CONTENTS

1. Executive Summary ........................................................................................................... 2

2. Introduction ......................................................................................................................... 6

3. Operational Business Activities in 2018 ........................................................................... 8
   3.1 Support Services ............................................................................................................. 8
   3.2 Technology Maintenance ............................................................................................. 8
   3.3 Partnerships, Memberships and International Engagement and Initiatives ......... 8
      3.3.1 Partnering with national eResearch Infrastructure Projects ....................... 8
      3.3.2 Partnering with Subscribers ................................................................................. 9
      3.3.3 Sponsorships and Memberships .......................................................................... 9
      3.3.4 Thought Leadership in Supporting the Global Federation Community ...... 9
      3.3.5 International Engagement .................................................................................... 9
   3.4 Compliance Support Activities .................................................................................... 9
   3.5 Professional Services .................................................................................................... 9
   3.6 Bespoke Identity Management Workshops ............................................................... 10
   3.7 Continuation of AAF’s Innovation Capability ............................................................. 10
   3.8 Business Development ............................................................................................... 11
   3.9 Communication and Engagement .............................................................................. 12

4. ORCID Consortium Lead .................................................................................................. 14

5. Projects and Other New Initiatives .................................................................................. 15
   5.1 2016 eResearch Infrastructure Roadmap .................................................................... 15
   5.2 Technologies and Trends Supporting Global Research and Education –
       Internationalisation of the Federation and Global Thought Leadership ................ 15
   5.3 New Managed Service – Rapid Identity Provider ..................................................... 17
   5.4 Multi-protocol Support – OpenID Connect ................................................................ 17
   5.5 Deliver New Tools to Assist with Growing the Subscriber Base, Enable
       Efficiencies with Business Development and Promote the AAF’s services .......... 18

6. Support Model ................................................................................................................... 19
   6.1 Organisational Structure ............................................................................................. 19
   6.2 Infrastructure Hosting .................................................................................................. 20

7. Operating Expenses and Subscriptions .......................................................................... 21
   7.1 Overview ...................................................................................................................... 21
   7.2 Subscriptions ............................................................................................................... 22
   7.3 2018 Product Portfolio Expenses .............................................................................. 25
   7.4 2018 Operating Budget .............................................................................................. 27

8. Risk Management .............................................................................................................. 28
The Australian Access Federation (AAF) provides the solution for accessing online resources and services within the Australian Education and Research sector. This is achieved by delivering a secure framework which exchanges information between an organisation, an individual and a service provider of digital resources. The outcome of the AAF’s work facilitates data sharing and collaboration, which benefits end users in Australian universities and research organisations.

The AAF was initiated by the Council of Australian University Directors of Information Technology (CAUDIT) in December 2008 and seed funded by the Department of Education (the then Department of Industry, Science and Research) in 2009 to provide an access federation for organisations and institutions which undertake or support education, research, or research and development in Australia.

With 100 subscribers, in excess of 260 Australian services and 150 international research and scholarship services registered in the federation (October 2017), the AAF has reached critical mass and has been operating as a self-funded service since January 2012.

As an underpinning service, the AAF is vital to the Australian teaching, learning and eResearch infrastructure landscape. The AAF’s core value proposition is a service owned by, and for, the Australian research and education sector. On a national level the AAF is also an integral part of the Federal Government’s National Collaborative Research Infrastructure Strategy (NCRIS). The AAF forms part of the Australian 2016 draft eResearch Infrastructure Roadmap (Digital Data and eResearch Platforms).

Through the AAF, subscribers benefit from a service that:

- Lowers costs and reduces effort with managing federated identity in individual subscriber organisations;
- Provides users with one login that is a fast and simple way to access the services they need online;
- Allows academics and researchers to easily collaborate with their colleagues in other organisations (within Australia and internationally);
- Enables users to quickly and easily connect with a growing number of digital resources connected to the federation, including national research infrastructure (e.g. teaching and learning tools and services and research data storage, virtual laboratories, eResearch tools and instrumentation); and
- Enables service providers to quickly and easily connect their services to over 1.1 million users in Australia (e.g. teachers, students, administrative staff, researchers).
across the research and education sector and many more users that belong to over 40 federations internationally.

Operating as a shared service for the sector, the growing AAF subscriber base encompasses many leading organisations in the research and education sector today.

