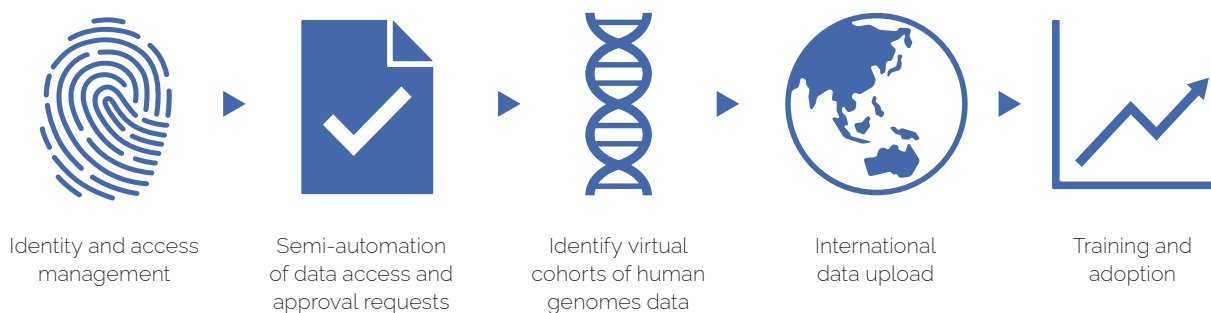
The Australian BioCommons has partnered with the AAF to pilot the implementation of a federated identity and access management (IAM) framework to simplify the research process. Since July 2019, AAF has been working on this project with BioCommons and has received project funding to advance this pilot. BioCommons coordinates partner efforts across institutions to help build better-connected infrastructure for data analysis across life science research domains. The pilot was a successful collaboration with University of Melbourne Centre for Cancer Research (UMCCR), and Zero: An initiative of Children's Cancer Institute and Kids Cancer Centre at Sydney Children's Hospital.

As part of this project, the AAF worked with BioCommons to address access, authentication, and security for life science research. The pilot has demonstrated that granting access to researchers in a secure and efficient way is achievable using the IAM framework and tools.

HUMAN GENOMES PLATFORM PROJECT

As leaders in the trust and identity spaces, AAF are working with the Human Genome community to improve trust and identity to enable a more interconnected, secure, and efficient system.

The Human Genomes Platform Project (2021-2023) is a nationally-funded collaborative research initiative designed to deliver a suite of tools based on emerging global standards. AAF's role in this project is to implement identity and access management systems for human genome data sharing. This will assist with creating semi-automation for data access approval. The project is managed by Australian BioCommons and partner organisations, which include flagship human genomes researchers and data infrastructures.



CADRE

FIVE SAFES FRAMEWORK

The Coordinated Access for Data, Researchers and Environments (CADRE) Project seeks to increase the speed at which social sciences and related disciplines get access to sensitive data.

As a key project partner, the AAF is investigating how researchers can get access to data sets held by different custodians, securely authenticate users, and verify who they are by ensuring accurate levels of assurance. This verification process will streamline and minimise the work involved for researchers (users) and limit the number of times information needs to be provided. One of the outcomes of this project will allow verified users to gain access to sensitive data to undertake key research.

PROJECT PARTNERS

University of Melbourne Centre for Cancer Research

Australian Genomics

Australian Research Data Commons, Bioplatforms Australia

Garvan Institute for Medical Research

National Computational Infrastructure Australia

QIMR Berghofer Medical Research Institute

The Children's Cancer Institute (Sydney)

Zero Childhood Cancer

CILogon team at the University of Illinois at Urbana-Champaign

■ TECH DEVELOPMENTS

In 2021, the AAF tech team made a number of advancements to the technology suite. These included the planning and initial development of the new Federation Manager tooling, which will see the Federation evolve to the next level. The team also developed the new Status service which was released in early 2022. Along with the migration of 12 subscribers to Rapid IdP, numerous feature upgrades and regular patching was completed to ensure the security and high availability of Rapid IdP. As part of AAF's plan to continue to deliver customer value, work commenced to build a protype that will provide more advanced reporting and analytics for our subscribers.



Rapid Identity Provider

24

Organisations connected
to Rapid IdP

7

Rapid IdP connections
in test

12

New Rapid IdP
connections 2021

100%

Uptime

CYBER SECURITY

Cyber security remains at the forefront of AAF's operations. As a member of the Australasian Higher Education Cyber Security Service (AHECS), the AAF continues to work closely with the community to work together on cyber security initiatives.

