

Overview of Australian Middleware Activities

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Australian Environment

- 38 publicly funded universities
- CAUDIT: Very strong coordination among Aus/NZ IT Directors
- Government policy encouraging more:
 - Collaboration and shared infrastructure
 - Diversification and specialisation
 - Global engagement
 - Research quality metrics
 - Operational efficiency



Middleware activity frameworks

- 2002 – 2006: Systemic Infrastructure Initiative (SII)
- 2006 – 2011: National Collaborative Research Infrastructure Strategy (NCRIS)
- 2007 - : Australian Access Federation (AAF)
 - AUeduPerson Working Group



AAF: Initial implementation

- Funded by DEST
 - 4.7 M: Governance, PKI environment, Shibboleth environment
- Objectives:
 - Build a policy framework and infrastructure to facilitate trusted electronic communications and collaboration within and between higher education and research institutions both locally and internationally.
 - In line with the NCRIS objective of providing researchers with access to an environment necessary to support world-class research.



AAF project components

- **Part 1:** Develop overarching governance and policies for the whole Trust Federation
 - independent of delivery of technologies
- **Part 2:** Develop specific policies, technical implementation and rollout of PKI for a Trust Federation
- **Part 3:** Develop specific policies, technical implementation and rollout of Shibboleth for a Trust Federation



Part 1: AAF Governance

- Review and consolidate existing policy and governance recommendations from prior work (especially MAMS and e-Security).
- Develop policy and governance for Trust Federation management entity
- Legal review of Trust Federation requirements
- Review entity type for managing the Trust Federation
- Review business model requirements for ongoing support (staffing requirements and costs for users of the Trust Federation)
- Develop training and compliance audit for the federation
- Wide consultation on the policy, governance and organisation of the Trust Federation
- Establish the Trust Federation



Part 2: PKI policies and implementation

- Develop and implement the processes, procedures, policies and technical specifications which are needed for a production Public Key Infrastructure (PKI) for the Australian Higher Education and Research Federation
- Implement a secure infrastructure to support a production PKI for the sector, using appropriate international standards
- Conclude a web trust audit of the infrastructure and the procedures, policies and technical specifications of the PKI
- Integrate a “root” certificate into a number of web browsers
- Bridge with overseas CAs
- Develop training courses for implementing PKI in universities and research institutions
- Develop a Virtual CA infrastructure for institutions unable or unwilling to implement their own CA
- Develop a CA for the grid community
- Support Australian universities in adopting PKI