In 2018, the AAF will continue to undertake the following operational business activities:

1. Provide support services (connecting services of value to federation subscribers, Service Desk, Knowledge Base and technical documentation and best practice and technical architecture advice) to ensure existing subscribers gain best value from their subscription;

2. Ensure the technology on which the AAF depends is appropriately maintained (application patching, security bug fixes and minor enhancements to AAF’s software stack where activities are critical for the successful operations of the federation);

3. Continue partnerships, memberships and supporting international initiatives through:
   a. Partnerships with national eResearch infrastructure projects and other subscribers where mutually beneficial opportunities exist;
   b. Continue bronze sponsorship of global REFEDS (Research and Education Federations\(^1\)) group;
   c. Continue to provide thought leadership and support to the global community through holding an open seat on the REFEDS Steering Committee and continue leadership and support to the Asia Pacific community through chairing the APAN (Asia Pacific Advanced Networking) Federated Identity Management Working Group;
   d. Continue to engage with international federations to ensure best practice and knowledge exchange;

4. Provide compliance support activities associated with the Federation Rules and annual Compliance Statements;

5. Provide a range of professional services (install and configure Identity Providers, and software development services for bespoke federated identity management solutions) to support subscriber needs;

6. Develop and deliver bespoke Identity Management workshops on-demand;

7. Continuation of AAF’s innovation capabilities to further build upon the utility and value of the federation;

8. Undertake business development as part of the operating culture of the AAF; and

9. Undertake communication and engagement activities that focus on promoting the AAF’s value proposition to subscribers, ORCID members and the international community.

\(^1\) refeds.org
In 2018 the AAF will continue to be the ORCID (Open Researcher and Contributor ID) Consortium Lead for Australia. Key activities will include:

- Providing administrative support to the Consortium;
- Managing the on boarding of Consortium members;
- Being the central technical support contact to all members (Tier 1);
- International engagement with other Consortium Leads to ensure best practice and knowledge exchange; and
- Maintaining consortium documentation and technical documentation repositories.

2018 will see the AAF work on a number of projects and new initiatives. These include:

- **Supporting the Federal Government** with the implementation of the **2016 eResearch Infrastructure Roadmap**.
- **Internationalisation of the federation** via a multi-year program of work (enabled by external funding);
- Implementing strategies to maintain and grow **AAF’s thought leadership globally** - by leveraging AAF’s success as a thought leader in advanced federated identity management in the Asia Pacific Region;
- **Release of the Rapid Identity Provider Managed Service**, operate and grow the adoption of the service;
- **Multi-protocol support** through the delivery of an OpenID Connect Service (enabled by external funding); and
- **Deliver new tools** that will **assist with growing the AAF subscriber base**, **enable efficiencies** with business development, **provide educative information** for current subscribers and further **promote the AAF’s services** via a digital asset and marketing initiative.

Subscription fees will increase 14% in 2018 in line with the strategy approved by the members in 2015 and 2017 to continue to operate first class services for its members. Increases will also support the growing requirement for the AAF to manage and operate an increasingly complex range of technology based tools and services.
Highlights from the 2018 operating budget are summarised in Table 1.

<table>
<thead>
<tr>
<th></th>
<th>Budget 2018</th>
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<tbody>
<tr>
<td>Retained Earnings</td>
<td></td>
</tr>
<tr>
<td>Forecast Retained Earnings as at 1 January</td>
<td>$574,098</td>
</tr>
<tr>
<td>Total Income</td>
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<td>Total Expenses</td>
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</tr>
<tr>
<td>Retained Earnings as at 31 December(^2)</td>
<td>$451,400</td>
</tr>
</tbody>
</table>

Table 1: 2018 (forecast) Operating Budget

\(^2\) The AAF aims to maintain a cash flow buffer with its retained earnings of approximately 3 to 4 months of its annual operating costs.
2. Introduction

The Australian Access Federation (AAF) provides the solution for accessing online resources and services within the Australian Education and Research sector. This is achieved by delivering a secure service which exchanges information between an organisation, an individual and a service provider of digital resources. The outcome of the AAF’s work facilitates data sharing and collaboration, which benefits end users in Australian universities and research organisations.

The Australian Access Federation (AAF) was initiated by the Council of Australian University Directors of Information Technology (CAUDIT) in December 2008 and seed funded by the former Department of Industry, Science and Research, now Department of Education, in 2009 to provide an access federation for organisations and institutions which undertake or support education, research or research and development in Australia.

With 100 subscribers and in excess of 260 Australian services and 150 international research and scholarship services registered in the federation (October 2017), the AAF has reached critical mass and has been operating as a self-funded service since January 2012.

As an underpinning service, the AAF is vital to the Australian teaching, learning and eResearch infrastructure landscape. The AAF’s core value proposition is a service owned by, and for, the Australian research and education sector. On a national level the AAF is also an integral part of the Federal Government’s National Collaborative Research Infrastructure Strategy (NCRIS). The AAF forms part of the Australian 2016 draft eResearch Infrastructure Roadmap (Digital Data and eResearch Platforms).