AAF's cyber security program includes, but is not limited to:

- ♦ policy development
- ♦ staff training and awareness
- ♦ operational security
- ♦ community engagement.



verifID
global



1,683,839

Total verifications

378,627

Australian verifications

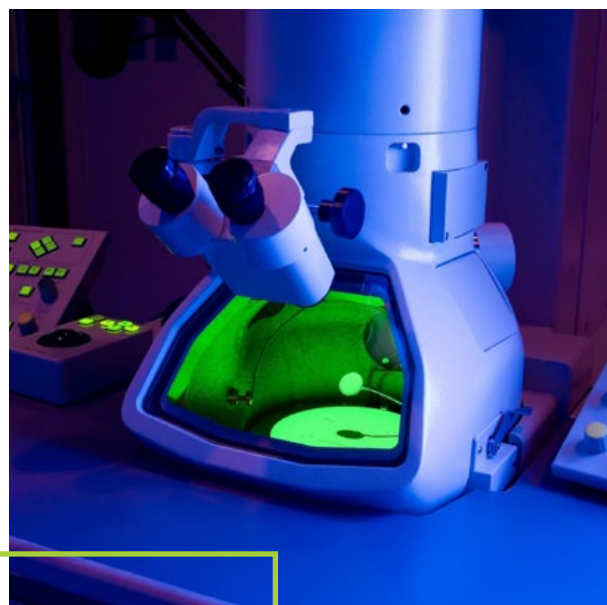
1,305,212

UK verifications

AAF has continued its strong partnership with JISC, the UK Federation operator through enabling them to become the European reseller for VerifID Global.



AAF's role as ORCID Consortium Lead has created significant national and international brand value for the company. It has also strengthened AAF's position in delivering persistent identifier services to the sector. The Australian Research Data Commons (ARDC) persistent identifier (PID) policy reflects the value ORCID represents at a national level. In late 2021, ARDC and AAF commissioned an external consultant to complete a cost-benefit analysis report on the impact of persistent identifiers on Australian research. The report is to be completed by mid-2022.



MARCH 2021: MEMBER PORTAL TOOLING RELEASED

18

ORCID
COMMUNICATIONS

47

1-1 ORCID MEMBER
CONSULTATIONS

30

ORCID EVENTS

42

ORCID MEMBERS

170K+

AUSTRALIAN SERVICE
CONNECTIONS

MAKING LIFE EASIER

DR JOE SHAPTER'S ORCID USER STORY

Pro-Vice-Chancellor (Research Infrastructure) at The University of Queensland (UQ) Joe Shapter, shared how his ORCID ID has helped him when applying for Australian Research Council (ARC) grants. Joe's ORCID record was first registered while he was studying at Flinders University and continued to be populated when he made the move to University of Queensland (UQ). The ORCID record is automatically populated as research outputs are released, saving a great deal of time for Joe.

Over the 20 years of Joe's career in applying for grants, it has been an arduous task requiring documents, an updated CV and a record of all publications published. With the integration of ORCID, the process is simplified due to all the information being easily accessible. Joe says the process for applications with the integration of ORCID saves three to four days per grant application. "The difference in workload is staggering!", exclaims Joe.

“What is critical is that my Australian Research Council (ARC) record is getting updated, which is a mountainous saving of work for me and helps to easily keep my CV up-to-date”



■ COMMUNICATION & ENGAGEMENT

The team presented

29

times in 2021

Produced

4

digital assets

(video and conference presentations)

26,705

Website users

Attended

68

online conferences & events

16

Newsletters

19

Maintenance messages

18

ORCID communications

10

Promotional communications

INTERNATIONAL PARTICIPATION 2021

REFEDS

APAN

ORCID

VERIFI^D Global with JISC

eduGAIN Steering Committee



NATIONAL PARTICIPATION 2021

ORCID Advisory Group

ORCID Governance Committee

QUDIT

BioCommons

DDeRP Strategic Planning Group

NCRIS Comms Network

IDAM Special Interest Group



CHAT IN THE LOUNGE

Enduring a second year of a global pandemic, AAF took the opportunity to explore different modes of communication to encourage interactivity in a virtual landscape. AAF Chair, Fiona Rankin, launched the session and introduced the speakers, and Richard Northam (Director) moderated the questions as they came through, allowing our panel (Heath Marks, John Scullen, Melroy Almeida, Elleina Filippi) an opportunity to answer those questions in real time. The session was a great success and allowed the AAF to explore and reach a broader range of stakeholders.



The panel from left to right:
Elleina Filippi (COO), Melroy Almeida
(ORCID Engagement & Support Lead),
John Scullen (Head of Projects &
Managed Services), Heath Marks (CEO)

The online Chat in the Lounge provided an update on:

- ♦ key services and products
- ♦ AAF's role in the 2021 eResearch roadmap consultation process
- ♦ Trusted Digital Identity Act and the Transparency Act
- ♦ increase in ORCID subscriptions and new tooling services



INTERNATIONAL ENGAGEMENT

ORCID MEMBERSHIP & FEES COMMITTEE

In 2021, CEO Heath Marks was involved in the Membership and Fees Committee for ORCID representing Australian members. The committee works in an advisory capacity for the ORCID Board to review costing, business models and sustainability for ORCID as an organisation. Feedback from the advisory committee and ORCID members has led to a review of fee models which is still underway.