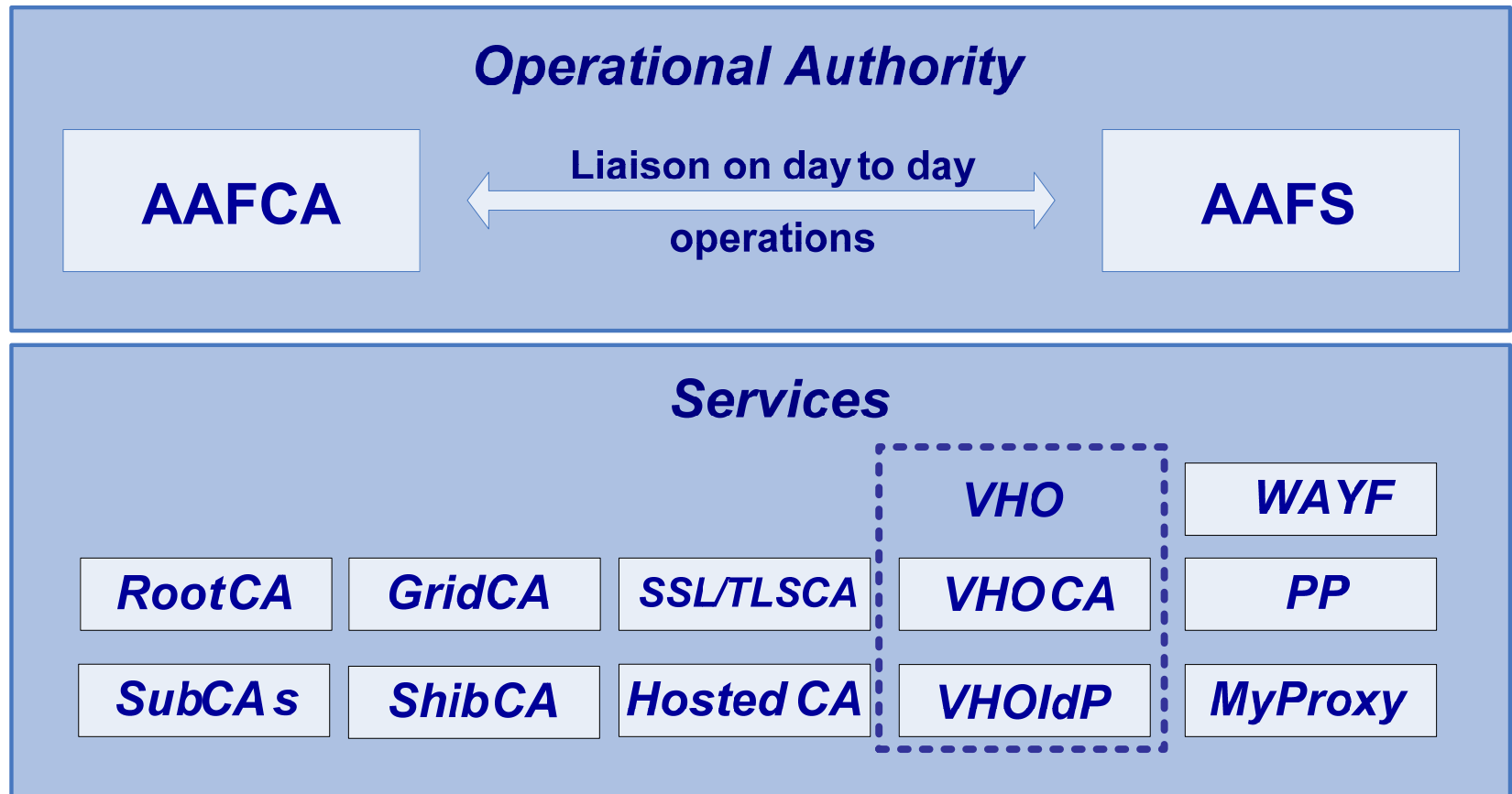


Part 3: Shibboleth policies and implementation

- Develop technical policies for Shibboleth Trust Federation
- Technical development/implementation/testing of technology required for joining the Shibboleth Trust Federation as an Identity Provider
- Technical development/implementation/testing of technology required for joining the Shibboleth Trust Federation as a Service Provider
- Technical development/implementation/testing of technology to support collaboration services within the Shibboleth Trust Federation (e.g. eResearch Toolkit, Open Standards Repositories, and Collaborative Workflow Software)
- Bridging with a number of overseas federations, e.g. in the US, UK, and other EU countries who are Shibboleth compatible
- Develop training courses for implementing Shibboleth in universities and research institutions
- Develop a Virtual Identity Provider infrastructure for institutions unable to implement their own IdP
- Maintain and further develop a conversion service, which converts Shibboleth assertions to PKI certificates, in order to provide seamless Single Sign-On access for the grid community
- Support for adoption of Shibboleth among Australian universities
- Evolve Federation infrastructure to accommodate new technological developments



AAF Services



AAF Principles

- Enable easy collaboration for users
- Enable international collaboration
- Lightweight and easy to engage with
- Low liability
- Reduce costs by doing it once
- Reduce costs as much as possible for institutions
- Knowledge transfer to institutions
- Give choice wherever possible
- Policy control by the sector for use by members and partners with potential to extend to wider education
- Transparent governance process
- Sustainable
- In line with the NCRIS objective of providing researchers with access to an environment necessary to support world-class research



NCRIS

- AUD 550M over 5 years for shared research infrastructure – physical facilities, instruments, technology
- AUD 75M over 5 years for collaboration technology infrastructure, including middleware
- Draft investment plan includes programs for access management (AAF), data management, interoperability, and applications development



Collaboration opportunities

- AAF
 - Participation on AUeduPerson Working Group
 - Secondment opportunities: PKI experience
- Events
 - EDUCAUSE Australasia: April 2007
 - AusCERT (security): May 2007
 - eResearch Australasia: June 2007
 - QUESTnet (networking): July 2007
 - APAC (grid): October 2007



Contact

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