Through the AAF, subscribers benefit from a service that:

- Lowers costs and reduces effort with managing federated identity in individual Subscriber organisations;
- Provides users with one login that is a fast and simple way to access the services they need online;
- Allows academics and researchers to easily collaborate with their colleagues in other organisations;
- Enables users to quickly and easily connect with a growing number of digital resources connected to the federation including national research infrastructure (e.g. teaching and learning tools and services and research data storage, virtual laboratories, eResearch tools and instrumentation); and
- Enables service providers to quickly and easily connect their services to over 1.1 million Australian users (e.g. teachers, students, administrative staff, researchers)
across the research and education sector and many more users that belong to over 45 federations (September 2017) internationally.

“Many organisations have natural sensitivities and concerns about their data and require advanced security solutions to be in place. AURIN [Australian Urban Research Infrastructure Network] leverages the AAF to provide all academics across Australia with authenticated access to these data resources and tools, with transparent extensions to provide finer-grained authorisation.”

Professor Richard Sinnott, Director eResearch
The University of Melbourne

Our Vision and Mission

The AAF’s vision is to lead access management for Australian education and research.

The AAF’s mission is to deliver secure federated access that connects Australian teachers, students and researchers to global online resources.
3. Operational Business Activities in 2018

This section outlines the key operational business activities planned for 2018.

3.1 Support Services

AAF personnel will provide a range of support services to subscribers including:

1. Connecting services of value to federation subscribers;
2. Ongoing technical support to current and new subscribers via the support desk, technical documentation and knowledge base; and
3. Subscriber support with interpreting best practice technical architecture as well as Service Provider and/or Identity Provider configurations.

3.2 Technology Maintenance

The AAF will continue to maintain the software stack of the federation. This includes planned maintenance activities for application patching, security bug fixes and minor enhancements to the AAF software stack where activities are critical for the successful operations of the AAF.

3.3 Partnerships, Memberships and International Engagement and Initiatives

3.3.1 Partnering with national eResearch Infrastructure Projects

The AAF will continue to partner with the NCRIS capabilities to assist with developing and supporting their identity management needs. This work will be done as part of AAF’s Professional Services capability.
3.3.2 Partnering with Subscribers
The AAF will undertake partnerships with national eResearch infrastructures and subscribers where mutually beneficial opportunities exist.

3.3.3 Sponsorships and Memberships
The AAF will continue to remain a Bronze sponsor of REFEDS in 2018.

3.3.4 Thought Leadership in Supporting the Global Federation Community
The Chief Executive Officer will continue to take a leadership role and represent the views and interests of the Australian Higher Education and Research sector through holding an open seat on the global REFEDS Committee. Likewise, the Technical Engagement and Support Manager will take a leadership role in continuing to assist the Asia Pacific community as Chair of the APAN working group for federated identity management.

3.3.5 International Engagement
The AAF will continue to engage with international federations through industry events.

3.4 Compliance Support Activities
AAF will support the following key activities:

1. Annual Federation Rule compliance program:
   AAF Personnel will assist subscribers to meet their compliance requirements, in particular to submit their annual Compliance Statement on or before 30 June 2018.

2. Compliance with any applicable legislation in relation to data protection and privacy including, without limitation, the Australian Privacy Act.

3.5 Professional Services
The AAF will provide a range of Professional Services to the sector in 2018. This includes:

1. On-request, and where practical, professional service engagements to install and configure Identity Providers; and

2. Software development services for bespoke federated identity management solutions.
3.6 Bespoke Identity Management Workshops

Bespoke identity management workshops will be provided on-demand over 2018. These will be provided on a cost recovery basis.

3.7 Continuation of AAF’s Innovation Capability

Innovation capability was introduced in 2015 to further build upon the utility and value of the federation to AAF subscribers and ensure long term sustainability of the service into the future.

The continuation of this capability is vital to enable the AAF to build upon its services and remain relevant to its subscribers as their requirements and platforms continue to evolve.

Innovation is important to the AAF for a number of reasons; firstly, the technology landscape of federated identity management continues to evolve at a rapid pace. There is a greater need for tools and technology to assist with collaboration both locally and internationally and new and emerging standards for authentication and authorisation are being developed and adopted. Secondly, in many cases research infrastructure projects make their own ‘fit for purpose’ choice of technology for authentication and authorisation. This makes it difficult for the AAF to plan for these requirements and an innovation capability is required to respond to these needs. Finally, innovation of federated identity management technologies is not an activity that AAF subscribers could cost effectively undertake individually.

