CANDIDATE INFORMATION PACK
Digital Research Analyst

Includes:

- Background information on working with us
- Position description
- Abbreviated summary of the NCRIS Trust and Identity Project.

The Australian Access Federation

We are on a Mission

We're a driven group of people with a purpose to make Trust and Identity easier, and more cyber secure for research, teaching and learning.

AAF is an interesting company that does exciting work as a Not for Profit (NFP), which our staff and customers value.

Our work has meaning

We are a Not-for-Profit company supporting our subscribers which are research and education organisations in Australia. We focus on delivering leading technology for our communities. AAF staff have a sense of pride and satisfaction, knowing that what we work towards helps to make the world a better place.

Did we mention we are connected with the Australian Federal Government's eResearch infrastructure roadmap? - that's right - how many companies are part of Australia's Research technology strategy? Our staff work closely with high value innovative initiatives tackling issues from COVID, genome mapping, children's cancer research, astrophysics to identifying low wave frequencies in space and capturing gravitational waves.

We work with interesting customers and stakeholders

Just to name a few, Australia's High Performance Computing Facilities (NCI and Pawsey), Australia's national research and education network provider AARNet, leading research facilities such as the Garvan Research Institute, all the Australian Universities as well as our Commonwealth Science and Industrial Research Organisation CSIRO.

We are a globally connected service working with 85 other community driven organisations who are all doing similar things around the world. This means AAF staff get to collaborate with our global community and take part in innovative activities around the globe. To demonstrate our global reach, we chair the Asia Pacific Identity Management Working Group, the working group for a globally connected authentication framework (eduGAIN) and part of the global REFEDS (Research and Educations Federations Steering Committee). We are also a member of and participate in the Australian Higher Education Cyber Security Service.

AAF staff are on the road participating in initiatives and working groups with likeminded, tech and research professionals around the globe. In the past our staff have travelled to interesting places such as Estonia, Prague, Ireland, Norway, New Orleans, India, Iceland, Portugal and China to be part of leading-edge strategy development in trust and identity.

We are passionate about our products and services

The Federation:
The Federation is Australia's national authentication service for research and education. Using cutting edge technologies and standards. The Federation delivers world-class single-sign-on that allows individuals across organisational boundaries to collaborate and access online resources within a trusted environment.

The Australian ORCID Consortium
The Australian ORCID Consortium provides a national coordinated approach to Open Research Contributor ID (ORCID – see: orcid.org). The consortium has enabled a globally unique persistent identifier for every researcher.

Consulting and Training Services
We provide bespoke consulting and support to our communities in meeting their identity and access management needs.

VerifID Global
VerifID Global, the national verification service enables universities, public agencies and commercial providers (e.g. Spotify, YouTube and Flight Centre) to accurately deliver services to Australian students and other roles in the research and education sector (see: VerifID.global).

Trust and Identity program
The AAF is a National Collaborative Research Infrastructure Strategy (NCRIS) facility providing a Trust and Identity program of work. We are developing partnerships with the NCRIS community to build a robust and secure research ecosystem.

Our company values underpin everything we do

- Innovation - an essential ingredient
- Mastery - a good mix of enthusiasm, quality, care and experience
- Trust - strengthened through our actions
- Community - achieving more together

We pride ourselves on having a hybrid work environment

Everyone is talking about remote work these days, but the AAF was doing this long before COVID. We have been operating in a hybrid mode for over 10 years. We believe hybrid work provides flexibility and brings out the best in our staff to deliver great outcomes. Hybrid meaning, we empower our staff to work from home, and also join us in the office a couple of days a week to be part of a team to work towards common goals. We are an innovative tech company after all, and how else do you innovate, share knowledge and professionally grow your career without spending time with your colleagues over a cup of coffee (or a beer or two). It also gives our staff an opportunity to shine and get the promotion that they are after, rather than hiding behind a camera in a Zoom or Teams meeting. A hybrid approach is in-line with many leading tech companies and this

balance supports better wellbeing of our staff, inter-team collegiality and a more positive culture where we can do anything no matter how challenging the task may be.

AAF HQ is in Brisbane CBD where our office is configured with hot desks and meeting rooms specifically supporting our hybrid strategy. We support staff in other states and territories and bring them to our office to do a comprehensive session with the team when needed.

