

MAMS Testbed Federation Project

First Report

14/8/2006

Project Title

An E-Lecture Repository in the MAMS Testbed Federation

Institution: Deakin University

Persons conducting project tasks:

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2. Dr Wei Shi
3. Mr Robert Ruge
4. Mr John Casey, Programmer / research assistant (hired through the grant money).

Funding provided: \$16,000.

Project goals, objectives and deliverables

As described in the original grant application, the *goal* of this project is to develop a shibboleth enabled authentication framework to facilitate access to this repository of e-lectures across higher education institutions, and the *deliverable* of the project will be a mechanism for shibboleth enabled, authenticated retrieval to the e-lecture repository over the Internet.

Project Overview

Current eLecture Repository Architecture

The School of Engineering and Information Technology has in the past few years developed a repository of eLectures (video lectures and voice lectures with synchronised powerpoint presentations) for many units. These e-lectures are currently made available to eligible Deakin students (both on and off campus students) and staff. In addition to this repository, we have also developed a number of tools to capture, classify, store, and retrieve these e-lectures through the Internet.

The current eLecture repository in School of Engineering and Information Technology in Deakin University has the following architecture, as depicted in Figure 1:

- > A system closed to staff and students within the School
- > Access is through Deakin Studies Online (WebCT Vista), then to the eLecture Repository through a link in a unit's web page. Authentication is carried out by DSO, the university-wide online learning system.
- > Current number of users of the eLecture repository: ~2000 students and ~100 staff.

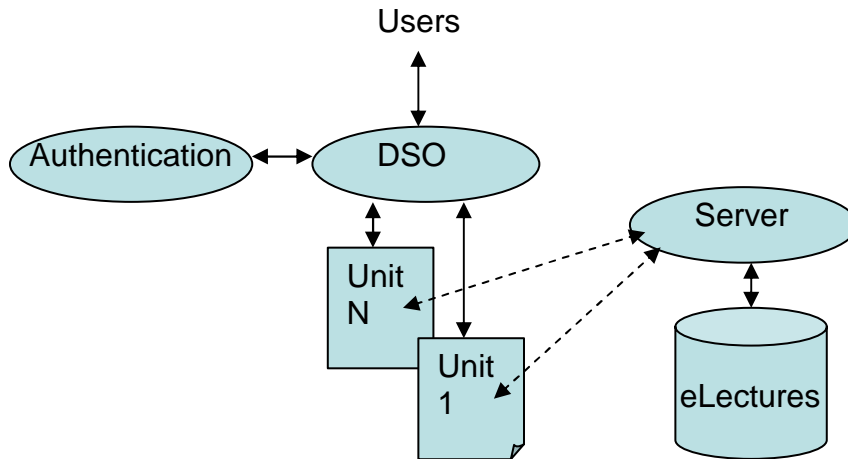


Figure 1. The current eLecture Repository Architecture

Proposed eLecture Repository Architecture

The proposed eLecture repository will be shared by users from the School of EIT, Faculty of Science and Technology, and Partner Institutions through the MAMS Testbed Federation. It will have the following architecture, as depicted in Figure 2:

- > A system open to authenticated users in the School, Faculty, and Partner Institutions.
- > Users within the School can still access the eLecture repository through DSO. Access by users of the Faculty and Partner Institutions (in particular, users from Monash University) will go through the shibboleth enabled, authenticated service.
- > User base of the eLecture Repository:
 - > Users in the School: ~2000 students and ~100 staff.
 - > Users in the Faculty: ~5000 students and ~300 staff.
 - > Users of the Testbed Federation.
- > Access right levels:
 - > Authors.
 - > Enrolled students.
 - > Authenticated visitors.
 - > Public

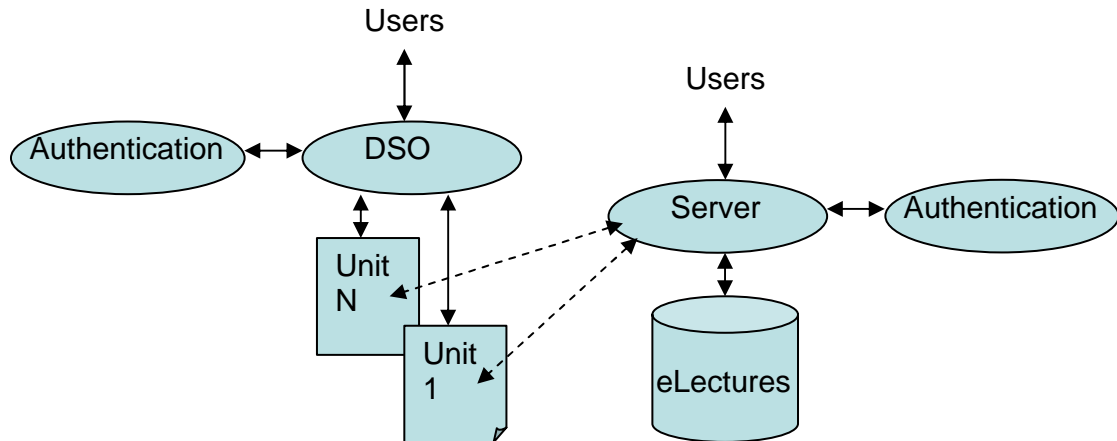


Figure 2. The Proposed eLecture Repository Architecture

High-Level Work Breakdown

The project will have the following two phases.

Phase 1: July to October 2006, Implementation.

- Development of Federated identity and access management tools using shibboleth to access the existing e-lecture repository service.
- Implement the level 2 Testbed Federation.
- Revise the existing retrieval mechanism to become shibboleth enabled, authenticated retrieval to the e-lecture repository over the Internet.

Phase 2: November to December 2006: Evaluation and refinement.

- Evaluation of the e-lecture repository through trials by various types of users (owner lecturers, lecturers, students, and public). Feedback from these users are collected and analysed.
- Refinement of the e-lecture repository based on the feedback and trials.
- Complete the final project report and comply with all funding requirements.

Project Progress (August 2006)

We have carried out the following activities so far in July/August:

1. Two staff members (Mr Robert Ruge and Mr John Casey) involved in the project have attended the Federation Workshop held during 27-28 July 2006.
2. Carried out the work of setting up the idp server, the address is mams-idp.eit.deakin.edu.au. Setup a Vmware image using Redhat Server 4 for the idp server. It is mostly setup but our System Manager had some difficulty getting a Level 1 certificate as there was a problem with the MAMS certificate database. MAMS people helped resolve that and now our System Manager has to setup the authentication to Active Directory and test it all.
3. The original eLecture server was running in Windows. A migration of the repository into Linux has been carried out successfully to enable the preparation to install shibboleth-related software.
4. The RA has put together a Fedora Core 5 system running Zope/Plone, a content management system in the eLecture server and has uploaded a number

of this semester's lectures. He is still working on to upload the past archived lectures and is working out how to authenticate Zope/Plone against an LDAP directory server such Active Directory. An identity service provider idp on the eLecture server has also been set up as well and we are working on to integrate it with active directory.