To address these requirements and ensure that the AAF maintains a service in line with international best practice, 2018 will continue to build upon this innovation activity which commenced in 2015 in line with the AAF Strategic Plan and Technology Roadmap.

Extending AAF Services - expand AAF’s identity and access management products

The technology requirements for federated identity management are often complex, diverse and in many cases still evolving. In addition the authentication and authorisation landscape is continuing to evolve with the emergence and adoption of other sources of trusted and not-trusted login mechanisms, for example self-asserted authentication sources such as Google and Facebook.

To support these requirements into the future, AAF’s innovation capability will see it continue to undertake a program of work each year to expedite the development of technologies in line with AAF’s technology roadmap. 2018 would see it undertake evaluation and development, where appropriate, of the following kinds of new technologies:
The evolution of AAF’s technology stack to build upon its functionality to support other authentication protocols such as OpenID Connect and OAuth2 and internationalisation of the federation;

- Group management tools (co-manage and grouper) through the Data Life Cycle Project; and
- New Digital Identifiers such as RAID (Researcher Activity ID) through the Data Life Cycle Project.

AAF will evaluate these technologies in line with best practice to determine suitability to meet subscriber requirements and the potential to become a future service. Should technologies be proven to meet these needs, they would then be further developed to form part of the AAF’s production service offering.

The AAF will continue to seek investment funding from a number of sources where it aligns with the use of AAF’s services in 2018 or in the future. This may include but not be limited to NCRIS, subscribers, federal government agencies and initiatives. Investment will assist and expedite the advancement of innovation activities where they may be mutually beneficial.

3.8 Business Development

Business Development in 2018 will be done as part of the operating culture of the AAF, where all staff will have the remit to identify business development opportunities.

Business development will continue to focus on:

- **Increasing** new subscriptions of the AAF services and professional service engagements;
- **Building** further value for the members;
- **Growing** new federated services connected to the federation; and
- **Raising** brand awareness, external marketing and promotion with a focus on thought-leader positioning.

Business development in 2018 will focus on three key strategies:

1. Leveraging existing subscribers;
2. External marketing utilising digital assets;
3. Communication and engagement.
In line with the AAF Business Development Plan, the focus for 2018 will see it target business development into two core categories:

**Category 1: Primary target markets:**
- Providers of services in the following categories:
  - Research support
  - Scholarly and Publication Resources
  - Cloud
  - Teaching and Learning
  - Learning Management Systems
- State and Local Government;
- Large Medical Research Institutes (MRIs); and
- Galleries, Libraries, Archives and Museums (GLAMs).

**Category 2: Secondary target markets:**
- Vocational and Education Providers (VET), Registered Training Organisations (RTO) and Higher Education Providers (HE);
- Emerging Universities;
- Australian Government Science Information and Communication Technology (ICT) network;
- Health; and
- Small Medical Research Institutes.

Supporting activities such as offering professional service engagements as well as ORCID Consortium subscriptions will help with the uptake of new subscribers. In addition, new products and services that are released in 2018 will assist with business development.

### 3.9 Communication and Engagement

The AAF will execute a communication and engagement plan that focuses on promoting the AAF’s value proposition to current subscribers, ORCID members and the international community. Activities include:

- Presence at key industry events locally and internationally (e.g. eResearch Australasia, THETA, TERENA Géant Association Conference, international Research Education Federations (REFEDS) meetings, APAN (Asia Pacific Advanced Networking) conference and Identity Management Access Working Group and ORCID Consortium Lead meeting and Pidapolluza digital identifier conference);
- Regular newsletters for targeted groups;
- Content rich, product centric website which describes AAF products to Service Providers, Identity Providers and End Users;
- Content development and design of publications and promotional material;
- Promotional and educative communication campaigns for current subscribers;
• Develop and deliver webinars, events, ‘how to’ videos and guides; and
• Develop a Marketing Plan for external target markets that focuses on new products;
• Develop digital assets which market the AAF to a broader target audience for business development;
• Develop promotional and advertising collateral for the release of new products and services.

A Communications Officer commenced in Quarter 3 2017 to assist with implementing relevant strategies and extending the AAF’s communication and engagement activities. This role will assist with outreach to the AAF community and new market segments.
ORCID (Open Researcher and Contributor ID)\(^3\) is an international, open, non-profit, community-driven effort developed by and for the research community to provide a unique persistent identifier for researchers. It is used to link research publications, data and other research activities to the right researcher.

The AAF commenced as the ORCID Consortium Lead for Australia in January 2016. Participation in the consortium is open to organisations and institutions of higher education, non-profit organisations and government research institutes and funding agencies in Australia.