So apart from working for an awesome NFP tech company who are doing great things, why else should you be part of the AAF?

- A 35-hour work week
- The option to salary sacrifice rent/mortgage payments (yep! that's right)
- Extra-long service leave
- 3 days bonus 'recharge leave' over the Xmas and New Year period

…. and most importantly let's not forget that the AAF team prides itself on its inclusive, innovative and flexible culture that rewards and recognises great work.

If you are looking to move into a new role where you have control over what you produce, where you can make a difference and are empowered to utilise best practice techniques to create a positive global impact - then you are the person we've been looking for!

Position Description

Digital Research Analyst - Trust and Identity

Position Title: Digital Research Analyst
Type: Fixed term, 18 months with the possibility of extension
Location: National
Reports to: Head of eResearch
Number of Direct Reports/Staff Supervisory Requirements: None
Open to: Australian or New Zealand citizens or Australian permanent residents who have approval to work in Australia.

Organisational Context

The AAF is Australia's leading technology specialist in identity and access management for higher education and research. We are connected to an international community of scientists and researchers building applications and solutions that make up part of the Australian Government's eResearch infrastructure strategy. We work with universities and research institutions including CSIRO to provide access to resources that tackle issues in health, life science and astrophysics... just to name a few.

The AAF provides a flexible work environment and a team of highly motivated individuals that work towards a common goal of supporting Australia's higher education and research sector. We enable Australia's teachers, students and researchers to use identity technologies and policies to create world class outcomes.

For further information about the AAF go to: www.aaf.edu.au

Vision

Our vision is to lead access management for Australian education, research, government and industry.

Mission

Our mission is to deliver secure access and identity services that connect Australian teachers, students and researchers with global online resources.

Trust and Identity Program Overview

The Trust and Identity (T&I) Program aims to deliver the system-wide adoption of a T&I Framework enabling a more researcher-centric National Research infrastructure (NRI) for Australia. This will be achieved through delivering seamless, privacy enhancing and cyber secure experiences for end users of Australia's NRI. Through the combination of policies and technology we will build a connected research, innovation and translation network, and provide enhanced collaboration opportunities, with support from a skilled workforce.

The T&I Program will adapt the pre-existing work of the European Union Authentication and Authorisation for Research Collaborations (AARC) Blueprint Architecture and other world-leading initiatives, to build a T&I Framework fit for purpose for the Australian research system. This approach will support global collaboration through a standard international framework.

For more details, please see the project proposal attached or the website https://aaf.edu.au/project/trustidentity/

The Role

The role will work with the Head of eResearch and the Trust and Identity team. You will work closely with the NCRIS community to identify potential project partners, to identify, scope and implement T&I solutions. You will also work closely with stakeholders from universities, research organisations, government, and industry partners.

In this role, you will be responsible for identifying, documenting and understanding common challenges and requirements across the research sector. This will be done in collaboration with AAF staff to develop proposals for solutions to address these needs.

With exceptional communication and relationship development skills, you will have experience working as a business analyst with strong business acumen, having worked in the NRI space. You will also possess the demonstrated ability to quickly grasp complex technological and scientific concepts that can be translated and presented to audiences with varying levels of knowledge.

You will be responsible for providing advice in relation to AAF's services and representing AAF to both current and future collaborators, whilst ensuring partners have a positive experience while implementing T&I solutions.

Key Responsibilities

1. Identify potential partners for T&I services and work with them to identify opportunities to leverage infrastructure to enhance their trust and identity needs.
2. Undertake mid-level Business Analytic activities to identify user requirements. Including understanding base line capabilities and identifying proposed technical and policy solutions to improve their trust and identify needs.
3. In collaboration with other specialists and the incubator partners, implement and monitor project plans (including managing risks, monitoring costs and resources, and taking action

when delays or deviations occur), for prospective incubators to help address their trust and identity challenges.

