

Australian Access Federation (AAF)

**Nick Tate, Director, ITS and AusCERT
The University of Queensland**

**"Before I refuse to take your questions, I have an
opening statement ."**

Ronald Reagan

Content



- Introduction
- AusCERT
- What is the Australian Access Federation?
- What does it take to make it work?
- Introduction to the technologies
- AAF Project
- Operating and governing the AAF



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About AusCERT




- Australia's national CERT
 - Collect, monitor, advise on security threats and vulnerabilities
 - Security Incident response coordination and assistance
- Independent, university-based, not-for-profit
- All Universities are members
- Close collaboration with industry, vendors, government and law enforcement agencies
- Founder member of APCERT (Asia Pacific CERT)
- Specialist Training Provider
- Operated recently in 27 countries
- Runs largest security conference in Asia Pacific



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IT SECURITY – HOW BAD IS THE INTERNET?

“Cybercrime more profitable than illicit drug sales” US Treasury advisor

Organised crime using malware for ID theft and fraud



60% of ID Theft Trojan Horses undetectable at release time

80% of home computers infected with spyware

AusCERT Australian Computer Crime Survey

Large organisations can experience up 20,000 attacks an hour

An unprotected PC lasts 10-15 minutes

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Cybercrime pays off more than drug trafficking, security expert says

Proceeds from cybercrime in 2004 topped \$105B, says Valerie McNiven

News Story by Souhail Karam

NOVEMBER 28, 2005 (REUTERS) - Global

cybercrime generated a higher payback than drug trafficking in 2004 and is set to grow even further as the use of technology expands in developing countries, a security expert said today.


No country is immune from cybercrime, which includes corporate espionage, child pornography, stock manipulation, extortion and piracy, said Valerie McNiven, who advises the U.S. Department of the Treasury on the problem. "Last year was the first year that proceeds from cybercrime were greater than proceeds from the sale of illegal drugs, and that was, I believe, over \$105 billion," McNiven said. "Cybercrime is moving at such a high speed that law enforcement cannot catch up with it."

 **aaaf** australian access federation

Australian Access Federation

Storyboard

What is the Australian Access Federation?  **aaaf** australian access federation

What will it do?

- **Secure access to resources**
 - Journals, library resources etc
- **Secure access to infrastructure**
 - Research Instruments
 - High Performance Computers
 - Compute Grids
- **Secure access to Data**
 - ANDS
 - Data Grids
- **Secure exchange of information**
 - Encrypted emails
 - Digital signatures
 - Secure file transfer
 - Secure web browsing

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What is the Australian Access Federation?



What will it look like?

- 1 Million users
- Around 60 organisations
- Schools and VET federations
 - may peer with AAF or be part of it



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What does it take to make it work?



- Trust
 - Identify the community involved
 - Develop a **Trust Fabric** between community members
 - Trusted entity to formalise agreements between federation members by defining a common set of policies and technologies that the members adopt
 - Trusted entity to enable scalability by replacing large numbers of bilateral agreements with a federation agreement
 - Building on existing trust relationships between CAUDIT, AusCERT and other partners



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What does it take to make it work?

- Technology to support the trust fabric
 - PKI
 - Shibboleth

Introduction to PKI

- Services enabled by PKI
 - Authentication
 - Integrity
 - Confidentiality
 - Non-Repudiation
- How does PKI translates into AAF?
 - Authentication to resources
 - Exchange of secure emails
 - Electronic Signature
 - Code signing
 - Document signing
 - Secure web browsing
 - Encryption of web transactions

Introduction to Shibboleth



- Services enabled by Shibboleth
 - Authentication
 - Authorization
 - Anonymous access based on attributes
- How does Shibboleth translates into AAF?
 - Authentication to resources (eg. Library journals)
 - Authorisation of access to resources based on attributes
 - Similar to UK's Access Federation



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Are we starting from scratch?



AAF builds on existing project deliverables

- eSecurity Framework Project
 - Develop Production Level PKI and alignment with shibboleth
 - AusCERT Root Certificate in browsers
 - Simplify end user experience
 - Microsoft, Firefox, Apple
 - Reduce the Cost barriers to entry for PKI
- MAMS project
 - Development, Support and deployment of Shibboleth technology



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Australian Access Federation Project



- Funded by  Australian Government
Department of Education, Science and Training ~ \$4.8 M
- Lead Institution: UQ
- Partners



- <http://www.aaf.edu.au>



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Australian Access Federation Project Components



- **Part 1:** The development of overarching governance and policies for the whole **Trust** Federation
 - 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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Roles Needed

- **Underlying Entity**
 - Someone to contract with
- **Governing Role**
 - Overall agreement of rules and policies
- **Operational Role – PKI**
- **Operational Role – Shibboleth**

Emerging Principles

- **Ease of Use**
- **International Peering**
 - PKI
 - Shibboleth
- **Sustainability through subscription**
- **Lightweight Governance**

Emerging Principles

- **Low liability**
- **Expulsion as a last resort**
- **Single Identity Provider per institution**
- **Annual Audits**
- **Phased approach to releases**

More Information

- **Web Sites**
 - **AAF** (www.aaf.edu.au)
 - **eSecurity Framework** (www.esecurity.edu.au)
 - **MAMS** (www.mams.melcoe.mq.edu.au)
- **Workshops**
 - **eResearch Australasia Conference**
 - **Questnet Conference**
 - **APAC Conference**

On this site

- Home
- Australian Access Federation (AAF) Project
- Partners
- Project Objectives
- Wiki
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Quicklinks

Select a quick link

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Welcome

The Australian Access Federation Project will develop and deploy an infrastructure to facilitate trusted electronic communications and collaboration within and between higher education and research institutions both locally and internationally as well as with other organizations, in line with the NCRIS objective of providing researchers with access to an environment necessary to support world-class research. This project is sponsored by the Australian Government's Department of Education, Science and Training (DEST). The funding has been provided through the Systemic Infrastructure Initiative (SII) as part of the Government's Backing Australia's Ability - Building Our Future Through Science and Innovation.

Latest news

- some sample news information - a summary of what is through to the link
- news information two

Partners

- AusCERT
- eSecurity Framework
- CAUDIT
- AARnet
- MGRS
- Macquarie University
- apac
- Backing Australia's ability
- University of Queensland
- eSecurity Framework

Logos: AusCERT, CAUDIT, aarnet, Backing Australia's Ability, apac, MAM3, aaf

Questions!

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