The AAF will continue to undertake the following key responsibilities as Consortium Lead:

- Provide administrative support to the Consortium;
- Participate in the ORCID Consortium Advisory Group and Governance Group;
- Manage and support the on boarding of consortium members;
- Be the central technical support contact to all members (Tier 1); and
- Maintain consortium documentation and technical documentation repositories.

In 2018, Consortium Lead fees will increase (subject to approval from the Consortium Governance Group) to enable the AAF to undertake international engagement with other Consortium Leads which will ensure best practice and knowledge exchange.

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\(^3\) See: orcid.org
5. Projects and Other New Initiatives

This section outlines the projects and other new initiatives for 2018.

5.1 2016 eResearch Infrastructure Roadmap

The draft eResearch Infrastructure Roadmap was released by the Australian Federal Government in May 2017. The AAF features in the roadmap as a key underpinning capability as part of the Digital and Data eResearch Platforms. AAF will continue to support the Roadmap through responding to submissions as the Federal Government develops an investment plan for its implementation.

“Australia’s access and authentication infrastructure should be extended further to provide additional access to international researchers, where possible. Connecting the AAF to the rest of the world is the next step for Australia’s national authentication service for research and education. Implementation will connect Australian researchers with their counterparts across the globe, and allow international collaboration partners to access Australia’s national research infrastructure.

Australia’s ongoing participation in the global initiative eduGAIN will progress international access for researchers and make international collaborations much easier. This should include consideration of both authentication and authorisation.”

5.2 Technologies and Trends Supporting Global Research and Education – Internationalisation of the Federation and Global Thought Leadership

Being at the forefront of technologies and trends supporting global research and education is vital for the AAF. 2018 will see the AAF focus on internationalisation of the federation and global thought leadership to meet these needs.

Internationalisation of the Federation – a multi-year program of work seeking funding

Connecting the federation to the rest of the world is the next evolutionary step for the AAF. It is an important part of connecting organisations using the AAF with their counterparts’ operating services connected to other federations globally. It will also provide international collaborators with access to AAF connected teaching, learning and research applications.

Fully enabling the AAF to connect globally is a multi-year program of work. In 2016 the AAF completed the first phase of this program of work (Phase 1) which was a proof of concept which proved international connectivity via eduGAIN\(^5\) (the global federation initiative). In 2017, funded by the Research Data Infrastructure Project the second phase of work completed (Phase 2), which saw the policy and process work undertaken to offer the service.

While the AAF has made significant progress to date in undertaking the Phase 1 and Phase 2 activities, further work needs to be done. The next phase of work is to undertake the technical enhancements to AAF tools and change management activities required to see the AAF roll out the service on a national level.

In 2018, the AAF will seek grant funding in part or full from the NCRIS capabilities and or other granting agencies to further progress internationalisation of the federation.

**Maintain and Grow Global Thought Leadership**

The AAF is a thought leader in federated identity management representing the interests of Australian Higher Education and Research. AAF’s leadership has enabled it to rapidly become an advanced federation operator in the Asia Pacific region. Today, the AAF technology stack has been adopted by the New Zealand, Hong Kong and Singapore federations. Since 2014 the AAF has played a key role with the APAN working group on identity management. This has led to many opportunities for the AAF in expanding its thought leadership in the region. The AAF will continue this work in 2018 through developing strategies to maintain and grow its thought leadership globally.

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\(^5\) Globally, federation operators have been working to enable this key functionality via the international inter-federation initiative called eduGAIN. The purpose of eduGAIN is worldwide connection of Research and Education (R&E) identity federations. In line with the way a national federation operates, eduGAIN is made up with both policy and technology which connects federations to what is known as a global eduGAIN phonebook of Identity and Service Providers.
5.3 New Managed Service – Rapid Identity Provider

Release of the AAF SaaS Hosted IdP service (Rapid IdP)

Quarter 1 2018 will see the completion of the 2017 Early Adopter Program\(^6\) where 8 AAF subscribers participated to migrate their on-premise IdP to AAF’s managed Rapid IdP service.

The AAF is excited to be releasing this new product to new and existing subscribers in 2018 which will:

- Accelerate the process for new subscribers to connect to the federation by reducing the need for specialist skills to install and configure servers and software;
- Eliminate the need for subscribers to deploy infrastructure in order to technically participate in the federation;
- Eliminate the need for subscribers to have specially trained staff to manage and maintain the technical infrastructure they currently have to participate in the federation. (This will be done via an AAF managed central, coordinated approach to security patching and upgrades);
- Introduce an offering that better meets the requirements of a diverse range of subscribers (small, medium and large organisations);
- Reduce many of the barriers that have prevented smaller organisations from previously joining the AAF.