4. Manage and facilitate the flow of relevant and timely communication with engaged stakeholders of the project, including but not limited to incubators and working groups.
5. In collaboration with the Communications Manager, develop and deliver content and collateral to showcase T&I solutions.
6. Develop and deliver technical and non-technical education material on the skills and issues of T&I.
7. Develop surveys and analyse the outcomes from the data collected, to measure uptake in skills and knowledge of T&I.
8. Create presentation, articles, reports and information for internal and external use.
9. Provide support through Tier 0 and Tier 1 user support methods, including developing documentation and working with projects partners to troubleshoot any issues arising form the use of Access and Authentication solutions delivered through the T&I program.
10. Ensure communication with prospective customers is relevant, easily understood and timely.
11. Ensure a high standard of professionalism and service to create a superior experience for stakeholders.
12. Contribute to the monitoring of activities undertaken by the T&I participants, to inform and evaluate AAF business improvements.
13. Demonstrate energy, initiative and creativity in all job aspects, and in particular through efficient and quality focussed commitment to work practice.
14. Demonstrate values of trust, integrity, honesty, fairness, and reliability, conveying a strong work ethic and clear commitment to a harmonious work environment.
15. Other tasks as required.

Your experience and skills

We are seeking a motivated, organised and proactive person to work with and contribute to the T&I Pathfinder Project team. You will have highly developed interpersonal, relationship management and customer service skills and the ability to work across teams. You will be comfortable working autonomously. Previous experience in a research or high education environment is highly desirable.

Qualifications

A degree with subsequent relevant experience OR a combination of relevant experience, broad knowledge and industry training.

Skills and Capabilities Required

You will be assessed based on the following:

1. Highly developed interpersonal, relationship management and customer service skills in order to liaise, consult and negotiate with a wide range of people at all levels within an organisation to develop new business.
2. Demonstrated ability to communicate complex information through multiple mediums, and maintain effective working relationships with a wide range of stakeholders.
3. Demonstrated ability to develop project proposals, white papers, surveys, training materials, presentations and marketing materials.
4. Relevant experience in the research, higher education or government sectors.
5. Demonstrated ability to plan, prioritise and organise project tasks, in order to meet deadlines, budgets and maintain desired work outcomes, including the proven ability to work effectively within an outcome-focussed, team-oriented environment.
6. Ability to work effectively with general direction and minimum supervision, demonstrating initiative, motivation and problem solving. Independently represent and act on behalf of the organisation in a broad range of situations and environments.

Desirable

- Experience working with an NCRIS facility
- BA qualification

Other Job-Related Information

Applicants should note that:
The position is:
1. A fixed-term full-time position
2. A 35-hour week, with normal working hours from Monday through Friday
3. Flexible working hours and work from home arrangements (subject to negotiation and prior approval)
4. Some travel may be required (circumstances permitting)
5. The position is based in an office in the city of the successful candidate, or a work from home arrangement may be supported subject to negotiation and approval
6. This role operates as part of a virtual team. It is essential that the successful candidate feels comfortable operating in this environment.

Expressions of interest or questions should be directed to:

Sarah Nisbet
Email: Sarah.Nisbet@aaf.edu.au
Phone: 0420 959 278

National Research Infrastructure Gap Identification
Pathfinder for a Trust & Identity Framework & Infrastructure

Gap identified:

The 2021 National Research Infrastructure Roadmap Exposure Draft (Roadmap) recognised trust and identity (T&I) as an important part of the national digital research infrastructure (Chapter 5.8). The Roadmap also identified that it forms part of cutting edge national digital research infrastructure (Chapter 6.1).

The Roadmap noted that an investment in 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.".*

In 2020, the Australian Access Federation (AAF) documented this gap in its *Making the Case[1]* briefing paper along with a clear strategy on how to address it. This paper was recognised by many members of NCRIS as an accurate reflection of a clear gap within the NCRIS system. To address this gap some NCRIS projects have recognised the urgency and importance of T&I and have their own initiatives underway. These initiatives are looking at solutions that could then be implemented for the broader NCRIS system as part of a larger T&I solution.

T&I is not unique to NCRIS. The Australian Federal Government has implemented a number of digital identity initiatives over the years, including myGov, myGovID and more recently the Trusted Digital Identity Framework (TDIF). The government has also recognised the increasing threat posed to critical infrastructure[2] and individuals in the 2020 Cyber Security Strategy.[3] NCRIS is a significant investment in infrastructure and T&I aligns closely with these initiatives. Finally, the University Foreign Interference Taskforce (UFIT) aims to provide better protection for universities.

