



MAPS: Middleware Action Plan & Strategy Project
www.middleware.edu.au


Infrastructure and Services for Australian eResearch: The Middleware Action Plan & Strategic Roadmap

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Outline

- MAPS project and context
- Middleware
- Middleware Roadmap
 - Middleware for access management
 - Middleware to support global engagement
 - Innovation in middleware



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MAPS Project

To develop a strategic roadmap for middleware, which will support the effective targeting of resources towards a coherent, sustainable middleware infrastructure for research and education within Australia.



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MAPS is a DEST SII (ARIIC) Project

- ADT
- APSR
- ARCHER
- ARROW
- ASK-OSS
- BlueNet
- DART
- eSecurity Framework
- MAMS
- MAPS
- OAK Law
- RAMP
- RUBRIC
- TimeSync



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Other keys to the context

- NCRIS, esp Platforms for Collaboration
- Australian Access Federation
- PMSEIC reports
- Many countries implementing federations
- International collaborative middleware projects



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What is middleware?

- It's like pornography. I can't define it, but I know it when I see it.
- Isn't it middleware a town in Sussex?



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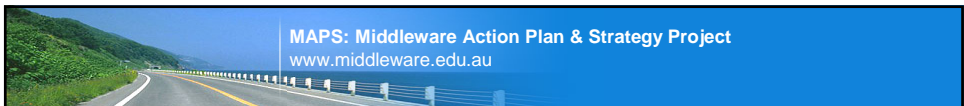
Middleware

- Connects distributed **people** to distributed **resources**
- **People** from research and higher education
 - Identity and access management
 - Collaboration management, virtual organisations
- **Resources** become one large virtual facility
 - Data sets, information repositories
 - Distributed computing resources, instruments
 - Visualisation, simulation, and other software tools



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MAPS Middleware Definition

- Middleware, or 'glue,' is a set of common software and services between the network and the applications that use it, to connect people to these resources. This software provides services such as identification, authentication, authorization, directories, and security. By promoting standardization and interoperability, middleware will make advanced network applications much easier to use. Middleware can be shared by many applications serving various purposes in different environments.



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Roadmap process

- Consultations within Australia and internationally
- Review of Australian and international middleware activities
- Early drafts reviewed by Steering Committee
- Draft roadmap sent to community for wider feedback, May 2007
- Steering Committee reviewed community feedback, June 2007



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Roadmap summary

- Middleware for access management
- Middleware to support global engagement
- Innovation in middleware and eResearch infrastructures
- Action plan



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Middleware for access management

- Agree data schemas for the AAF
 - eduPerson and other established schemas
 - auEduPerson?
- Identify and address barriers to institutions in joining the AAF as identity providers
 - Identity management systems
 - Business case
 - Consultation, training, implementation assistance



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Middleware for access management

- Identify and prioritise services/resources to integrate into the federation
 - Data sources and repositories
 - Software tools
 - Collaboration environments
 - Instruments and computing resources
- Help these service providers join the AAF
 - Business case
 - Consultation, training, implementation assistance



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Middleware for access management

- Interfederation: continue to participate on international federation architecture and policy groups
 - IGTF
 - ECAM (EU)
 - MACE (US)
 - HEBCA and FBCA (US)
- Seek participation with other major federations as they form



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Middleware for global engagement

- Middleware and other tools needed for research project may be provided:
 - By international project team
 - At national level (e.g. AAF, ANDS)
 - At state level (eResearch support centre)
 - By the institution's supported environment
 - Locally with the researcher
 - Somewhere else?



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Middleware for global engagement

- Communications program:
 - What middleware tools and expertise are available, from where, and how and when to use them?
- Reference architectures for institutions:
 - Baseline software and services to provide
 - How to interface with national services
 - How to interface with international services
 - How to determine network, storage, processing capacity required



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Innovation in middleware

- Middleware development should continue to receive funding in line with the priorities set in the NCRIS Investment Plan for Platforms for Collaboration.
- A period of support, promotion, and assessment should be incorporated into development funding.



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Actions

- Continue good work that has already started
 - AAF implementation
 - auEduPerson working group
 - NEAT
- Build and communicate a set of reference architectures for institutions



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Current status

- Publish final roadmap, July 2007.
- Consider whether to extend MAPS project to end of 2007 to do reference architecture work.



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