A business model and annual subscription fee has been developed to support the operations of the service and grow its adoption from Quarter 1 2018.

5.4 Multi-protocol Support – OpenID Connect

From 2015-2017, the NeCTAR Project funded\(^7\) the AAF to undertake a program of activities to develop support for the OpenID Connect protocol (OIDC) in the federation. The 2016 REFEDS survey identifies that OIDC is likely to be the next most important technology for consideration in federations. OIDC also appears as one of the 2017 top 5 priorities for federation operators. OIDC appeared in the 2017 AAF Subscriber Survey as one of the services that subscribers would like to see the AAF deliver in the future. In 2017 the AAF became a member of the OpenID Connect Foundation and is actively participating in an international REFEDS Standards group responsible for defining standards for using OIDC in a federated context.

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\(^6\) A 12 month program which commenced in 2017. As part of the early adopter program, the AAF worked with eight investing organisations to use the service and help the AAF shape the new product it was prepared to go to market.

\(^7\) $237,000 funding for Phase 1, 2 and 3-NeCTAR funded OIDC projects.
A new service will be released in early 2018 which will enable Service Providers to use the OIDC to connect to the AAF. The AAF is one of the first federations internationally to adopt this technology in this way. Benefits of this new service will include:

- Support for mobile devices
- Easier integration with a broader range of applications.

In 2018, the AAF will seek grant funding in part or full from the NCRIS capabilities and or other granting agencies to further progress the deployment of OIDC including:

- Packaging the service, training and supporting the technology;
- Further development of a broader number of use cases for OpenID connect with the federation

5.5 Deliver New Tools to Assist with Growing the Subscriber Base, Enable Efficiencies with Business Development and Promote the AAF’s services

In 2017 the AAF commenced a digital asset initiative, this will continue in 2018. These digital assets will:

- Promote the AAF and also inform potential subscribers about the benefits and how they can be part of the federation;
- Develop short, succinct promotional videos that explain the product/s, what the benefits are for subscribers and who the AAF is; and
- Maintain a digital repository for these digital assets that will include videos, presentations, media, files, webinars and Q&A sessions.
6. Support Model

This section outlines the support model for 2018.

6.1 Organisational Structure

The AAF operational organisational structure is shown in Figure 1.

2018 will see the commencement of Managed Services with the Rapid IdP product. This will see the addition of the Product Manager and Technical Lead to support its operations. The Communications Officer commenced in late 2017 to support the delivery of new tools, assist with growing the subscriber base and to promote the AAF’s services.

Figure 1: Organisational Structure 2018
6.2 Infrastructure Hosting

In 2016, the AAF commenced running its infrastructure on a host provider that is certified by the Australian Government’s Information Technology security guidelines published by the Australian Signals Directorate. This was part of a continuing strategy to ensure AAF’s systems are secure and information is protected. The continuation of this arrangement will ensure the robust operations of the AAF’s services in 2018.

The AAF will continue to use cloud-based services for its support systems (DNS, email, service desk, mail campaigns, client management system, accounting and source code repository).
This section outlines the operating costs and subscriptions for 2018.

7.1 Overview

The AAF was incorporated in June 2009 with funding provided by a $2.0M grant from the Department of Education. A subscription model has been applied since 2011 with the strategic intent to be self-funded and operate at a break-even level. As at 1 January 2018, the AAF expects to have forecast retained earnings of $574,098, noting that it is forecast that this amount will be reduced to an estimated $451,400 at 31 December 2018.

Operating costs have risen with the addition of a Communications Officer, the introduction in 2015 of innovation capabilities in line with the strategies to build and sustain these capabilities as ongoing. The need to lease 100% of AAF’s office space requirements has also increased operating costs from June 2017. Operating cost increases are also in line with the need to support the growing requirement for the AAF to manage and operate an increasingly complex range of technology based tools and services.

Figure 2 outlines the 2009-2018 income sources for the AAF. Figure 3 outlines the 2009 – 2018 expenses matched to funding sources.