TDIF, the Australian Cyber Security Strategy and UFIT all rely on T&I frameworks, policies and infrastructure to be effective. Not addressing T&I within NCRIS undermines these national initiatives, as well as puts Australia's research infrastructure and individual researchers at risk. Cyber-attacks increasingly focus on exploiting weaknesses in individuals and their credentials rather than the traditional exploitation of systems. Foreign interference often starts with an individual being approached via a trusted network or relationship. A robust T&I for NCRIS would provide a higher degree of protection for researchers.

A gap in T&I within NCRIS also has consequences, including:

- Diminishing the utility, efficiency and performance of the NCRIS system;

- Australian researchers are disadvantaged in their ability to collaborate nationally and internationally, making it harder for them to access and be part of international research;

- Puts Australia at the back of the pack in the global research infrastructure space, with many other countries already moving to address T&I for their research system.

The NCRIS system is at a critical point in its evolution, with the potential for the sum of the parts of the system to far exceed the sum of the individual projects. This will require a greater level of integration between different research infrastructures and addressing the T&I gap will be a significant enabler.

If the T&I gap is not urgently addressed now in a system-wide encompassing approach, Australia risks having fragmented T&I across the research system, leading to infrastructure that is accessed by bespoke T&I islands that do not work with national and international research infrastructure. Trying to recover from a fragmented T&I landscape will be costly and take time and significant resources.

Over the next two years, the ARDC is focussing on delivering a suite of Thematic Research Data Commons (RDCs) to provide an integrated set of digital research services that can be refined and tailored as needed for a particular

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[1] Making the Case, an NCRIS Trust and Identity Capability, making a more interconnected, efficient and secure NCRIS system: ncris.aaf.edu.au

[2] Security Legislation Amendment (Critical Infrastructure) Bill 2020: https://www.homeaffairs.gov.au/reports-and-publications/submissions-and-discussion-papers/protecting-critical-infrastructure-systems

[3] The 2020 Cyber Security Strategy, aims to strengthen the protection of Australians, business and critical infrastructure from sophisticated threats: https://www.homeaffairs.gov.au/about-us/our-portfolios/cyber-security/strategy

research community. Strategically selecting thematic areas in which to build larger, coordinated and optimised initiatives will enable the ARDC to meet the needs of the greatest number of researchers. As the ARDC moves to the Thematic RDC model, T&I is integral for ensuring researchers from academia, the public sector and industry have a seamless and cyber secure experience accessing digital research infrastructure.

Given the ubiquity of national digital research infrastructure that underpins modern research across nations and around the world, T&I impacts all Australian research communities and fields. T&I is an integral part of a researcher's daily workflow, touching every part of the research endeavour.

Solution proposed - A pathfinder for a trust and identity framework and infrastructure

The proposed solution includes an accelerator and an incubator as detailed below.

The **Accelerator** consists of the following elements:

1. A T&I Framework for NCRIS - Adapt the pre-existing work of the European Union Blueprint Architecture framework and other world-leading initiatives, to build a Trust and Identity Framework that is fit for purpose for the Australian research system, whilst ensuring that it both aligns and integrates with international frameworks and systems.
Benefits: A standardised framework to guide the development and implementation of T&I for the NCRIS system by research infrastructure providers that aligns with the Australian government TDIF and international frameworks.
Alignment: This directly aligns with the urgent needs of the ARDC Thematic Research Data Commons and BPA's BioCommons for a national approach for trust and identity for our infrastructures. Implementing an NCRIS system-wide approach would have significant positive flow on effects, providing other research infrastructure providers with reusable reference architectures that they can adopt for their own context.
Indicators/KPIs: The development of a T&I framework for NCRIS

2. Trust and Identity Cybersecurity - Deliver trust and identity infrastructure that has met a rigorous plan of cyber security. This will lower the risk of cybersecurity breaches for NCRIS and align with national and international best practice.
Benefits: A safer and more secure NCRIS environment that can be maintained and sustained at the forefront of best practice.
Alignment: This directly aligns with the Australian government's desire to protect individuals and critical infrastructure through the Cyber Security Strategy and UFIT.
Indicators/KPIs: Cyber secure T&I infrastructure.

