

# Australian Access Federation (AAF)



An Australian Government Initiative  
Backing Australia's Ability



australian access  
federation

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australian access  
federation

- History/Challenges of the AAF project
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## History of the AAF project



- Series of interconnected projects
  - CAUDIT PKI Project
  - MAMS
  - e-Security Framework
  - Australian Access Federation
- Earlier projects were more technically focussed
- Now reaching the stage that it is possible to contemplate real deployment of the technology



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## Identity of users



- The focus of this initiative:
  - having a reasonable degree of surety in the identity of a user
  - trusting information about the identity of a user across a network and hence across many systems and resources
- This concept of identifying users (and trusting this information) is of increasing importance in various aspects of the business of universities



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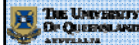
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### Example: Student information



- Students are making increasing use of on-line access, such as
  - enrolment
  - obtaining results
- Cross-institutional enrolments mean that such access may go across the boundary between one institution and another
  - a student could be forced to use separate usernames and passwords for each university, but why should they have to?



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### Example: Student learning



- On-line learning is becoming more and more a usual component of teaching
- Controls on access to teaching materials and to on-line discussion forums, etc. are often fairly weak
  - universities need to be able to control access, but in a way which facilitates cross-institutional learning



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### Example: Access to research infrastructure



- Increasingly, expensive research infrastructure is a joint enterprise of multiple research institutions
  - e.g., Linkage Infrastructure, Equipment and Facilities scheme (LIEF) - funded equipment or facilities under NCRIS/ARC
- access to the infrastructure itself, or to data from it, is typically restricted to researchers from a defined collection of research institutions



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### Example: Research ethics processes



- Ideally, researchers should be able to track the progress of their research ethics application
  - some universities are working towards implementing this in various ways
- Access to the information should be restricted to a defined collection of people
- Researchers from multiple institutions may well be involved in an application – and hence need access



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## Example: Research collaboration



- Collaboration environments and workspaces for virtual teams
  - e.g., Access Grid
- Repositories
  - e.g., for incremental development of publications
- These kinds of technologies have the potential to significantly enhance research collaboration at a distance



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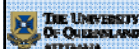
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## Sector Readiness



- **Access and Identity Management challenges**
  - **Diverse requirements for authentication and authorization**
    - Strong authentication (certificates in smart cards)
    - Username and password
  - **Requirement for an authoritative source of information regarding staff, students and affiliates**
    - Assurance that individuals accessing the resource are who they claim to be
  - **Scalability**



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## Australian Access Federation

### What is the Australian Access Federation?

Facilitator for trusted electronic communications and collaboration within and between institutions of higher education and research in Australia and other organizations worldwide

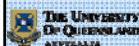


## What will AAF provide?



### Federated Authentication, Authorization and Identity Management

- Simplified access to resources
  - eLearning, eJournals, library resources etc
- Simplified access to Data
  - Data collections
  - Data Grids
- Simplified access to infrastructure
  - Research Instruments, modelling and visualisation tools
  - High Performance Computers
  - Compute Grids
  - Collaboration environments and workspaces for virtual teams
- Simplified exchange of information
  - Encrypted emails
  - Digital signatures
  - Secure file transfer
  - Secure web browsing



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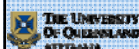
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## What are the AAF benefits? (1)



- AAF community stakeholders
  - Researchers, other staff members, and students at a university or research institutions
  - Resource providers
  - Institutions



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## What are the AAF benefits? (2)

### For researchers, other staff members, and students at a university or research institutions

- To log in using a single account issued by their own institution
- To access a wide range of resources both internal and external to their institution



## What are the AAF benefits? (3)

### For Resource providers

- Confidence that AAF participants agree to abide by the federation policies and to trust the information passed to each other.
- Concentrate in managing the resources or services and the rules for how they are accessed, rather than managing user accounts or certificates.



## What are the AAF benefits? (4)



### For Institutions

- Enables their research, academic, and administrative users to access a wide range of resources and to collaborate more easily with colleagues.
- AAF membership can be used as a driver for improving institutional identity management practices.
- Opportunity to use signed server certificates issued through the AAF.
- Enables the use of digital signatures and encryption on email and electronic documents.
  - AusCERT Root CA Certificate in browsers
- Enables federating access management among services within the university.



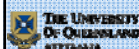
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## Australian Access Federation Project



## Australian Access Federation Project



- Builds on previous projects
  - CAUDIT PKI, eSecurity Framework, MAMS
- Funded by  Australian Government  
Department of Education, Science and Training ~ \$4.8 M
- Lead Institution: UQ
- Partners
 




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MAMS



## AAF Steering Committee Members



- Alan Bevan (*The Learning Federation*)
- Maxine Brodie (*Council of Australian University Librarians (CAUL)*)
- Andrew Cheetham (PVCR, University of Western Sydney)
- James Dalziel (*Macquarie University*)
- Michael Dupe' (*Australian Government Information Management Office (AGIMO)*)
- Rhys Francis (*National Collaborative Research Infrastructure Strategy (NCRIS)*)
- Chris Marlin (DVCR, Flinders University)
- Clare McLaughlin (*Department of Education, Science and Training (DEST)*)
- Thien Tran (*Department of Education, Science and Training (DEST)*)
- Peter Nicholson (*Department of Education, Science and Training (DEST)*)
- (Richard Northam (*Council of Australian University Directors of Information Technology (CAUDIT)*))
- Viviani Paz (*Australian Computer Emergency Response Team (AusCERT) - AAF Project Manager*)
- Alex Reid (Australia's research and education network (AARNet))
- Nick Tate, Chair (*The University of Queensland*)



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MAMS





## AAF Project Components



### Part 1

- The development of overarching governance and policies for the whole Trust Federation
  - these are independent of delivery technologies

### Part 2

- The development of specific policies, technical implementation and rollout of PKI for a Trust Federation

### Part 3

- The development of specific policies, technical implementation and rollout of Shibboleth for a Trust Federation.



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## AAF Project Overview



- **Phased approach**
  - To enable AAF participation at early stages of deployment
- **Governance**
- **Policies**
- **Technologies**
  - PKI
  - Shibboleth
  - Q2 2008



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## Next Steps

- Institutions need to access their current ability to manage identities and determine the authoritative source of identity information for their institution
- Join AAF PKI and Shibboleth testbed federation to be ready for AAF
  - By participating in the early integration of institution's services using the AAF PKI and Shibboleth testbed federation information and support
- Identify the services or resources at the institution to make available to the federation community.

## Thank you!