ORCID APAC CONSORTIUM INTEREST GROUP

ORCID Engagement & Support Lead Melroy Almeida, and COO Elleina Filippi, are part of the ORCID Asia Pacific Consortium Interest Group (CIG). This is one of the international CIGs that provide feedback on consortia to the ORCID Leadership Team. As part of this group the AAF provides leadership to the Asia Pacific region and provides feedback from members and the national community.

RESEARCH EDUCATION FEDERATIONS (REFEDS)

CEO Heath Marks is an international member of the Research Education Federations (REFEDS) Steering Committee. This committee looks at the needs of the global federation community. Involvement in this committee gives AAF an opportunity to provide leadership, feedback and input for planning and development for trust and identity futures.

APAN iFIRE PROJECT

2021 saw the completion of the Asia Pacific Advanced Network (APAN) iFIRE Project led by AAF. Funded by the European Union Asi@Connect, the project utilised APAN meetings to run training sessions, share presentations, and information between federation operators. The completed project resulted in the creation of the Bangladesh (TIGERfed) and Thailand (ThaiDF) federations and the growth of other federations in the region. AAF's leadership within the APAN community has led to the maturity of these federations and others in the region.

eduGAIN STEERING GROUP

eduGAIN's Steering Group (SG) is an international committee consisting of a delegate and deputy from each federation. All members are able to vote on membership as well as approve changes to policy and governance for the international federation community. Head of Support for AAF, Terry Smith, is the chair of the eduGAIN Steering Committee. Terry plays a lead role in the international community contributing to the direction of eduGAIN and the successful access of international services.





■ VISION

OUR VISION IS TO LEAD ACCESS MANAGEMENT FOR AUSTRALIAN EDUCATION, RESEARCH, GOVERNMENT AND INDUSTRY.

■ MISSION

THE AAF'S MISSION IS TO DELIVER SECURE FEDERATED ACCESS THAT CONNECTS AUSTRALIAN TEACHERS, STUDENTS AND RESEARCHERS TO GLOBAL ONLINE RESOURCES.

■ STRATEGIC PLAN

STRATEGIC PARTNERSHIPS

Partner nationally with federal and state government programs and agencies

Partner globally with leading research infrastructures, Persistent Identifier communities, REFEDS, industry and Federation operators

1

SKILLS & CAPABILITIES

Lead programs of national and international skill development

Develop AAF staff for the next generation of services

2

STRENGTHEN FOUNDATIONAL SERVICES

International connectivity

Platform innovation

Strengthen security environment

Grow customer base

Support teaching, learning and research

3

LEAD INNOVATION

Innovate the next generation of technology

Explore new opportunities

Shape future architectures

4

DIVERSIFY THROUGH VALUE ADDED SERVICES

Deliver new capabilities

Expand existing capabilities

New business models

Grow value to the sector

5





BUSINESS PLAN

1

STRATEGIC PARTNERSHIPS

Health

Global

Industry

Government

2

SKILLS & CAPABILITIES

Communities of practice

Training programs

AAF staff development

Professional services

Industry events

3

STRENGTHEN FOUNDATIONAL SERVICES

Platform innovation

Cyber security

International connectivity

4

LEAD INNOVATION

Reference architecture

New opportunities

Next generation technologies, standards, blueprints & infrastructures

5

DIVERSIFY THROUGH VALUE ADDED SERVICES

New capabilities

Extend capabilities

AAF BOARD

Chair & Director Fiona Rankin

Deputy Chair & Director Jonathan Churchill

Director Paul Sherlock

Director Niranjan Prabhu

Director Ian Gibson

Independent Director Karen Hill

Independent Director Bruce Callow

Company Secretary and Independent Director Richard Northam

AAF TEAM

Chief Executive Officer Heath Marks

Chief Operating Officer Elleina Filippi

Head of Support Terry Smith

Head of Projects & Managed Services John Scullen

Technical Lead Russell Ianniello

Senior Developer Jun Zheng

Senior Developer Richie Young

Software Developer Matthew Puku

Graduate Developer Waldo Fouche

Senior Solutions Analyst – Identity & Access Patrick Carnuccio

Senior Technical Support Analyst Dalia Abraham

ORCID Engagement & Support Lead Melroy Almeida

Business Analyst Kylie Davies

Content Producer Suzi O'Shea

Finance Officer Marita Dore

Project Officer Carolyn Plant

Project Officer Cynthia Ramirez