3. Skills and Expertise - A cohort of identity and access management specialists that can work with individual research groups and research infrastructure providers.
Benefits: Provide NCRIS capabilities with the expertise they need to design, implement and manage identity and access systems that are best practice and aligned with national and international research infrastructure.
Alignment: This aligns with the need to fill the gap in the sector for skilled identity and access management specialists, the DDeRP skills working group and ARDC's skilled workforce program.
Indicators/KPIs: Increased awareness of the critical nature of T&I within NCRIS.

4. Reusable Tools and Modules - A suite of reusable T&I software solutions, tools and modules that could be used by research groups and infrastructure providers.
Benefits: Significant time savings for all NCRIS projects, standardisation across the system, with the latest tools and modules that comply with the trust and identity framework and are tested and hardened to ensure that they are as resilient as possible to cyber-attacks.
Alignment: This aligns with the ARDC's skilled workforce program.
Indicators/KPIs: Savings across the NCRIS system through adoption of reusable T&I tools and modules.

5. Access and Authentication Infrastructure - Deliver additional access, authentication and authorisation infrastructure that builds on the AAF to support the unique needs of the research sector.
Benefits: Nationally and internationally aligned T&I infrastructure that is tailored to suit the needs of cutting edge research infrastructure, resulting in significant savings and efficiency for the research system.
Alignment: As an underpinning piece of infrastructure on which everything within the T&I space is built, this aspect is viewed as more foundational rather than aligned.

National Research Infrastructure Gap Identification
Pathfinder for a Trust & Identity Framework & Infrastructure

Indicators/KPIs: Successful delivery of T&I infrastructure that meets the unique and cutting edge needs of the NCRIS system.

The **incubators** will provide access to incubator resources to NCRIS capabilities (including but not limited to a subset of the ARDC's Thematic Research Data Commons and BPA's BioCommons) to analyse and map the practises; support the integration of existing tools and services with the AAF and NDRI providers; explore access methods for researchers outside the system; and assist with the adoption of technologies and practises that enhance the cybersecurity and resilience of NCRIS.
Benefits: Act as a catalyst to fast track the adoption of trust and identity and inform future investment and fast track the adoption of a national T&I approach across the NCRIS system.
Alignment: This directly aligns with the urgent needs of the ARDC's Thematic Research Data Commons and BPA's BioCommons for a national approach for trust and identity for these infrastructure initiatives.
Indicators/KPIs: The successful implementation of agreed T&I solutions to enable NCRIS to work with the national T&I framework and infrastructure.

Timeline

The AAF is in a position to commence the establishment of project work within a matter of weeks. AAF is well connected with international partners it would need to engage with and has already been working with the ARDC and Bioplatforms Australia.

Risk

Risk 1 - Endorsement of T&I Framework by all NCRIS Projects - A failure to gain the endorsement of a national T&I framework for research would result in potential fragmentation of T&I, negating the benefits outlined in this proposal.
   Mitigated likelihood - Not expected.   **Mitigated Impact - Low.**

Risk 2 - Tools and Modules developed by international partners prove to be not fit for purpose for Australia, requiring custom development of tools and modules.
   Mitigated likelihood - Not expected.   **Mitigated Impact - Low.**

Risk 3 - Inability to recruit personnel with the necessary skills in identity and access management due to chronic labour market shortages.
   Mitigated Likelihood - Expected.   **Mitigated Impact - Moderate.**

Risk 4 - The capacity of NCRIS projects to engage in incubators is limited, causing delays.
   Mitigated Likelihood - Not Expected.   **Mitigated Impact - Low.**