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The introduction of new capabilities as from 2015 is part of a strategy (approved by the members) to build and sustain these capabilities as ongoing. The strategy consists of the following fee increases over 2015-2018 to subscriptions in line with AAF’s strategic intent to operate at a break-even level:

- 11% (inclusive of CPI) subscription fee (Enterprise, Team, Hosted) increase in 2015;
- 11% (inclusive of CPI) subscription fee (Enterprise, Team, Hosted) increase in 2016;
- 14% (inclusive of CPI) subscription fee (Enterprise, Team, Hosted, Publisher) increase in 2017; and
- 14% (inclusive of CPI) subscription fee (Enterprise, Team, Hosted, Publisher) increase in 2018.
7.2 Subscriptions

The subscription fees outlined in Table 2 are based on a 2017-2018 strategy to continue to build a sustainable business development and innovation capability for the AAF and the need to support the growing requirement for the AAF to manage and operate an increasingly complex range of technology based tools and services. For the typical subscriber (AAF Enterprise, AAF Team, AAF Hosted and AAF Publisher) to the AAF, subscription fees will raise 14% (inclusive of CPI) in 2018. Based on a subscription income forecast in Table 7, subscriptions will be set to raise a total forecasted income of $1,145,756 in 2018 (inclusive of forecast new subscriptions through business development).

Table 3 outlines the subscription fees for the new Rapid IdP service that will commence in 2018. Eligible higher education and research customers will receive a 30% discount on the annual fee to use the service. The AAF Hosted Plan ceased in September 2017 for new subscriptions. Existing subscribers of this plan will transition to the AAF Rapid Starter
subscription from 1 January 2018.

<table>
<thead>
<tr>
<th>Subscription Component</th>
<th>AAF Enterprise</th>
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<td><strong>Year</strong></td>
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<td>Joining fee</td>
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<td>Base price</td>
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<td>$29.59</td>
</tr>
<tr>
<td>Additional Identity provider registration</td>
<td>$12,364</td>
</tr>
<tr>
<td>Extra Service provider registration bundle</td>
<td>$6,870</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subscription Component</th>
<th>AAF Hosted (DISCONTINUED)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year</strong></td>
<td>2018</td>
</tr>
<tr>
<td>Base price</td>
<td>(DISCONTINUED)</td>
</tr>
<tr>
<td>Fee per user &gt; 40</td>
<td>(DISCONTINUED)</td>
</tr>
<tr>
<td>Extra Service provider registration bundle</td>
<td>(DISCONTINUED)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subscription Component</th>
<th>AAF Publisher</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year</strong></td>
<td>2018</td>
</tr>
<tr>
<td>Joining fee</td>
<td>$4,798</td>
</tr>
<tr>
<td>Base price</td>
<td>$1,371</td>
</tr>
<tr>
<td>Extra Service provider registration bundle</td>
<td>$1,371</td>
</tr>
</tbody>
</table>

**Table 2: Subscription Fees for 2018 (ex GST)**

\(^9\) Full Time Equivalent Staff Member
<table>
<thead>
<tr>
<th>Subscription Component</th>
<th>AAF Rapid Starter</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year</strong></td>
<td><strong>2018</strong></td>
</tr>
<tr>
<td>Joining Fee</td>
<td>$0</td>
</tr>
<tr>
<td>Annual Fee</td>
<td>$5,200</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subscription Component</th>
<th>AAF Rapid Enterprise</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year</strong></td>
<td><strong>2018</strong></td>
</tr>
<tr>
<td>Joining Fee (new subscribers)</td>
<td>$12,502</td>
</tr>
<tr>
<td>Migration Fee (existing subscribers)</td>
<td>Tailored migration packages at AAF Professional Service rates</td>
</tr>
<tr>
<td>Annual Fee</td>
<td>$65,000</td>
</tr>
</tbody>
</table>

**Table 3:** *Rapid IdP Managed Service Subscription Fees for 2018 (ex GST).*

\(^{10}\) Inclusive of a 30% discount for eligible higher education and research subscribers.

\(^{11}\) Inclusive of a 30% discount for eligible higher education and research subscribers.

\(^{12}\) Inclusive of a 30% discount for eligible higher education and research subscribers.
7.3 2018 Product Portfolio Expenses

Table 4, 5 and 6 outline the operating expenses across the AAF product portfolio for 2018.

<table>
<thead>
<tr>
<th>Product: Core Federation Services</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2018 Expenses</strong></td>
</tr>
<tr>
<td>Salary Expenses $972,711</td>
</tr>
<tr>
<td>Office and General $73,365</td>
</tr>
<tr>
<td>Professional Development $7,210</td>
</tr>
<tr>
<td>Professional Fees $30,900</td>
</tr>
<tr>
<td>Marketing and Communication (inc. Digital Asset Program) $27,828</td>
</tr>
<tr>
<td>Telecommunications $7,000</td>
</tr>
<tr>
<td>Software and Certificate Services $21,029</td>
</tr>
<tr>
<td>Hosting Services $26,538</td>
</tr>
<tr>
<td>Engagements, Meetings and Events $74,057</td>
</tr>
<tr>
<td><strong>Total</strong> $1,240,638</td>
</tr>
<tr>
<td>Operating Surplus (2% Safety Margin) $24,813</td>
</tr>
<tr>
<td><strong>Total Core Federation Services</strong> $1,265,451</td>
</tr>
</tbody>
</table>