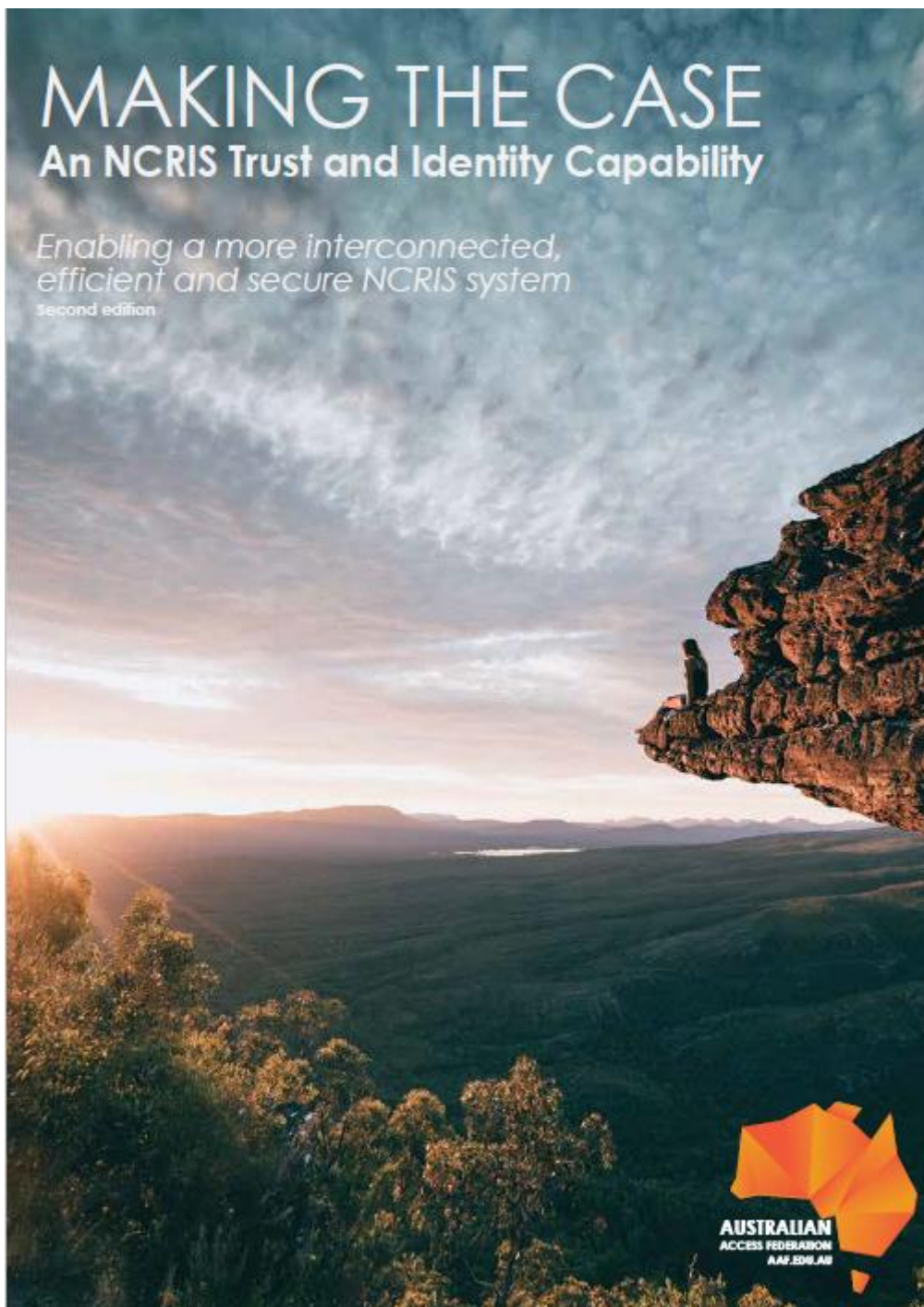**Risk 5** - Inability to secure the necessary expertise to address cyber security.
   Mitigated Likelihood - Certain.   **Mitigated Impact - Moderate.**

Resources Required:

The proposed resources required are detailed below:

- Salaries and on costs of dedicated staff to support the pathfinder;

- One-off access to international specialist identity expertise;

- Technology platforms for research specific access and authentication infrastructure;

- Software licensing of existing solutions (2 * incubators year 1; 4 incubators year 2);

- Engagement with the NCRIS community; and

- General project overheads, including limited travel, governance, contract management and other office and project overheads.

MAKING THE CASE
An NCRIS Trust and Identity Capability

Enabling a more interconnected, efficient and secure NCRIS system
Second edition

AUSTRALIAN ACCESS FEDERATION
AAF.EDU.AU

Want more information on our vision for Trust and Identity in the research system?

Visit ncris.aaf.edu.au