Table 4: 2018 Core Federation Operating Expenses

<table>
<thead>
<tr>
<th>Product: ORCID Consortium Service</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2018 Expenses</strong></td>
</tr>
<tr>
<td>Salary Expenses $253,935</td>
</tr>
<tr>
<td>Office and General $26,368</td>
</tr>
<tr>
<td>Events, Engagement and Meetings $12,731</td>
</tr>
<tr>
<td>International ORCID.org Board Activity $15,000</td>
</tr>
<tr>
<td>International Engagement (New) $10,700</td>
</tr>
<tr>
<td>Consortium Member Licence Fees(^{13}) $170,000</td>
</tr>
<tr>
<td><strong>Total</strong> $488,734</td>
</tr>
<tr>
<td>Operating Surplus (2% Safety Margin(^{14})) $6,048</td>
</tr>
<tr>
<td><strong>Total Core ORCID Consortium Service</strong> $494,782</td>
</tr>
</tbody>
</table>

Table 5: 2018 ORCID Consortium Operating Expenses

\(^{13}\) ORCID Member Licence fee of $135,000 USD paid by AAF on behalf of the members to ORCID. USD $135,000 has been converted to an approximate AUD for representation in the budget.

\(^{14}\) 2% safety margin not applied to the Consortium Member Licence Fee and International ORCID.org Board Activity.
### Product: Rapid IdP Managed Service

#### 2018 Expenses

<table>
<thead>
<tr>
<th>Expense</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary Expenses</td>
<td>$336,810</td>
</tr>
<tr>
<td>Office and General</td>
<td>$16,480</td>
</tr>
<tr>
<td>Professional Services</td>
<td>$22,660</td>
</tr>
<tr>
<td>Hosting Services</td>
<td>$44,290</td>
</tr>
<tr>
<td>Marketing Communications</td>
<td>$12,360</td>
</tr>
<tr>
<td>Innovation Provision</td>
<td>$86,520</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$519,120</td>
</tr>
<tr>
<td>Operating Surplus (2% Safety Margin)</td>
<td>$10,382</td>
</tr>
<tr>
<td><strong>Total Rapid IdP Managed Service</strong></td>
<td><strong>$529,502</strong></td>
</tr>
</tbody>
</table>

*Table 6: 2018 Rapid IdP Managed Service Operating Expenses*
### 7.4 2018 Operating Budget

Table 7 outlines the 2018 budget.

<table>
<thead>
<tr>
<th>Retained Earnings</th>
<th>Budget 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forecast Retained Earnings as at 1 January</td>
<td>$574,098</td>
</tr>
</tbody>
</table>

**Income**

**Core Federation Services Income**
- Forecast Subscription Income (existing subscribers): $1,116,756
- Pending new subscribers previous year: $29,000

**Other**
- Forecast Professional Service Income\(^{15}\): $30,000
- Forecast Interest: $14,000

**ORCID Consortium Services Income**
- Forecast ORCID Consortium Leader Fee Income: $324,781
- Forecast ORCID Consortium Member Fee Income\(^{16}\): $170,000

**Rapid IdP Managed Service Income**
- Forecast Rapid IdP Subscriptions: $482,500

**Total Income**

$2,167,037

**Total Income + Retained Earnings**

$2,741,135

**Expenses**

**Operating**
- Core Federation Services Expenses (inc. 2% safety margin): $1,265,451
- ORCID Consortium Services (inc 2% safety margin): $494,782
- Rapid IdP Managed Services Expenses (inc. 2% safety margin): $529,502

**Total Expenses**

$2,289,735

**Retained Earnings as at 31 December**

$451,400

| **Table 7**: 2018 (forecast) Operating Budget |

\(^{15}\) A medium case Professional Services income.

\(^{16}\) ORCID Member Licence fee of $135,000 USD paid by AAF on behalf of the members to ORCID. USD $135,000 has been converted to an approximate AUD for representation in the budget.
The AAF maintains an ongoing evaluation of its risk profile via the AAF Inc. Risk Management Register which covers the following risk categories:

- Human capital management;
- Financial management;
- Business and service continuity;
- Governance;
- Workplace Health and Safety;
- Compliance;
- Remaining relevant and subscriber retention;
- Reputation.

Any risks associated with the introduction of the new capabilities and services in 2018 have been incorporated into the overall risk profile for AAF Inc. These risks will be managed by the Chief Executive Officer and AAF Inc. Executive Committee.